

Board of Curators Meeting - Public Session

University of Missouri System

Century Rooms A & B, Millennium Student Center, University of Missouri - St. Louis

2024-11-20 08:00 - 2024-11-20 18:00 CST

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Location: Century Room C, Millennium Student Center The Board of Curators will hold an executive session of the November 20, 2024 meeting, pursuant to Sections 610.021(1), 610.021(2), 610.021(3), 610.021(12) and 610.021(13) RSMo, for consideration of certain confidential or privileged communications with university counsel, personnel, property, litigation, contract items, all as authorized by law and upon approval by resolution of the Board of Curators.

VI. AUDIT, COMPLIANCE AND ETHICS COMMITTEE MEETING - EXECUTIVE SESSION

Location: Century Room C, Millennium Student Center (8:45 AM, time is approximate) The Audit, Compliance and Ethics Committee will hold an executive session of the November 20, 2024 meeting, pursuant to Section 610.021(1), and 610.021(18) RSMo, for consideration of certain confidential or privileged communications with university counsel and confidential or privileged communications between a public governmental body and its auditor, as authorized by law and upon approval by resolution of the Audit, Compliance and Ethics Committee.

VII. FINANCE COMMITTEE MEETING - EXECUTIVE SESSION

Location: Century Room C, Millennium Student Center (8:45 AM, time is approximate) The Finance Committee will hold an executive session of the November 20, 2024 meeting, pursuant to Sections 610.021(1), 610.021(2) and 610.021(12) RSMo, for consideration of certain confidential or privileged communications with university counsel, real estate and contract matters, all as authorized by law and upon approval by resolution of the Finance Committee.

VIII. LUNCHEON BY INVITATION FOR THE BOARD OF CURATORS, PRESIDENT, UNIVERSITY OF MISSOURI SYSTEM LEADERS

Time: 12:30 PM, time is approximate Location: 3rd Floor Rotunda, Millennium Student Center

IX. RECONVENE PUBLIC SESSION - 1:30 PM (time is approximate)

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XX. BOARD OF CURATORS MEETING - EXECUTIVE SESSION Location: Century Room C, Millennium Student Center The Board of Curators will hold an executive session of the November 20, 2024 meeting, pursuant to Sections 610.021(1), 610.021(2), 610.021(3), 610.021(12) and 610.021(13) RSMo, for consideration of certain confidential or privileged communications with university counsel, personnel, property, litigation, contract items, all as authorized by law and upon approval by resolution of the Board of Curators.	

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University of Missouri
Board of Curators Meeting

November 20, 2024 - Public Session



University of Missouri System



Vision

To advance the opportunities for success and well-being for Missouri, our nation and the world through transformative teaching, research, innovation, engagement and inclusion.

Mission

To achieve excellence in the discovery, dissemination, preservation and application of knowledge. With an unwavering commitment to academic freedom and freedom of expression, the university educates students to become leaders, promotes lifelong learning by Missouri's citizens, fosters meaningful research and creative works, and serves as a catalyst for innovation, thereby advancing the educational, health, cultural, social and economic interests to benefit the people of Missouri, the nation, and the world.

Missouri Compacts for Achieving Excellence

The Missouri Compacts for Achieving Excellence provide unifying principles that inform and guide the four universities and their strategic plans. Learn more about the compacts, below, at <http://umurl.us/prespri>.



Excellence in Student Success



Excellence in Research and Creative Works



Excellence in Engagement and Outreach



Inclusive Excellence



Excellence in Planning, Operations and Stewardship

Core Values

Our institution collectively embraces a series of core values that serve as the foundation upon which we build new knowledge and provide outstanding programs for students and citizens of our state and beyond.



- Academic freedom
- Access
- Accountability
- Civility
- Collaboration
- Creativity
- Discovery
- Engagement
- Excellence
- Freedom of expression
- Inclusion
- Innovation
- Integrity
- Respect
- Responsibility
- Transparency

Guiding Principles

1. Support courageous and proactive leadership that is articulate, unified and committed to excellence in carrying out our existing core missions of teaching, research, engagement and economic development and in meeting the changing needs of the world and the state.
2. Establish a collaborative environment in which UM System universities work together to achieve collective results that cannot be achieved individually and are committed to each other and our mutual success.
3. Exercise central authority that recognizes and respects institutional distinctiveness, appropriate deference and accountability.
4. Enact informed decisions based on collaboratively developed strategic directions and planning.
5. Identify and promote systemwide core values, including respect for all people, transparency, accountability, stewardship and purposeful self-assessment of performance.

Board Value Statement

Board of Curators of the University of Missouri establish the following statement of values to guide members in the governance of the University of Missouri pursuant to the Constitution and the Revised Statutes of the State of Missouri:

1. **Trustworthy & Transparent Communication.** We value an environment of openness, collaboration and honesty with each other above all else, and support open communication and the free expression of ideas. We will endeavor to communicate with each other and with all University stakeholders with honesty and integrity. We will perform our duties ethically and avoid conflicts of interest.
2. **Respect.** We are respectful of each other and all University stakeholders in our interactions. We believe that civility, courtesy, decency and tolerance are critical when engaging in discussions with others with whom we may not agree. We encourage independent judgment and the sharing of a diversity of thoughts, and accept others' unique perspectives as valuable contributions to governing discussions.
3. **Healthy Board Governance.** We are committed to a healthy culture of board governance, one that is dedicated to sustaining the trust and support for the University of Missouri. We will devote time and effort needed to responsibly and capably perform our duties. We will exercise responsible stewardship and uphold our fiduciary duties as Curators. We will fully prepare for, attend and participate in board meetings, and seek to continually increase our understanding of, and adherence to, the standards for effective board governance.
4. **Support and Hold Accountable Leadership.** We are committed to supporting the leadership throughout the University of Missouri, while also holding that leadership accountable for the effective management of the University. We will establish, communicate and monitor clear performance expectations for leadership directly reporting to the Board, and will hold such leadership accountable to maintain the highest standard of ethical behavior. In supporting University leadership, we will endeavor to avoid involvement in matters delegated to the Administration.
5. **Strategic Vision.** We are committed to fully understanding, supporting and, when appropriate, challenging the short and long-term strategic priorities of the University of Missouri's constituents. We will challenge University leadership to continually develop and assess strategic plans that will be effective in supporting the Missouri Compacts for Achieving Excellence: Excellence in Student Success, Excellence in Research and Creative Works, Excellence in Engagement and Outreach, Inclusive Excellence and Excellence in Operations, Planning and Stewardship.

No. 1

Recommended Action – Resolution for Executive Session of the Board of Curators Meeting November 20,2024

It was moved by Curator _____ and seconded by Curator _____, that there shall be an executive session with a closed record and closed vote of the Board of Curators meeting November 20, 2024 for consideration of:

- **Section 610.021(1), RSMo**, relating to matters identified in that provision, which include legal actions, causes of action or litigation, and confidential or privileged communications with counsel; and
- **Section 610.021(2), RSMo**, relating to matters identified in that provision, which include leasing, purchase, or sale of real estate; and
- **Section 610.021(3), RSMo**, relating to matters identified in that provision, which include hiring, firing, disciplining, or promoting of particular employees; and
- **Section 610.021(12), RSMo**, relating to matters identified in that provision, which include sealed bids and related documents and sealed proposals and related documents or documents related to a negotiated contract; and
- **Section 610.021 (13), RSMo**, relating to matters identified in that provision, which include individually identifiable personnel records, performance ratings, or records pertaining to employees or applicants for employment.
- **Section 610.021 (14), RSMo**, relating to matters identified in that provision, which include records which are protected from disclosure by law.
- **Section 610.021(18), RSMo**, relating to matters identified in that provision, which include confidential or privileged communications between a public governmental body and its auditor.

Roll call vote of the Board:	YES	NO
Curator Blitz		
Curator Fry		
Curator Graves		
Curator Holloway		
Curator Krewson		
Curator Layman		
Curator Siquefield		
Curator Wenneker		
Curator Williams		

The motion _____.

November 20, 2024

AUDIT, COMPLIANCE AND ETHICS COMMITTEE

Keith A. Holloway, Chair

Lyda Krewson

Jeanne C. Siquefield

Michael A. Williams

The Audit, Compliance and Ethics Committee (“Committee”) will review and recommend policies to enhance the quality and effectiveness of the University’s financial reporting, internal control structure and compliance and ethics programs.

I. **Scope**

In carrying out its responsibilities, the Committee monitors and assesses the University’s financial reporting systems and controls, internal and external audit functions, and compliance and ethics programs.

II. **Executive Liaison**

The Chief Audit and Compliance Officer of the University or some other person(s) designated by the President of the University, with the concurrence of the Board Chair and the Committee Chair, shall be the executive liaison to the committee and responsible for transmitting committee recommendations.

III. **Responsibilities**

In addition to the overall responsibilities of the Committee described above and in carrying out its responsibilities, the charge of the Committee shall include:

A. Reviewing and making recommendations to the Board in the following matters:

1. the University risk assessment, audit plan and compliance plan; and
2. the appointment, compensation, and termination of the university’s external auditors.

B. Providing governance oversight regarding:

1. development and monitoring a University code of conduct;
2. effectiveness of the internal control framework;
3. ensuring that the significant findings and recommendations are received, discussed and appropriately resolved;
4. procedures for reporting misconduct without the fear of retaliation;
5. university compliance with applicable laws, regulations, and policies that govern all aspects of University operations including but not limited to the following:
 - a. Administrative compliance risks
 - b. Healthcare compliance risks
 - c. Research compliance risks
 - d. Information security compliance risks
 - e. Privacy compliance risks

6. those additional matters customarily addressed by the audit, compliance and ethics committee of a governing board for an institution of higher education.

C. Reviewing periodic reports regarding:

1. the independence, performance, resources and structure of the internal audit, compliance and ethics functions;
2. audit reports and open audit issue status updates;
3. management's written responses to significant findings and recommendations by the auditors;
4. the adequacy of the University's information technology methodology with regards to security, internal controls and data integrity assurance;
5. annual external audit reports, including audited financial statements, single audit and required procedures;
6. the effectiveness of the compliance and ethics program ensuring it has appropriate standing and visibility across the system.

No. 1

Recommended Action - Resolution for Executive Session of the Audit, Compliance and Ethics Committee, November 20, 2024

It was moved by Curator _____ and seconded by Curator _____, that there shall be an executive session with a closed record and closed vote of the Audit, Compliance and Ethics Committee meeting November 20, 2024, for consideration of:

- **Section 610.021(1), RSMo**, relating to matters identified in that provision, which include legal actions, causes of action or litigation, and confidential or privileged communications with counsel; and
- **Section 610.021(18), RSMo**, relating to matters identified in that provision, which include confidential or privileged communications between a public governmental body and its auditor.

Roll call vote of the Committee: YES NO

Curator Holloway

Curator Krewson

Curator Sinquefield

Curator Williams

The motion _____.

FINANCE COMMITTEE

Todd P. Graves, Chair
Robert D. Blitz
Robert W. Fry
Keith A. Holloway

The Finance Committee (“Committee”) oversees the fiscal stability and long-term economic health of the University. The Committee will review and recommend policies to enhance quality and effectiveness of the finance functions of the University.

I. Scope

In carrying out its responsibilities, the Committee monitors the University’s financial operations, fundraising performance, debt level, capital priorities and investment performance; requires the maintenance of accurate and complete financial records; and maintains open lines of communication with the Board about the University’s financial condition.

II. Executive Liaison

The Vice President for Finance of the University or some other person(s) designated by the President of the University, with the concurrence of the Board Chair and the Committee Chair, shall be the executive liaison to the Committee and responsible for transmitting committee recommendations.

III. Responsibilities

In addition to the overall responsibilities of the Committee described above and in carrying out its responsibilities, the charge of the Committee shall include

- A. Reviewing and making recommendations to the Board on the following matters:
 1. University operating budget and financial plan;
 2. University capital budget and master facility plans;
 3. capital projects;
 4. tuition, fees and housing rates;
 5. state appropriation requests;
 6. pursuant to applicable Collected Rules and Regulations, contracts and reports;
 7. insurance brokers and self-insurance programs;
 8. pursuant to applicable Collected Rules and Regulations, real estate sales, purchases, leases, easements and right-of-way agreements;
 9. the issuance of debt;
 10. asset allocation guidelines and other policies related to the University’s investment management function; and
 11. additional matters customarily addressed by the finance committee of a governing board for an institution of higher education.
- B. Providing governance oversight to:
 1. long-range financial planning strategies;
 2. fundraising and development strategies;
 3. total indebtedness and debt capacity of the University;
 4. the investment portfolio performance; and
 5. the financial condition of the pension fund.
- C. Reviewing periodic reports including:
 1. quarterly and year-end financial reports that measure the University’s fiscal condition;
 2. annual purchasing reports on bids and equipment leases;

3. quarterly debt-management reports;
4. quarterly and year-end investment performance reports;
5. semi-annual reports on development and fundraising activities; and
6. other financial reports as requested by the Committee.

No. 1

Recommended Action - Resolution for Executive Session of the Finance Committee,
November 20, 2024

It was moved by Curator _____ and seconded by Curator _____, that
there shall be an executive session with a closed record and closed vote of the Finance
Committee meeting November 20, 2024, for consideration of:

- **Section 610.021(1), RSMo**, relating to matters identified in that provision,
which include legal actions, causes of action or litigation, and confidential or
privileged communications with counsel; and
- **Section 610.021(2), RSMo**, relating to matters identified in that provision,
which include leasing, purchase, or sale of real estate; and
- **Section 610.021(12), RSMo**, relating to matters identified in that provision,
which include sealed bids and related documents and sealed proposals and
related documents or documents related to a negotiated contract; and

Roll call vote of the Committee: YES NO

Curator Blitz

Curator Fry

Curator Graves

Curator Holloway

The motion _____.

Board Chair Report

Nov. 20, 2024



UMKC

MISSOURI
S&T

UMSL

University of Missouri System

Remington R. Williams Award Criteria

To be eligible for the award, recipients must:

- Inspire growth in their peers
- Advocate for the whole of the college experience
- Make a positive impact on their university
- Exhibit outstanding character
- Have a minimum 3.0 GPA
- Be a member of at least two student organization, and have held a leadership position in at least one of those organizations



UMSL Remington R. Williams Award Recipient



Angela Truesdale

College of Business Administration

- "Angela is an outstanding academic student at the top of her class and has fantastic interpersonal communication skills with students and faculty. She has made a positive impact on the university, inspired growth, and development of her peers, advocated for the college experience, and always exhibited outstanding character and collaborative spirit."



Curators' Distinguished Professors

This distinction is in recognition of a professor's outstanding scholarship and reputation within their field.

It's board's highest honor to recognize outstanding research, teaching and service to the University by awarding esteemed faculty the distinction of being a Curators' Distinguished Professor.



UMSL Curators' Distinguished Professor



Cody Ding

Professor

Education Sciences and Professional Programs

- Leading expert in the field for longitudinal analysis
- Editorial board member of Springer Nature
- Authored more than 120 publications



UMSL Curators' Distinguished Professor



David Kimball

Professor

Political Science

- Outstanding Book Award from the American Political Science Association recipient
- Co-authored 5 books, 18 book chapters and 34 journal articles
- Served in court cases as an expert on election administration, voting rights and redistricting



UMSL Curators' Distinguished Professor



Xuemin (Sam) Wang

*E. Desmond Lee Endowed Professor in Plant Sciences
Donald Danforth Plant Science Center*

- Fellow of the American Association for the Advancement of Science
- Top 2% of World Researchers in Biochemistry (Stanford)
- Recipient of the Engelmann Interdisciplinary Award from the St. Louis Academy of Science
- More than 21,000 citations and publications in top journals



UMSL Curators' Distinguished Professor



Susan Brownell

Professor
Anthropology

- Published two single-author books, co-authored one book, edited five volumes, 28 book chapters and 20 articles
- Member of the International Olympic Committee Research Council
- Fulbright Senior Researcher at Beijing Sport University 2007-08
- Member of the National Committee on U.S.-China Relations



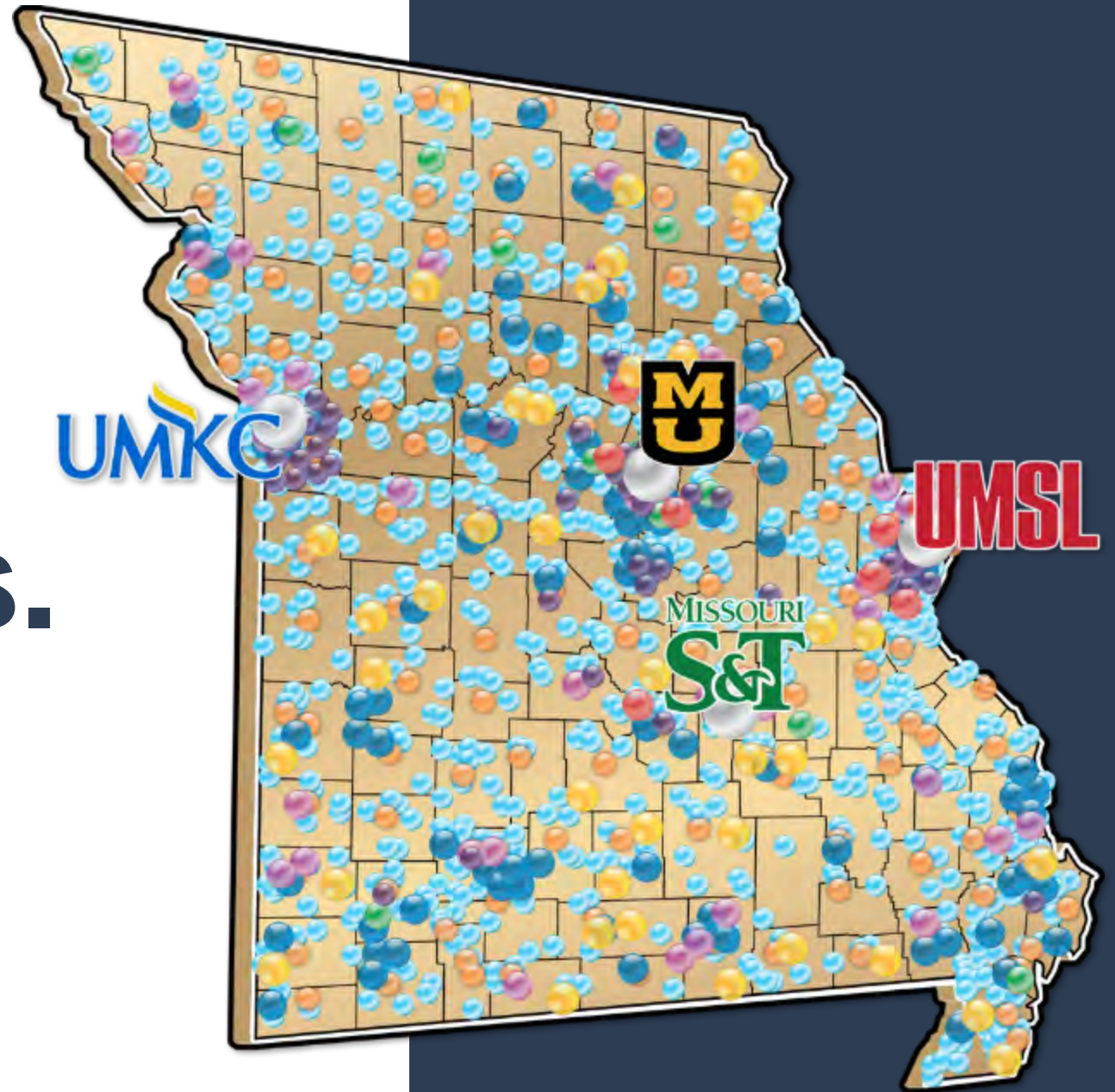
Missouri Momentum



University of Missouri System



**We are
Missouri,
Missouri is us.**



University of Missouri System

PRESIDENT'S REPORT

Mun Y. Choi

Board of Curators Meeting

Nov. 20, 2024



UMKC

MISSOURI
S&T

UMSL

University of Missouri System

UM Leadership Appointments



Kara Whatley

*Vice Provost,
University Libraries (Caltech)*



Ross Zafonte

*Executive Vice Dean,
School of Medicine (Harvard)*



Sumeet Dua

*Vice Chancellor of Research
(La Tech)*



Janelle Julian

*Assistant Vice Provost for
Student Engagement & Belonging
(Fontbonne)*



Holly Sheilley

*Executive Director
of Athletics (Transylvania)*



Nancy Singer

*Interim Dean,
College of Education*

First Time College Applicants

11/11/24	2023	2024	2025
MU	13,425	15,221	18,757 (23.2%)
UMKC	3,539	3,471	4,453 (28.3%)
S&T	3,667	3,867	4,415 (14.2%)
UMSL	1,540	2,450	3,247 (32.5%)

First Time College Active Acceptances

11/11/24	2023	2024	2025
MU	1,153	1,194	2,219 (85.8%)
UMKC	129	161	170 (5.6%)
S&T	143	141	3 (-97.9%)
UMSL	60	88	134 (52.3%)

Transfer Applicants

11/11/24	2023	2024	2025
MU	380	474	511 (7.8%)
UMKC	371	315	510 (61.9%)
S&T	108	300	197 (-34.3%)
UMSL	300	420	466 (11.0%)

Graduate Applicants

11/11/24	2023	2024	2025
MU	357	385	594 (54.3%)
UMKC	530	498	591 (18.7%)
S&T	288	904	1,241 (37.3%)
UMSL	173	132	168 (27.3%)



Student Success Highlights



UMSL

Grace Desjardins
Political Science

Named a Neman Civic Fellow – a national nonprofit dedicated to civic and community engagement in higher education



UMKC

Mya Thomas
Earth & Environmental Sciences

Grand Prize Winner, 2024 American Geophysical Union Michael H. Freilich Data Visualization Competition



MU

Nahomi Gonzalez, Jacob Phillips, Linsey Roberts
Mizzou TRiO Students

Received awards from the Educational Opportunity Association (EOA), a consortium that supports first-generation, low-income, disabled students



MISSOURI S&T

Joshua Perkins
Computer and Electrical Engineering
Ryan Highfill
Civil Engineering and Engineering Management

Delta Sigma Pi honored with the Chapter of Distinction award from the North American Interfraternity Conference

Faculty Success Highlights



UMSL

Dr. Ekin Pellegrini, *Associate Dean in the College of Business Admin.*

Started term as president of the Executive Doctor of Business Administration Council



UMKC

Dr. Chen Yi, *Lorena Searcy Cravens/Millsap/Missouri Distinguished Professor of Composition*

Newest honorary member of the International Society for Contemporary Music



MU

Dr. Felix Fritschi, *C. Alice Donaldson Professor, CAFNR*

President-Elect of Crop Science Society of America – term begins January 2025

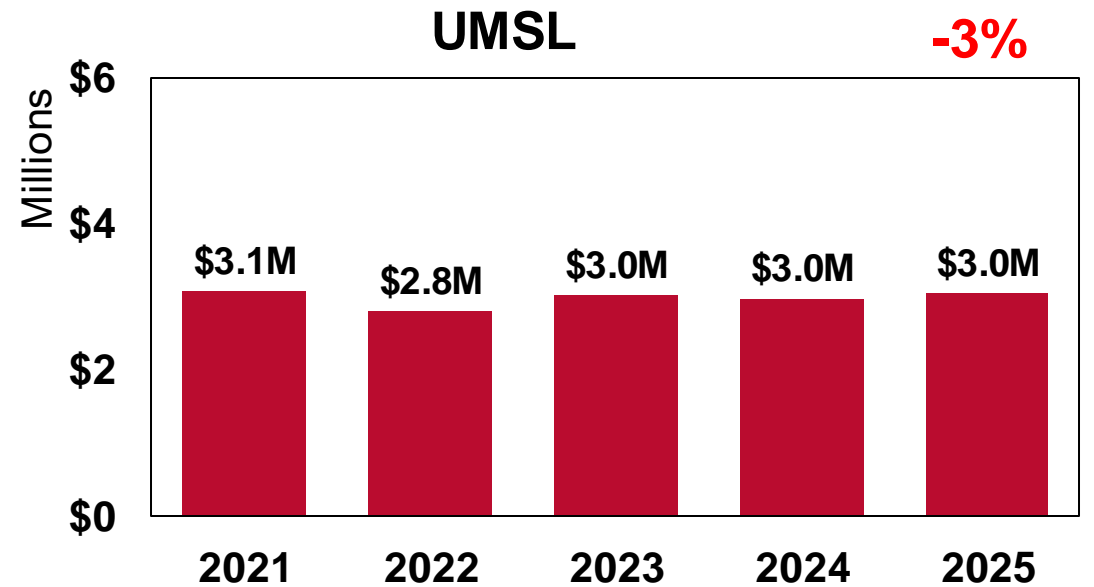
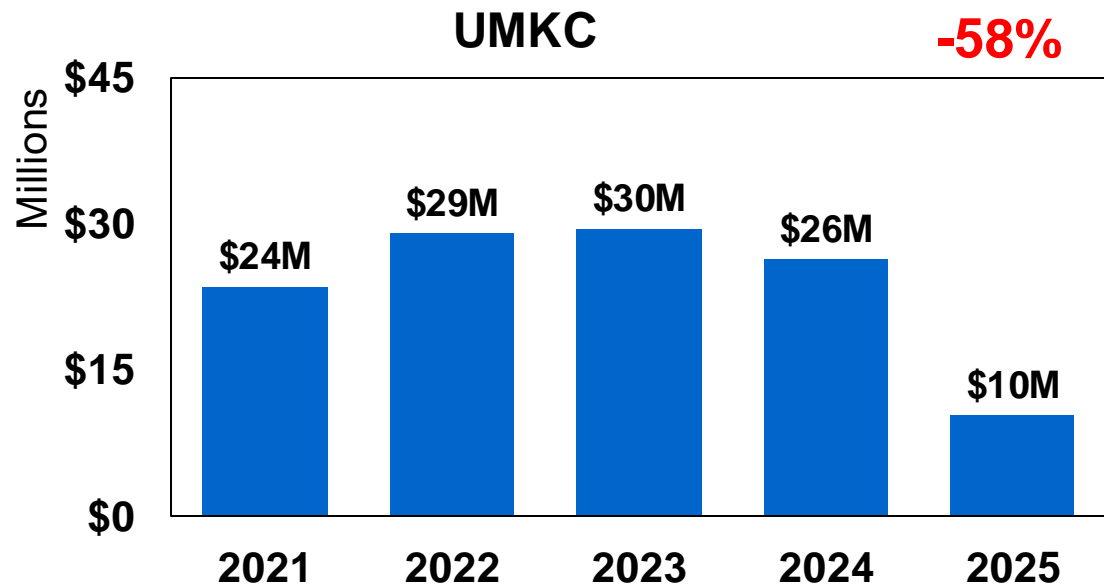
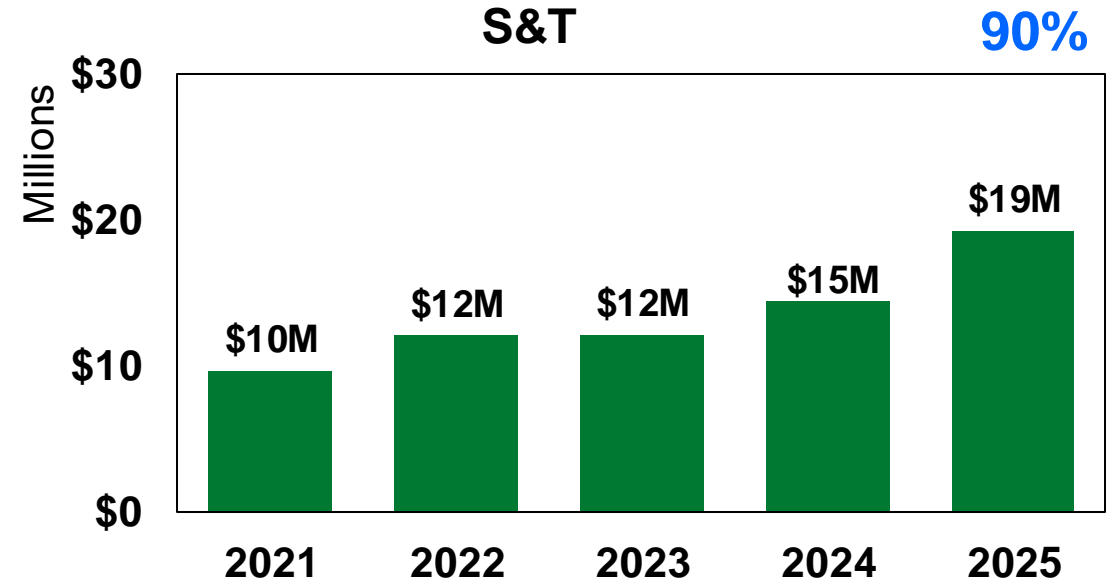
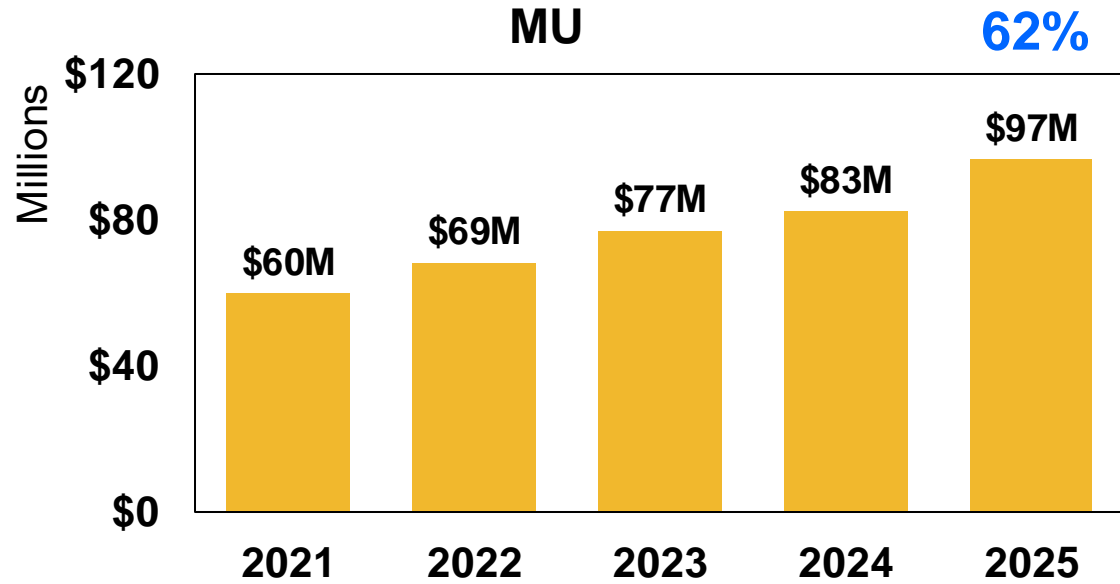


MISSOURI S&T

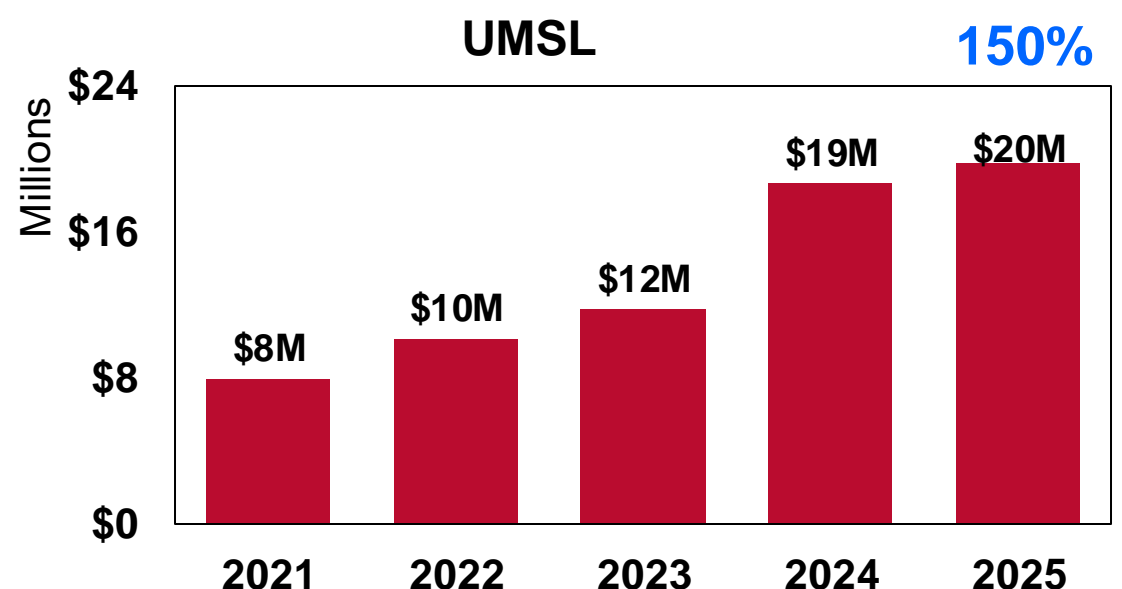
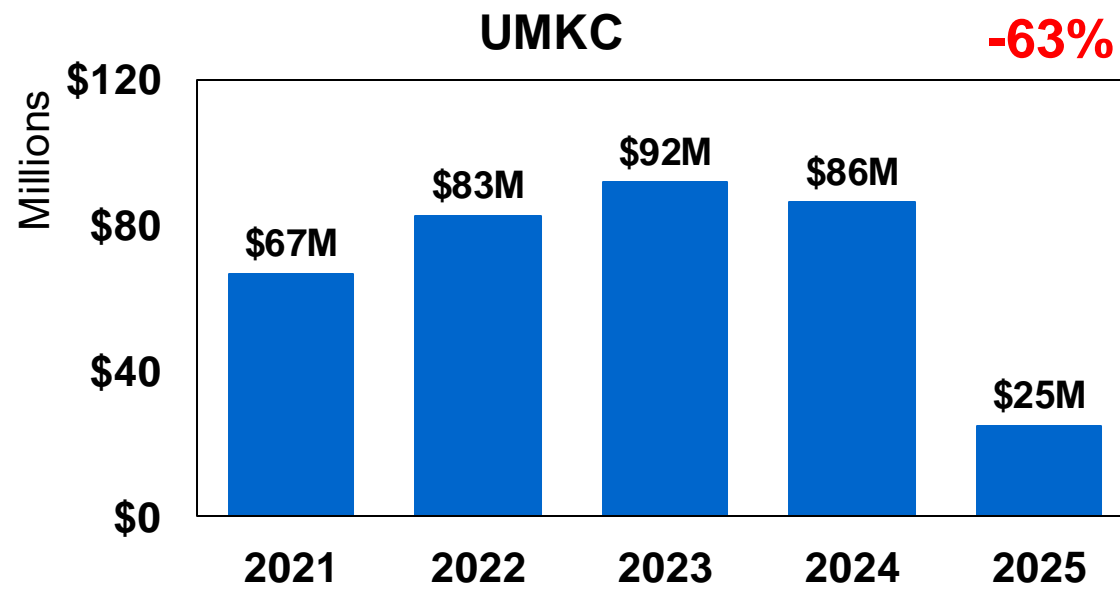
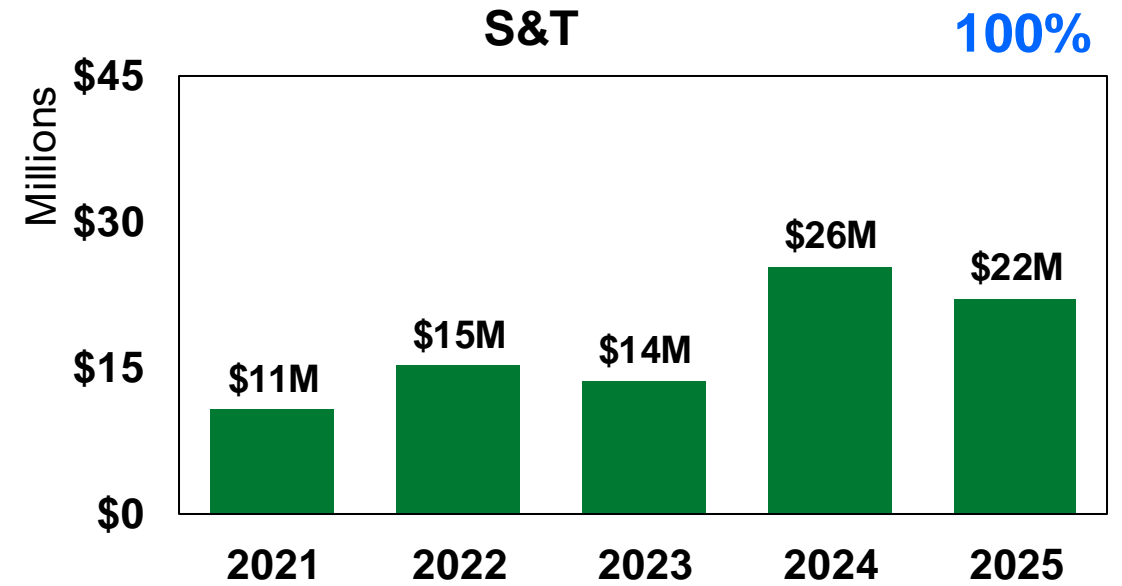
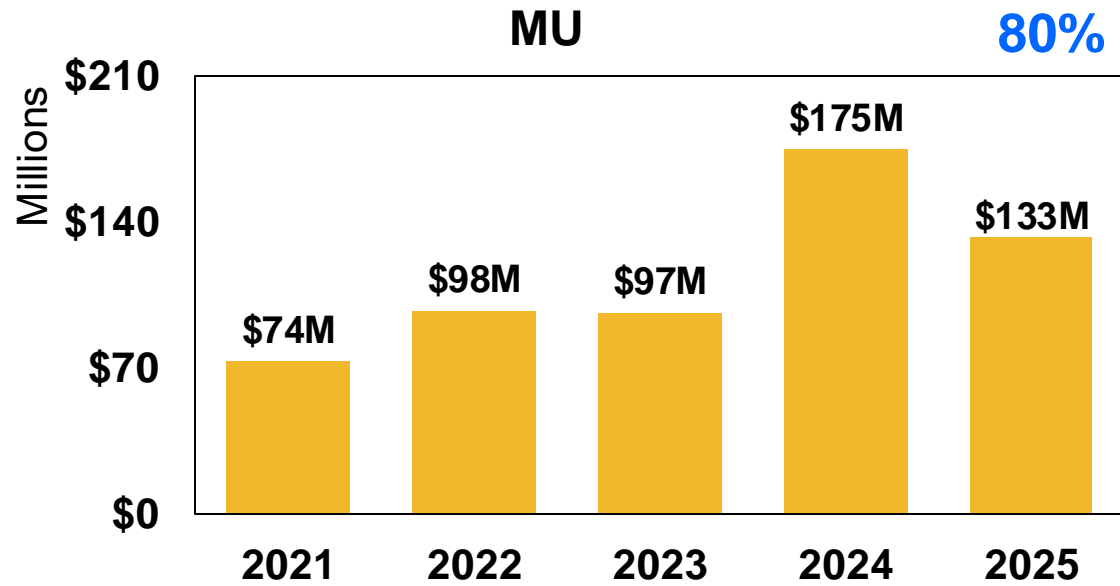
Dr. Joel Burken, *Curators' Distinguished Professor of Environmental Engineering*

Recipient of the 2024 President's Medal from the American Society of Civil Engineers

FYTD Sponsored R&D Expenditures



FYTD Total Sponsored Expenditures



MU Major Grant



Next-Generation University of Missouri Research Reactor Radioisotope Processing Equipment

PI: Matt Sanford, *Executive Director, MU Research Reactor*

Co-PIs:

- John Brockman, *Associate Professor, Chemistry*
- Jim Gann, *Associate Director, MURR Business Development*
- Gayla Neumeyer, *Administrative Consultant, MURR*

\$4M | Sponsor: National Institute of Standards and Technology, U.S. Department of Commerce

This funding will enable the MU Research Reactor to purchase necessary equipment to establish and expand radioisotope processing laboratories that will support the development and production of critical radioisotopes used for research and in diagnostic and therapeutic radiopharmaceuticals.

More than 1.6 million patients were diagnosed or treated last year using the radioisotopes that MURR produces.



S&T Major Grant



Converting Waste into Carbon-Negative Building Materials

PI: Dr. Hongyan Ma, *Kummer Impact Professor, Francisco Benavides Scholar, and Associate Professor of Civil/Materials Engineering, Department of Civil, Architectural and Environmental Engineering; Affiliated Associate Professor of Energy Economics, Department of Economics; Director, Laboratory of Future Cements and Carbon-negative Initiatives (FuCCI)*

\$1M | Sponsor: Department of Energy

Project uses CO₂ and alkaline solid wastes to create new, eco-friendly materials for the construction industry. These innovative materials will be capable of replacing over half of traditional cement in concrete without compromising performance.

Transforms waste into sustainable cement alternatives while also reducing industry emissions and addressing material shortages.



UMKC Major Grant



The Heart Outcomes for Pregnancy Expectations Study

PI: Dr. John Spertus, *UMKC HI-IQ founder and director and a UMKC professor of medicine, clinical director of outcomes research at Saint Luke's Mid America Heart Institute*

\$2.5M | Sponsor: NIH National Heart, Lung, and Blood Institute

To improve care and prevent pregnancy complications from cardiovascular disease, a network of participating clinics is exploring coordinated strategies for care. These include using a multi-disciplinary care team (OB, cardiology, anesthesia, critical care, etc.) and care coordinators to promote healthy outcomes.

Cardiovascular disease is the leading cause of pregnancy-related deaths and is considered largely preventable.



UMSL Major Grant

UMSL

BII: EMBER: Embedding Molecular Biology in Ecosystem Research in an era of increasing wildfire and drought

PI: Dr. Lon Chubiz, *Associate Professor, Biology; Director of CLIMB Outreach Programming*

\$1.1M | Sponsor: National Science Foundation

This project's vision is to understand and predict how biological communities respond to and interact with increasing stress caused by wildfire and drought.

There has been an estimated 320% increase in burned areas from 1996 to 2021, exacerbated by drought.



Teams Invited to Submit NSF Engines Proposals



Engine for Midwest
Mobility Innovation
and Technology



Critical Materials
Crossroads Energy
Materials
Ecosystem



Reshoring KSM and
API Manufacturing
Through Innovation

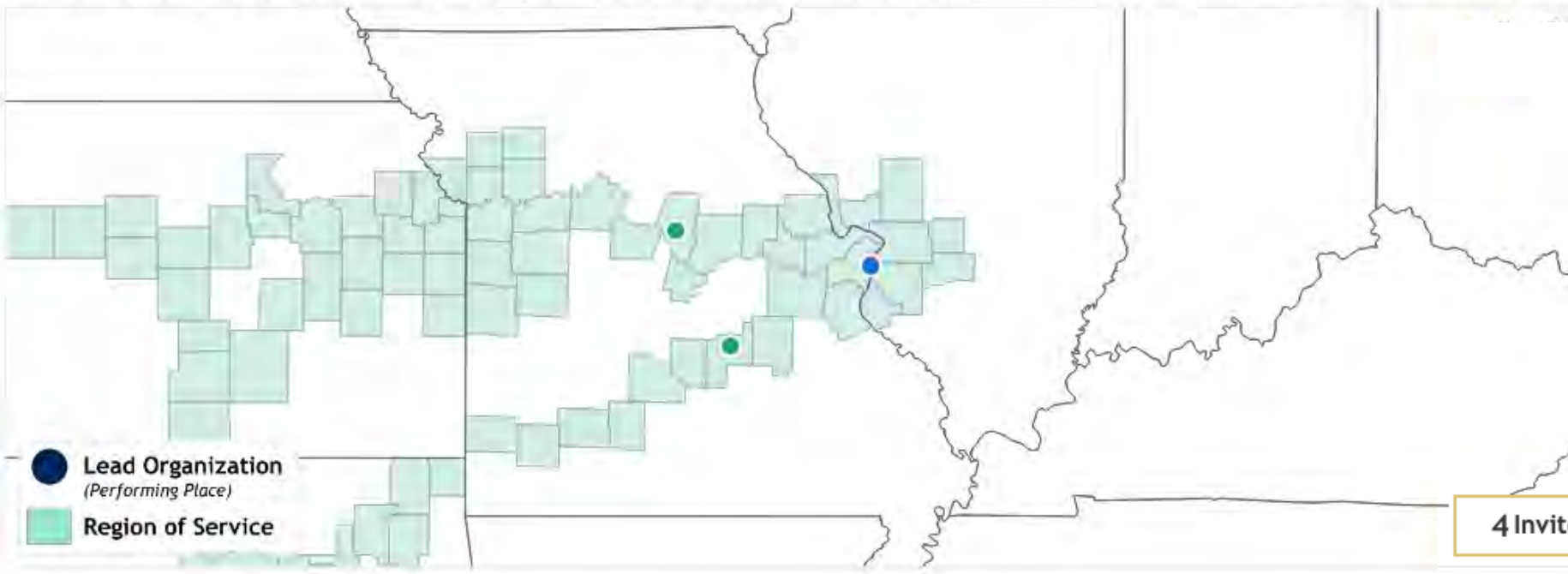
Map Overview | Demography | Data | About



U.S. National Science Foundation
Regional Innovation Engines

Full Proposal Invitations by Lead Organization Location

Hover over and select the blue dots on the map to view more details about each proposal. The proposal details will display after clicking the "Click to show proposal details" button on the right.



Click to show proposal details

Search

Color Map by Primary Key Technology Area: Yes

Key Technology Areas: Show Primary Only

- Robotics and Advanced Manufacturing: 1
- Biotechnology: 1
- Advanced Energy and Industrial Efficiency Technologies: 2

Primary Key Technology Area

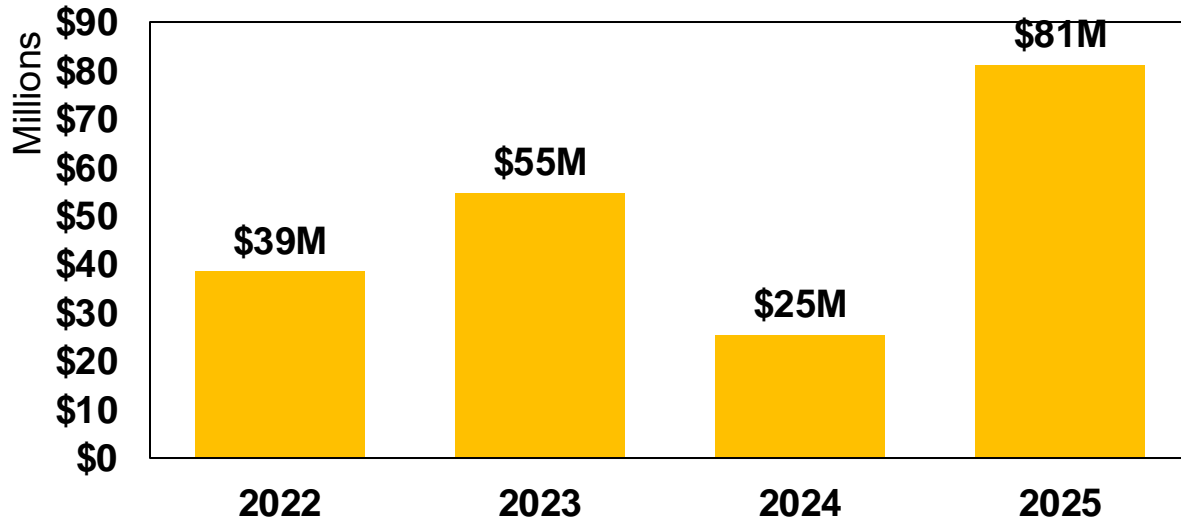
MU AAU Performance During Last 5 Years

(Normalized by Faculty Count)

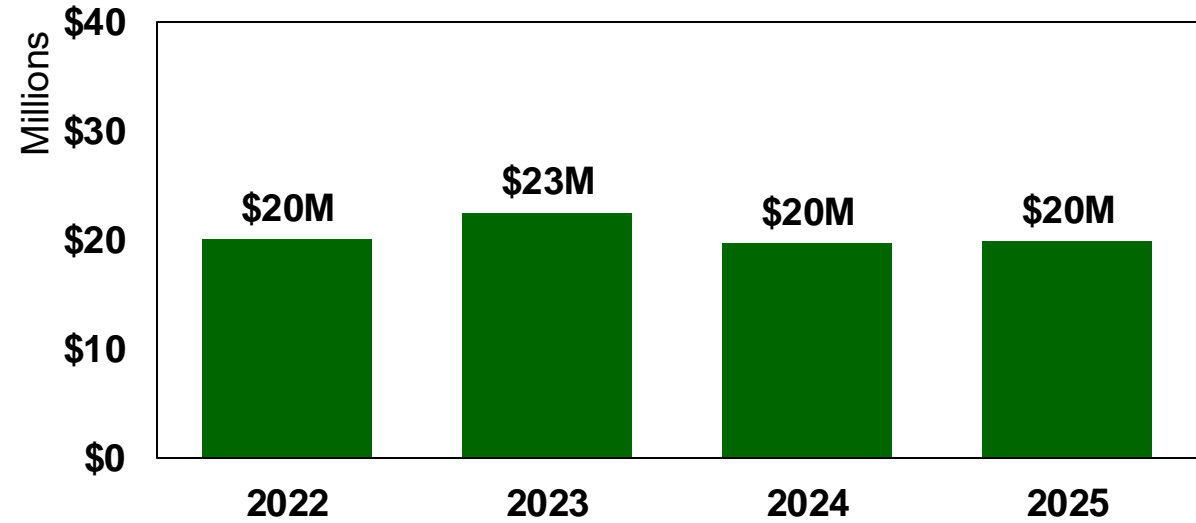
	2019	2023	'23 – '19
Phase I R&D Expenditures	\$137,000	\$202,000	47%
Phase I HP Honors & Awards	26	59	127%
Phase I Citations	92	103	12%
Phase I Books	66	57	-14%
Phase II R&D Expenditures	\$52,000	\$114,000	119%
Education			
Info – 6 Year Graduation Rate	71.3%	76.2%	4.9 pts
Info – 6 Year Pell Graduation Rate	59.3%	67.1%	7.9 pts

FYTD Philanthropy

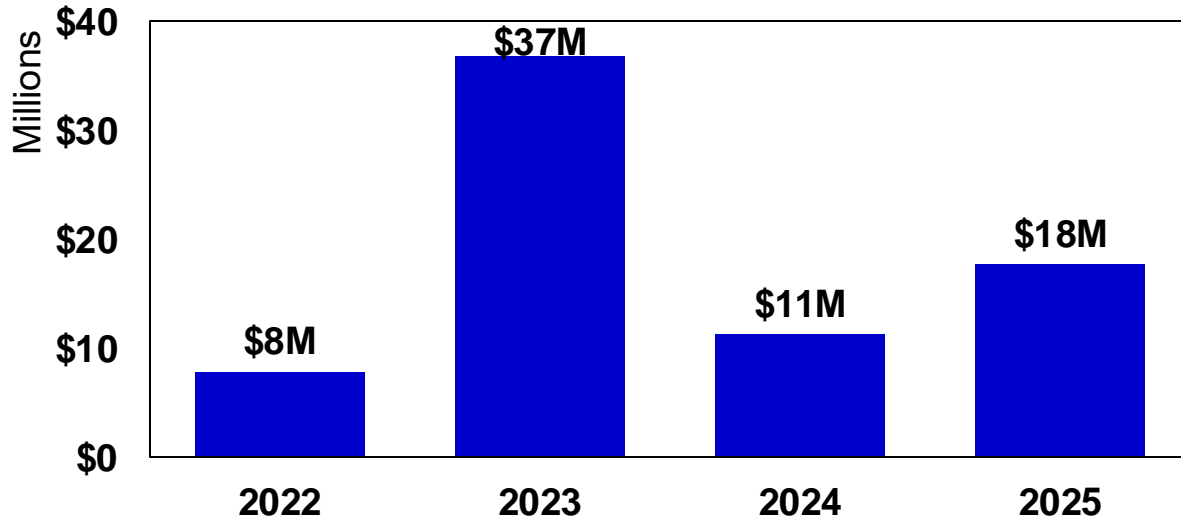
MU (Goal \$243M)



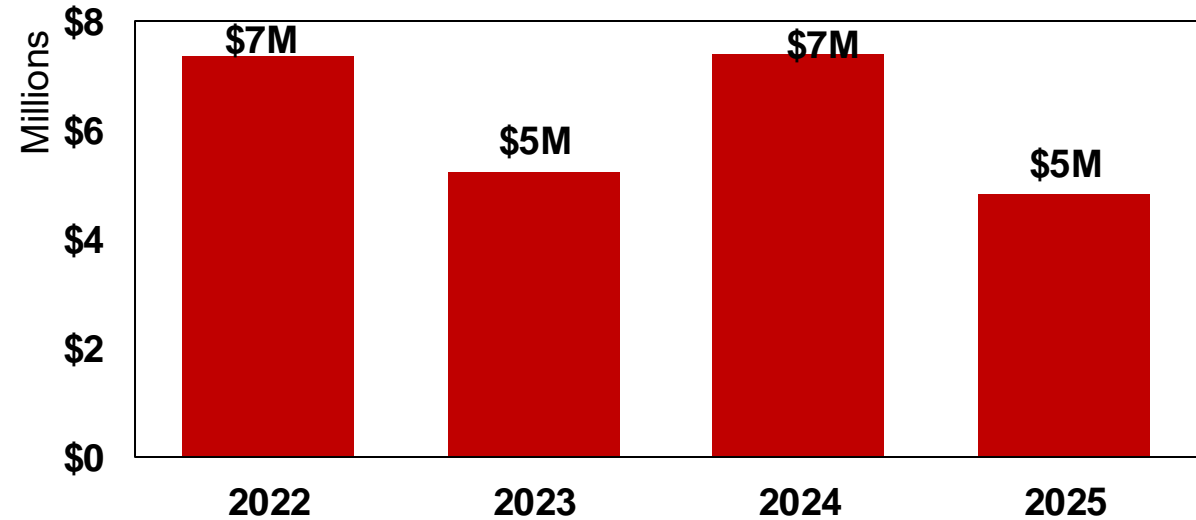
S&T (Goal \$49M)



UMKC (Goal \$55M)



UMSL (Goal \$25M)





————— University of Missouri System —————



UNIVERSITY OF
MISSOURI-ST. LOUIS

CHANCELLOR'S REPORT

KRISTIN SOBOLIK
CHANCELLOR





1963
ESTABLISHED

Tier 1
NATIONAL RESEARCH UNIVERSITY

8,000+
DEGREE-SEEKING STUDENTS

117,000+
UMSL ALUMNI WORLDWIDE



UNIVERSITY OF
MISSOURI-ST. LOUIS

DICE
DICE
ON THE **RISE**

UMSL RISES TO
NO. 135
among all public universities
in the nation.

U.S. News & World Report 2024
"Best Colleges" Ranking

umsl.edu

No. 1 in Missouri for Online Education

Forbes 2024 "Best Online Colleges"

UNIVERSITY OF
MISSOURI-ST. LOUIS

umsl.edu

A woman with dark hair tied back, wearing a light blue polo shirt and a blue lanyard, is looking at a laptop in a server room. The room is filled with server racks and blue cables. A semi-transparent digital overlay of code is visible in the foreground, partially obscuring the laptop. The background shows the server racks receding into the distance.

No. 3 in the U.S. Master of Science in Cybersecurity

*Fortune "Best Master's in
Cybersecurity Degrees for 2025"*

UNIVERSITY OF
MISSOURI-ST. LOUIS

umsl.edu



No. 20 in the U.S. Bachelor's in International Business

*U.S. News & World Report 2024
"Best College Rankings"*

UNIVERSITY OF
MISSOURI-ST. LOUIS

umsl.edu

Advancing Social Mobility

U.S. News & World Report ranks
UMSL Top 100 in the nation among the
“**Top Performers on Social Mobility**”

The 2024 ranking highlights how well universities advance social mobility by enrolling and graduating large proportions of students who receive federal Pell Grants.

UNIVERSITY OF
MISSOURI-ST. LOUIS

umsl.edu





Best of CASE District VI Award

UMSL Magazine
Spring and Fall 2023

UMSL's Marketing and Communications team
won a CASE Best of District VI Award
in the magazine design category.



UNIVERSITY OF
MISSOURI-ST. LOUIS

Fall Enrollment Report

- Undergraduate First Time college (+35%)
- Undergraduate Transfer (+6%)
- Undergraduate continuing (-1.2%)
- New Graduate (+16%)
- Graduate continuing (-17%)





21 New Faculty

9 Arts and Sciences
4 Business
4 Nursing

2 Optometry
1 Social Work
1 Libraries



Cody Ding
Professor of Education
Sciences



David Kimball
Professor and Chair of
Political Science

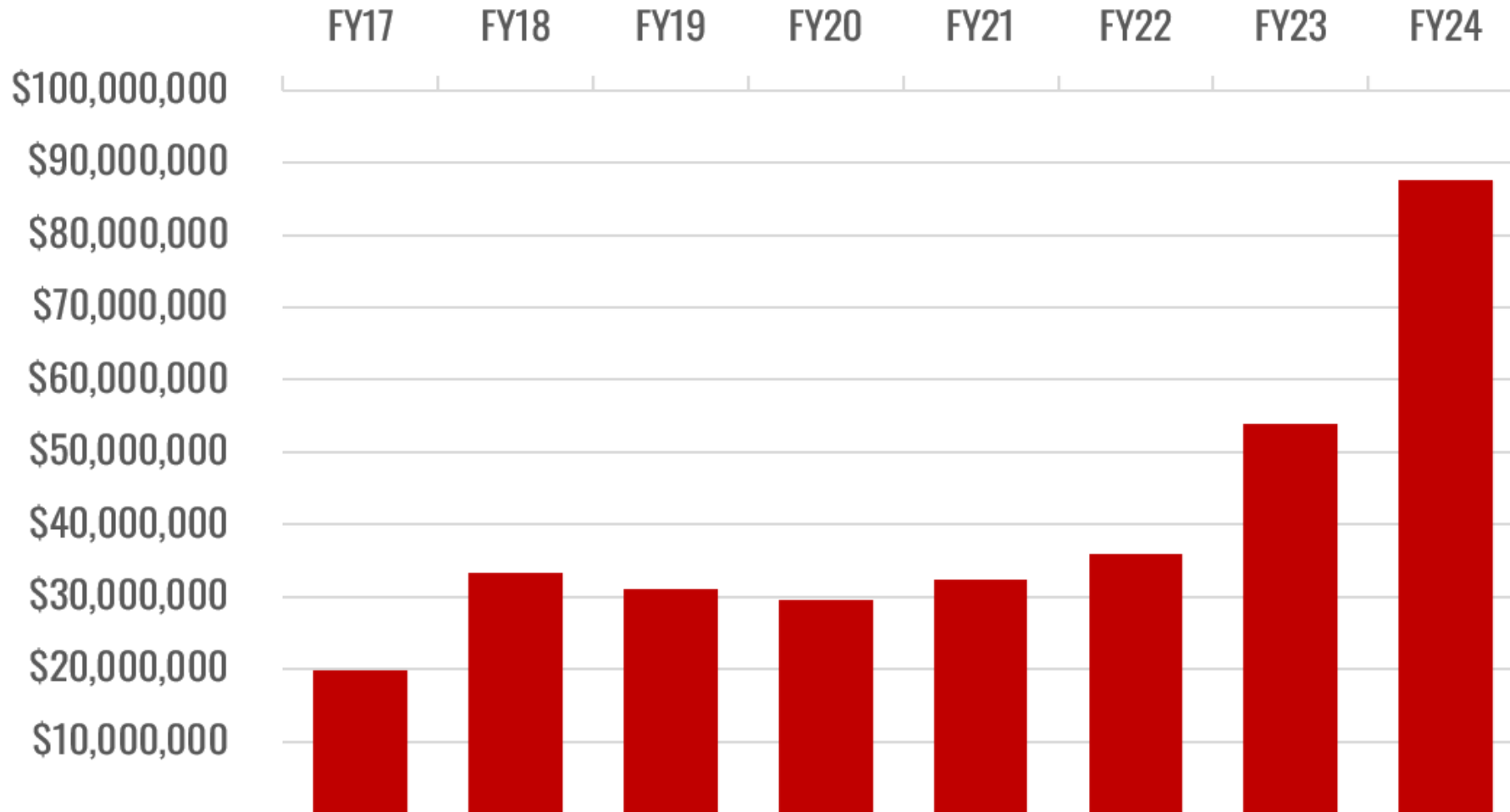


Xuemin (Sam) Wang
E. Desmond Lee Endowed
Professor in Plant Sciences

Curators' Distinguished Professors

The highest and most prestigious academic rank in UM System

Research and Sponsored Activity: Awards +340% Since FY17



Research and Sponsored Activity: Awards +340% Since FY17



2024 UMSL Research and Innovation Reception recognized faculty members Emily Brown, Mary Edwin, Anita Manion, Rachel Winograd, Vivek Singh and Michael Nichols

Campus Sustainability and Innovation for the Future

- Transform UMSL: \$100M+ Initial Investment from the state
 - continuing need for financial support from donors, corporate and philanthropic partners
- Workforce Advancement
 - college of Nursing simulation Labs
 - geospatial collaborative Labs
 - child Advocacy center
 - Entrepreneurship and Innovation center
 - Advanced workforce center
- School of Engineering

UNIVERSITY OF
MISSOURI-ST. LOUIS

Rising Up

North St. Louis County, the
St. Louis Region, Missouri,
and the WORLD!

Transform UMSL Video

- FINAL VIDEO:
- <https://mailmissouri.sharepoint.com/:v:/s/MarComCreativeservicesTeam-ogrp2/EXsnzjue5DRPslzvs0tNdTKBzFbHkanWTPwxehRM4ysyzQ?e=zAXFg7>



UMSL Patient Care Center

- serves 180+ students
- 4 lab spaces with 30 students in each lab
- 13 study nooks
- Board preparation room
- student lockers for 100+ students

University Libraries

- New entrance with direct access to the quad on the north
- Expanded café
- New computer lab
- Individual and group study spaces
- New art gallery for the Mercantile Library with two exhibition wings



Richter Family Welcome and Alumni Center

- our new gateway to UMSL for prospective students and their families
- A permanent home for the university's more than 117,000 alumni



EAST EXTERIOR



SSB Modernization and Expansion

- New SSB elevator completed
- SSB Tower deconstruction is underway – close to completion
- SSB closure in Dec.
- New SSB addition to come

MANAGE RESOURCES

Deferred Maintenance Removal since
FY20: **\$34.8M**

Future Transform UMSL Deferred
Maintenance Removal: **\$165.3**

overall deferred maintenance will
decline by 52% (\$200.1M)

350

ACRE CAMPUS

81

MAIN CAMPUS BUILDINGS

3.7M

SQUARE FEET

\$384M

DEFERRED MAINTENANCE

Nursing Learning Resource and Simulation Center

- Build a 21,000-square-foot immersive learning center
- Allows the college of nursing to grow the number of pre-licensure BSN students it graduates by 20% annually



Geospatial Advanced Technology Lab

- Develop a hub for the evolving geospatial sector
- Provides a competitive advantage in adjacent industries such as national security and transportation and logistics



Children's Advocacy Center

- Design and construction of new “Mock House” in the lower level to be used for simulations and trainings
- Complete auditorium renovation to create a Hy-Flex learning environment
- Replacement of HVAC system



UMSL Entrepreneurship and Innovation Center

- The UMSL EIC is dedicated to advancing entrepreneurship and intrapreneurship through accessible learning styles and formats designed to fit every individual's unique needs.



UMSL Advanced Workforce Center

- Accessible educational opportunities and diverse pathways to degree attainment to meet professional workforce demands
 - World wide Technology
 - St. Louis City Police Foundation
 - Girl Scouts of Eastern Missouri
 - Greater St. Louis Area Council, Scouts
 - Ziplines Education



Candidates want to work for companies that offer growth opportunities.

MORE
TALENT

UMSL School of Engineering

\$15M initial state investment

Electrical
Civil
Mechanical



- ✓ State Approved Programs
- ✓ ABET Accredited
- ✓ Build Missouri's Engineering workforce

State and Regional Benefits

Demand from employer st. Louis regional business community for engineers is exceeding its supply. UMSL's proven engineering program that will develop more engineers for the st. Louis metro and state to meet that increased demand.



UMSL School of Engineering

- June 2024, Governor Parson signs the FY 25 Missouri budget that contains \$15 million to launch the new UMSL school of Engineering
- June 2024, Launched philanthropic campaign for donor support (ongoing)
- July 2024, architects submit designs for labs, student, and administrative spaces in UMSL science complex (In Progress)
- August 2024, launch of enrollment marketing campaign (ongoing)
- November 2024, conducted on-campus visits of national candidates for the school's inaugural director (In Progress)
- Fall 2025, First student cohort





THANK YOU

Fall semester

REVIEW CONSENT AGENDA

There are no materials for this information item.

Consent A

Recommended Action - Minutes, September 12, 2024 Board of Curators Meeting

It was moved by Curator _____ and seconded by Curator _____, that the minutes of the September 12, 2024 Board of Curators meeting be approved as presented.

Roll call vote:	YES	NO
-----------------	-----	----

Curator Blitz
Curator Fry
Curator Graves
Curator Holloway
Curator Krewson
Curator Layman
Curator Sinquefield
Curator Wenneker
Curator Williams

The motion _____.

November 20, 2024

OPEN – CONSENT – A-1

Consent B

Recommended Action - Minutes, October 21, 2024 Mizzou Intercollegiate Athletics Special Committee Meeting

It was moved by Curator _____ and seconded by Curator _____, that the minutes of the October 21, 2024 Mizzou Intercollegiate Athletics Special Committee meeting be approved as presented.

Roll call vote: YES NO

- Curator Blitz
- Curator Fry
- Curator Graves
- Curator Holloway
- Curator Krewson
- Curator Layman
- Curator Sinquefield
- Curator Wenneker
- Curator Williams

The motion _____.

November 20, 2024

Consent C

Recommended Action - Minutes, October 29, 2024 Board of Curators Finance
Committee Special Meeting

It was moved by Curator _____ and seconded by Curator
_____, that the minutes of the October 29, 2024 Board of Curators Finance
Committee Special Meeting be approved as presented.

Roll call vote: YES NO

Curator Blitz
Curator Fry
Curator Graves
Curator Holloway
Curator Krewson
Curator Layman
Curator Sinquefield
Curator Wenneker
Curator Williams

The motion _____.

November 20, 2024

Consent D

Recommended Action - 2025 Board of Curators Meeting Calendar - Revised

It was recommended by Chair Wenneker, endorsed by President Choi, moved by Curator _____ and seconded by Curator _____, that the revised 2025 Board of Curators meeting calendar be approved as follows:

2025 BOARD OF CURATORS MEETING CALENDAR

<u>DAY(S)</u>	<u>DATE(S)</u>	<u>LOCATION</u>
Thursday	February 6	UM – Kansas City
Thursday	April 17	Missouri S&T
Thursday	June 26	TBD
Thursday	September 5	UM – Columbia
Thursday	November 20	UM – St. Louis

Roll call vote: YES NO

Curator Blitz
Curator Fry
Curator Graves
Curator Holloway
Curator Krewson
Curator Layman
Curator Sinquefield
Curator Wenneker
Curator Williams

The motion _____.

November 20, 2024

Revised 2025 Board of Curators Meeting Calendar

Last meeting: November 20, 2024 (UMSL)

Day	Date	Location	Host	Material Due to BOC Office	Material Distribution to the Board
Thursday	February 6 (Health Affairs Jan 30)	Kansas City	UMKC	January 22	January 24
Thursday	April 17 (Health Affairs April 10)	Rolla	Missouri S&T	April 2	April 4
Thursday	June 26 (Health Affairs Wed, June 18)	TBD	Board of Curators & President	June 11	June 13
Thursday	September 5 (Health Affairs Sept 4)	Columbia	MU	August 20	August 22
Thursday	November 20 (Health Affairs Nov 13)	St. Louis	UMSL	November 5	November 7

Revised State Statutes

Regular meetings of board.

RSMo 172.110. There shall be two regular meetings of said board of curators in each year, to be holden in the university edifice or in the town of Columbia. The annual meeting shall be held on the third Tuesday in December and the semiannual meeting on the Tuesday preceding the first Thursday in June, unless different days shall be fixed upon by said board.

University of Missouri Collected Rules and Regulations

UM CR&R 10.030 Board Bylaws

C. Article III The Board of Curators

1. Meetings

- a. Annual meeting -- The regular meeting of the Board held during the month of May or June, as scheduled by the Board of Curators of each year, shall be deemed to be the annual meeting of the Board of Curators, and shall be held on such date in May or June as is fixed by the Board.

November 20, 2024

- b. Regular meetings -- The Board may hold regular meetings at a time and place to be fixed by the Board. The time and place of a regular meeting may be changed by order of the Board.

Retirement Plan Amendments

Executive Summary

The administration is proposing amendments to the University's 403(b) Tax Deferred Annuity Plan (403(b) Plan) and 457(b) Eligible Deferred Compensation Plan (457(b) Plan) to incorporate into such plans changes that are either mandated by or permitted under the SECURE 2.0 Act, to implement certain administrative changes, and to clarify certain plan provisions. Board materials include a side-by-side comparison of the current language for each plan and the language proposed for each plan.

The proposed action is to approve changes to the 403(b) Plan and 457(b) Plan. Following is a summary of the proposed changes:

403(b) Plan

- Clarifying language regarding the distribution options available under the 403(b) Plan will be added to describe an option to receive distributions pursuant to a systematic withdrawal plan, which permits a participant or beneficiary to receive their account balance in installments through automatic withdrawals and to accelerate installment payments or receive a lump sum distribution of the remainder of their account balance, to the extent permitted by the individual agreement controlling the account assets.
- A condition on direct rollovers of Roth elective deferral distributions will be removed and direct rollovers of distributions from a participant's Roth elective deferral account will not be limited to situations where the amount of eligible rollover distributions from the participant's account is reasonably expected to be \$200 or more during the year of distribution.
- Effective January 1, 2025, the source of funds available for hardship withdrawals from the 403(b) plan will include earnings on the account assets available for withdrawal, to the extent permitted by the individual agreements controlling the account assets to be withdrawn to satisfy the hardship.

457(b) Plan

- Effective January 1, 2025, the 457(b) Plan will be amended to allow participants to make Roth contributions to the 457(b) Plan and to exempt Roth accounts from the application of lifetime required minimum distributions.
- Effective January 1, 2026, catch-up contributions to the 457(b) Plan will be treated as Roth contributions when made by a participant whose wages from the University in the preceding calendar year exceed \$145,000 (as adjusted for cost-of-living changes).

No. E

Recommended Action - Amendment to the 403(b) Tax Deferred Annuity Plan (403(b) Plan) and the 457(b) Eligible Deferred Compensation Plan (457(b) Plan).

It was recommended by Vice President and Chief Human Resources Officer Marsha Fischer, endorsed by President Choi, recommended by the Governance, Compensation and Human Resources Committee, moved by Curator _____, and seconded by Curator _____, that the following action be approved:

that the 403(b) Tax Deferred Annuity Plan (403(b) Plan) be amended as indicated in the attached document containing proposed language changes, effective November 20, 2024 (unless otherwise noted), and

that the 457(b) Eligible Deferred Compensation Plan (457(b) Plan) be amended as indicated in the attached document containing proposed language changes, effective January 1, 2025 (unless otherwise noted).

Roll call vote of the Committee: YES NO

- Curator Fry
Curator Krewson
Curator Layman
Curator Wenneker

The motion _____.

Roll call vote of the Board: YES NO

- Curator Blitz
Curator Fry
Curator Graves
Curator Holloway
Curator Krewson
Curator Layman
Curator Cairns
Curator Wenneker
Curator Williams

The motion _____.

Amendment to the 457(b) Eligible Deferred Compensation Plan	
Section 580.010.A.1	
Current with Changes	Proposed
<p>A. DEFINITIONS</p> <p>1. Account means the account and any subaccounts established for each Participant in the Plan. With respect to each Participant, the following separate source subaccounts shall be maintained as necessary: a Pre-Tax Deferred Compensation subaccount and a Roth Deferred Compensation subaccount.</p>	<p>A. DEFINITIONS</p> <p>1. Account means the account and any subaccounts established for each Participant in the Plan. With respect to each Participant, the following separate source subaccounts shall be maintained as necessary: a Pre-Tax Deferred Compensation subaccount and a Roth Deferred Compensation subaccount.</p>

Amendment to the 457(b) Eligible Deferred Compensation Plan	
Section 580.010.A.2	
Current with Changes	Proposed
<p>A. DEFINITIONS</p> <p>2. Account Balance means the amount payable from an Account, or subaccount (as the context requires) as of a Valuation Date.</p>	<p>A. DEFINITIONS</p> <p>2. Account means the amount payable from an Account, or subaccount (as the context requires) as of a Valuation Date.</p>

Amendment to the 457(b) Eligible Deferred Compensation Plan	
Section 580.010.A.5	
Current with Changes	Proposed
<p>A. DEFINITIONS</p> <p>5. Automatic Deferred Compensation Arrangement means an arrangement under which, in the absence of an affirmative election by a Covered Employee, a certain percentage of Compensation will be withheld from the Covered Employee's pay and contributed to the Plan as Pre-Tax Deferred Compensation.</p>	<p>A. DEFINITIONS</p> <p>5. Automatic Deferred Compensation Arrangement means an arrangement under which, in the absence of an affirmative election by a Covered Employee, a certain percentage of Compensation will be withheld from the Covered Employee's pay and contributed to the Plan as Pre-Tax Deferred Compensation.</p>

Amendment to the 457(b) Eligible Deferred Compensation Plan	
Section 580.010.A.12	
Current with Changes	Proposed
<p>A. DEFINITIONS</p> <p>12. Default Deferred Compensation means Pre-Tax Deferred Compensation contributed to the Plan under the Automatic Deferred Compensation Arrangement on behalf of Covered Employees who do not have an affirmative election in effect regarding Deferred Compensation.</p>	<p>A. DEFINITIONS</p> <p>12. Default Deferred Compensation means Pre-Tax Deferred Compensation contributed to the Plan under the Automatic Deferred Compensation Arrangement on behalf of Covered Employees who do not have an affirmative election in effect regarding Deferred Compensation.</p>

Amendment to the 457(b) Eligible Deferred Compensation Plan

Section 580.010.A.13

Current with Changes	Proposed
<p>A. DEFINITIONS</p> <p>13. Deferred Compensation means the amount of Compensation deferred by a Participant under this Plan pursuant to a Deferred Compensation Agreement as either Pre-Tax Deferred Compensation or Roth Deferred Compensation.</p> <p>a. Pre-Tax Deferred Compensation means Deferred Compensation which is not subject to income tax when made.</p> <p>b. Roth Deferred Compensation means Deferred Compensation that is:</p> <ul style="list-style-type: none">i. Designated irrevocably by the Participant at the time the Participant enters into a Deferred Compensation Agreement as Roth Deferred Compensation that is being made in lieu of all or a portion of the Pre-Tax Deferred Compensation the Participant is otherwise eligible to contribute to the Plan; andii. Treated by the Employer as includible in the Participant's income at the time the Participant would have received that amount in cash if the Participant	<p>A. DEFINITIONS</p> <p>13. Deferred Compensation means the amount of Compensation deferred by a Participant under this Plan pursuant to a Deferred Compensation Agreement, as either Pre-Tax Deferred Compensation or Roth Deferred Compensation.</p> <p>a. Pre-Tax Deferred Compensation means Deferred Compensation which is not subject to income tax when made.</p> <p>b. Roth Deferred Compensation means Deferred Compensation that is:</p> <ul style="list-style-type: none">i. Designated irrevocably by the Participant at the time the Participant enters into a Deferred Compensation Agreement as Roth Deferred Compensation that is being made in lieu of all or a portion of the Pre-Tax Deferred Compensation the Participant is otherwise eligible to contribute to the Plan; andii. Treated by the Employer as includible in the Participant's income at the time the Participant would have received that amount in cash if the Participant

had not entered into a Deferred Compensation Agreement.	had not entered into a Deferred Compensation Agreement.
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Amendment to the 457(b) Eligible Deferred Compensation Plan

Section 580.010.C.1.a

Current with Changes	Proposed
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<p>C. DEFERRED COMPENSATION AND ROLLOVER CONTRIBUTIONS</p> <p>1. Elective Deferred Compensation Agreement</p> <p>a. <u>General.</u> Deferred Compensation shall be set forth as a whole percentage of a Participant's Compensation with respect to each payroll period, subject to the limitations and conditions of Section 580.010.C.2. A Deferred Compensation Agreement shall not be binding upon the Employer until accepted and approved by the Plan Administrator. Any Deferred Compensation Agreement (or modification or revision of an earlier Deferred Compensation Agreement) may not be made with respect to Compensation which is currently available on or before the date the</p>	<p>C. DEFERRED COMPENSATION AND ROLLOVER CONTRIBUTIONS</p> <p>1. Elective Deferred Compensation Agreement</p> <p>a. <u>General.</u> Deferred Compensation shall be set forth as a whole percentage of a Participant's Compensation with respect to each payroll period, subject to the limitations and conditions of Section 580.010.C.2. A Deferred Compensation Agreement shall not be binding upon the Employer until accepted and approved by the Plan Administrator. Any Deferred Compensation Agreement (or modification or revision of an earlier Deferred Compensation Agreement) may not be made with respect to Compensation which is currently available on or before the date the</p>
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<p>Participant executed such Deferred Compensation Agreement or the date such Deferred Compensation Agreement first becomes effective, if later. Any Deferred Compensation Agreement (or modification or revision of an earlier Deferred Compensation Agreement) shall become effective as soon as is feasible following the receipt of such Deferred Compensation Agreement by the Plan Administrator.</p> <p>All Deferred Compensation shall be made on a pre-tax basis with the exception of Deferred Compensation made under Section 580.010.C.6.</p>	<p>Participant executed such Deferred Compensation Agreement or the date such Deferred Compensation Agreement first becomes effective, if later. Any Deferred Compensation Agreement (or modification or revision of an earlier Deferred Compensation Agreement) shall become effective as soon as is feasible following the receipt of such Deferred Compensation Agreement by the Plan Administrator.</p> <p>All Deferred Compensation shall be made on a pre-tax basis with the exception of Deferred Compensation made under Section 580.010.C.6.</p>
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Amendment to the 457(b) Eligible Deferred Compensation Plan	
Section 580.010.C.2.b	
Current with Changes	Proposed
<p>b. <u>Catch-Up Contributions for Individuals Age 50 and Older</u>. A Participant who will attain age 50 or more by the end of the calendar year is permitted to elect an additional amount of Deferred Compensation, up to the maximum age 50 catch-up dollar amount specified under Code Section 414(v), as</p>	<p>b. <u>Catch-Up Contributions for Individuals Age 50 and Older</u>. A Participant who will attain age 50 or more by the end of the calendar year is permitted to elect an additional amount of Deferred Compensation, up to the maximum age 50 catch-up dollar amount specified under Code Section 414(v), as</p>

<p>adjusted for cost-of-living under Code Section 414(v). Effective as of January 1, 2025, a Participant who will attain age 60, 61, 62 or 63 by the end of the calendar year is permitted to elect an additional amount of Deferred Compensation, up to the limit permitted by Code Section 414(v)(2)(E), as may be adjusted for cost-of-living to the extent provided under Code Section 414(v).</p> <p>Effective as of January 1, 2026, a Participant who elects an additional amount of Deferred Compensation pursuant to this Section 590.010.C.2 and whose wages, as defined in Code Section 3121(a), for the preceding calendar year from the Employer exceed \$145,000, as may be adjusted for cost-of-living to the extent provided under Code Section 414(v), shall have such additional Deferred Compensation designated as Roth Deferred Compensation.</p>	<p>adjusted for cost-of-living under Code Section 414(v). Effective as of January 1, 2025, a Participant who will attain age 60, 61, 62 or 63 by the end of the calendar year is permitted to elect an additional amount of Deferred Compensation, up to the limit permitted by Code Section 414(v)(2)(E), as may be adjusted for cost-of-living to the extent provided under Code Section 414(v).</p> <p>Effective as of January 1, 2026, a Participant who elects an additional amount of Deferred Compensation pursuant to this Section 590.010.C.2 and whose wages, as defined in Code Section 3121(a), for the preceding calendar year from the Employer exceed \$145,000, as may be adjusted for cost-of-living to the extent provided under Code Section 414(v), shall have such additional Deferred Compensation designated as Roth Deferred Compensation.</p>
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Amendment to the 457(b) Eligible Deferred Compensation Plan

Section 580.010.C.6

Current with Changes	Proposed
<p>C. DEFERRED COMPENSATION AND ROLLOVER CONTRIBUTIONS</p> <p>6. Roth Deferred Compensation.</p> <p>a. <u>General Application.</u></p> <p>1) This Section 580.010.C.6 is effective as of January 1, 2025.</p> <p>2) The Plan will accept contributions of Roth Deferred Compensation. A Participant's Roth Deferred Compensation will be allocated to a subaccount maintained for such Deferred Compensation. Unless specifically stated otherwise, Roth Deferred Compensation will be treated as Deferred Compensation for all purposes under the Plan.</p> <p>b. <u>Separate Accounting.</u></p> <p>1) Contributions and withdrawals of Roth Deferred Compensation will be credited and debited to the Roth Deferred Compensation subaccount maintained for each Participant.</p>	<p>C. DEFERRED COMPENSATION AND ROLLOVER CONTRIBUTIONS</p> <p>6. Roth Deferred Compensation</p> <p>a. <u>General Application.</u></p> <p>1) This Section 580.010.C.6 is effective as of January 1, 2025.</p> <p>2) The Plan will accept contributions of Roth Deferred Compensation. A Participant's Roth Deferred Compensation will be allocated to a subaccount maintained for such Deferred Compensation. Unless specifically stated otherwise, Roth Deferred Compensation will be treated as Deferred Compensation for all purposes under the Plan.</p> <p>b. <u>Separate Accounting.</u></p> <p>1) Contributions and withdrawals of Roth Deferred Compensation will be credited and debited to the Roth Deferred Compensation subaccount maintained for each Participant.</p>

<p>2) The Plan will maintain a record of the amount of Roth Deferred Compensation in each Participant's Account.</p> <p>3) Gains, losses, and other credits or charges must be separately allocated on a reasonable and consistent basis to each Participant's Roth Deferred Compensation subaccount and the Participant's other subaccounts in the Plan.</p> <p>4) No contributions other than Roth Deferred Compensation and properly attributable earnings will be credited to each Participant's Roth Deferred Compensation subaccount.</p> <p>c. <u>Direct Rollovers.</u></p> <p>1) Notwithstanding Section 590.010.D.5, a direct rollover of a distribution from a Roth Deferred Compensation subaccount under the Plan will only be made to another Roth account under an applicable retirement plan described in Code Section 402A(e)(1) or to a Roth IRA described in Code Section 408A, and only to the extent the</p>	<p>2) The Plan will maintain a record of the amount of Roth Deferred Compensation in each Participant's Account.</p> <p>3) Gains, losses, and other credits or charges must be separately allocated on a reasonable and consistent basis to each Participant's Roth Deferred Compensation subaccount and the Participant's other subaccounts in the Plan.</p> <p>4) No contributions other than Roth Deferred Compensation and properly attributable earnings will be credited to each Participant's Roth Deferred Compensation subaccount.</p> <p>c. <u>Direct Rollovers.</u></p> <p>1) Notwithstanding Section 590.010.D.5, a direct rollover of a distribution from a Roth Deferred Compensation subaccount under the Plan will only be made to another Roth account under an applicable retirement plan described in Code Section 402A(e)(1) or to a Roth IRA described in Code Section 408A, and only to the extent the</p>
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<p style="text-align: center;">rollover is permitted under the rules of Code Section 402(c).</p> <p>2) The Plan will accept a rollover contribution to a Roth Deferred Compensation subaccount only if it is a direct rollover from another Roth account under an applicable retirement plan described in Code Section 402A(e)(1) and only to the extent the rollover is permitted under the rules of Code Section 402(c).</p>	<p style="text-align: center;">rollover is permitted under the rules of Code Section 402(c).</p> <p>2) The Plan will accept a rollover contribution to a Roth Deferred Compensation subaccount only if it is a direct rollover from another Roth account under an applicable retirement plan described in Code Section 402A(e)(1) and only to the extent the rollover is permitted under the rules of Code Section 402(c).</p>
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Amendment to the 457(b) Eligible Deferred Compensation Plan	
Section 580.010.F.3.c	
Current with Changes	Proposed
<p>c. <u>Lifetime Required Minimum Distributions for Roth Deferred Compensation Subaccount</u>. Notwithstanding the foregoing, effective for Distribution Calendar Years beginning after December 31, 2023, the required minimum distribution rule of Code Section 401(a)(9)(A) shall not apply to the Participant's Roth Deferred Compensation subaccount, such that the Participant is not required to receive distributions from the Roth Deferred Compensation subaccount during the Participant's lifetime.</p>	<p>c. <u>Lifetime Required Minimum Distributions for Roth Deferred Compensation Subaccount</u>. Notwithstanding the foregoing, effective for Distribution Calendar Years beginning after December 31, 2023, the required minimum distribution rule of Code Section 401(a)(9)(A) shall not apply to the Participant's Roth Deferred Compensation subaccount, such that the Participant is not required to receive distributions from the Roth Deferred Compensation subaccount during the Participant's lifetime.</p>

RECOMMENDATION TO AMEND BENEFIT PROGRAM

Supplemental Retirement Plan Retirement Medical Long Term Disability
 Life Insurance Dental AD&D Flexible Benefits Tax Deferred Annuity

Effective Date of Amendment to Program: January 1, 2025 (unless otherwise noted)

Amendment Number: 457-18

Purpose of Recommendation:

To amend the 457(b) Eligible Deferred Compensation Plan as follows:

- to allow participants to designate deferred compensation as Roth deferred compensation;
- to exempt Roth accounts from the application of lifetime required minimum distributions, as required by SECURE 2.0;
- effective January 1, 2026, to require that catch-up contributions of any participant whose wages, as defined in section 3121(a) of the Internal Revenue Code, paid by the University during the preceding calendar year exceeded \$145,000 (as adjusted for cost-of-living changes) be designated Roth contributions to the 457(b) Plan, as required by SECURE 2.0.

Current Language (citation of specific section of Collected Rules and Regulations):

See attached.

Proposed Language (recommended citation):

See attached.

Cost, if Applicable:

Recommended for Approval:

Marsha Fischer
Chief Human Resources Officer

Date

Approval as to Legal Form:

Paul Maguffee
Legal Counsel

Date

Final Approval:

Mun Choi
President

Date

Copy to General Counsel, Human Resources, Board of Curators

Amendment to the 403(b) Tax Deferred Annuity Plan

Section 590.010.C.3

Current with Changes	Proposed
<p>3. <u>Direct Rollovers.</u></p> <p>(a) Notwithstanding Section 590.010.H.5, a direct rollover of a distribution from a Roth Elective Deferral subaccount under the Plan will only be made to another Roth elective deferral account under an applicable retirement plan described in Code Section 402A(e)(1) or to a Roth IRA described in Code Section 408A, and only to the extent the rollover is permitted under the rules of Code Section 402(c).</p> <p>(b) The Plan will accept a rollover contribution to a Roth Elective Deferral subaccount only if it is a direct rollover from another Roth elective deferral account under an applicable retirement plan described in Code Section 402A(e)(1) and only to the extent the rollover is permitted under the rules of Code Section 402(c).</p> <p>(c) The Plan will not provide for a direct rollover (including an automatic rollover) for distributions from a Participant's Roth Elective Deferral account if the amount of the distributions that are eligible rollover distributions are reasonably</p>	<p>3. <u>Direct Rollovers.</u></p> <p>(a) Notwithstanding Section 590.010.H.5, a direct rollover of a distribution from a Roth Elective Deferral subaccount under the Plan will only be made to another Roth elective deferral account under an applicable retirement plan described in Code Section 402A(e)(1) or to a Roth IRA described in Code Section 408A, and only to the extent the rollover is permitted under the rules of Code Section 402(c).</p> <p>(b) The Plan will accept a rollover contribution to a Roth Elective Deferral subaccount only if it is a direct rollover from another Roth elective deferral account under an applicable retirement plan described in Code Section 402A(e)(1) and only to the extent the rollover is permitted under the rules of Code Section 402(c).</p>

~~expected to total less than \$200 during a year. In addition, any distribution from a Participant's Roth Elective Deferral account is not taken into account in determining whether distributions from a Participant's other accounts are reasonably expected to total less than \$200 during a year. However, eligible rollover distributions from a Participant's Roth Elective Deferral account are taken into account in determining whether the total amount of the Participant's Account Balance under the plan exceeds \$1,000 for purposes of mandatory distributions from the plan.~~

Amendment to the 403(b) Tax Deferred Annuity Plan

Section 590.010.H.4.a

Current with Changes	Proposed
<p>(a) Hardship withdrawals shall be permitted under the Plan to the extent permitted by the Individual Agreements controlling the Account assets to be withdrawn to satisfy the hardship. For hardship withdrawals distributed on or after October 1, 2019, Elective Deferrals under the Plan shall no longer be suspended during the 6-month period beginning on the date the Participant receives such hardship distribution. Effective as of January 1, 2024 in determining whether a hardship withdrawal is upon the financial hardship of a Participant, the Plan Administrator may rely on the Participant’s written certification that the distribution is (i) on account of a financial need of a type which is deemed by the Secretary of the Treasury to be an immediate and heavy financial need, (ii) not in excess of the amount required to satisfy such financial need, and (iii) the Participant as not alternative means reasonably available to satisfy such financial need. Effective January 1, 2025 and subject to the provisions of the applicable Individual Agreements, the funds available for hardship withdrawals shall include Earnings on the Account assets available to be withdrawn upon the financial hardship of a Participant under this Section 590.010.H.4.a.</p>	<p>(a) Hardship withdrawals shall be permitted under the Plan to the extent permitted by the Individual Agreements controlling the Account assets to be withdrawn to satisfy the hardship. For hardship withdrawals distributed on or after October 1, 2019, Elective Deferrals under the Plan shall no longer be suspended during the 6-month period beginning on the date the Participant receives such hardship distribution. Effective as of January 1, 2024, in determining whether a hardship withdrawal is upon the financial hardship of a Participant, the Plan Administrator may rely on the Participant’s written certification that the distribution is (i) on account of a financial need of a type which is deemed by the Secretary of the Treasury to be an immediate and heavy financial need, (ii) not in excess of the amount required to satisfy such financial need, and (iii) the Participant as not alternative means reasonably available to satisfy such financial need. Effective January 1, 2025 and subject to the provisions of the applicable Individual Agreements, the funds available for hardship withdrawals shall include Earnings on the Account assets available to be withdrawn upon the financial hardship of a Participant under this Section 590.010.H.4.a.</p>

Amendment to the 403(b) Tax Deferred Annuity Plan

Section 590.010.H.11

Current with Changes	Proposed
<p>11. <u>Systematic Withdrawal Plan (Installments)</u>. If permitted by the Individual Agreements controlling the Account assets, a Participant (or Beneficiary, if applicable) may elect to receive distribution of his or her Account Balance under a systematic withdrawal plan (installments). To the extent permitted by the Individual Agreement, a Participant (or Beneficiary, if applicable) who is receiving distribution under a systematic withdrawal plan may elect to accelerate installment payments or to receive a lump sum distribution of the remainder of his or her Account Balance.</p>	<p>11. <u>Systematic Withdrawal Plan (Installments)</u>. If permitted by the Individual Agreements controlling the Account assets, a Participant (or Beneficiary, if applicable) may elect to receive distribution of his or her Account Balance under a systematic withdrawal plan (installments). To the extent permitted by the Individual Agreement, a Participant (or Beneficiary, if applicable) who is receiving distribution under a systematic withdrawal plan may elect to accelerate installment payments or to receive a lump sum distribution of the remainder of his or her Account Balance.</p>

RECOMMENDATION TO AMEND BENEFIT PROGRAM

Supplemental Retirement Plan Retirement Medical Long Term Disability
 Life Insurance Dental AD&D Flexible Benefits Tax Deferred Annuity

Effective Date of Amendment to Program: November 20, 2024 (unless otherwise noted)

Amendment Number: 403(b) - 28

Purpose of Recommendation:

To amend the 403(b) Tax Deferred Annuity Plan as follows:

- to add clarifying language regarding the distribution options available under the 403(b) Plan which, to the extent permitted by the individual agreements controlling the account assets, include distributions through a systematic withdrawal plan whereby a participant or beneficiary may elect to receive their account balance in installments through automatic withdrawals and, following such election, may accelerate the installment payments or receive a lump sum distribution of the remainder of their account balance;
- to remove a condition on direct rollovers of Roth elective deferral distributions that limits direct rollovers of distributions from a participant's Roth elective deferral account to situations where the amount of eligible rollover distributions from the participant's account is reasonably expected to be \$200 or more during the year of distribution;
- effective January 1, 2025, to expand the scope of funds available for hardship withdrawals to include earnings on the account assets available for withdrawal on account of hardship, as permitted by SECURE 2.0, to the extent permitted by the individual agreements controlling the account assets to be withdrawn to satisfy the hardship.

Current Language (citation of specific section of Collected Rules and Regulations):

See attached.

Proposed Language (recommended citation):

See attached.

Cost, if Applicable:

Recommended for Approval:

Marsha Fischer
Chief Human Resources Officer

Date

Approval as to Legal Form:

Paul Maguffee
Legal Counsel

Date

Final Approval:

Mun Choi
President

Date

Copy to General Counsel, Human Resources, Board of Curators

Amendment to CRR 600.010 Equal Employment/Educational Opportunity and Nondiscrimination Policy

Executive Summary

The University's Equal Employment/Educational Opportunity and Nondiscrimination Policy generally makes employees mandated reporters, requiring them to report to the appropriate Equity Office when they become aware of discrimination or harassment as defined in the policy. However, CRR 600.010.E.3 makes certain exceptions, stating in pertinent part, "Employees with a legal obligation or privilege of confidentiality (including health care providers, counselors, lawyers, and their associated staff) are not considered Mandated Reporters and are not required to report when the information is learned in the course of a confidential communication."

In recent years, a question arose as to whether journalists are mandated reporters for information that they learn while practicing journalism. It was determined that under applicable law journalists have a qualified privilege of confidentiality against compelled disclosure of their confidential sources and information and therefore are covered by the exception noted in CRR 600.010.E.3. Accordingly, FAQs on the policy were revised to reflect this, stating that "Employees with a legal obligation or privilege of confidentiality (including health care providers, counselors, journalists, lawyers, and their associated staff) are not considered Mandated Reporters and are not required to report when the information is learned in the course of a confidential communication." (Emphasis added.) The FAQs are published at <https://www.umsystem.edu/ums/equity/titleix/>. Examples of employees for whom this exception is relevant include, for example, University employees who practice journalism with the *Columbia Missourian*, KOMU, or University radio stations.

Questions about the application of the mandated reporter exception to journalists arise from time to time and the University received a request from the Foundation for Individual Rights and Expression to include a reference to journalists in CRR 600.010.E.3 itself, not only in the FAQs noted above.

To provide greater clarity on this matter, we propose that CRR 600.010.E.3 be amended to include journalists alongside the other examples listed in the rule. Accordingly, the pertinent portion of the rule as amended would read: "Employees with a legal obligation or privilege of confidentiality (including health care providers, counselors, journalists, lawyers, and their associated staff) are not considered Mandated Reporters and are not required to report when the information is learned in the course of a confidential communication."

Consent F

Recommended Action - Amendment to CRR 600.010 Equal Employment/Educational Opportunity and Nondiscrimination Policy

It was recommended by General Counsel Mark Menghini, endorsed by President Choi, recommended by the Governance, Compensation and Human Resources Committee moved by Curator _____, and seconded by Curator _____, that the following action be approved:

Collected Rules and Regulations Section 600.010 Equal Employment/Educational Opportunity and Nondiscrimination Policy be amended as indicated in the attached documents.

Roll call vote of the Committee: YES NO

Curator Fry
Curator Krewson
Curator Layman
Curator Wenneker

The motion _____.

Roll call vote of the Board: YES NO

Curator Blitz
Curator Fry
Curator Graves
Curator Holloway
Curator Krewson
Curator Layman
Curator Siquefield
Curator Wenneker
Curator Williams

The motion _____.

600.010 Equal Employment/Educational Opportunity and Nondiscrimination Policy - for matters involving conduct alleged to have occurred on or after August 14, 2020

Bd. Min. 2-19-71; Reaffirmed Bd. Min. 10-14-77; Amended Bd. Min. 5-23-80; Amended Bd. Min. 10-15-82; Amended Bd. Min. 10-16-03; Amended Bd. Min. 6-19-14; Revised 9-22-14 by Executive Order 41. Revised 2-5-15; Revised 2-9-17 with effective date of 3-1-17; Revised 7-28-20 with effective date of 8-14-20.

- A. Equal Employment/Educational Opportunity Policy and Statement of Nondiscrimination. The Curators of the University of Missouri does hereby reaffirm and state the policy of the University of Missouri on Equal Employment/Educational Opportunity and Nondiscrimination.
1. Equal Opportunity is and shall be provided for all employees and applicants for employment on the basis of their demonstrated ability and competence without unlawful discrimination on the basis of their race, color, national origin, ancestry, religion, sex, pregnancy, sexual orientation, gender identity, gender expression, age, disability, protected veteran status, or any other status protected by applicable state or federal law. This policy shall not be interpreted in such a manner as to violate the legal rights of religious organizations or the recruiting rights of military organizations associated with the Armed Forces or the Department of Homeland Security of the United States of America.
 2. Equal Opportunity is and shall be provided for all students and applicants for admission without unlawful discrimination on the basis of their race, color, national origin, ancestry, religion, sex, pregnancy, sexual orientation, gender identity, gender expression, age, disability, protected veteran status, or any other status protected by applicable state or federal law. This policy shall not be interpreted in such a manner as to violate the legal rights of religious organizations or the recruiting rights of military organizations associated with the Armed Forces or the Department of Homeland Security of the United States of America.
 3. The University of Missouri does not discriminate on the basis of race, color, national origin, ancestry, religion, sex, pregnancy,

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sexual orientation, gender identity, gender expression, age, disability, protected veteran status, and any other status protected by applicable state or federal law. As used in this policy, the word "sex" is also inclusive of the term "gender."

The University's Nondiscrimination policies apply to any phase of its employment process, any phase of its admission or financial aid programs, other aspects of its educational programs or activities, and instances occurring in other settings, including off-campus, if there are effects of the conduct that interfere with or limit any person's ability to participate in or benefit from the University's educational programs, activities or employment. Notices of Nondiscrimination are posted online and in physical locations for the UM System and each of the Universities in the System.

The President of the University shall establish affirmative action procedures to implement this policy.

- B. Definition of Discrimination and Harassment. For purposes of determining whether a particular course of conduct constitutes prohibited discrimination or harassment under this policy, the following definitions will be used:
1. Discrimination or Harassment. Conduct that is based upon an individual's race, color, national origin, ancestry, religion, sexual orientation, age, disability, protected veteran status, including sex discrimination as defined below, or any other status protected by applicable state or federal law that:
 - a. Adversely affects a term or condition of employment, education, living environment or participation in a University activity; or
 - b. Creates a hostile environment by being sufficiently severe or pervasive and objectively offensive that it interferes with, limits, or denies the ability to participate in or benefit from the University's educational programs, activities, or employment; or
 2. Sex Discrimination. Sex discrimination is conduct that is based upon an individual's sex, pregnancy, gender identity, or gender expression that adversely affects a term or condition of an individual's employment, education, living environment, or participation in a University education program or activity. Sex discrimination under this policy includes the following:
 - a. Sexual Harassment, as defined in CRR 600.020, is governed exclusively by CRR 600.020 and CRR 600.030. All other forms of sex-based discrimination are governed by this policy, including sex-based harassment that does not rise to the level of Sexual Harassment as defined in CRR 600.020, and conduct that meets the substantive definition of Sexual Harassment as defined in CRR 600.020 that occurs outside the

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University's education programs, activities, or employment, or occurs outside the United States, but nonetheless has an effect that interferes with or limits any person's ability to participate in or benefit from the University's education programs, activities or employment;

- b. Workplace sexual harassment: Conduct that creates a hostile environment by being sufficiently severe or pervasive and objectively offensive that it interferes with, limits or denies the ability to participate in or benefit from the University's education programs, activities or employment;
 - c. Sex discrimination that does not involve conduct of a sexual nature.
3. Consent to Sexual Activity. Consent to sexual activity is knowing and voluntary. Consent to sexual activity requires of all involved persons a conscious and voluntary agreement to engage in sexual activity. Each person engaged in the sexual activity must have met the legal age of consent. It is the responsibility of each person to ensure they have the consent of all others engaged in the sexual activity. Consent must be obtained at the time of the specific activity and can be withdrawn at any time. Consent, lack of consent, or withdrawal of consent may be communicated by words or non-verbal acts. Someone who is incapacitated cannot consent. Silence or absence of resistance does not establish consent. The existence of a dating relationship or past sexual relations between the Parties involved should never by itself be assumed to be an indicator of consent. Further, consent to one form of sexual activity does not imply consent to other forms of sexual activity. Consent to engage in sexual activity with one person does not imply consent to engage in sexual activity with another. Coercion and force, or threat of either, invalidates consent.
4. Incapacitated or incapacitation. A state in which rational decision-making or the ability to consent is rendered impossible because of a person's temporary or permanent physical or mental impairment, including but not limited to physical or mental impairment resulting from drugs or alcohol, disability, sleep, unconsciousness or illness. Consent does not exist when the Respondent knew or should have known of the other individual's incapacitation. Incapacitation is determined based on the totality of the circumstances. Incapacitation is more than intoxication but intoxication can cause incapacitation. Factors to consider in determining incapacity include, but are not limited to, the following:
- a. Lack of awareness of circumstances or surroundings (e.g., an inability to understand, either temporarily or permanently, the who, what, where, how and/or why of the circumstances; blackout state)
 - b. Inability to physically or verbally communicate coherently, particularly with regard to consent (e.g., slurred or incoherent speech)

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- c. Lack of full control over physical movements (e.g., difficulty walking or standing without stumbling or assistance)
 - d. Physical symptoms (e.g., vomiting or incontinence)
- C. Equity Officers. Duties and responsibilities of the University's Equity Officers include monitoring and oversight of overall implementation and compliance with the University's Equal Employment/Educational Opportunity and Nondiscrimination Policy, including coordination of training, education, communications and coordination with the equity resolution processes for faculty, staff, students and other members of the University community and investigation of complaints of discrimination, harassment, and retaliation. Any person having inquiries concerning this policy should contact their respective UM System or University Equity Officer. The following individuals serve as Equity Officers and are designated to handle inquiries regarding the Anti-Discrimination policies and to serve as the coordinators for purposes of compliance with those policies:

University of Missouri System and University of Missouri-Columbia

Andrea Hayes, J.D.

Equity Officer

Address:

University of Missouri

320 Jesse Hall

Columbia, MO 65211

Telephone: (573) 882-2824

Email: hayesas@missouri.edu

civilrights.missouri.edu

University of Missouri-Kansas City

KC Atchinson

Equity Officer

Address:

Administrative Center

5115 Oak Street, Room 212D

Kansas City, MO 64112

Telephone: 816-235-6910

Email: atchinsonk@umkc.edu

www.umkc.edu/titleix

Missouri University of Science and Technology

Anitra Rivera

Interim Equity Officer

Address:

605 West 11th Street

Rolla, MO 65409

Telephone: 573-341-4632

Email: riveraac@mst.edu

titleix.mst.edu

University of Missouri-St. Louis

Dana Beteet Daniels

November 20, 2024

Equity Officer
Address:
One University Boulevard
220 Woods Hall
St. Louis, MO 63121
Telephone: 314-516-4538
Email: dana@umsl.edu
www.umsl.edu/title-ix

University of Missouri Health System
Julia Settles, M.D., J.D., CPHRM, CPPS
Equity Officer
Address:
One Hospital Drive
Columbia, MO 65212
Telephone: 573-882-8187
Email: SettlesJA@health.missouri.edu
https://www.umssystem.edu/ums/dei/titleix/muhc_title_ix_office

NOTE: All references to "Equity Officer" throughout this policy refer to the Equity Officer or the Equity Officer's designee.

If the Complaint involves the University's Equity Officer, reports may be made to the System Equity Officer. If the Complaint involves the System Equity Officer, reports may be made to the System President. The contact information for the System President is:

Office of the President
105 Jesse Hall
Columbia, MO 65211
Telephone: (573) 882-2011
Email: president@umssystem.edu

NOTE: The above-listed contact information for Equity Officers may be updated as needed and without requiring the approval of the Board of Curators.

- D. Equity Resolution Processes. The University is committed to preventing and eliminating impermissible discrimination and harassment in its educational programs, activities and employment. To that end, the University maintains policies regarding reporting, investigation, and resolution of complaints of discrimination or harassment. Specifically, please see:
1. Section 600.040 – Equity Resolution Process for Resolving Complaints of Discrimination and Harassment Against a Faculty Member or Student or Student Organization
 2. Section 600.050 – Equity Resolution Process for Resolving Complaints of Discrimination and Harassment Against a Staff Member or the University of Missouri
- E. Reporting Discrimination or Harassment
1. Students, Employees, Volunteers, and Visitors. Students, employees, volunteers, and visitors of the University who have

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experienced any form of discrimination or harassment are encouraged to report the incident promptly to the appropriate Equity Officer listed in Section 600.010.C above. In addition, students, volunteers, and visitors of the University who have witnessed such conduct are encouraged to report the incident promptly to the appropriate Equity Officer. The University will respond to all such reports pursuant to one of its Title IX or Equity Resolution Processes (see Sections 600.030, 600.040, 600.050).

2. Mandated Reporters. Any employee of the University, except as noted below, who becomes aware of discrimination or harassment as defined in this policy is a Mandated Reporter, regardless of whether the recipient of the behavior is a student, employee, volunteer, or visitor of the University.
3. Employees with a Legal Obligation or Privilege of Confidentiality. Employees with a legal obligation or privilege of confidentiality (including health care providers, counselors, journalists, lawyers, and their associated staff) are not considered Mandated Reporters and are not required to report when the information is learned in the course of a confidential communication. This also means that the employee seeking the exemption is employed by the University for that specific purpose and was acting in that capacity when the confidential disclosure was made. If the information is not learned in the course of confidential communication (for example, behavior is observed in class) then the employee has the same obligation as a Mandated Reporter.
4. Designated Confidential Employees. Consistent with the law and upon approval from the Office of the General Counsel, a University may also designate non-professional counselors or advocates as confidential for purposes of this policy and, therefore, excluded from the definition of Mandated Reporters.
5. Required Reporting. A Mandated Reporter is required to promptly report the information to the appropriate Equity Officer. A mandated report must be made regardless of whether the person reporting the information to the Mandated Reporter requests confidentiality and regardless of how the Mandated Reporter becomes aware of the offensive behavior (personal observation, direct information from the subject of the behavior, indirect information from a third party, etc.). If the Complainant requests confidentiality or that a report not be pursued, the Mandated Reporter should warn the Complainant that, at this stage in the process, the Mandated Reporter must report all known information to the Equity Officer.
6. Content of Mandated Report to Equity Officer. Mandated Reporters must report all details that they possess. This includes names of the Parties, if known, and all other information in the Mandated Reporter's possession.
7. Non-compliance. Failure to comply with this policy can result in disciplinary action under applicable University policies. Employees also are cautioned that non-compliance with this policy may increase their risk of personal liability. Further, an individual who fails to report as required under this policy may

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be determined to be ineligible for defense or protection under Section 490.010 of the University's Collected Rules and Regulations for any associated claims, causes of action, liabilities or damages.

- F. Retaliation, False Reporting, and Witness Intimidation or Harassment.
1. Retaliation is any adverse action taken against a person because of that person's participation in protected activity. The phrase "participation in a protected activity" includes refusal to participate in proceedings involving sex discrimination under CRRs 600.040 and 600.050. Any person who engages in such retaliation shall be subject to disciplinary action, up to and including expulsion or termination, in accordance with applicable procedures. Any person who believes they have been subjected to retaliation is encouraged to notify the Equity Officer. The University will promptly respond to all claims of retaliation in accordance with this policy.
Examples of prohibited retaliation include, but are not limited to, giving a lesser grade than the student's academic work warrants because the student filed a report or Complaint of discrimination or harassment; giving lower than justified performance appraisals because a person was a witness in an investigation of alleged discrimination or harassment; and threatening to spread false information about a person for filing a report or Complaint of discrimination or harassment.
 2. False reporting is making an intentional false report or accusation in relation to this policy as opposed to a report or accusation, which, even if erroneous, is made in good faith.
 3. The University prohibits attempted or actual intimidation or harassment of any potential Party or witness. No individual participating in an investigation relating to a report or Complaint that a violation of this policy has occurred should, directly or through others, take any action which may interfere with the investigation.
 4. For situations involving alleged retaliation, false reporting, and witness intimidation or harassment, the Equity Officer will refer the matter to the appropriate University process.
- G. U.S. Department of Education – Office for Civil Rights. Inquiries concerning discrimination in educational opportunities also may be referred to the United States Department of Education's Office of Civil Rights. For further information on notice of nondiscrimination and for the address and phone number of the U.S. Department of Education office which serves your area call 1-800-421-3481.
The State of Missouri Regional Office for Civil Rights is located in Kansas City and is available to provide assistance.

Office for Civil Rights
U.S. Department of Education
One Petticoat Lane
1010 Walnut, 3rd Floor, Suite 320
Kansas City, MO 64106
Telephone: (816) 268-0550

November 20, 2024

FAX: (816) 268-0559
TDD: (800) 877-8339
Email: OCR.KansasCity@ed.gov

November 20, 2024

Project Re-Approval
MURR Lab Expansion
MU

The University of Missouri – Columbia requests re-approval of the University of Missouri Research Reactor (“MURR”) Lab Expansion project to include the production support facility. The original project budget of \$34,000,000 has increased to \$46,500,000 and is funded from MURR Reserves and Third-Party Contracts.

MURR has executed multiple production contracts with pharmaceutical companies. This project enables the line and storage expansion necessary to deliver upon those contracts. Approximately \$40,000,000 of construction cost will be funded directly by these committed contracts while approximately \$6,500,000 of the cost will be funded by reserves from MURR earnings.

The project reapproval adds an approximately \$12,500,000 production support facility for necessary storage. The production support facility consists of an approximate 16,450 total SF, three-story building to house radiological personal protective equipment and materials generated within the MURR site related to the radiopharmaceutical production. This building addition to the southeast corner of the existing lab facility will include an approximate 5,300 SF basement level, a main level for receiving, storing, and shipping, and an upper level for storage related to the production processes. The production support facility will provide vital storage capacity to facilitate the on-going development and research of the Research Reactor.

Due to an aggressive delivery schedule, overlapping work on the shared site, and efficiency in complying with federal NRC regulations, the project will utilize the previously completed consultant selection and Construction Manager Risk (CMR) contractor for the lab expansion project. SIRCAL Contracting, Inc., Jefferson City, Missouri, was previously selected through a competitive two-step request for qualification and request for proposal process for providing preconstruction services (cost estimating, scheduling, identifying long lead items and procurement strategies, value engineering, and constructability).

That Consultant selection was approved by the Board of Curators at the February 2024 meeting. Clark & Enersen was originally selected through an RFQ process for the MURR West Addition, and they are best suited for this additional overlapping construction area and scopes of work. The maximum fee for the production support facility basic architectural and engineering services has been determined in the same way. The project is considered a Type I Considerably Less than Average Complexity Project, suggesting a 5.0% fee of the estimated \$9,458,750 construction costs. This results in a maximum fee of \$472,938.

Project Schedule Production Support Facility:

Project Re-Approval (BOC)	November 2024
Third Production Line Completion	February 2025
Fourth and Backup Line Completion	March 2026
Production Support Facility Construction Complete	October 2026

November 20, 2024

No. G

Recommended Action - Project Re-Approval, MURR Lab Expansion, MU

It was recommended by President Choi, recommended by the Finance Committee, moved by Curator _____ and seconded by Curator _____, that the following action be approved:

the Project Re-Approval for the MURR Lab Expansion, MU at the maximum amount of \$46,500,000.

Funding of the project budget is from:

MURR Reserves	\$6,500,000
<u>Third-Party Contracts</u>	<u>\$40,000,000</u>
Total Funding	\$46,500,000

Roll call vote Finance Committee YES NO
Curator Blitz
Curator Fry
Curator Graves
Curator Holloway

The motion _____.

Roll call vote Full Board: YES NO
Curator Blitz
Curator Fry
Curator Graves
Curator Holloway
Curator Krewson
Curator Layman
Curator Siquefield
Curator Wenneker
Curator Williams

The motion _____.

November 20, 2024

Project Approval
General Site- Electric Substation
MU

The University of Missouri–Columbia requests approval for the General Site- Electric Substation project. The total project budget of \$31,000,000 is funded from internal sources. This MU substation project is one part of a larger electrical interconnection upgrade involving both MU’s electrical distribution system and the City of Columbia’s transmission system.

The campus's primary electrical power source is MU's district energy system, which includes a co-generation power plant and its related electrical distribution network. This project replaces a vital component of that network, MU's electrical substation located at the intersection of Monk and Hospital Drive. The project upgrades the substation's 30-year-old equipment at the end of its reliable service life. It also relocates the substation away from the congested intersection in front of University Hospital to a new site along Virginia Avenue east of Missouri Orthopedic Institute. This relocation will provide flexibility for future street improvements in that vicinity that are currently being studied.

A secondary electrical source for the campus was established in 1995 with the installation of a 69kV interconnection to the city's transmission system. That interconnection allows MU to purchase power directly from the Midcontinent Independent System Operator (MISO) electrical grid when rates are favorable. It also provides a critical source of backup power for the campus when needed, reducing the risk of prolonged outages due to equipment failure or other disruptions in power plant production.

The peak electric demand on the MU campus is 15% higher than the current MISO interconnection capacity and continues to grow. In addition, based on a 2021 study, MU's electrical demand is forecasted to exceed the power plant's 54 MW production capacity within the next five years. MU is working with the city as the transmission system owner and MISO as the electrical grid operator in the Midwest on a separate Transmission Project to upgrade that interconnection in the near future. That upgraded transmission connection will increase the amount of power that can be purchased from the MISO grid and add resiliency to that vital connection. This MU project will equip the new substation with the required additional equipment to accommodate that future upgraded connection to the MISO grid through the city’s transmission system.

This project will be delivered using a traditional Design-Bid-Build delivery method and is expected to be completed by December 2026.

November 20, 2024

No. H

Recommended Action - Project Approval, Electric Interconnection and Substation, MU

It was recommended by President Choi and recommended by the Finance Committee, moved by Curator _____ and seconded by Curator _____, that the following action be approved:

the Project Approval, General Site -Electric Substation, MU

Funding of the project budget is from:

<u>Internal</u>	<u>\$31,000,000</u>
Total Funding	\$31,000,000

Roll call vote Finance Committee YES NO

- Curator Blitz
- Curator Fry
- Curator Graves
- Curator Holloway

The motion _____.

Roll call vote Full Board: YES NO

- Curator Blitz
- Curator Fry
- Curator Graves
- Curator Holloway
- Curator Krewson
- Curator Layman
- Curator Siquefield
- Curator Wenneker
- Curator Williams

The motion _____.

Project Approval
Discovery Ridge Radioisotope Science Center
MU

The University of Missouri – Columbia requests project approval for the Discovery Ridge Radioisotope Science Center project. The \$40,000,000 project will be funded by a \$20,000,000 grant from the federal government and a \$20,000,000 appropriation by the State of Missouri.

The project remains contingent on receipt of the formal notice of award for the \$20,000,000 grant from the federal government. The university will not commence construction of the project until such time as the formal award is received.

The DOE Isotope Program (DOE IP) has collaborated with the University of Missouri Research Reactor (MURR) for decades. Establishment of the Radioisotope Science Center will build on this proven partnership and provide a facility for continued collaboration. The proposed center would leverage MURR’s competency and experience in the weekly processing and supply of short-lived isotopes for research and medical purposes.

The Radioisotope Science Center facility will consist of an approximate 24,000 gross square feet of hot cell processing space, support functions and services, offices, and collaboration spaces. The proposed new building will be sited at Discovery Ridge immediately adjacent to the new Discovery Drive Road addition. The design will provide all necessary facility infrastructure from receiving to production and quality control to final product. Safety, security, material flow, and operation are of utmost importance and will be incorporated in the proposed building design.

BSA LifeStructures was selected as the recommended architect/engineer for this project. BSA LifeStructures will utilize and team with IMEG, for all engineering discipline support (structural, mechanical, plumbing, fire protection and electrical) and provide radiological laboratory and equipment planning, management and procurement/delivery coordination. They presented a focused and well-balanced team of experts with in-depth knowledge of radiological facility design. The BSA LifeStructures team has completed multiple large relevant projects similar to this center. The selection committee also interviewed Clark and Enersen, Kansas City; and Peckham Guyton Albers & Viets, Inc., St. Louis, Missouri (PGAV).

The fee percentage was determined from the University of Missouri’s “Architectural and Engineering Basic Services Fee Estimating Guidelines” with UM Facilities Planning and Development Office. The project is a Type V – New Construction (considerably more complex than average), and the maximum basic services calculated fee permitted is 7.0% of the \$20,800,000 construction cost, for \$1,456,000. Additional services to the basic design fee include Special Federal & NRC regulatory compliance/reporting, radioisotope laboratory/process planner coordination with owner for environmental assessment, commissioning and building envelope review, inclusion of the programming and pre-design confirmation and audio/visual and equipment list for specialized areas. A total of \$745,000 in pre-approved additional services was added to the basic services fee amount to arrive at a total

November 20, 2024

maximum fee of \$2,201,000.

The project will be delivered as Construction Manager at Risk (CMR) due to the size, complexity, and schedule. The project is expected to be complete by November 2027 subject to adjustment based on the timing of receipt of the formal notice of award from the federal government.

No. I

Recommended Action - Project Approval, Discovery Ridge Radioisotope Science Center, MU

It was recommended by President Choi and recommended by the Finance Committee, moved by Curator _____ and seconded by Curator _____, that the following action be approved:

the Project Approval, Discovery Ridge Radioisotope Science Center, MU

Funding of the project budget is from:

State	\$20,000,000
Federal	\$20,000,000
Total Funding	\$40,000,000

Roll call vote Finance Committee YES NO

- Curator Blitz
- Curator Fry
- Curator Graves
- Curator Holloway

The motion _____.

Roll call vote Full Board: YES NO

- Curator Blitz
- Curator Fry
- Curator Graves
- Curator Holloway
- Curator Krewson
- Curator Layman
- Curator Sinquefield
- Curator Wenneker
- Curator Williams

The motion _____.

November 20, 2024

Project Approval
Bioplex
Missouri S&T

Missouri University of Science and Technology requests project approval for the Bioplex, a new construction project. The total project budget of \$130,000,000 will be funded by private gifts.

The Bioplex was envisioned as part of the transformative developments outlined in the Missouri S&T 2020 Campus Master Plan to push forward the University's Bio-X initiative and meet the growing demand for life science research programs. This 128,000 GSF facility will be a multidisciplinary research facility that will bring together top researchers, engineers, and industry experts to create high-impact innovations in life science research.

The Bioplex will be the final building in the Arrival District and will anchor the southern edge of the arrival court and complete the framed view of the Rolla Building at the new entry to campus. This prominent project site offers the opportunity for the Bioplex to bookend the campus arrival in balance with the Innovation Lab, Welcome Center, and Rolla Building. Bioplex will become a nexus for collaboration and will supplement and add capacity for existing programs housed within James E. Bertelsmeyer Hall and Schrenk Hall. The building site boundaries are constrained to the east by the former State Street, to the north by the sub-surface parking garage, to the west by the geothermal well field, and to the south by the James E. Bertelsmeyer Hall utility and access alley.

Existing campus facilities that support biotechnology, life science, and bioengineering research are undersized, outdated, and operating at full capacity. As the university addresses this need through renovations and additions, this will create an even greater need to supplement wet bench lab space and accommodate growth in enrollment to these life science programs that are already at capacity. Bioplex will make modern state-of-the-art teaching and research laboratory space available to students and faculty especially those engaged in the chemical and biochemical engineering, chemistry, biological sciences, environmental science, and psychology programs. The Bioplex will feature wet bench research laboratories and support space, a psychology research suite, an ABSL2 Vivarium, and a biomedical research core that includes a genomics suite, an analytical instrumentation suite, an imaging and microscopy suite, and a histology lab. Additionally, the facility will incorporate three student teaching labs, a 50-student classroom, collaboration and meeting space, as well as administration and office space. This new facility will showcase the University's investment into advanced research facilities fitting of a Carnegie Level 1 research institution and create an unmistakable impression of these critical programs for prospective students, researchers, industry partners, and campus visitors.

Christner Architects, St. Louis, Missouri, partnered with signature architect ZGF, is the recommended architect for this project. The Christner + ZGF team presented on multiple projects that show they have the knowledge and experience to complete this project.

November 20, 2024

The selection committee also interviewed Slattery, Kansas City, Missouri; Mackey Mitchell, St. Louis, Missouri; and Lamar Johnson Collaborative, St. Louis, Missouri.

The fee for basic architectural and engineering services has been determined by using the University of Missouri's "Architectural and Engineering Basic Services Fee Estimating Guidelines." The project is considered a Type V – New Construction, and the maximum basic services calculated fee for this project is \$5,719,950 based upon 5.7% of new construction cost of \$100,350,000. Additional services for engagement of a signature architect, laboratory planning and design, high bay equipment coordination, AV design, wayfinding graphics, security design, early design packages for construction and renderings is anticipated to be \$601,050.00 for a total design fee of \$6,321,000.

The Missouri University of Science and Technology Bioplex is expected to be complete by June 2028. The project will be delivered through a Construction Manager at Risk delivery method due to size and complexity.

No. J

Recommended Action - Project Approval, Bioplex, Missouri S&T

It was recommended by Chancellor Dehghani, endorsed by President Choi and recommended by the Finance Committee, moved by Curator _____ and seconded by Curator _____, that the following action be approved:

the Project Approval, Bioplex, Missouri S&T

Funding of the project budget is from:

<u>Gifts</u>	<u>\$130,000,000</u>
Total Funding	\$130,000,000

Roll call vote Finance Committee YES NO

- Curator Blitz
- Curator Fry
- Curator Graves
- Curator Holloway

The motion _____.

Roll call vote Full Board: YES NO

- Curator Blitz
- Curator Fry
- Curator Graves
- Curator Holloway
- Curator Krewson
- Curator Layman
- Curator Sinquefield
- Curator Wenneker
- Curator Williams

The motion _____.

Meeting Date	November 20, 2024
Action Title	CRR 420.010, Research Misconduct Revision
Action Type	Open Consent Item

Summary

This is a request to approve revisions to CRR 420.010 to incorporate process improvements and ensure compliance with federal requirements.

Table of Contents

1. Executive Summary [OPEN – CONSENT – K-1]

- *Provides a high-level overview of the revisions needed to ensure CRR 420.010 “Research Misconduct” is in compliance with federal requirements and to improve the process to better serve the institution.*

2. Recommended Action & Roll Call Vote [OPEN – CONSENT – K-2]

- *The formal approval of revisions to CRR 420.010 “Research Misconduct”.*

3. Research Misconduct Revisions_Redline [OPEN – CONSENT – K-3-38]

- *Provides the redline version showing all revisions made to current CRR 420.010.*

Appendix

1. Research Misconduct Revisions_Final Version [OPEN – CONSENT – K-39-59]

- *Provides the final version of the CRR after revisions are approved.*

Executive Summary

Proposed Revisions: Collected Rule and Regulation 420.010, Research Misconduct

Overview: CRR 420.010 “Research Misconduct” requires revisions to ensure compliance with requirements of the Code of Federal Regulations (CFR), specifically 42 CFR Parts 50 and 93, which deal with public health-related research projects. The proposed revisions will make the process more efficient and effective, based on many years of experience under the existing policy and with input from various stakeholder groups (vice chancellors for research, faculty leaders, provosts, etc.) at each university. Additionally, the proposed revisions are designed to account for the irregular and sometimes infrequent nature of misconduct allegations and ensure the process adequately serves both the respondent and the institution.

CRR 420.010, Research Misconduct, has not been revised since November 2007. Since then, there have been many changes internal and external to the universities which require modifications to current policies. Due to the need for substantial revisions and re-working of the existing policy, the revisions re-write the policy altogether rather than making numerous, harder-to-follow revisions throughout the existing policy.

Key Changes: Below are the primary proposed changes to CRR 420.010. These are the changes that are deemed as having the most significant implications for the university and that most meaningfully depart from the current policy as written.

- **Investigative Committees:** Under the current process, the investigative committee is a campus standing committee, with relatively stable membership over time. Under the new policy, this would be an ad hoc committee, with membership of the committee determined based on the idiosyncrasies of the misconduct case. The goal is to ensure that investigative committees have the requisite expertise to make an informed decision about whether a violation of the policy has occurred.
- **Roles:** Under the current process the Vice Chancellor for Research (VCR) does not have a designated role. As the person charged with directing and guiding the research mission of the university, the new policy places oversight and implementation of research misconduct policy and procedure with the VCR. The VCR provides recommendations to the Provost/Chancellor relative to the results of research misconduct investigations.
- **General Principles:** Current policy does not make explicit the need to follow federal regulations regarding the investigation of allegations of research misconduct. The new policy makes this requirement explicit, ensuring federal regulations and statutes are followed, as applicable.

Consent K

Recommended Action – Revision of CRR 420.010: Research Misconduct

It was recommended and endorsed by President of the University of Missouri Mun Y. Choi, recommended by the Academic, Student Affairs and Research & Economic Development Committee, moved by Curator_____, seconded by Curator _____that the following action be approved:

that the revisions to Collected Rules and Regulations 420.010: Research Misconduct as presented, be approved.

Roll call vote of Board:

YES

NO

Curator Blitz

Curator Fry

Curator Graves

Curator Holloway

Curator Krewson

Curator Layman

Curator Siquefield

Curator Wenneker

Curator Williams

The motion_____.

420.010 Research Misconduct

Bd. Min. 3-24-06; Amended 11-29-07; [Amended 11-20-24](#).

A. Policy for Reviewing Alleged Research Misconduct

1. Statement of Principles

- a. Integrity in scholarship and research is a fundamental value upon which the University is founded.
- b. It is the shared responsibility of all members of our academic community to ensure that misconduct in scholarship and research is dealt with in a timely and effective manner, and that the reputation of the University for high standards of scholarly and research integrity is preserved.
- c. The purpose of this policy is to reaffirm the University's commitment to integrity of research and scholarship and establish the principles and procedures that will be followed in the University's review of allegations of research misconduct. The National Science Foundation, the Public Health Service, and other federal agencies have published regulations regarding the investigation of allegations of research misconduct in the context of activities supported by those agencies. The University will comply with those statutory and regulatory requirements if applicable and this policy shall be interpreted so as to conform with those requirements.

2. Applicability

- a. This policy addresses research misconduct as defined in section A.3 of this policy in connection with any research conducted at the University of Missouri, regardless of the presence or absence of external funding or sponsorship of the specific research project. Other forms of misconduct that may relate to activities in scholarship and research are not addressed through this policy but may be addressed through other applicable University rules and policies, including but not limited to the Standards of Faculty Conduct, Section 330.110.
- b. The provisions of this policy apply to:
 - 1) All individuals who hold University appointments who are engaged in the design or conduct of research or the reporting of research results, regardless of the presence or absence of external funding or sponsorship of the specific research project; and
 - 2) Anyone engaged in the design or conduct of research or the reporting of research results through a Sponsored Program at the University of Missouri, to the extent of that research.
- c. Misconduct by undergraduate students shall be addressed through Sections 200.010, Standard of Conduct; and 200.020, Rules of Procedures in Student or Student Organization Conduct Matters.

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d. Research misconduct by graduate students generally will be dealt with under this policy, provided that, after consultation with a university's chief academic administrator for graduate studies (such as Dean of the Graduate School or similar official), the Deciding Official as defined in this rule may, determine that an allegation of research misconduct on the part of a graduate student is more appropriately addressed under Section 200.010 and Section 200.020 or duly authorized student honor systems established pursuant to CRR 200.020.E.9 and refer the allegation to appropriate officials for action in accordance with such rules or student honor systems.

3. Definitions

a. Definitions of Research Misconduct

- 1) Fabrication: making up data or results and recording them in the research record.
- 2) Falsification: manipulating research materials, equipment, or processes, and/or changing or omitting data or results such that the research is not accurately represented in the research record.
- 3) Plagiarism: the appropriation of another person's ideas, processes, results, or words without giving appropriate credit.
- 4) Research misconduct does not include honest error, author disputes, or differences of interpretation inherent in the scientific and creative processes that are normally corrected through further research and scholarship.

b. Definitions of Key Roles and Federal Agencies

- 1) Complainant: refers to an individual(s) who makes an allegation of research misconduct.
- 2) Respondent: refers to the person against whom an allegation of research misconduct is directed or the person whose actions are the subject of the inquiry or investigation. There can be more than one Respondent in any inquiry or investigation.
- 3) Research Integrity Officer (RIO): refers to the University official responsible for assessing allegations of research misconduct and determining whether such allegations warrant inquiries and for overseeing inquiries and investigations. This position is appointed by the Chancellor.
- 4) Deciding Official (DO): refers to the University official, who makes final determinations on allegations of research misconduct and any responsive institutional actions. The Chancellor may serve as the DO or may designate the Provost or other individual to serve as the DO, provided that the DO will not be the same individual as the RIO and should have no direct prior involvement in the institution's inquiry, investigation, or allegation assessment.
- 5) U.S. Public Health Service (PHS): an operating component of the U.S. Department of Health and Human Services (DHHS).

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6) Office of Research Integrity (ORI): an operating component of the United States Department of Health and Human Services (DHSS) that is responsible for research misconduct proceedings and research integrity activities of the U.S. Public Health Service (PHS).

c. Definitions of Other Key Terms

- 1) Allegation refers to any written or oral statement or other indication of possible research misconduct made to an institutional official, including but not limited to department chairs, deans, Research Integrity Officers (RIOs), the Vice Chancellor for Research (VCR) or equivalent, the Associate Vice Chancellor for Research (ACVR) or equivalent, and the Provost.
- 2) Conflict of interest and commitment refers to a divergence between an individual's interests and the individual's professional obligations, such that an independent observer might reasonably question whether the individual's professional actions or decisions are determined by considerations other than the best interests of the University.
- 3) Good faith as applied to a Complainant, Respondent, or witness, means having a belief in the truth of one's allegation or statement that a reasonable person in the individual's position could have based on the information known to the individual at the time. An allegation or statement in a research misconduct proceeding is not in good faith if made with knowing or reckless disregard for information that would negate the allegation or statement. Good faith as applied to a committee member means cooperating with the research misconduct proceeding by carrying out the duties assigned impartially. A committee member does not act in good faith if the member's acts or omissions on the committee are dishonest or influenced by personal, professional, or financial conflicts of interest with those involved in the research misconduct proceeding.
- 4) Inquiry refers to the initial process for determining whether an allegation or apparent instance of research misconduct has substance and warrants an investigation.
- 5) Investigation refers to the formal development of a factual record and the examination of that record to determine, based on a preponderance of evidence, whether research misconduct has occurred and, if so, to determine the responsible person and the nature and seriousness of the research misconduct.
- 6) Research refers to any systematic investigation, including research development, testing, and reporting, designed to develop or contribute to generalizable knowledge or specific knowledge. The term encompasses basic research, applied research, and research training activities in areas such as biomedical and life sciences,

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natural sciences, engineering, humanities and arts, and social and behavioral sciences.

a) Research record means any physical or electronic record of data or results that embody the facts resulting from scientific inquiry. It includes, but is not limited to data, document, computer file, computer storage device, or any other written or non-written account or object that reasonably may be expected to provide evidence or information regarding the proposed, conducted, or reported research that constitutes the subject of an allegation of research misconduct. Examples of research records include, but are not limited to, research proposals, grant or contract applications, whether funded or unfunded; grant or contract progress and other reports; abstracts; theses; oral presentations; internal reports; journal articles; laboratory notebooks; notes; correspondence; videos; photographs; X-ray film; slides; biological materials; computer files and printouts; manuscripts and publications; equipment use logs; laboratory procurement records; animal facility records; human and animal subject protocols; consent forms; medical charts; and patient research files.

7) Retaliation means any adverse action taken against an individual because the individual a) has made a good faith allegation of research misconduct or of inadequate institutional response thereto; or b) cooperated in good faith with any action or proceeding under this rule. This includes adverse action taken by any individual, the University, or any unit of the University.

8) Student refers to a person having once been admitted to the University who has not completed a course of study and who intends to or does continue a course of study in or through one of the Universities of the University System. For the purpose of these rules, student status continues whether or not the University's academic programs are in session.

4. General Principles

a. Prohibition: Research misconduct is prohibited and subject to sanctions pursuant to this rule.

b. Requirements for findings of research misconduct: A finding of research misconduct requires a determination that there has been a significant departure from accepted practices of the relevant academic community; that the research misconduct was committed intentionally, knowingly, or recklessly; and that the allegation has been proved by a preponderance of evidence.

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- c. Handling of questionable research practices: Concerns in the context of research and scholarship that do not constitute research misconduct as defined in this rule, such as carelessness or questionable research practices, as well as authorship disputes, will generally be handled through the appropriate administrative channels or other applicable processes, including but not limited to Standards of Faculty Conduct CRR 330.110.
- d. Retaliation is prohibited and is subject to disciplinary action in accordance with applicable University policies. The University will take reasonable and practical steps to counter potential or actual retaliation against individuals participating in proceedings under this rule.
- e. Good faith participation: Complainants, respondents, and other participants in the research misconduct review process are expected to act in good faith throughout. Failure to act in good faith may lead to disciplinary action in accordance with applicable University rules and policies.
- f. Conflicts of Interest Prohibited: No individual responsible for carrying out proceedings under this rule shall have any unresolved personal, professional, or financial conflict of interest with the Complainant, Respondent, or witnesses. An individual having such a conflict of interest must promptly recuse from participation in any proceedings.
- g. Responsibility to Report Research Misconduct: All employees or individuals associated with the University of Missouri must report observed, suspected, or apparent research misconduct to the RIO. If an individual is unsure whether a suspected incident falls within the definition of research misconduct, the individual may contact the RIO to discuss the suspected misconduct informally. If the circumstances described by the individual do not meet the definition of research misconduct, the RIO may refer the individual or allegation to other offices or officials. At any time, an employee may have discussions and consultations about concerns of possible research misconduct with the RIO and will be counseled about appropriate procedures for reporting allegations.
- h. Protecting the Complainant and Cooperating Individuals: The RIO will monitor the treatment of individuals who bring allegations of research misconduct or of inadequate institutional response thereto, and those who cooperate in inquiries or investigations. The RIO will attempt to ensure that these persons will not be retaliated against and will review instances of alleged or apparent retaliation for appropriate action. Employees or those affiliated with the University or a PHS grant should immediately report any alleged or apparent retaliation to the RIO. Also, the University will maintain confidentiality as required by the terms of this rule. If the Complainant requests anonymity, the University will make a reasonable effort to honor the request during the allegation

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assessment or inquiry within applicable policies, regulations, and laws, if any, but the Complainant will be advised that if the matter is referred to an investigation committee, anonymity will no longer be guaranteed. The University will take all reasonable and practical steps to protect the positions and reputations of good faith Complainants, witnesses and committee members.

- i. Protecting the Respondent: Inquiries and investigations will be conducted in a manner that will ensure fair treatment to the Respondent and confidentiality as required by the terms of this rule. The Respondent may have an advisor (who is not a witness and does not otherwise have a role in the case and who may be, but is not required to be, an attorney). The Respondent’s advisor may accompany the Respondent to all interviews, meetings, and proceedings involved in the case. The advisor may actively participate and assist the Respondent. The advisor may make presentations and speak on behalf of the Respondent, request clarification of a procedural matter or object on the basis of procedure, ask any witnesses all relevant questions and follow-up questions, including cross-examination.
- j. Cooperation with Inquiries and Investigations: University employees and those working on PHS grants will cooperate with the RIO and other institutional officials involved in the review of allegations and the conduct of inquiries and investigations. Employees have an obligation to provide relevant evidence to the RIO and other University officials involved in review of research misconduct allegations.
- k. Responsibility of Institution to Respond to Credible Reports of Allegations of Research Misconduct: Because the University of Missouri values the credibility of its research activities and the integrity of its community, allegations of research misconduct are evaluated to determine whether there is specific and credible information on which to act. Just as the University protects Complainants against retaliation, the University is equally concerned about malicious or frivolous allegations made against its research community. The university performs a careful assessment of all allegations brought to the attention of institutional officials. The RIO, AVCR, VCR, and the DO shall consider and act upon any specific and credible information that comes to their attention indicating that research misconduct may have occurred. The RIO and other institutional officials assigned responsibility for handling allegations of research misconduct ensure that:
 - 1) The allegation assessment, inquiry, and investigation are completed in a timely, fair, objective, thorough, and competent manner; and

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- 2) Reasonable precautions are taken to avoid bias and conflict of interest on the part of those involved in conducting the inquiry and investigation.
- l. At any time during the assessment period or research misconduct proceedings, the University of Missouri will notify the appropriate funding and oversight agencies if:
 - 1) Public health or safety is at risk;
 - 2) Agency resources or interests are threatened;
 - 3) Research activities should be suspended;
 - 4) There is reasonable indication of possible violations of civil or criminal law;
 - 5) Federal action is required to protect the interests of those involved in the investigation;
 - 6) The University believes the research misconduct proceeding may be made public prematurely, so the agency may take appropriate steps to safeguard evidence and protect the rights of those involved or
 - 7) The research community or public should be informed.
- m. Confidentiality:
 - 1) Disclosure of the identity of Respondents and Complainants in research misconduct proceedings is limited, to the extent possible, to those who need to know, consistent with a thorough, competent, objective, and fair research misconduct proceeding, and as allowed by law. The applicable laws and regulations may require the institution to disclose the identity of Respondents and Complainants to federal oversight agencies pursuant to the agency's review of institutional research misconduct proceedings.
 - 2) Except as may otherwise be prescribed by applicable law, confidentiality must be maintained for any records or evidence from which research subjects might be identified. Disclosure is limited to those who have a need to know to carry out a research misconduct proceeding.
- n. Restoration of Reputations: The University of Missouri takes all reasonable and practical efforts, if requested and as appropriate, to restore the reputations of individuals alleged to have engaged in research misconduct but against whom no finding of research misconduct is made.
- o. Referrals: If the University's review of the allegations identifies misconduct other than research misconduct, the RIO refers these matters to the proper institutional or federal office for action.

5. Sanctions

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The University may take disciplinary action, up to and including termination of employment, upon a finding of research misconduct. Applicable sanctions may include, but are not limited to:

- a. Warning. A notice in writing to the Respondent and included in the Respondent's personnel file indicating that there is a finding of research misconduct.
- b. Loss of Privileges. Denial of specified privileges of Respondent for a designated period of time. This may include but is not limited to suspending travel privileges and/or payment of travel or conference expenses, restricting use of laboratories or offices, limiting contact with students, or suspending access to teaching or research assistance or grant accounts, service on University committees or representation of the University on official business. The loss of privileges sanction may not be applied in a manner to create a constructive suspension.
- c. Education or Training. Respondent may be required to complete education or training.
- d. Restitution. Compensation by Respondent for loss, damage or injury to the University or University property. This may take the form of appropriate service and/or monetary or material replacement.
- e. Suspension. Separation of the Respondent from the University for a definite period of time, after which the Respondent is eligible to return. Conditions for return should be specified. Suspension may be with or without salary (full or partial) for a period not to exceed one-half of the individual's normal appointment period. During the suspension period, health and retirement benefits shall be maintained.
- f. Termination. Termination of an appointment with tenure will be pursuant to Section 310.060.

B. Procedure for Reviewing Alleged Research Misconduct

1. Statement of Purpose: It is the policy of the University of Missouri to inquire into and, if necessary, investigate and resolve promptly and fairly all instances of alleged research misconduct. As a recipient of federal research funds, the University of Missouri must have institutional policies and procedures in place to handle allegations of research misconduct.
2. Procedures for Conduct of Research Misconduct Proceedings
 - a. In conducting a research misconduct proceeding:
 - 1) the procedures shall be those best suited to achieve a fair and equitable review of the Allegation;

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- 2) the procedures shall reflect a spirit of mutual respect and collegiality, and may, therefore, be as informal as agreed by the Respondent under the circumstances;
 - 3) the Respondent shall have the right to have an advisor as stated in this rule;
 - 4) in all preliminary assessments, inquiries, and investigations, the Respondent shall have the right to present evidence and to identify persons who might have evidence about the allegation;
 - 5) formal rules of evidence shall not apply;
 - 6) to the extent that a published regulation of a federal funding source requires a specific procedural element in the review and adjudication of an Allegation concerning a proposal to or an award from that federal funding source, that procedural element shall be included in the procedures adopted.
- b. General Counsel Advice: The Office of the General Counsel shall, when so requested, provide legal advice regarding the implementation of these procedures and other aspects of the University's review of an allegation under these procedures to the RIO, the Inquiry Committee, the Investigative Committee, the VCR, the DO, the Chancellor, and the Appellate Officer.
- c. Admission of Misconduct: When the case involves PHS funds, the University cannot accept an admission of research misconduct as a basis for closing a case or not undertaking an investigation without prior approval from ORI. For non-PHS funding, the DO shall have authority to terminate the University's review of any allegation upon the admission by the Respondent that research misconduct occurred and that the Respondent was responsible for it, if the termination of the review of that allegation would not prejudice the University's review of another allegation against that Respondent or a different Respondent or the University's ability to assess the extent and consequences of the research misconduct and what action should be taken in response to it.
- d. Additional Respondents. If, during the course of any research misconduct proceeding, additional Respondents are identified, they shall be notified immediately, and the RIO shall, to the degree feasible, attempt to coordinate the research misconduct proceedings against all the Respondents with respect to the same or related research misconduct.

3. Allegations of Misconduct and Preliminary Assessments

a. Allegation of Research Misconduct

- 1) Any member of the University community or other person who wishes to make an allegation shall contact the RIO or other institutional official who will promptly notify the RIO.
- 2) The RIO shall notify the Respondent promptly of an allegation.

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- 3) The RIO shall advise the VCR of all allegations.
- b. Preliminary Assessment of Allegations
 - 1) Promptly after receiving an allegation, the RIO shall assess the allegation to determine if:
 - a) it meets the definition of research misconduct;
 - b) it involves either the PHS funded research, applications for PHS research funding, or research records specified in U.S. Code of Federal Regulations or other non-PHS funding; and,
 - c) the allegation is sufficiently credible and specific so that potential evidence of research misconduct may be identified.
- c. Inquiry Not Warranted
 - 1) Preliminary Assessment Report: If the RIO determines that an inquiry is not warranted because the allegation is not sufficiently credible and specific so that potential evidence of research misconduct may be identified, the RIO shall prepare a written preliminary assessment report that states the basis and rationale for the RIO's determination. The RIO shall provide a copy of the preliminary assessment report to the VCR.
 - 2) End of Review: If the VCR concurs with the RIO's determination that an inquiry is not warranted, the University's review of that allegation shall be concluded. The Complainant and Respondent shall be notified in writing that the matter has been closed after preliminary assessment.

4. Conducting the Inquiry

- a. Initiation and Purpose of the Inquiry: Following the preliminary assessment, if the RIO determines that the allegation provides sufficient information to allow specific follow-up and falls under the definition of research misconduct, the RIO will initiate the inquiry process whether it involves PHS funding or not. In initiating the inquiry, the RIO should clearly identify the original allegation and any related issues that should be evaluated. The purpose of the inquiry is to make a preliminary evaluation of the available evidence and testimony of the Respondent, Complainant, and key witnesses to determine whether there is sufficient evidence of possible research misconduct to warrant an investigation. The purpose of the inquiry is not to reach a final conclusion about whether misconduct definitely occurred and therefore does not require a full review of all the evidence related to the allegation.
- b. Timeframe: The inquiry committee is generally convened within 30 days of the determination to convene an inquiry. The inquiry, including the final report of the inquiry committee and decision of whether an

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investigation is warranted, should generally be completed within 60 days of the convening of the inquiry.

c. Notice to Respondent:

1) Within 15 days of the determination to convene an inquiry, the RIO will notify the Respondent in writing of the allegation(s).

Respondent notification includes:

- a) The specific allegation(s);
- b) The rights and responsibilities of the Respondent;
- c) The role of the inquiry committee;
- d) A description of the inquiry process; and
- e) A copy of this rule.

2) The RIO also will notify the dean and department chair, or equivalent in the Respondent's department, in writing of the determination to convene an inquiry.

d. Sequestration of the Research Records:

1) After determining that an allegation falls within the definition of research misconduct, the RIO must ensure that all original research records and materials relevant to the allegation are secured. The RIO may consult with ORI for advice and assistance in this regard.

2) The RIO shall take the following specific steps to obtain, secure, and maintain the research records and evidence pertinent to the research misconduct proceeding:

- a) Either before or when the RIO notifies the Respondent of the allegation, the RIO shall promptly take all reasonable and practical steps to obtain custody of all research records and evidence needed to conduct the research misconduct proceeding, inventory those materials, and sequester them in a secure manner. Provided that in those cases where the research records or evidence encompass scientific instruments shared by a number of users, custody may be limited to copies of the data or evidence on such instruments, so long as those copies are substantially equivalent to the evidentiary value of the instruments.

- b) Where appropriate, give the Respondent copies of, or as reasonable, supervised access to the research records.

e. Appointment of the Inquiry Committee:

1) The RIO, in consultation with other University officials (Deans, Chairs, VCR) as appropriate, will appoint an inquiry committee and committee chair. The inquiry committee should consist of at least 3 individuals who do not have real or apparent conflicts of interest in the case, are unbiased, and have the necessary expertise to evaluate the evidence and issues related to the

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allegation, interview the principals and key witnesses, and conduct the inquiry. These individuals may be scientists, subject matter experts, administrators, lawyers, or other qualified persons, and they may be from inside or outside the University.

The majority of the committee will consist of tenured faculty.

- 2) The RIO will notify the Respondent of the proposed committee membership in writing. If the Respondent submits a written objection to any appointed member of the inquiry committee or expert based on bias or conflict of interest within 5 days, the RIO will determine whether to replace the challenged member or expert with a qualified substitute.

f. Charge to the Committee and the First Meeting:

- 1) Charge to the Committee: The RIO will prepare a charge for the inquiry committee that describes the allegations and any related issues identified during the allegation assessment and states that the purpose of the inquiry is to make a preliminary evaluation of the evidence and testimony of the Respondent, Complainant, and key witnesses to determine whether there is sufficient evidence of possible research misconduct to warrant an investigation.

- 2) The First Meeting: At the committee's first meeting, the RIO will review the charge with the committee, discuss the allegations, any related issues, and the appropriate procedures for conducting the inquiry, assist the committee with organizing plans for the inquiry, and answer any questions raised by the committee. The RIO and the Office of the General Counsel will be available throughout the inquiry to advise the committee as needed.

g. Inquiry Process: The inquiry committee will normally interview the Complainant, the Respondent and key witnesses as well as review relevant research records and materials. Then the inquiry committee will evaluate the evidence and testimony obtained during the inquiry. After consultation with the RIO and the Office of the General Counsel as needed, the committee members will decide whether there is sufficient evidence of possible research misconduct to recommend further investigation. The inquiry committee then prepares a report and submits it to the RIO.

5. The Inquiry Report

a. Elements of the Inquiry Report: The written inquiry report shall contain the following information:

- 1) The name and position of the Respondent(s);
- 2) A description of the allegations of research misconduct;
- 3) Research sponsorship, including, for example, grant numbers, grant applications, contracts, and publications listing PHS funding or other non-PHS funding;

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- 4) The basis for recommending that the alleged conduct does or does not warrant an investigation; and
 - 5) Any comments on the report by the Respondent or the Complainant. The report also should include recommendations on whether any other actions should be taken if an investigation is not recommended. The Office of the General Counsel will review the report for legal sufficiency.
- b. Comments on the Report by the Respondent and Complainant: The RIO will provide the Respondent with a copy of the inquiry report for comment and rebuttal. At the RIO's discretion, the RIO also may provide the Complainant with a copy of the inquiry report for comment and rebuttal.
- 1) Confidentiality: The RIO may establish reasonable conditions for review to protect the confidentiality of the report.
 - 2) Receipt of Comments: Within 10 days of receipt of the report or summary, the Respondent and Complainant will provide their respective comments, if any, to the inquiry committee. For good cause, the Respondent or Complainant may request an extension of time from the RIO, which shall be granted whenever reasonable.
 - 3) Any comments that the Complainant or Respondent submits on the report will be shared with the inquiry committee and will become part of the final inquiry report and record. Based on the comments, the inquiry committee may revise the report as appropriate.
- c. Inquiry Decision and Notification:
- 1) Decision by VCR: The RIO will transmit the final report of the inquiry committee and any comments to the VCR, who will make the determination of whether findings from the inquiry provide sufficient evidence of possible research misconduct to warrant conducting an investigation. The inquiry is completed when the VCR makes this determination.
 - 2) Notification: The RIO will notify the Respondent and may notify the Complainant in writing of the VCR's decision of whether to proceed to an investigation. If an investigation is opened, the notice will include a reminder of the obligation to cooperate. The RIO also will notify all appropriate University officials and ORI (as applicable) of the VCR's decision.
- d. Time for Completing the Inquiry Report:
- 1) The inquiry committee will normally complete the inquiry and submit its report in writing to the RIO no more than 60 days following its first meeting, unless the RIO approves an extension because circumstances warrant a longer period. If the RIO approves an extension, the reason for the extension will be

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entered into the record of the proceeding. The Respondent also will be notified of the extension.

- 2) For allegations that involve PHS funding, within 30 days of the VCR's decision that an investigation is warranted the RIO shall provide ORI with the written finding and a copy of the inquiry report containing the information required by the U.S. Code of Federal Regulations. Upon a request from ORI, the RIO shall promptly send to ORI:
 - a) a copy of institutional policies and procedures under which the inquiry was conducted;
 - b) the research records and evidence reviewed, transcripts or recordings of any interviews, and copies of all relevant documents; and
 - c) the charges for the investigation to consider.
- 3) Inquiry reports of allegations that do not involve PHS funding in accordance with the definition of research misconduct will not be forwarded to ORI, but will otherwise be in accordance with this rule.

e. Documentation of Decision Not to Investigate: If the VCR decides that an investigation is not warranted, the RIO shall secure and maintain for 7 years after the termination of the inquiry sufficiently detailed documentation of the inquiry to permit a later assessment by ORI of the reasons why an investigation was not conducted. These documents must be provided to ORI or other authorized HHS personnel upon request.

6. Initiation and Purpose of the Investigation

- a. Purpose of the Investigation: The investigation must begin within 30 days after the determination by the VCR that an investigation is warranted. The purpose of the investigation is to explore in detail the allegations; to examine the evidence in depth; to determine specifically whether research misconduct has been committed, by whom, and to what extent; and, if research misconduct has been committed, to recommend appropriate sanctions. The investigation also will determine whether there are additional instances of possible research misconduct that would justify broadening the scope beyond the initial allegations. This is particularly important where the alleged research misconduct involves clinical trials or potential harm to human subjects, animals, or the general public or if it affects research that forms the basis for public policy, clinical practice, or public health practice. The findings of the investigation will be set forth in an investigation report.
- b. Sequestration of the Research Records: The RIO will promptly sequester any additional pertinent research records and evidence that were not previously sequestered during the inquiry. This sequestration should occur before or at the time the Respondent is notified that an

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investigation has begun and whenever additional items become known or relevant to the investigation. The need for additional sequestration of records may occur for any number of reasons, including the University's decision to investigate additional allegations not considered during the inquiry stage or the identification of records during the inquiry process that had not been previously secured. Sequestration during the investigation will proceed in the same manner as during the inquiry outlined in Section 4.d of this rule.

c. Appointment of the Investigation Committee: The committee will consist of at least three tenured professors appointed by the Faculty Council/Senate and optionally two members appointed by the RIO. This appointment will occur as soon as practicable after the Respondent has been notified that an investigation is planned. The investigation committee should consist of individuals who do not have real or apparent conflicts of interest in the case, are unbiased, and have the necessary expertise to evaluate the evidence and issues related to the allegations, interview the principals and key witnesses, and conduct the investigation. Individuals appointed by the RIO, as well as additional consultants to the committee, may be scientists, administrators, subject matter experts, lawyers, or other qualified persons, and they may be from inside or outside the University. Individuals appointed to the investigation committee may also have served on the inquiry committee. The RIO will notify the Respondent of the proposed committee membership. If the Respondent submits a written objection to any appointed member of the investigation committee, the RIO will determine whether to replace the challenged member with a qualified substitute.

d. Charge to the Committee and the First Meeting:

1) Charge to the Committee: The RIO will define the subject matter of the investigation in a written charge to the committee that describes the allegations and related issues identified during the inquiry, defines research misconduct, and identifies the name of the Respondent. The charge will state that the committee is to evaluate the evidence and testimony of the Respondent, Complainant, and key witnesses to determine whether, based on a preponderance of the evidence, research misconduct occurred and, if so, to what extent, who was responsible, and its seriousness. During the investigation, if additional information becomes available that substantially changes the subject matter of the investigation or would suggest additional Respondents, the committee will notify the RIO, who will determine whether it is necessary to notify the Respondent of the new subject matter or to provide notice to additional Respondents.

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- 2) The First Meeting: The RIO, with the Office of the General Counsel, will convene the first meeting of the investigation committee to review the charge, the inquiry report, and the prescribed procedures and standards for the conduct of the investigation, including the necessity for confidentiality and for developing a specific investigation plan. The investigation committee will be provided with a copy of this rule and, where PHS funding is involved, the PHS regulation.
- e. Investigation Process: In conducting all investigations, the University shall:
 - 1) Use diligent efforts to ensure that the investigation is thorough and sufficiently documented and includes examination of all research records and evidence relevant to reaching a decision on the merits of the allegations;
 - 2) Interview each Respondent, Complainant, and any other available person who has been reasonably identified as having information regarding any relevant aspects of the investigation, including witnesses identified by the Respondent, and record or transcribe each interview, provide the recording or transcript to the interviewee for correction, and include the recording or transcript in the record of investigation;
 - 3) Pursue diligently all significant issues and leads discovered that are determined relevant to the investigation, including any evidence of additional instances of possible research misconduct, and continue the investigation to completion; and
 - 4) Otherwise comply with the requirements for conducting a research misconduct investigation in the U.S. Code of Federal Regulations.
 - 5) The Respondent will be notified sufficiently in advance of the scheduling his or her interview so that the Respondent may prepare for the interview and arrange for the attendance of an advisor, if the Respondent wishes.

7. The Investigation Report

- a. Elements of the Investigation Report: The RIO, in conjunction with the investigation committee, shall prepare the draft and final institutional investigation reports in writing and provide the draft report for comment as provided elsewhere in this rule and the U.S. Code of Federal Regulations. The final investigation report shall:
 - 1) Describe the nature of the allegations of research misconduct;
 - 2) Describe and document the PHS funding (if applicable), including, for example any grant numbers, grant applications, contracts, and publications listing PHS funding;

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- 3) Describe the specific allegations of research misconduct considered in the investigation and the charge to the Investigation Committee;
- 4) If reporting to ORI is required and not already provided to ORI, include the institutional policies and procedures under which the investigation was conducted;
- 5) Identify and summarize the research records and evidence reviewed, and identify any evidence taken into custody, but not reviewed. The report should also describe any relevant records and evidence not taken into custody and explain why.
- 6) Provide a finding as to whether research misconduct did or did not occur for each separate allegation of research misconduct identified during the investigation. For each instance where research misconduct was found, the Investigation Committee's report shall do the following:
 - a) identify it as falsification, fabrication, or plagiarism;
 - b) identify the basis for determining that it was a significant departure from accepted practices, that it was committed intentionally, knowingly, or recklessly, and that it was proved by a preponderance of the evidence;
 - c) summarize the facts and the analysis supporting the conclusion and consider the merits of any reasonable explanation by the Respondent and any evidence that rebuts the Respondent's explanations;
 - d) identify the specific PHS funding or other support (if applicable);
 - e) identify any publications that need correction or retraction;
 - f) identify the person(s) responsible for the research misconduct; and
 - g) list any current support or known applications or proposals for support that the Respondent(s) has pending with non-PHS Federal agencies or other funding entities; and
 - h) include and consider any comments made by the Respondent and Complainant on the draft investigation report.
- 7) Recommend one or more sanctions to be imposed on each Respondent found responsible for research misconduct.

b. Comments on the Draft Report

- 1) Respondent: The RIO will provide the Respondent with a copy of the draft investigation report, and concurrently, a copy of, or supervised access to, the evidence on which the report is based and notify the Respondent that any comments must be submitted

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within 14 days of the date on which the Respondent received the draft report. For good cause, the Respondent may request an extension of time from the RIO, which shall be granted whenever reasonable. The Respondent's comments will be attached to the final report and are considered in the final investigation report.

- 2) Complainant: At the RIO's discretion, the RIO may provide the Complainant a copy of the draft investigation report or relevant portions of that report and notify the Complainant that any comments must be submitted within 14 days of the date on which the Complainant received the draft report or relevant portions of it. For good cause, the Complainant may request an extension of time from the RIO, which shall be granted whenever reasonable. The Complainant's comments will be attached to the final report and are considered in the final investigation report.
- 3) Review by Office of the General Counsel: The draft investigation report will be transmitted to the Office of the General Counsel for a review of its legal sufficiency. Comments should be incorporated into the report as appropriate.
- 4) Confidentiality: In distributing the draft report, or portions thereof, to the Respondent and Complainant, the RIO will inform the recipient of the confidentiality under which the draft report is made available and may establish reasonable conditions to ensure such confidentiality. For example, the RIO may request the recipient to sign a confidentiality statement or to come to RIO's office to review the report.
- 5) Transmittal of the Final Investigation Report: After comments have been received and the necessary changes have been made to the draft report, the investigation committee will transmit the final report with attachments, including the Respondent's comments, to the DO, through the VCR.

c. University Review and Decision

- 1) Based on a preponderance of the evidence, the DO will make the final determination whether to accept the investigation report, its findings, and the recommended University actions, including sanctions to be imposed on each Respondent determined to be responsible for research misconduct. A preponderance of the evidence means proof by information that, compared with that opposing it, leads to the conclusion that the fact at issue is more probably true than not. If this determination varies from that of the investigation committee, the DO will explain in detail the basis for rendering a decision different from that of the investigation committee, and will include such explanation in the institution's letter transmitting the report to ORI (if applicable). The DO's explanation should be consistent with the PHS definition of

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research misconduct, this rule, and the evidence reviewed and analyzed by the investigation committee. The DO may also return the report to the investigation committee with a request for further fact-finding or analysis. The DO's determination, together with the investigation committee's report, constitutes the final investigation report for purposes of ORI review.

2) When a final decision on the case has been reached, the RIO will notify the Respondent in writing of the decision. In addition, the DO will determine whether law enforcement agencies, professional societies, professional licensing boards, editors of journals in which falsified reports may have been published, collaborators of the Respondent in the work, or other relevant parties should be notified of the outcome of the case. The RIO is responsible for ensuring compliance with all notification requirements of funding or sponsoring agencies.

d. Time Limit for Completing the Investigation Report: An investigation should ordinarily be completed within 120 days of its initiation, with the initiation ordinarily beginning with the first meeting of the investigation committee. This includes conducting the investigation, preparing the report of findings, making the draft report available to the subject of the investigation for comment, submitting the report to the DO for approval, and submitting the report to the ORI (if applicable). If the University will not be able to complete the investigation in 120 days and the matter involve PHS funding, it will submit to ORI a written request for an extension and an explanation for the need for an extension.

8. Appeals

a. The Respondent may appeal the decision by the DO to the appropriate Appellate Officer. If the Provost or other official served as the DO, the Appellate Officer will be the Chancellor or designee; if the Chancellor served as the DO, the Appellate Officer will be the President or designee. An appeal must state the reasons for appeal in detail and must be submitted to the Appellate Officer within seven days after receipt of notification of the decision. The appeal shall be limited to the following grounds:

- 1) A procedural error occurred that significantly impacted the outcome of the finding or sanctions, e.g., substantiated bias or material deviation from established procedures.
- 2) To consider new evidence, unavailable during the investigation, that could substantially impact the original findings or sanction.
- 3) The sanction falls outside the range typically imposed for this offense, or for the cumulative disciplinary record of Respondent.

b. Within seven days of receipt of the appeal from Respondent, the Appellate Officer shall provide a copy of the appeal to the DO.

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- c. Within seven days of receiving a copy of the appeal, the DO may file a response to the appeal.
- d. Within 14 days of receiving the DO's response to the appeal, the Appellate Officer shall provide a determination in writing to the DO and Respondent. The Appellate Officer can affirm, modify or reverse the decision of the DO.
- e. The determination of the Appellate Officer is final and not subject to further review, including under the Academic Grievance Procedure in Section 370.010 of the Collected Rules and Regulations.
- f. Status during appeal – The Respondent may petition the Appellate Officer in writing for permission to stay the imposed sanction pending final determination of the appeal. The Appellate Officer may permit the stay of sanctions under such conditions as may be designated pending completion of the appeal, provided such continuance will not seriously disrupt the University or constitute a danger to the health, safety or welfare of members of the University community. If a stay is granted, any final sanctions imposed shall be effective from the date of the final decision.
- g. An appeal must be completed within 120 days of its filing. If additional time is needed, the Appellate Officer may extend this deadline for good cause. If the matter involves PHS support, the deadline may be extended only if an extension is requested from and granted by ORI.

9. Requirements for Reporting to ORI:

- a. In cases involving Respondents who receive funding from the PHS, the University shall promptly provide the following information to ORI after the investigation has concluded:
 - 1) A copy of the investigation report and all attachments;
 - 2) A statement of whether the institution found research misconduct and, if so, who committed it;
 - 3) A statement of whether the institution accepts the findings in the investigation report; and
 - 4) A description of any pending or completed administrative actions against the Respondent.
- b. The University shall maintain and provide to ORI upon request all relevant research records and records of its research misconduct proceeding, including results of all interviews and the transcripts or recordings of such interviews.
- c. If the University plans to terminate an inquiry or investigation for any reason without completing all relevant requirements of the PHS regulation, the RIO will submit a report of the planned termination to ORI, including a description of the reasons for the proposed termination.
- d. If the University determines that it will not be able to complete the investigation in 120 days, the RIO will submit to ORI a written request

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for an extension that explains the delay, reports on the progress to date, estimates the date of completion of the report, and describes other necessary steps to be taken. If the request is granted, the RIO will file periodic progress reports as requested by the ORI.

- e. When the case involves PHS funds, the University cannot accept an admission of research misconduct as a basis for closing a case or not undertaking an investigation without prior approval from ORI.
- f. At any time during a research misconduct proceeding, the University shall notify ORI immediately if it has reason to believe that any of the following conditions exist:
 - 1) Health or safety of the public is at risk, including an immediate need to protect human or animal subjects.
 - 2) HHS resources or interests are threatened.
 - 3) Research activities should be suspended.
 - 4) There is a reasonable indication of violations of civil or criminal law.
 - 5) Federal action is required to protect the interests of those involved in the research misconduct proceeding.
 - 6) The University believes the research misconduct proceeding may be made public prematurely, so that HHS may take appropriate steps to safeguard evidence and protect the rights of those involved.
 - 7) The University believes the research community or public should be informed.

10. Other Considerations

a. Termination of University Employment or Resignation Prior to Completing Inquiry or Investigation

- 1) The termination of the Respondent's employment with the University, by resignation or otherwise, before or after an allegation of possible research misconduct has been reported, ordinarily will not preclude or terminate the misconduct proceedings. If the Respondent, without admitting to the misconduct, elects to resign the Respondent's position prior to the initiation of an inquiry, but after an allegation has been reported, or during an inquiry or investigation, the inquiry or investigation ordinarily will proceed. If the Respondent refuses to participate in the process after resignation, the committee will use its best efforts to reach a conclusion concerning the allegations, noting in its report the Respondent's failure to cooperate and its effect on the committee's review of all the evidence.

11. Notice: All communication, including notices, decisions, and appeals may be sent via University e-mail. Notice sent to a University email account shall be deemed to have been received on the day following the day it was sent.

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~~1. Statement of Purpose, Definition of Policy~~

- ~~1. One of the most important academic responsibilities of the University of Missouri is the generation of knowledge through research and creative activity. The necessity for the maintenance of ethical standards in research is self-evident.~~
- ~~2. This rule applies to all research and is also intended to comply with the Federal Research Misconduct Policy stated in 65 FR 76260 (Dec. 6, 2000), as applicable to institutions receiving research funding from federal agencies or departments, and the implementing policies and regulations of those federal agencies or departments, such as 42 CFR 93.~~
- ~~3. Research misconduct means fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results.
(a) Fabrication is making up data or results and recording or reporting them.
(b) Falsification is manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented in the research record.
(c) Plagiarism is the appropriation of another person's ideas, processes, results, or words without giving appropriate credit.
(d) Research misconduct does not include honest error or differences of opinion.~~
- ~~4. A finding of research misconduct made under this section requires that:
(a) There be a significant departure from accepted practices of the relevant research community; and
(b) The misconduct be committed intentionally, knowingly, or recklessly; and
(c) The allegation be proven by preponderance of the evidence.~~

~~2. Campus Faculty Committee to Hear Cases of Research Misconduct~~

- ~~1. There shall be a Standing Committee on each campus of the University which shall have jurisdiction to hear any case involving a charge of research misconduct brought against a member of the academic faculty or staff under these regulations.~~
- ~~2. Each campus faculty or other body delegated this authority by the Board of Curators shall, by written rule, establish the number of members of this Committee, the apportionment among divisions within the campus, and the method of selection of the members and alternates.~~
- ~~3. Members of this Committee shall be elected from the eligible professors on continuous appointment. If there are no eligible professors within the electoral unit, then the members shall be elected from the eligible associate professors on continuous appointment.~~

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4. ~~Persons who devote more than fifty percent of their time to administrative duties shall not be eligible for membership on this Committee.~~
5. ~~The Chancellor of the campus shall appoint from among the members of the Committee a chairperson pro tempore, who, if a meeting is necessary, shall call the first meeting of the Committee, at which time the Committee shall elect from among its members a chairperson and a secretary to serve at the pleasure of the Committee. At least two thirds of the members, or their alternates, must be present to constitute a quorum for the conduct of any business of the Committee including the conduct of the hearings referred to in these regulations.~~

~~3. **Initiation and Transmission of Allegation(s) of Research Misconduct**~~

1. ~~Any person who receives allegations of research misconduct must promptly forward them, in writing, to the dean or director of the academic unit in which the accused individual is located, or on campuses with no schools or colleges to the Vice Provost for Research.~~
2. ~~The dean or director or Vice Provost for Research to whom a written allegation(s) of research misconduct is submitted shall promptly provide the Vice Chancellor for Academic Affairs/Provost, the accused individual (hereinafter referred to as Respondent) and the chairperson of the department in which the Respondent is located with a copy of the written allegation(s).~~

~~4. **General Procedural Rules for Addressing Allegation(s) of Research Misconduct**~~

1. ~~These procedures have three principal phases: an inquiry assessing whether the allegation has substance and an investigation is warranted; an investigation which formally develops the factual record, leading to findings of fact, recommending conclusions as to whether research misconduct occurred and proposing remedies; and a determination by the Chancellor as to whether research misconduct occurred and directing what action, if any, shall be taken.~~
2. ~~Federal funding agency review. If the allegation involves federally funded research or the application for federally funded research, notice must also be provided to the appropriate federal funding agency or agencies. The University will fully and continually cooperate with the federal funding agency during its oversight review or any subsequent administrative hearings or appeals. This includes providing all research records and evidence under the institution's control, custody, or possession and access to all persons within its authority necessary to develop a complete record of relevant evidence.~~
3. ~~The Vice Chancellor for Academic Affairs/Provost may elect at any point to dismiss the allegation(s) of research misconduct and to terminate the inquiry/investigation. If this is done, notice of such termination must be provided to the parties named in C.2. within 30 days, and if the allegation involves federally funded research or the application for federally funded research notice must also be provided to the appropriate federal funding~~

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agency or agencies, including a report of such planned termination, with a description of the reasons therefore, and the appropriate federal funding agency will then decide whether further investigation should be undertaken.

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- (a) The Vice Chancellor for Academic Affairs/Provost shall notify the federal granting agency, if any, if he/she ascertains at any stage of the inquiry or investigation that any of the following conditions are met:
 - (1) Health or safety of the public is at risk, including an immediate need to protect human or animal subjects;
 - (2) Resources or interests of the federal granting agency are threatened;
 - (3) Research activities should be suspended;
 - (4) There is reasonable indication of possible violations of civil or criminal law;
 - (5) Federal action is required to protect the interests of those involved in the research misconduct proceeding;
 - (6) The University believes the research misconduct proceeding may be made public prematurely so that the federal granting agency may take appropriate steps to safeguard evidence and protect the rights of those involved; or
 - (7) The research community or public should be informed.

- 4. Confidentiality. Disclosure of the identity of respondents and complainants in research misconduct proceedings is limited, to the extent possible, to those who need to know, consistent with a thorough, competent, objective and fair research misconduct proceeding, and as allowed by law. Provided, however, that:
 - (a) If the allegation of research misconduct involves federally funded research or the application for federally funded research, the University must disclose the identity of respondents and complainants to the appropriate federal funding agency.
- 5. Except as may otherwise be prescribed by applicable law, confidentiality must be maintained for any records or evidence from which research subjects might be identified. Disclosure is limited to those who have a need to know to carry out a research misconduct proceeding.
- 6. Reputation, respondent. The University shall undertake to the fullest extent reasonable all practical efforts, if requested and as appropriate, to protect or restore the reputation of persons alleged to have engaged in research misconduct but against whom no finding of research misconduct is made.
- 7. Reputation, others. The University shall undertake to the fullest extent reasonable all practical efforts to protect or restore the position and reputation of any complainant, witness, or committee member and to counter potential or actual retaliation against these complainants, witness, and committee members.
- 8. Notice. Any notice required under these Procedures may be given:
 - (a) By delivering such notice in person.
 - (b) By mail addressed to the last home address currently on record with the administrative unit within which the respondent

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is employed or associated, or by email to the respondent's University email address. Failure of any person to have a current correct home address on record with the administrative unit within which he/she is employed shall not be construed to invalidate such notice. If served by mail and the party is thereafter required to act or initiate some proceedings within a prescribed period after service, three consecutive calendar days shall be added to the prescribed period.

5. ~~Inquiry into allegation(s) of research misconduct~~ ("inquiry" means information gathering and fact-finding to determine whether an allegation of an apparent instance of research misconduct warrants an investigation).

- ~~1. Criteria warranting an inquiry. An inquiry is warranted if the allegation:
 - ~~(a) Falls within the definition of research misconduct under this section; and~~
 - ~~(b) Is sufficiently credible and specific so that potential evidence of research misconduct may be identified.~~~~
- ~~2. Notice to respondent and custody of research records. At the time of or before beginning an inquiry, the University must make a good faith effort to notify in writing the presumed respondent, if any. If the inquiry subsequently identifies additional respondents, the University must make a good faith effort to notify them in writing. To the extent it has not already done so at the allegation stage, the University must, on or before the date on which the respondent is notified or the inquiry begins, whichever is earlier, promptly take all reasonable and practical steps to obtain custody of all the research records and evidence needed to conduct the research misconduct proceeding; inventory the records and evidence, and sequester them in a secure manner, except that where the research records or evidence encompasses scientific instruments shared by a number of users, custody will be limited to copies of the data or evidence on such instruments, so long as those copies are substantially equivalent to the evidentiary value of the instruments.~~
- ~~3. Review of evidence. The purpose of an inquiry is to conduct an initial review of the evidence to determine whether to conduct an investigation. Therefore, an inquiry does not require a full review of all the evidence related to the allegation.~~
- ~~4. Inquiry, how conducted. The dean or director or Vice Provost for Research shall, within five consecutive working days following her or his receipt of the written submission of an allegation(s) of research misconduct, appoint an ad hoc committee consisting of three faculty members, none of whom shall be members of the Standing Committee referred to in Section B hereof, to inquire into whether or not the allegations warrant an investigation. No person with a real or apparent conflict of interest in the matter of the inquiry shall participate in the inquiry. Members of the ad hoc committee shall be professors on continuous appointment, or, if there are no eligible professors, associate professors on continuous appointment. In naming the members of the committee, the dean or director or Vice Provost for Research~~

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should take into consideration their knowledge of the academic area under inquiry. The dean or director or Vice Provost for Research shall turn over to the committee all information in her/his possession related to the allegation(s). The ad hoc committee shall inquire into allegation(s) of research misconduct and prepare a written report, conforming to federal funding agency requirements, if applicable, setting forth its findings and conclusions regarding each allegation. The report shall include a description of evidence reviewed and a summary of relevant interviews conducted. The ad hoc committee shall submit its written report along with all documents considered by the Committee to the dean or director or Vice Provost for Research and the Vice Chancellor for Academic Affairs/Provost within forty-five (45) consecutive calendar days of its appointment unless for good cause additional time is allowed by the Vice Chancellor for Academic Affairs/Provost to complete the inquiry and report. If the inquiry takes longer than sixty (60) days to complete, the record of the inquiry shall include documentation of the reasons for exceeding the sixty (60) day period. The Vice Chancellor for Academic Affairs/Provost shall provide the respondent with a copy of the ad hoc committee's report.

5. Opportunity to comment. The University must provide the respondent an opportunity to review and comment on the inquiry report and attach any comments received to the report. Upon receiving the report of the committee, the Vice Chancellor for Academic Affairs/Provost shall notify the respondent that he/she may request an informal conference with the Vice Chancellor for Academic Affairs/Provost to discuss the allegation(s) and the committee's report. Said informal conference should occur within seven consecutive working days after receipt of the committee's report by the Vice Chancellor for Academic Affairs/Provost.
6. Notice of the results of the inquiry.
 - (a) Notice to respondent. The University must notify the respondent whether the inquiry found that an investigation is warranted. The notice must include a copy of the inquiry report and include a copy of or refer to this section.
 - (b) Notice to complainants. The University may notify the complainant who made the allegation whether the inquiry found that an investigation is warranted. The University may provide the full report or any relevant portions of the report to the complainant for comment.
 - (c) Notice to others. The University may notify other individuals and organizations as mutually agreed upon by the Vice Chancellor for Academic Affairs/Provost and the accused academic faculty or staff member.
7. Reporting to federal funding agency on the decision to initiate an investigation.
 - (a) If the allegation involves federally funded research or the application for federally funded research, the University must, within thirty (30) days of finding that an investigation is warranted, provide the funding agency with the written finding

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by the responsible institutional official and a copy of the inquiry report which includes the following information:

- (1) The name and position of the respondent;
- (2) A description of the allegations of research misconduct;
- (3) The funding agency support, including, for example, grant numbers, grant applications, contracts, and publications listing the funding agency's support;
- (4) The basis for recommending that the alleged actions warrant an investigation; and
- (5) Any comments on the report by the respondent or the complainant.

(b) The University must provide the following information to the federal funding agency on request:

- (1) The institutional policies and procedures under which the inquiry was conducted;
- (2) The research records and evidence reviewed, transcripts or recordings of any interviews, and copies of all relevant documents; and
- (3) The charges for the investigation to consider.

8. Documentation of decision not to investigate. The University will keep sufficiently detailed documentation of inquiries to permit a later assessment by the appropriate federal granting agency, if any, of the reasons why the institution decided not to conduct an investigation. If the allegation involves federally funded research or the application for federally funded research, the University will keep these records or copies of these records in a secure manner for at least seven (7) years after the termination of the inquiry, and upon request, provide them to the appropriate federal granting agency.

9. During the course of the inquiry, the Vice Chancellor for Academic Affairs/Provost will take interim administrative actions, as appropriate, to protect federal funds and ensure that the purposes of any federal financial assistance are being carried out.

6. Investigation of Research Misconduct

1. Criteria warranting an investigation. An inquiry's purpose is to decide if an allegation warrants an investigation. An investigation is warranted if there is:

- (a) A reasonable basis for concluding that the allegation falls within the definition of research misconduct under this section; and
- (b) Preliminary information gathering and preliminary fact-finding from the inquiry indicate that the allegation may have substance.

(1) Time. The investigation will begin within thirty (30) days after the Vice Chancellor for Academic Affairs/Provost determines that an investigation is warranted.

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~~(2) Notice to federal funding agency. If notice to a federal funding agency is required by the agency, the Vice Chancellor for Academic Affairs/Provost will notify the agency of the decision to begin an investigation on or before the date the investigation begins and provide an inquiry report that meets the requirements of section E.7.a. herein.~~

~~(c) The Vice Chancellor for Academic Affairs/Provost will appoint a Relator to gather evidence of the alleged research misconduct and to present the evidence to the Hearing Committee.~~

~~(1) Custody of the records. To the extent it has not already been done at the allegation or inquiry stages, the Relator will take all reasonable and practical steps to obtain custody of all the research records and evidence needed to conduct the research misconduct proceeding, inventory the records and evidence, and sequester them in a secure manner, except that where the research records or evidence encompass scientific instruments shared by a number of users, custody may be limited to copies of the data or evidence on such instruments, so long as those copies are substantially equivalent to the evidentiary value of the instruments. Whenever possible, the Relator must take custody of the records.~~

~~(a) Before or at the time the institution notifies the respondent, and~~

~~(b) Whenever additional items become known or relevant to the investigation.~~

~~(i) Documentation. The Relator will use diligent efforts to ensure that the investigation is thorough and sufficiently documented and includes examination of all research records and evidence relevant to reaching a decision on the merits of the allegations.~~

~~(ii) Interviews. The Relator will interview each respondent, complainant, and any other available person who has been reasonably identified as having information regarding any relevant aspects of the investigation, including witnesses identified by the respondent, and record or transcribe each interview, provide the recording or transcript to the interviewee for correction, and include the recording or transcript in the record of the investigation.~~

~~(iii) Pursue leads. The Relator will pursue diligently all significant issues and leads discovered that are determined relevant to the investigation, including any evidence of additional instances of possible research misconduct, and continue the investigation to completion.~~

2. Notice to the respondent. The Vice Chancellor for Academic Affairs/Provost will notify the respondent in writing of the allegations within a reasonable amount of time after determining that an investigation is warranted, but before the investigation begins. The Vice Chancellor for Academic Affairs/Provost will

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give the respondent written notice of any new allegations of research misconduct within a reasonable amount of time of deciding to pursue allegations not addressed during the inquiry or in the initial notice of investigation.

3. ~~Other notifications:~~

~~(a) If the Vice Chancellor for Academic Affairs/Provost decides on the basis of the inquiry to proceed with an investigation, the Chancellor will forward to the funding agencies with which the respondent has active awards formal notification that an investigation will be undertaken at the same time that the respondent and other University parties are informed.~~

~~(b) During the course of the investigation, the Vice Chancellor for Academic Affairs/Provost will take interim administrative actions, as appropriate, to protect federal funds and insure that the purposes of any federal financial assistance are carried out.~~

~~(c) During the course of the investigation, the Vice Chancellor for Academic Affairs/Provost will promptly apprise the appropriate federal funding agency, if any, of any developments which disclose facts that may affect current or potential agency funding for the individual(s) under investigation or that the agency needs to know to ensure appropriate use of federal funds and otherwise protect the public interest.~~

~~(d) During the course of the investigation, the Vice Chancellor for Academic Affairs/Provost will take reasonable steps to ensure an impartial and unbiased investigation to the maximum extent practicable, including participation of persons with appropriate scientific expertise who do not have unresolved personal, professional, or financial conflicts of interest with those involved with the inquiry or investigation.~~

4. ~~Investigation time limits:~~

~~(a) Time limit for completing an investigation. The University will endeavor to complete all aspects of an investigation within one hundred twenty (120) days of beginning it, including conducting the investigation, preparing the report of findings, providing the draft report for comment in accordance with section F.5. herein and sending the final report to any appropriate federal agency.~~

~~(b) Extension of time limit. If unable to complete the investigation in one hundred twenty (120) days and if the federal granting agency so requires, the University will ask the granting agency for an extension in writing. If the granting agency permits an extension, it may direct the institution to file periodic progress reports. If the granting agency does not require its permission for an extension, the decision whether to grant an extension will be made by the Vice Chancellor for Academic Affairs/Provost.~~

5. ~~Opportunity to comment on the investigation report:~~

~~(a) The University will give the respondent a copy of the draft investigation report and, concurrently, a copy of, or supervised access to, the evidence on which the report is based. The comments of the respondent on the draft report, if any, must be submitted within thirty (30) days of the date on which the respondent received the draft investigation report. The investigation committee will consider and address the comments~~

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before issuing a final report.

~~(b) The University may provide the complainant a copy of the full draft investigation report or any relevant portions of that report. The comments of the complainant, if any, must be submitted within thirty (30) days of the date on which the complainant received the draft investigation report or relevant portions of it.~~

~~6. Procedure: Statement of Charges; Request for Hearing; Answer.~~

~~(a) If the Vice Chancellor for Academic Affairs/Provost decides on the basis of the inquiry to proceed with an investigation and formal Charge, the Respondent shall be notified in writing by the Relator (that official selected by the Vice Chancellor for Academic Affairs/Provost to represent the University in the misconduct proceeding) of the allegation(s) of research misconduct and the basis therefore, stated with reasonable particularity and called the Charge, and of the right to a hearing by the appropriate Faculty Committee together with a membership roster of the Committee. This notification initiates formal charges and must be given by the Relator to the Respondent within thirty (30) consecutive calendar days after the Vice Chancellor for Academic Affairs/Provost receives the report of the ad hoc committee. If the respondent desires a hearing, the Respondent shall give written notice of this request to the Relator within fourteen consecutive calendar days from the receipt of formal notice of the Charge. The respondent shall also send copies of this request for hearing to the Chairperson of the Committee. The Relator shall thereupon file a copy of the Charge with the Chairperson of the Committee. Failure by the respondent to make a timely written request for a hearing shall constitute a waiver of the respondent's right to a hearing before the Committee, and the Vice Chancellor for Academic Affairs/Provost shall proceed to make his/her report and recommendation to the Chancellor regarding disposition of the matter.~~

~~(b) The respondent shall file a written Answer to the Charge with the Chairperson of the Committee within seven consecutive calendar days after respondent makes her/his written request for a hearing. Respondent shall also send a copy of her/his Answer to the Relator. Such Answer shall specifically admit or deny the allegations contained in the Charge. A failure to answer or to deny an allegation of fact in the Charge may be considered by the Committee as an admission of such fact.~~

~~(c) No person with a real or apparent conflict of interest in the matter of the investigation shall participate in the investigation.~~

~~7. Hearing by Committee.~~

~~(a) If the respondent makes a timely written request for a hearing by the Committee, the Chairperson shall notify in writing the respondent and the Relator of the date, time, and place of hearing before the Committee, which shall be within a reasonable time but not more than thirty consecutive calendar days after the date of the receipt of the request for hearing.~~

~~(b) Any request for continuance shall be made by the respondent or Relator in writing to the Chairperson, who shall~~

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have discretionary authority to continue the hearing upon determining that the request is timely and made for good cause.
(c) In accordance with standing University policy in personnel matters, such hearings shall not be open to the public. Except for such simple announcements as may be required, covering the time of the hearing and similar matters, public statements and publicity about the case by the Relator, the respondent, or the Committee, will be avoided until the proceedings have been completed, including final appeal.

8. ~~Conduct of Hearing. The Chairperson shall preside at the hearing, call the hearing to order, call the roll of the Committee in attendance, ascertain the presence or absence of the respondent and the Relator, read the notice of hearing, read the Charge and Answer, verify the notice of the Charge to the respondent, report any continuances requested or granted, establish the presence of any advisor or counselor of either party, call to the attention of the respondent and respondent's advisor any special or extraordinary procedures to be employed during the hearing, and permit the respondent to suggest or object to procedures. Formal rules of evidence shall not be required. The burden of demonstrating an adequate case in support of the allegations contained in the Charge shall be with the Relator.~~

~~(a) Opening Statements.~~

~~(1) The Relator shall make opening remarks outlining the general nature of the case. Such remarks shall not be considered as evidence.~~

~~(2) The respondent may also make an opening statement to the Committee about the Charge, either at this time or at the conclusion of the Relator's presentation, at the Respondent's election. Such remarks shall not be considered as evidence.~~

~~(b) Relator's Evidence.~~

~~(1) Relator's witnesses are to be called and identified and evidence or written statements or reports introduced as appropriate.~~

~~(2) The Committee may question witnesses or examine evidence at the conclusion of Relator's presentation. Respondent may question the Relator or witnesses.~~

~~(c) Respondent's Evidence.~~

~~(1) Respondent's witnesses are to be called and identified and evidence or written statements or reports introduced as appropriate.~~

~~(2) The Committee may question witnesses or examine evidence at the conclusion of respondent's presentation. Relator may question the respondent or witnesses.~~

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~~(d) Rebuttal Evidence. The Committee shall permit the Relator or the respondent to offer any matter in rebuttal of the other's presentation.~~

~~9. Rights of Committee. The Faculty Committee shall have the right:~~

~~(a) To determine the relevancy and admissibility of any evidence offered at the hearing.~~

~~(b) To permit a stipulation of agreed facts by the Relator and the respondent.~~

~~(c) To permit the incorporation in the record by reference of any document, affidavit or other exhibit produced and desired to be incorporated in the record by the Relator or the respondent.~~

~~(d) To question witnesses or evidence introduced by either the Relator or the respondent at any time.~~

~~(e) To call additional witnesses.~~

~~(f) To dismiss any action or permit informal disposition at any stage of the proceeding if agreed to by Relator and respondent.~~

~~(g) To permit at any time amendment of the Charge or Answer so as to include matters which may come to the attention of the Committee before final determination of the case, provided, however, that in such event the Committee shall grant to the respondent or the Relator such time as the Committee may determine reasonable under the circumstances to answer or explain such additional matters.~~

~~(h) To dismiss any person from the hearing who interferes with or obstructs the hearing or fails to abide by the rulings of the Chairperson of the Committee.~~

~~(i) To have present a legal advisor to the Committee, who shall be designated by the General Counsel of the Board of Curators.~~

~~10. Parties' Rights Upon Hearing:~~

~~(a) A Relator appearing before the Faculty Committee for a hearing pursuant to formal notice of a Charge shall have the right:~~

~~(1) To be present at the hearing, which right may be waived by failure to appear.~~

~~(2) To have present any legal or other advisor or counselor and to consult with such advisor or counselor during the hearing.~~

~~(3) To present evidence by witnesses and by properly identified written statements or reports in support of the Charge.~~

~~(4) To hear or examine evidence presented by the respondent.~~

~~(5) To question witnesses present and testifying for respondent.~~

~~(6) To make any statement to the Committee in support of the Charge.~~

~~(7) To be informed in writing of the findings and conclusions of the Committee on the Charge.~~

~~(b) A respondent appearing before the Faculty Committee for a hearing pursuant to formal notice of a Charge shall have the right:~~

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- ~~(1) To be present at the hearing, which right may be waived by failure to appear.~~
- ~~(2) To have present any legal or other advisor or counselor and to consult with such advisor or counselor during the hearing.~~
- ~~(3) To present evidence by witnesses and by properly identified written statements or reports for any defense the respondent desires.~~
- ~~(4) To hear or examine evidence presented to the Committee.~~
- ~~(5) To question witnesses present and testifying at the hearing.~~
- ~~(6) To make any statement to the Committee in mitigation or explanation of the conduct in question.~~
- ~~(7) To be informed in writing of the findings and conclusions of the Committee on the Charge.~~

~~11. Other Procedural Questions:~~

~~(a) Procedural questions which arise during the hearing and which are not covered by these general rules, by 65 FR 76260 or by 42 CFR 93 shall be determined by the Chairperson, whose ruling shall be final unless the Chairperson shall present the question to the Committee at the request of a member of the Committee, in which event the ruling of the Committee by majority vote shall be final.~~

~~(b) General Rules of Decorum. The following general rules of decorum shall be adhered to:~~

~~(1) All requests to address the Committee shall be made to the Chairperson.~~

~~(2) The Chairperson shall rule on all requests and points of order and may consult with the Committee's legal advisor prior to any ruling. The Chairperson's ruling shall be final and all participants shall abide thereby unless the Chairperson shall present the question to the Committee at the request of a member of the Committee, in which event the ruling of the Committee by majority vote shall be final.~~

~~(3) An advisor or counselor shall be permitted to address the Committee and to question witnesses. An advisor or counselor may request clarification of a procedural matter or may object on the basis of procedure at any time by addressing the Chairperson after recognition.~~

~~(c) Record of the hearing. A taped or stenographic record of the hearing shall be taken. The notice, exhibits, hearing record, and the findings and determination of the Committee shall become the "Record of the Case," shall be filed in the Office of the President of the University of Missouri, and shall be available only for official purposes, and for the purpose of appeal be accessible at reasonable times and places both to the Relator and the Respondent. The "Record of the Case" shall be maintained for a period of seven (7) years. In the event of an appeal, no new evidence shall be taken in the case, but the appellate authority may remand the matter for further evidence to the Committee. Either party may have any such record reduced to writing for the purposes of appeal.~~

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~~7. **Chancellor Determination.** After the adjournment of the hearing, the Committee shall make its findings and determinations by majority vote in executive session out of the presence of the Relator and respondent. Separate findings and conclusions are to be made as to each count of the Charge. Promptly after the hearing and, in any event, within ten consecutive days after receipt of the record, the Committee shall make its findings and conclusions in writing and transmit them to the Chancellor, to the Relator, and to the respondent forthwith.~~

~~1. **Determination by Chancellor and Right of Appeal.**~~

~~(a) The Chancellor shall make a determination in the matter within thirty (30) consecutive calendar days after giving due consideration to the findings and conclusions of the Committee. The Chancellor shall notify the Relator and respondent in writing of her/his determination and disposition. If the Chancellor determines that the termination of an academic faculty or staff member is warranted, he/she must refer the matter to the Faculty Committee on Tenure for disposition pursuant to the Academic Tenure Regulations of the University, and the proceedings hereunder shall cease, and the appeal hereunder shall not be available.~~

~~(b) The respondent or Relator may appeal the decision of the Chancellor to the President by filing a written notice of appeal with the President within seven consecutive calendar days after receiving notice of the decision of the Chancellor. A copy of the Notice of Appeal shall simultaneously be given by the respondent, to the Relator and Chancellor or by the Relator to the respondent and Chancellor. The appealing party may file a written argument confined to the issues and evidence previously submitted and contained in the record of the case for consideration by the President. Such memorandum must be filed with the Notice of Appeal, and the President may request a reply to such memorandum by the respondent or Relator. The President shall have the discretionary right to grant extensions of time.~~

~~(c) The President shall review the record of the case and the appeal documents and may affirm, reverse, or remand the case for further proceedings.~~

~~(d) If it appears that the President is unable to make his or her decision within 120 days from the date the appeal was filed and the allegation involves federally funded research or the application for federally funded research, an extension of that time period will be requested of the federal granting agency in writing with an explanation for the request.~~

~~2. **Notification of Federal Granting Agency, if any.** Once the committee has made its recommendation to the Chancellor, the Chancellor has reached a decision and determined an appropriate action, and any appeal has been acted on by the President, the full documentation of the process, including the record of the case and the appeal documents, will be forwarded to the granting agency, if applicable, and such other federal officials as required by federal law or regulation. The granting agency will then decide whether it will proceed with its own~~

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investigation or will act on the University's findings. Notice will also be sent to appropriate other parties.

~~(a) Institutional investigation report. If so required by the federal granting agency, if any, the final University investigation report submitted to the federal granting agency will be in writing and include:~~

~~(1) Allegations. Describe the nature of the allegations of research misconduct.~~

~~(2) Federal granting agency or other support. Describe and document any federal granting agency or other research support, including, for example, any grant numbers, grant applications, contracts, and publications listing the federal granting agency or other support.~~

~~(3) Institutional charge. Describe the specific allegations of research misconduct for consideration in the investigation.~~

~~(4) Policies and procedures. If not already provided to the federal granting agency with the inquiry report, include the present institutional policy and procedures under which the investigation was conducted.~~

~~(5) Research records and evidence. Identify and summarize the research records and evidence reviewed, and identify any evidence taken into custody but not reviewed.~~

~~(6) Statement of findings. For each separate allegation of research misconduct identified during the investigation, provide a finding as to whether research misconduct did or did not occur, and if so:~~

~~(7) Identify whether the research misconduct was falsification, fabrication, or plagiarism, and if it was intentional, knowing, or in reckless disregard.~~

~~(8) Summary of the facts and the analysis which support the conclusion and consider the merits of any reasonable explanation by the respondent.~~

~~(9) Identify the specific federal granting agency or other support involved.~~

~~(10) Identify whether any publications need correction or retraction.~~

~~(11) Identify the person(s) responsible for the misconduct, and~~

~~(12) List any current support or known applications or proposals for support that the respondent has pending with other federal agencies or other sponsors.~~

~~(13) Comments. Include and consider any comments made by the respondent and complainant on the draft investigation report.~~

~~(14) Maintain and provide records. Maintain and provide to the federal granting agency upon request all relevant research records and records of the institution's research misconduct proceeding, including results of all interviews and the transcripts or recordings of such interviews as required by section F.11.e herein.~~

3. Parties to be notified of investigation results. The following is an illustrative list of parties to be notified as relevant of any determination of research misconduct in writing by the

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Chancellor within thirty (30) days after an investigation has concluded. If the appeal process has been invoked, this notification will take place, when the original determination has been sustained, within thirty (30) days of the final decision.

- (a) Appropriate campus officials
- (b) Sponsoring agencies, funding sources
- (c) Co-authors, co-investigators, collaborators
- (d) Editors of journals in which fraudulent research was published
- (e) Professional licensing boards
- (f) Editors of journals or other publications, other institutions, sponsoring agencies, and funding sources with which the individual has been affiliated
- (g) Professional societies
- (h) Where appropriate, criminal authorities

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BOARD OF CURATORS

Meeting Date	November 20, 2024
Action Title	CRR 430.010, Industrial Security Program Revision
Action Type	Open Consent Item

Summary

This is a request to approve revisions to CRR 430.010 to incorporate process improvements and ensure compliance with federal requirements.

Table of Contents

1. Executive Summary [OPEN – CONSENT – Q-1]

- *Provides a high-level overview of the revisions needed to ensure CRR 430.010 “Industrial Security Program” is in compliance with federal requirements and to improve the process to better serve the institution.*

2. Recommended Action & Roll Call Vote [OPEN – CONSENT – Q-2]

- *The formal approval of revisions to CRR 430.010 “Industrial Security Program”.*

Appendix

1. Industrial Security Program Revisions _Final Version [OPEN – CONSENT – Q-3-5]

- *Provides the final version of the CRR after revisions are approved.*

2. Industrial Security Program Revisions _Redline [OPEN – CONSENT – Q-6-8]

- *Provides the redline version showing all revisions made to current CRR 430.010.*

Proposed Amendment to CRR 430.010 Industrial Security Program

CRR 430.010 *Industrial Security Program*, addresses the University's compliance with requirements for security of classified materials, notably 32 CFR Part 117, National Industrial Security Program Operating Manual. The University's compliance structure and staffing for implementation of this rule overlaps in important respects with related areas of compliance with federal laws concerning foreign interaction with research and other University activities, which are addressed in Executive Order 49 (CRR 430.020) *Export Controls and Sanctions Compliance* and Executive Order 50 (CRR 330.120) *Malign Foreign Talent Recruitment Program*. The President has recently amended those rules to make modest adjustments to the structure and staffing of the University's compliance team and other clarifications. We propose corresponding clarifications and minor adjustments to CRR 430.010 *Industrial Security Program* to align these related rules. The revisions would clarify that each university is to designate a vice chancellor to work with the System Director for Research Security and Compliance to jointly approve key personnel decisions regarding that university's facility security officer; and include language calling for a collective decision with the President in instances where there is not concurrence on such decisions. They also clarify responsibility for implementation of industrial security and insider threat programs.

The appendix includes the clean version of the CRR.

Consent L

Recommended Action – Amendment to CRR 430.010: Industrial Security Program

It was recommended and endorsed by President of the University of Missouri Mun Y. Choi, recommended by the Academic, Student Affairs and Research & Economic Development Committee, moved by Curator_____, seconded by Curator _____that the following action be approved:

Collected Rules and Regulations Section 430.010 Industrial Security Program be amended as indicated in the attached documents.

Roll call vote of Board:

YES

NO

Curator Blitz

Curator Fry

Curator Graves

Curator Holloway

Curator Krewson

Curator Layman

Curator Sinuefield

Curator Wenneker

Curator Williams

The motion_____.

430.010 Industrial Security Program

Bd. Min. 6-27-24; ~~Amended Bd. Min. 11-20-24~~

A. Statement of Purpose

1. This rule addresses The Curators of the University of Missouri (a.k.a., the University of Missouri System (UM System)) compliance with U.S. industrial security policy, including applicable federal statutes, Executive Orders (E.O.), Code of Federal Regulations (CFR), Department of Defense Instructions (DoDI), and other applicable authorities. UM System is committed to compliance for the protection of classified information disclosed to or developed by contractors of the U.S. Government (USG), employed or the responsibility of UM System (contractors).
2. This rule will be applied to achieve compliance with applicable federal authorities, including:
 - a) E.O. 12829, National Industrial Security Program
 - b) E.O. 10865, Safeguarding Classified Information within Industry
 - c) 32 CFR Part 2004, National Industrial Security Program
 - d) DoDI 5220.22, National Industrial Security Program
 - e) 32 CFR Part 117, National Industrial Security Program Operating Manual (NISPOM)
3. This rule implements policy, assigns responsibilities, and establishes requirements for the protection of classified information disclosed to, or developed by contractors across the UM System.

B. Scope and Compliance Policy

1. This rule applies to all cleared facilities (i.e., Facility Clearances or FCLs) within the UM System holding a FCL, to all personnel whose personnel security clearances are held by a UM System or subsidiary FCL, and to all personnel who hold roles related to ensuring compliance with the authorities outlined in subsection A.2 (e.g., Key Management Personnel or KMPs).
2. The UM System is the "corporate family" for all classified work taking place at any FCL within the System. Individual universities may have subsidiary Facility Clearances under the UM System Facility Clearance if they have federal authorization to hold classified materials on-site, a secondary place-of-performance, or flow down to a sub-tier contractor.
3. The UM System shall implement a corporate-wide Insider Threat Program to address insider threats throughout the UM System.
4. The President will appoint the following personnel to oversee and implement the UM System industrial security program (ISP) (System ISP):
 - a) Senior Management Official (SMO)
 - b) Insider Threat Program Senior Management Official (ITPSO)
 - c) Facility Security Officer (FSO)
5. The personnel identified in subsection B.4 must:
 - a) Oversee the implementation of the requirements of the NISPOM;

- b) Undergo the same security training that is required of all contractors, in addition to any position specific training;
 - c) Be designated in writing; and
 - d) Undergo a personnel security investigation and national security eligibility determination for access to classified information at the level of the entity's eligibility determination for access to classified information.
6. SMO: The President of the UM System is the SMO for the UM System FCL and for all subsidiary FCLs held by an individual university within the UM System. The SMO will:
- a) Ensure a system of security controls in accordance with the NISPOM;
 - b) Appoint an UM System ITPSO and FSO in writing;
 - c) Remain fully informed of the UM System ISP classified operations;
 - d) Make decisions based on the threat reporting and information and the potential impacts to the UM System ISP; and
 - e) Retain accountability for the management and operations of the System's ISP without delegating that accountability.
7. ITPSO: The Director, Research Security and Compliance is the ITPSO and will be designated in writing by the SMO. The ITPSO will:
- a) Ensure the FSO(s) is part of the insider threat program;
 - b) Complete training in accordance with the NISPOM; and
 - c) Develop an insider threat program that meets the requirements of the NISPOM.
8. FSO: An FSO will be appointed in writing by the SMO for any University with an active FCL. Each FSO will:
- a) Supervise and direct security measures necessary for implementing the NISPOM to ensure the protection of classified information.
 - b) Complete security training as deemed appropriate by the Cognizant Security Agency (CSA) who accredits the FCL. Both direct and reciprocity CSAs training must be met.
 - c) Appoint an Information System Security Manager (ISSM) if classified information will be processed on an information system at a University with an FCL.
9. ISSM: If classified information will be processed on an information system at a University with an FCL, the FSO will appoint an ISSM. Each ISSM will:
- a) Be adequately trained and possess the technical competence required to operate, maintain, and secure the contractor's classified information system; and
 - b) Oversee development, implementation, and evaluation of the University's classified information system program.

C. University of Missouri Research Security and Compliance Team

1. UM Research Security and Compliance Team
Each FCL within the UM System will have an appointed FSO who reports to the UM System Director of Research Security and Compliance. Each FSO shall be a member of the University of Missouri Research Security and Compliance Team ("UM RSC Team").
2. Collaboration
Recognizing both the necessity and administrative efficiencies gained, the UM RSC Team shall work in collaboration with each other and with those also holding

responsibilities for compliance with the authorities outlined in subsection A.2. to ensure that no single point of failure exists within the System.

3. Accountability and Alignment

To ensure the accountability and alignment of the UM RSC Team, ~~the each~~ Chancellors shall designate ~~one of that University's a~~ Vice Chancellors to ~~work with~~ the UM System Director for Research Security and Compliance, who will jointly approve the following as it relates to the FSO at each institution:

- a) Recruitment and hiring decisions;
- b) Disciplinary and termination decisions; and,
- c) Annual performance evaluations and compensation decisions.

For situations in which concurrence is not reached, the collective decision will be made with the President.

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D. Strategies

- 1. The FSO(s) will develop the industrial security strategies for the UM System to establish, document, and implement processes and procedures to ensure the System remains in compliance with the authorities outlined in subsection A.2. These strategies will be brought before the UM RSC Team for approval before implementation.
- 2. A Standard Practice Procedures (SPP) ~~will be is~~ developed ~~and maintained~~ by the UM RSC Team ~~and maintained~~. This SPP ~~will document~~s the current processes and procedures used across the System. The SPP will contain information describing acceptable structures for the Security Executive Committee (SEC).
- 3. University-specific appendices will be maintained within the SPP as needed.
- 4. At least once annually, the Board of Curators will review and ratify a Security Resolution outlining the members of the SEC and those who are excluded from the SEC in alignment with the structure outlined in the SPP.

E. Implementation

The FSOs and Insider Threat Program Senior Official on the UM RSC Team ~~is are~~ responsible for the implementation of the industrial security programs and the Insider Threat Program for the UM System.

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Project Re-Approval
Schrenk Hall East Renovation
Missouri S&T

Missouri University of Science and Technology is seeking approval to adjust the project budget for the Schrenk Hall East Renovation project from \$32,000,000 to \$35,608,000. The Board previously approved the project in September 2023 with a budget of \$32,000,000, funded by State Appropriations, Private Gifts, and Internal Funds. The \$3,608,000 increase in project budget is funded by an increase in gifts of \$1,250,000, an increase in campus funding of \$858,000, and an increase in state funding of \$1,500,000.

The additional funding of the Schrenk Hall East Renovation project will facilitate the expansion of research capabilities by accommodating an additional three research teams and renovating existing laboratory facilities beyond the originally planned scope. This will lead to a net increase from the current allocation of 10 research teams to a total of 13 research teams.

This work will be included in the base bid for the Schrenk Hall East Renovation. The project completion date for the Schrenk Hall East Renovation is December 2026. The project will be delivered as a Construction Manager at Risk project due to complexity.

November 20, 2024

OPEN – CONSENT – M-1

No. M

Recommended Action - Project Re-Approval, Schrenk Hall East Renovation, Missouri S&T

It was recommended by Chancellor Dehghani, endorsed by President Choi and recommended by the Finance Committee, moved by Curator _____ and seconded by Curator _____, that the following action be approved:

the Project Re-Approval, Schrenk Hall East Renovation, Missouri S&T

Funding of the project budget is from:

Gifts	\$15,600,000
Internal	\$2,508,000
State	\$17,500,000
Total Funding	\$35,608,000

Roll call vote Finance Committee YES NO

Curator Blitz
Curator Fry
Curator Graves
Curator Holloway

The motion _____.

Roll call vote Full Board: YES NO

Curator Blitz
Curator Fry
Curator Graves
Curator Holloway
Curator Krewson
Curator Layman
Curator Sinquefield
Curator Wenneker
Curator Williams

The motion _____.

November 20, 2024

OPEN – CONSENT – M-2

Project Re-Approval
Applied Research Center (*Engineering Research Lab*) Renovation and Addition
Missouri University of Science and Technology

Missouri University of Science and Technology is seeking approval to adjust the project budget for the Applied Research Center (*Engineering Research Lab*) Renovation and Addition project from \$49,000,000 to \$55,043,977. The board previously approved the project in September 2023. The increased project budget of \$6,043,977 is funded by an increase in gifts of \$5,200,000 and an increase in internal funding of \$843,977.

The Applied Research Center (*Engineering Research Lab*) Renovation and Addition project will facilitate the expansion of research capabilities by accommodating a cleanroom with an iso-5 class 100, iso-6 class 1,000, and an iso-7 class 10,000. The increased project scope added a clean room to support S&T's new semiconductor engineering program.

This work will be included in the base bid for the Applied Research Center (*Engineering Research Lab*) Renovation and Addition. The project completion date for the Applied Research Center (*Engineering Research Lab*) Renovation and Addition is September 2026. The project will be delivered as a Construction Manager at Risk project due to the size and complexity.

November 20, 2024

OPEN – CONSENT - N-1

No. N

Recommended Action - Project Re-Approval, Applied Research Center, Missouri S&T

It was recommended by Chancellor Dehghani, endorsed by President Choi and recommended by the Finance Committee, moved by Curator _____ and seconded by Curator _____, that the following action be approved:

the Project Re-Approval, Applied Research Center, Missouri S&T

Funding of the project budget is from:

Gifts	\$16,382,500
Internal	\$15,628,977
State	\$23,032,500
Total Funding	\$55,043,977

Roll call vote Finance Committee YES NO

Curator Blitz
Curator Fry
Curator Graves
Curator Holloway

The motion _____.

Roll call vote Full Board: YES NO

Curator Blitz
Curator Fry
Curator Graves
Curator Holloway
Curator Krewson
Curator Layman
Curator Sinuefield
Curator Wenneker
Curator Williams

The motion _____.

November 20, 2024

Sole Source
Radiochemical Processing Hot Cell
MU

In accordance with the Collected Rules and Regulations 80.010, MU Research Reactor (MURR) requests approval for the sole source purchase of one additional radiochemical processing hot cell line from Tema Sinergie S.P.A., Faenza, Italy, for an estimated total of \$4,000,000.

Under a current exclusive multi-year supply agreement that MURR has with Novartis, MURR is the sole producer in the United States of no-carrier-added lutetium-177 (NCA Lu-177), which is the Active Pharmaceutical Ingredients (API) used by Novartis to produce final drug products for cancer treatments. The current NCA Lu-177 production has been exclusively produced on a hot cell system manufactured by Tema and routinely produced since September 2023. These hot cells were competitively bid and awarded to Tema in early 2021.

Earlier this year, the Board of Curators approved the purchase of three radiochemical processing hot cell lines that were necessary to allow MURR to meet Novartis' anticipated production needs and fulfill MURR's redundancy commitments. Those three lines included a backup hot cell line and two additional production lines required to scale up NCA Lu-177 production required by Novartis' to meet patient demand for its prostate cancer radioligand therapy, Pluvicto.

During the final contract negotiations, it became apparent that meeting the initial milestones for increasing NCA Lu-177 manufacturing at MURR would require a fourth radiochemical processing hot cell line that could be more rapidly installed in existing MURR space. This additional project to renovate existing MURR space and add an additional (fourth) hot cell line became known as the "Enabling Plant" as it enables MURR to meet the first phase manufacturing scale-up needed by Novartis. The cost of renovating this Enabling Plant and the associated fourth hot cell line will be entirely funded by Novartis.

To mitigate technical risks, as well as for business continuity and workforce training, the additional hot cell line must be the same system as the current production line. Introducing hot cell systems and components from a different supplier into an existing radiochemical production operation that was exclusively developed around and has exclusively used the Tema hot cells to manufacture the product could lead to technical risks, impacting production. It is also impractical to train employees on one hot cell line and subsequently cross-train them on new and different systems to produce the same radiochemical product.

November 20, 2024

OPEN – CONSENT – O-1

No. O

Recommended Action – Sole Source – Radiochemical Processing Hot Cell, MU

It was recommended and endorsed by President Choi, recommended by the Finance Committee, moved by Curator _____ and seconded by Curator _____, that the following action be approved:

that the University of Missouri – Columbia be authorized to purchase one additional Radiochemical Processing Hot Cell from Tema Sinergie S.P.A., Faenza, Italy, at a total estimated cost of \$4,000,000.

Funding is as follows:
Funded by Novartis

Roll call vote Finance Committee	YES	NO
Curator Blitz		
Curator Fry		
Curator Graves		
Curator Holloway		

The motion _____.

Roll call vote Full Board:	YES	NO
Curator Blitz		
Curator Fry		
Curator Graves		
Curator Holloway		
Curator Krewson		
Curator Layman		
Curator Sinquefield		
Curator Wenneker		
Curator Williams		

The motion _____.

November 20, 2024

ACADEMIC, STUDENT AFFAIRS, RESEARCH AND ECONOMIC DEVELOPMENT COMMITTEE

Jeanne C. Sinquefield, Chair

Robert D. Blitz

Todd P. Graves

Michael A. Williams

The Academic, Student Affairs, Research and Economic Development Committee (“Committee”) will review and recommend policies to enhance quality and effectiveness of academic, student affairs, research and economic development and align the available resources with the University’s academic mission.

I. Scope

In carrying out its responsibilities, the Committee reviews and makes recommendations to the Board of Curators on strategies and policies relating to student and faculty welfare, academic standards, educational and instructional quality, intercollegiate athletics, degree programs, economic development, research initiatives, and associated programs.

II. Executive Liaison

The Associate Vice President for Academic Affairs of the University, or some other person(s) designated by the President of the University, with the concurrence of the Board Chair and the Committee Chair, shall be the executive liaison to the committee and responsible for transmitting committee recommendations.

III. Ex Officio Member

The Student Representative to the Board of Curators shall be an ex officio member of the Committee.

IV. Responsibilities

In addition to the overall responsibilities of the Committee described above and in carrying out its responsibilities, the charge of the Committee shall include reviewing and making recommendations to the Board on the following matters:

- A. Selection of Curators’ Distinguished Professors;
- B. Approval and review of new degree programs;
- C. Intercollegiate athletics, as specifically outlined in Section 270.060 of the Collected Rules and Regulations with a commitment to the academic success, and physical and social development of student-athletes;
- D. Changes to university-level admissions requirements, academic standards, student services, and graduation requirements;
- E. Quarterly and annual reports providing information on academic programs that have been added, deactivated, or deleted;
- F. Provide oversight over the University of Missouri System’s diversity, equity and inclusion programs;
- G. Highlight successful research and economic development efforts and partnerships; linking research and commercialization from the University with business and industry across the state and around the world.
- H. Additional matters customarily addressed by the academic, student affairs, research & economic development committee of a governing board for an institution of higher education.

UNIVERSITY OF
MISSOURI-ST. LOUIS

UMSL ATHLETICS ANNUAL REPORT

DR. HOLLY SHEILLEY
ATHLETIC DIRECTOR
NOVEMBER 2024





Holly Sheilley

New Executive Director of Athletics

UNIVERSITY OF
MISSOURI-ST. LOUIS

UMSL Athletics Varsity Teams

women's sports

- Basketball
- cross country
- Golf
- soccer
- softball
- swimming
- Tennis
- volleyball
- Track & Field

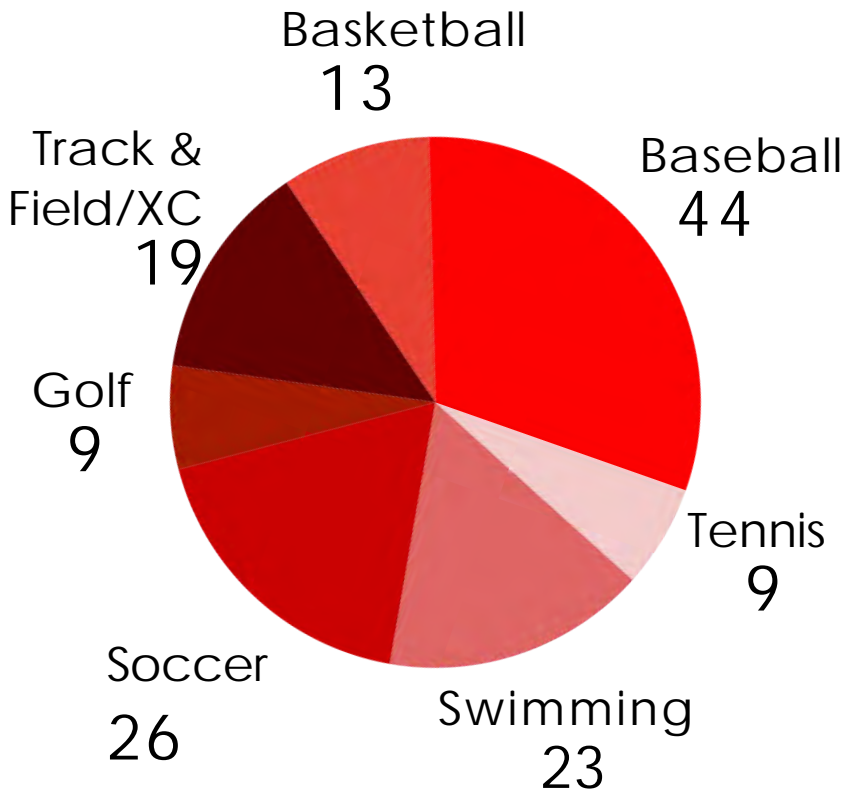
Men's sports

- Baseball
- Basketball
- Cross Country
- Golf
- soccer
- swimming
- Tennis
- Track & Field

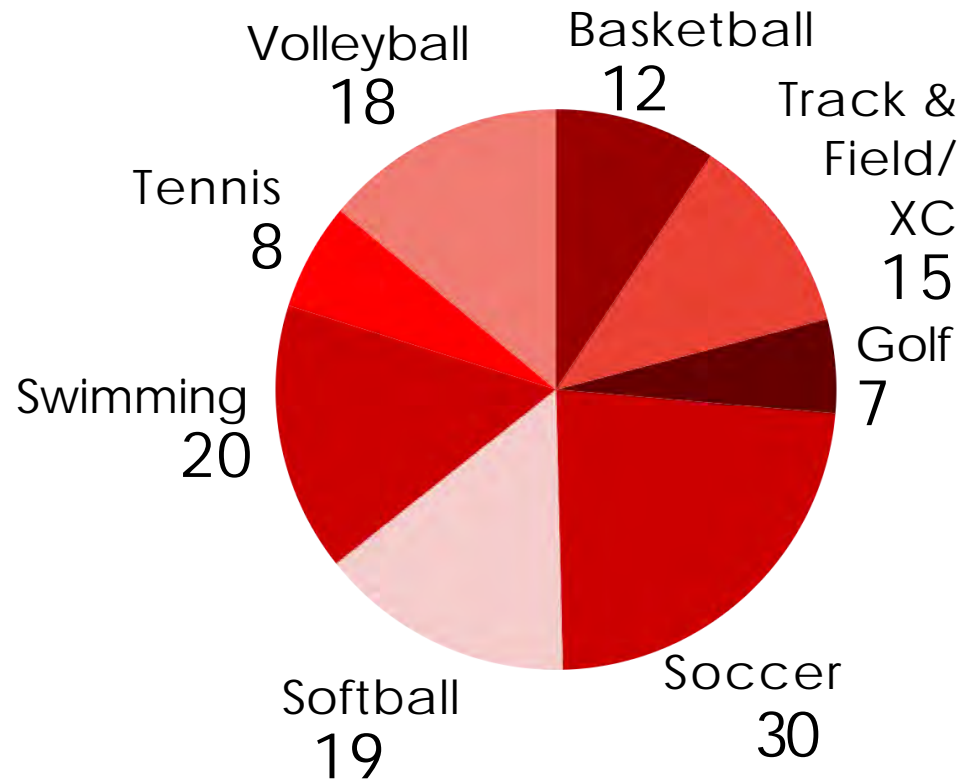


Athletic Participation (2023-24)

Men's Sports



Women's Sports



272
Total Student-Athletes
 129 Women
 143 Men

NOTE: Student-Athletes include all students both walk-on and students receiving athletic aid awards (including post-eligible and medical awards).

UMSL Athletics Year in Review

- 1 Midwest Regional championship
- 1 GLVC Player of the Year
- 2 GLVC Freshman of the Year
- 2 GLVC coaches of the year
- 3 Academic All-Americans
- 10 All-Americans
- 25 GLVC Players of the week
- 36 All-GLVC honorees



**CAITLIN BISHOP NAMED GLVC PLAYER OF THE
YEAR IN WOMEN'S VOLLEYBALL**

UMSL Athletics Year in Review

3.49 overall Grade Point Average

(22nd consecutive semester above a 3.0)

50 straight A's

83% Academic Success Rate

187 Academic All-GLVC student Athletes



Major Accomplishments

5

**TEAM NCAA
APPEARANCES**

MEN'S GOLF

WOMEN'S GOLF

MEN'S SWIMMING

WOMEN'S SWIMMING

VOLLEYBALL

12

**INDIVIDUAL NCAA
APPEARANCES**

RANKED 77th

**IN LEARFIELD CUP STANDINGS
OUT OF 300 DIVISION II
SCHOOLS**

343 - 276 - 14

**OVERALL DEPARTMENT RECORD
(.554 WINNING PERCENTAGE)**

3.0

**ALL 19 TEAMS ACHIEVED A
CUMULATIVE GPA OF 3.0 OR
ABOVE**

**UMSL VOLLEYBALL TEAM REPEATS AS NCAA DIVISION II
MIDWEST REGION CHAMPIONS**



class of 2024-2025

270

STUDENT-ATHLETES

103

NEW
STUDENT-ATHLETES

68

ARE FIRST-TIME
FRESHMEN

31

INTERNATIONAL
STUDENT-ATHLETES

14

COUNTRIES
REPRESENTED

31

STATES
REPRESENTED

Student-Athlete Programming & Training

- Financial Literacy Education
- Team culture Index surveys
- vulnerable Leadership workshops
- Profession Development workshops
- sexual violence Awareness
- CPR/AED Training
- Etiquette Dinner for Graduating Seniors

student-Athlete Advisory committee

- Toys for Tots Toy Drive
- campus Trunk or Treat
- chili cook-off for Make-A-wish



SAAC CHILI
COOK-OFF



THANK YOU UMSL

university of missouri board of curators

Meeting Date	November 20, 2024
Action Title	New Degree Program, PhD in Applied Psychology, S&T
Action Type	Action Item

Summary

This is a request for the approval of a new Doctor of Philosophy degree program in Applied Psychology at the Missouri University of Science and Technology.

Table of Contents

1. Executive Summary [OPEN – ASARED – 1-1]

- *Provides a high-level overview of the Missouri University of Science and Technology's (S&T) new PhD in Applied Psychology.*

2. Recommended Action & Roll Call Vote [OPEN – ASARED – 1-2]

- *The formal approval of the recommendation for a new Doctor of Philosophy degree program in Applied Psychology at the Missouri University of Science and Technology.*

Appendix

1. S&T PhD in Applied Psychology Proposal [OPEN – ASARED – 1-3-51]

- *Proposal contains specific details including:*
 - *University Mission and Program Analysis*
 - *Business Related Criteria and Justification*
 - *Institutional Capacity*
 - *Program Characteristics*
 - *Appendices*

Executive Summary

New Degree Program, Ph.D. in Applied Psychology Missouri University of Science and Technology

Missouri University of Science and Technology presents a groundbreaking initiative – the establishment of a Ph.D. program in Applied Psychology. This program addresses a significant gap in higher education offerings within the state and the broader region. It aligns seamlessly with Missouri S&T's strategic North Star goals, propelling research and graduate enrollment on our campus. Furthermore, this program positions Missouri S&T, and by extension, the UM System, as pioneers in the evolving national landscape of applied psychological science beyond traditional research and therapy.

Our proposal outlines a dynamic two-track Applied Psychology Ph.D. program, emphasizing Applied Social/Industrial-Organizational (I-O) Psychology and Applied Cognitive Psychology. Recognizing the diverse facets of cognitive psychology, we also introduce specialized concentrations, including cognition & health, cognition & technology, and cognition & organizations. These concentrations not only dovetail with S&T's strategic direction, especially in Bio-X research, but also create bridges between the broader tracks of social/I-O and cognitive psychology. The curriculum is thoughtfully crafted, leveraging departmental strengths and strategic planning while ensuring an alignment with the University's needs, strategic objectives, and regional and national demands. Beyond fulfilling the University and Department's strategic aspirations, this program is poised to meet substantial student and employer demand. Projections by the Bureau of Labor Statistics indicate rapid job growth in the areas encompassed by our degree plan over the next decade. Our program will equip graduates with sought-after knowledge, skills, and abilities, substantiated by national job posting trends. Notably, an analysis of student placements over the past 5 years indicates that over 25% of our graduates have pursued advanced degrees at other institutions in applied psychology fields. Moreover, psychology department chairs at other UM System institutions have highlighted the unmet student demand for such programs, as they currently lack offerings in this area.

While program administration will entail costs, Missouri S&T has already made significant investments in its development. Recent dual-career hires and advocacy for dedicated lab space in forthcoming building developments for applied cognitive psychology research underscore our commitment. University leadership recognizes this program as a strategic investment with the potential to drive multiple campus initiatives forward.

In sum, Missouri University of Science and Technology's proposed Ph.D. program in Applied Psychology is not just an academic endeavor but a visionary step that fulfills educational gaps, bolsters regional and national needs, and reaffirms our commitment to excellence in higher education. This program promises to be a transformative force in the field of applied psychology and the broader academic landscape.

No. 1

Recommended Action – Ph.D. in Applied Psychology
Missouri University of Science and Technology

It was recommended by Chancellor Mohammad Dehghani, endorsed by President of the University of Missouri Mun Y. Choi, recommended by the Academic, Student Affairs and Research & Economic Development Committee, moved by Curator _____, seconded by Curator _____ that the following action be approved:

that the Missouri University of Science and Technology be authorized to submit the attached proposal for a Ph.D. in Applied Psychology to the Coordinating Board for Higher Education for approval.

Roll call vote of the Committee: YES NO

Curator Blitz

Curator Graves

Curator Sinquefield

Curator Williams

The motion _____.

Roll call vote of Board: YES NO

Curator Blitz

Curator Fry

Curator Graves

Curator Holloway

Curator Krewson

Curator Layman

Curator Sinquefield

Curator Wenneker

Curator Williams

The motion _____.

Meeting Date	November 20, 2024
Action Title	New Degree Program, MS in Economics and Innovation, S&T
Action Type	Action Item

Summary

This is a request for the approval of a new Master of Science degree program in Economics and Innovation to be offered by the Missouri University of Science and Technology.

Table of Contents

1. Executive Summary [OPEN – ASARED – 2-1]

- *Provides a high-level overview of the new MS in Economics and Innovation proposed by Missouri University of Science and Technology (S&T).*

2. Recommended Action & Roll Call Vote [OPEN – ASARED – 2-2]

- *The formal approval of the recommendation for a new Master of Science degree program in Economics and Innovation at the Missouri University of Science and Technology.*

Appendix

1. S&T MS in Economics and Innovation Proposal [OPEN – ASARED – 2-3-54]

- *Proposal contains specific details including:*
 - *University Mission and Program Analysis*
 - *Business Related Criteria and Justification*
 - *Institutional Capacity*
 - *Program Characteristics*
 - *Appendices*

Executive Summary

New Degree Program, Master of Science in Economics and Innovation Missouri University of Science and Technology

The proposed interdisciplinary Master's degree in Economics and Innovation (MEI) at Missouri S&T is designed to respond to a growing need for a technically trained workforce of strategic decision-makers who can assist private and public sectors with building innovation ecosystems and driving economic growth for the state of Missouri, the Midwest, the United States, and beyond.

The MEI curriculum integrates economics and innovation knowledge, emphasizing practical skills built on a foundation of economic theories and quantitative methods to ensure the economic feasibility and sustainability of innovation projects or ventures. The program prepares graduates for high-impact careers, equipping them to apply innovative technologies and solutions to create sustainable economic and societal value. MEI graduates will have the technical and collaborative skills to bring **sustainable value-creation technologies and innovations** to market.

One of the MEI program's focus areas is Value-Driven Innovation, which teaches students the collaborative process necessary for creating purposeful innovations to deliver value to customers, stakeholders, or society. As a leading technology-focused research institution, S&T consistently invents technologies through its laboratories and projects. Training students with the MEI curriculum to make complex decisions in a value-creation ecosystem approach can turn these technologies into valuable innovations for various societal challenges.

Another focus area of the MEI program is Energy Economics and Global Sustainability, which aligns strategically with S&T's expertise in energy technologies across engineering programs. The focus area will prepare students to address global energy challenges through multidisciplinary education and collaborations between engineers and economists.

Demand for the MEI program among employers and students is high. Lightcast™ demonstrates a significant national and regional need for econometrics and quantitative economics master's graduates, with top job titles projected to grow by 27 % in the U.S. over the next decade. Importantly, Lightcast™ highlights, "*Missouri and Illinois are the hotspots for this kind of jobs,*" with a 19.9% growth projection from 2023-2033. The surveys conducted among S&T students from economics, engineering, and science disciplines with a strong connection to mathematics that can feed directly into the MEI program show a strong student demand, with 35 out of 44 (80%) expressing interest and 29 (66%) likely to pursue it. Robust student demand and industry support (see letters of support) underscore the MEI program's economic feasibility.

No. 2

Recommended Action – MS in Economics and Innovation
Missouri University of Science and Technology

It was recommended by Chancellor Mohammad Dehghani, endorsed by President of the University of Missouri Mun Y. Choi, recommended by the Academic, Student Affairs and Research & Economic Development Committee, moved by Curator _____, seconded by Curator _____ that the following action be approved:

that the Missouri University of Science and Technology be authorized to submit the attached proposal for a MS in Economics and Innovation to the Coordinating Board for Higher Education for approval.

Roll call vote of the Committee: YES NO

Curator Blitz

Curator Graves

Curator Sinquefield

Curator Williams

The motion _____.

Roll call vote of Board: YES NO

Curator Blitz

Curator Fry

Curator Graves

Curator Holloway

Curator Krewson

Curator Layman

Curator Sinquefield

Curator Wenneker

Curator Williams

The motion _____.

Meeting Date	November 20, 2024
Action Title	New Degree Program, Bachelor of Science in Criminal and Justice Studies, MU
Action Type	Action Item

Summary

This is a request for the approval of a new Bachelor of Science degree program in Criminal and Justice Studies to be offered by the University of Missouri-Columbia.

Table of Contents

1. Executive Summary [OPEN – ASARED – 3-1]

- *Provides a high-level overview of the proposed degree program, including information on how it was developed, support from local law enforcement and public health and safety officials, and the program’s curriculum.*

2. Recommended Action & Roll Call Vote [OPEN – ASARED – 3-2]

- *The formal approval of the recommendation for a new Bachelor of Science degree program in Criminal and Justice Studies at the University of Missouri-Columbia.*

Appendix

1. MU BS in Criminal and Justice Studies Proposal [OPEN – ASARED – 3-3-31]

- *Proposal contains specific details including:*
 - *University Mission and Program Analysis*
 - *Business Related Criteria and Justification*
 - *Institutional Capacity*
 - *Program Characteristics*
 - *Appendices*

Executive Summary

New Degree Program, Bachelor of Science in Criminal and Justice Studies University of Missouri-Columbia

Overview: The University of Missouri-Columbia (MU) proposes a new BS in Criminal and Justice Studies. Faculty in the School of Social Work (SSW), situated in the MU College of Health Sciences (CHS), worked in collaboration with criminal-legal professionals across Missouri and other departments throughout MU to develop a curriculum that is responsive to the workforce needs of the state.

History & Support: As a first step, the SSW established a Criminal Justice minor in 2018 to gauge student demand. The minor now has over 150 students enrolled. In addition to demand indicated by enrollment in the minor, colleagues at MU working in the areas of veteran and athlete recruitment report that offering a criminal justice degree at MU would be beneficial to their ability to attract students from these populations. There is also substantial external support for the program, including but not limited to the Boone County Sheriff, the Boone County Chief Juvenile Officer, the City of Columbia Chief of Police, the Director of the Missouri Department of Corrections Human Services Division, the 13th Judicial Circuit Treatment Court Supervisor, and the Columbia/Boone County Department of Public Health and Human Services.

Degree Content: The BS in Criminal and Justice Studies provides critical foundational knowledge about the adult criminal-legal system and the juvenile justice system including theory, key policy, and cutting-edge research on delinquency and desistance. Theories and research on the intersection of substance use, mental illness, poverty, community surveillance, and crime are interrogated. Coursework also includes contemporary approaches to the prevention and treatment of crime that rely on multisystem and community-based approaches used in the criminal-legal field. This content will prepare graduates to meet the workforce demands of the state and to be leaders in the field as it continues to evolve.

The curriculum builds on the strength of SSW faculty practice and research expertise. It also leverages expertise from faculty within other CHS departments and other departments across MU. A core component of the curriculum includes experiential learning through high-impact practices like internships, study abroad, and service learning, which aligns with the Land Grant mission of the University.

Given the depth of expertise in the criminal-legal field at MU and evidence of workforce and student demand, the economic feasibility of this program is strong. Many of the courses required for the degree are already offered at MU on a regular basis. The CHS is well positioned to support the launch of this new program.

No. 3

Recommended Action – Bachelor of Science in Criminal and Justice Studies
University of Missouri-Columbia

It was recommended and endorsed by President of the University of Missouri Mun Y. Choi, recommended by the Academic, Student Affairs and Research & Economic Development Committee, moved by Curator _____, seconded by Curator _____ that the following action be approved:

that the University of Missouri–Columbia be authorized to submit the attached proposal for a Bachelor of Science in Criminal and Justice Studies to the Coordinating Board for Higher Education for approval.

Roll call vote of the Committee: YES NO

Curator Blitz

Curator Graves

Curator Sinquefield

Curator Williams

The motion _____.

Roll call vote of Board: YES NO

Curator Blitz

Curator Fry

Curator Graves

Curator Holloway

Curator Krewson

Curator Layman

Curator Sinquefield

Curator Wenneker

Curator Williams

The motion _____.

Meeting Date	November 20, 2024
Action Title	New Degree Program, MBA in Business Analytics, UMKC
Action Type	Action Item

Summary

This is a request for the approval of a new Master of Business Administration in Business Analytics at the University of Missouri-Kansas City.

Table of Contents

1. Executive Summary [OPEN – ASARED – 4-1]

- *Provides a high-level overview of the new proposed MBA in Business Analytics University of Missouri-Kansas City's (UMKC).*

2. Recommended Action & Roll Call Vote [OPEN – ASARED – 4-2]

- *The formal approval of the recommendation for a new Master of Business Administration in Business Analytics at the University of Missouri-Kansas City.*

Appendix

1. UMKC MBA in Business Analytics Proposal [OPEN – ASARED – 4-3-34]

- *Proposal contains specific details including:*
 - *University Mission and Program Analysis*
 - *Business Related Criteria and Justification*
 - *Institutional Capacity*
 - *Program Characteristics*
 - *Appendices*

Executive Summary

New Degree Program, Master of Business Administration in Business Analytics University of Missouri-Kansas City

The proposed program relies on existing courses that constitute the Graduate Certificate in Business Analytics and the core of the Master of Business Administration curriculum. This program proposal also has provision for using one existing non-Bloch course in Computer Science, Mathematics, or Statistics as an elective. No new course creation or allocation of new resources will be required for the proposed program. No existing programs will be combined, placed on inactive status, or deleted as a result of implementing this program.

The program's target population includes individuals in and aspiring to be in analytics roles in business, nonprofit, and public sector organizations. Students will be recruited locally, regionally, and internationally—particularly through the emerging partnerships with several universities in Asia. To date, relationships have been established with 11 partner institutions in India and China. This program is in a field of study (CIP code 52.1302) included in the U.S. Department of Homeland Security (DHS) STEM Designated Degree Program List. A STEM-designated program of this nature is expected to significantly boost student recruitment pipelines and enrollment—a priority for UMKC and the Bloch School.

The proposed program aligns with several campus and academic unit strategic priorities. Of particular relevance are:

- *UMKC Strategic Plan Pillar 1: Provide exceptional student learning, success, and experience,*
- *UMKC Strategic Plan Pillar 3: Transform our community and region with impactful engagement,*
- *Bloch School Strategic Plan Theme 1: Building Capabilities for Innovation and Harnessing Emerging Technology, and*
- *Bloch School Strategic Plan Theme 2: Delivering Transformative Opportunities for Experience-Based Learning.*

Bloch School Theme 1 calls for developing programs that prepare students for new career paths, both as technology-specialists and technology-savvy business professionals. The proposed program is one such initiative where the focus will be on blending technology-specific capabilities with competencies for innovation and problem-solving. Our efforts under Bloch School Theme 2 to build an experience-based learning portfolio with partner organizations will jump-start skill development and lead to outstanding career opportunities. The proposed program will have significant impact in advancing this agenda.

Bloch School Business Analytics Advisory Board is an active body comprised of faculty and industry professionals in the discipline. Business Analytics faculty lead the activities, including student-centered activities and events of the board. Faculty are also active in the relevant research and professional organizations and are expected to continue such engagements.

No. 4

Recommended Action – MBA in Business Analytics
University of Missouri-Kansas City

It was recommended by Chancellor C. Mauli Agrawal, endorsed by President of the University of Missouri Mun Y. Choi, recommended by the Academic, Student Affairs and Research & Economic Development Committee, moved by Curator _____, seconded by Curator _____ that the following action be approved:

that the University of Missouri-Kansas City be authorized to submit the attached proposal for a MBA in Business Analytics to the Coordinating Board for Higher Education for approval.

Roll call vote of the Committee: YES NO

Curator Blitz

Curator Graves

Curator Sinquefield

Curator Williams

The motion _____.

Roll call vote of Board: YES NO

Curator Blitz

Curator Fry

Curator Graves

Curator Holloway

Curator Krewson

Curator Layman

Curator Sinquefield

Curator Wenneker

Curator Williams

The motion _____.

FINANCE COMMITTEE

Todd P. Graves, Chair
Robert D. Blitz
Robert W. Fry
Keith A. Holloway

The Finance Committee (“Committee”) oversees the fiscal stability and long-term economic health of the University. The Committee will review and recommend policies to enhance quality and effectiveness of the finance functions of the University.

I. Scope

In carrying out its responsibilities, the Committee monitors the University’s financial operations, fundraising performance, debt level, capital priorities and investment performance; requires the maintenance of accurate and complete financial records; and maintains open lines of communication with the Board about the University’s financial condition.

II. Executive Liaison

The Vice President for Finance of the University or some other person(s) designated by the President of the University, with the concurrence of the Board Chair and the Committee Chair, shall be the executive liaison to the Committee and responsible for transmitting committee recommendations.

III. Responsibilities

In addition to the overall responsibilities of the Committee described above and in carrying out its responsibilities, the charge of the Committee shall include

- A. Reviewing and making recommendations to the Board on the following matters:
 1. University operating budget and financial plan;
 2. University capital budget and master facility plans;
 3. capital projects;
 4. tuition, fees and housing rates;
 5. state appropriation requests;
 6. pursuant to applicable Collected Rules and Regulations, contracts and reports;
 7. insurance brokers and self-insurance programs;
 8. pursuant to applicable Collected Rules and Regulations, real estate sales, purchases, leases, easements and right-of-way agreements;
 9. the issuance of debt;
 10. asset allocation guidelines and other policies related to the University’s investment management function; and
 11. additional matters customarily addressed by the finance committee of a governing board for an institution of higher education.
- B. Providing governance oversight to:
 1. long-range financial planning strategies;
 2. fundraising and development strategies;
 3. total indebtedness and debt capacity of the University;
 4. the investment portfolio performance; and
 5. the financial condition of the pension fund.
- C. Reviewing periodic reports including:
 1. quarterly and year-end financial reports that measure the University’s fiscal condition;
 2. annual purchasing reports on bids and equipment leases;

3. quarterly debt-management reports;
4. quarterly and year-end investment performance reports;
5. semi-annual reports on development and fundraising activities; and
6. other financial reports as requested by the Committee.

Meeting Date	November 20, 2024
Information Title	Fiscal Year 2024 Financial Status Report, UM
Information Type	Review of FY2024 Financial Performance

Executive Summary

The University of Missouri remains well positioned as a Aa1 Moody's credit in higher education, and FY2024 performance continues to support that positioning. The University's balance sheet remains strong and underpins its financial health. Operating margin for FY2024 was 1.8%, below budget of 2.7%. Financial performance improved in the fourth quarter of FY2024, and the FY2025 budget process identified further actions to improve operating performance. Over the past five years, the University achieved an average operating margin of 3.5% exceeding the target of 2.5%.

Moving forward, the University is strongly positioned in the market as a large comprehensive university. Inflationary pressures must be managed within available revenues. Longer-term challenges include increased enrollment competition as high school graduate populations peak and begin to decline. The healthcare industry continues to feel pressure from increased costs and tightening margins, which has diminished growth industry wide.

Throughout this fall, each university and MUHC will complete a long-range financial plan to quantify investments necessary for their strategic plans which will be presented to the Board in February. The financial plan serves as the foundation for the capital plan which is presented in April and the annual budget which is presented in June.

Table of Contents

- 1. Executive Summary [OPEN – INFO - 1 - 1]**
 - *Provides a high-level overview of FY2024 financial performance.*
- 2. Financial Statements [OPEN – INFO - 1 - 2-13]**
 - *FY2024 Performance Dashboard*
 - *Consolidated Balance Sheet and Income Statement*
 - *Income Statements by Business Unit*
- 3. Financial Status Report Presentation Deck [OPEN – INFO - 1 – 14-22]**
 - *Slides to be presented at the November Board of Curators Meeting*
- 4. Financial Status Report Narrative [APPENDIX OPEN – INFO - 1- 23-41]**
 - *Narrative detail of FY2024 Financial Performance. Sections include:*
 - *Rating Agency Update*
 - *Consolidated Income Statement*
 - *Consolidated Balance Sheet*
 - *Performance to Target & Next Steps*
 - *Appendix: Performance by Business Unit*

Fiscal Year 2024 Financial Status Report UM

At the November 20th Board of Curators Meeting, Executive Vice President Ryan Rapp will present the annual financial status report, reflecting on the University's performance for FY2024. The report will include an update on the University's overall financial position along with a breakdown of performance across business units.

Executive Summary

The University of Missouri remains well positioned as a Aa1 Moody's credit in higher education, and FY2024 performance continues to support that positioning. The University's strong balance sheet underpins its financial health. Cash levels grew during the year with positive operating and investment performance. The University also deleveraged with the payment of a bullet maturity. Debt will grow in FY2025 with the debt issuance that occurred in first quarter of FY2025. The operating margin for the year was 1.8%. Financial performance improved in the fourth quarter of FY2024, and the FY2025 budget process identified further actions to improve operating performance. Over the past five years, the University achieved an average operating margin of 3.5% exceeding the target of 2.5%.

Moving forward, the University is well positioned in the market as a large comprehensive university. Inflationary pressures remain a key concern, and each unit remains focused on balancing cost increases against available revenues. Longer-term challenges include increased enrollment competition as high school graduate populations peak and begin to decline. The healthcare industry continues to feel pressure from increased costs and tightening margins, which has diminished growth industry wide. Sustained lower margins in healthcare operations could place pressure on capital investment and the support AMC hospitals provide to medical schools.

Throughout this fall, each university and MUHC will complete a long-range financial plan to quantify investments necessary for their strategic plans. This will be presented to the Board at the February meeting together with the financial performance targets for the consolidated enterprise, each university and MUHC. The financial plan serves as the foundation for the capital plan which is presented in April and the annual budget which is presented in June.

November 20, 2024

Fiscal Year 2024 Financial Status Report

November 20, 2024



UMKC

MISSOURI
S&T

UMSL

University of Missouri System

OPEN - INFO - 1- 2

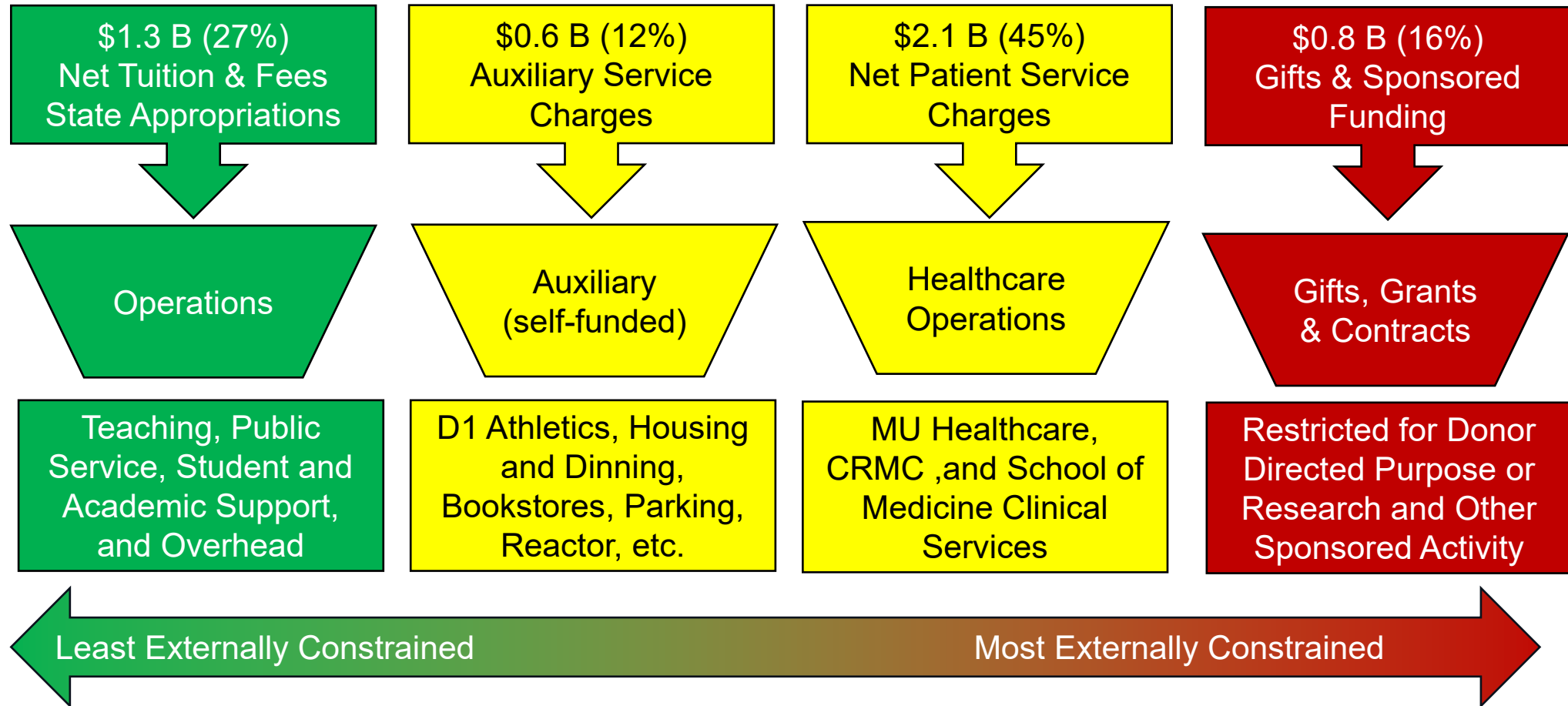
November 20, 2024

Key Points

- The University's financial performance remains solid and is reflective of a Aa1 credit
- The University achieved a positive operating margin in FY2024
 - 5-year average of operating margin is above target
 - FY24 performance was below budget, but improvement seen in 4th quarter and improvements identified for FY2025
- Expense management within available revenue streams remains key to achieving positive results
- Academic unit margins have returned to historical levels and need to balance with capital plans



The Colors of Money



Operating Margin Ended Positive

	FY2023 Operating Margin (%)	FY2023 Operating Margin (\$)	FY2024 Operating Margin (%)	FY2024 Operating Margin (\$)
Actual	3.9%	\$162 million	2.0%	\$92 million
Capital Region Medical Center	(1.2%)	(\$43) million	(0.2%)	(\$8) million
Adjusted	2.7%	\$119 million	1.8%	\$84 million
Target	2.5%		2.5%	



UMKC

MISSOURI
S&T

UMSL

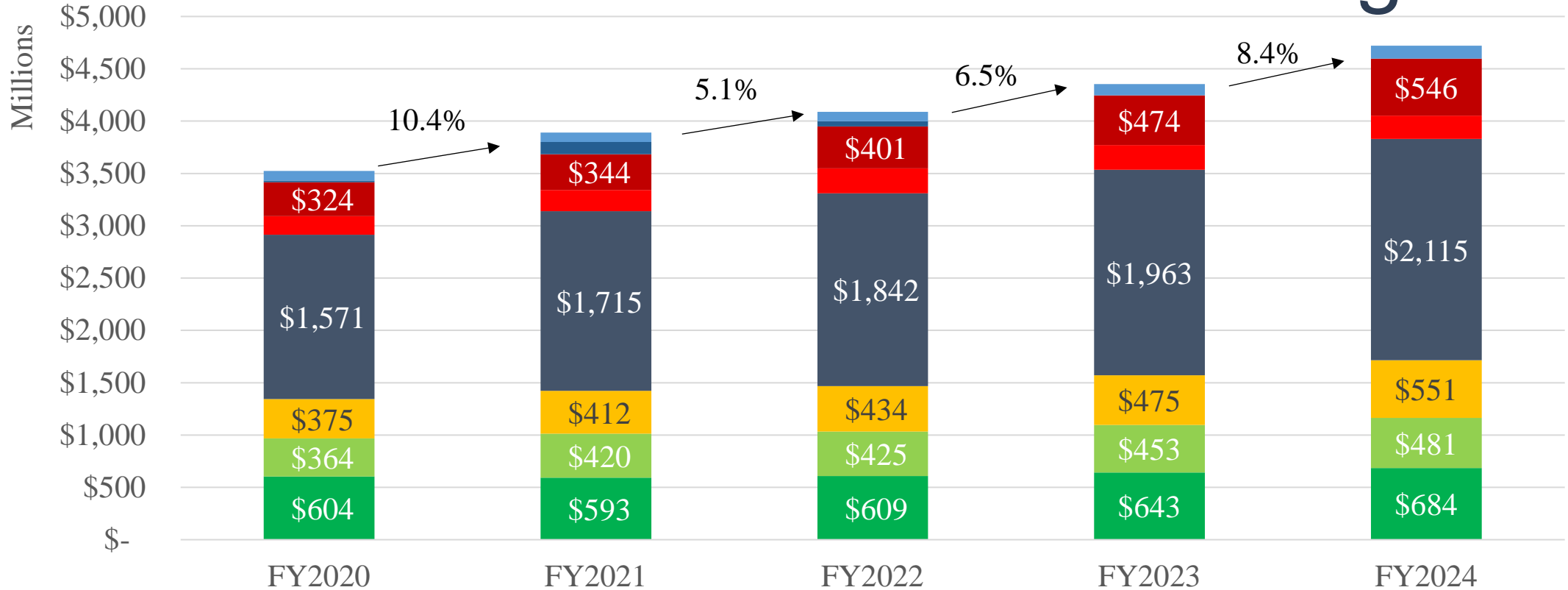
Results by Unit and Color of Money

	Operations ¹ \$1.3B	Auxiliaries \$0.6B	Healthcare & MU Clinical Operations \$2.2B	Gifts & Grants \$0.8B	Operating Cash Flow Margin	Depreciation & Interest Expense	Operating Margin
MU	14.2%	16.6%	-4.7%	5.5%	9.8%	-7.1%	2.7%
UMKC	8.4%	11.3%		8.9%	8.7%	-6.5%	2.1%
S&T	14.7%	39.8%		5.5%	15.3%	-11.7%	3.6%
UMSL	9.3%	5.1%		5.7%	8.2%	-9.4%	-1.1%
MUHC			7.8%		7.8%	-6.8%	1.0%
Consolidated Margin	15.1%	16.9%	0.6%	5.0%	7.7%	-5.9%	1.8%

1: Non-capital maintenance and repairs funded by plant reserves and service operations are included in operations.



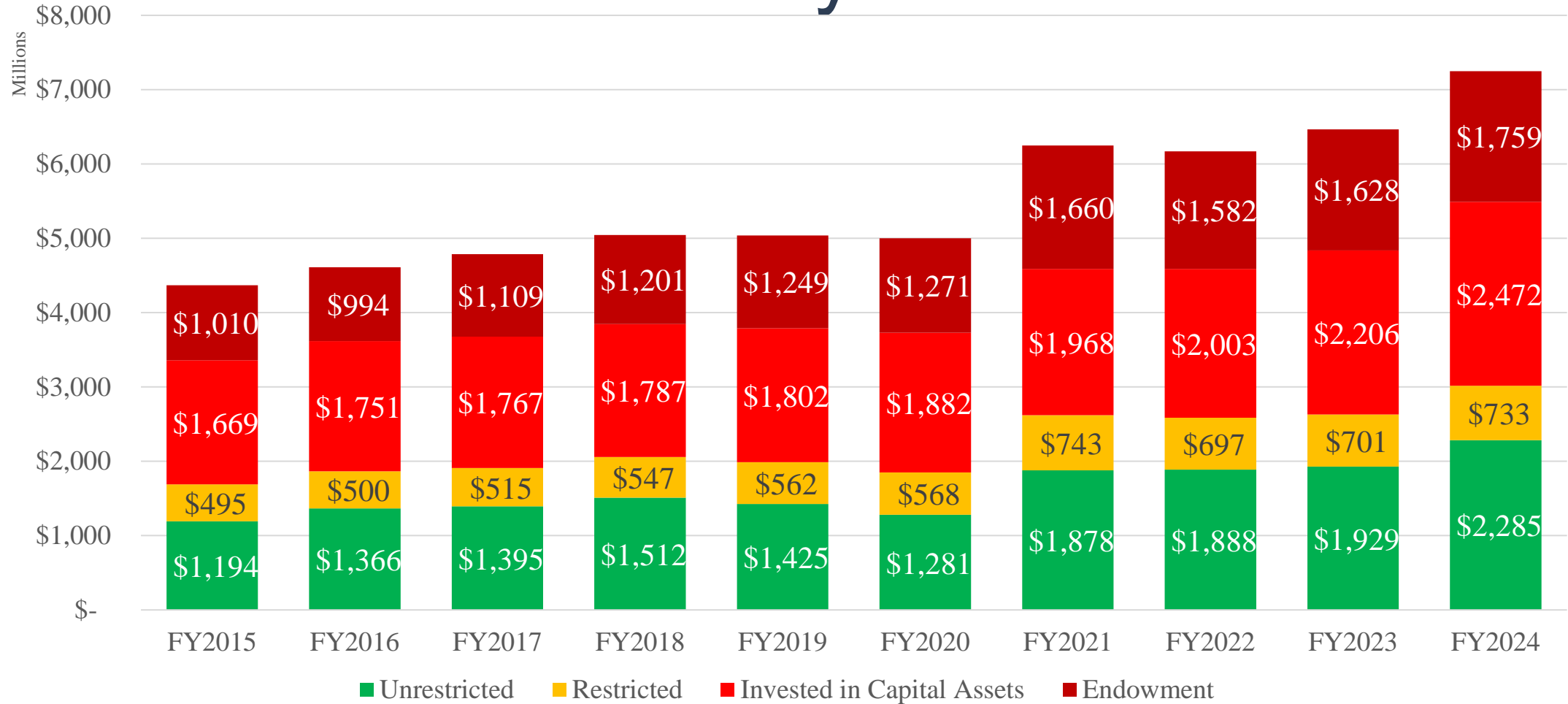
Revenue Growth Remains Strong



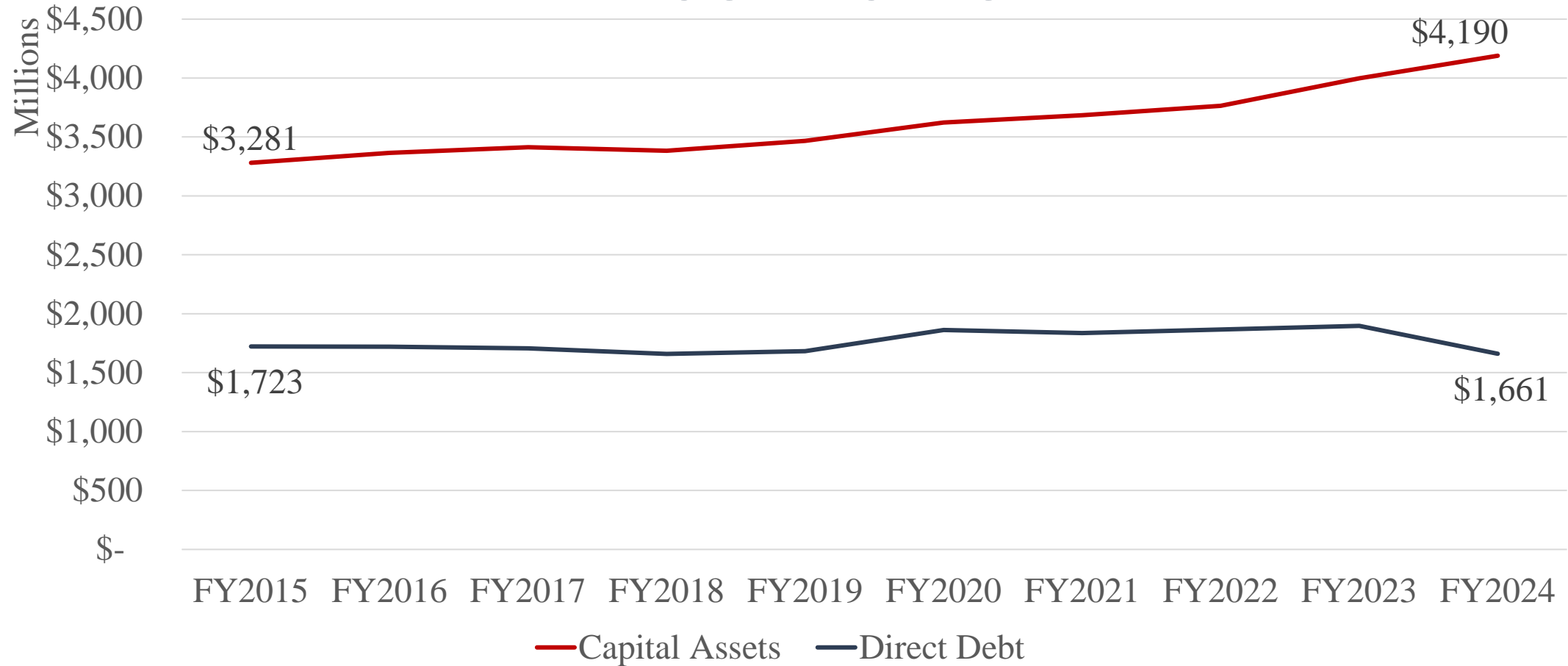
- Net Tuition, Pell Revenue & Scholarships
- State Appropriations
- Auxiliary Revenues
- Patient Services, Net
- Gifts & Investment Income
- Grants & Contracts
- Institutional CARES Act Funding
- Other



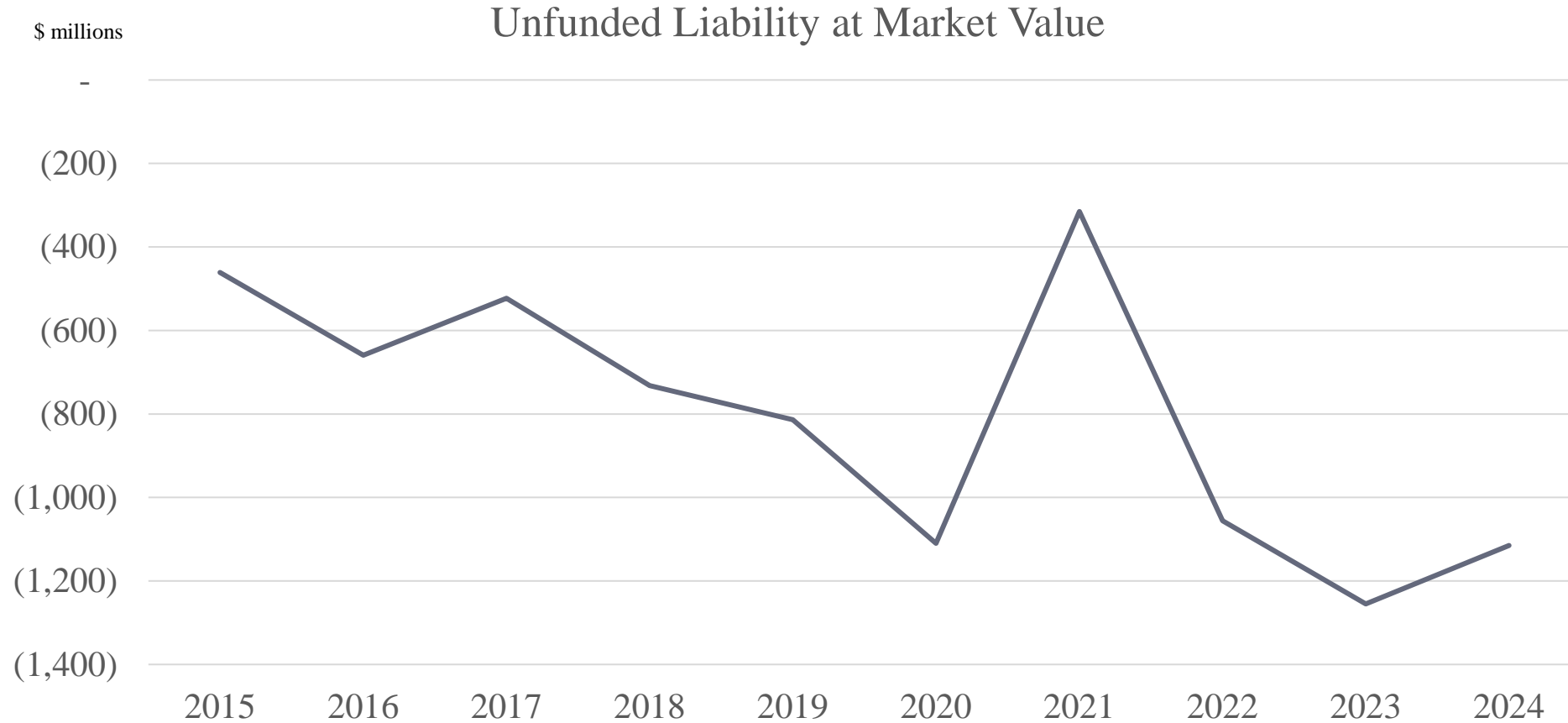
Net Position by Restriction



Capital Assets Grow with State & Federal Investments



Unfunded Pension Liability Decreases



Update on Key State ARPA Projects

UMKC Health Sciences District



S&T Applied Research Center



Thompson Center



UMSL Richter Family Welcome Center



S&T Protoplex



NextGen Precision Health



UMKC

MISSOURI
S&T

UMSL

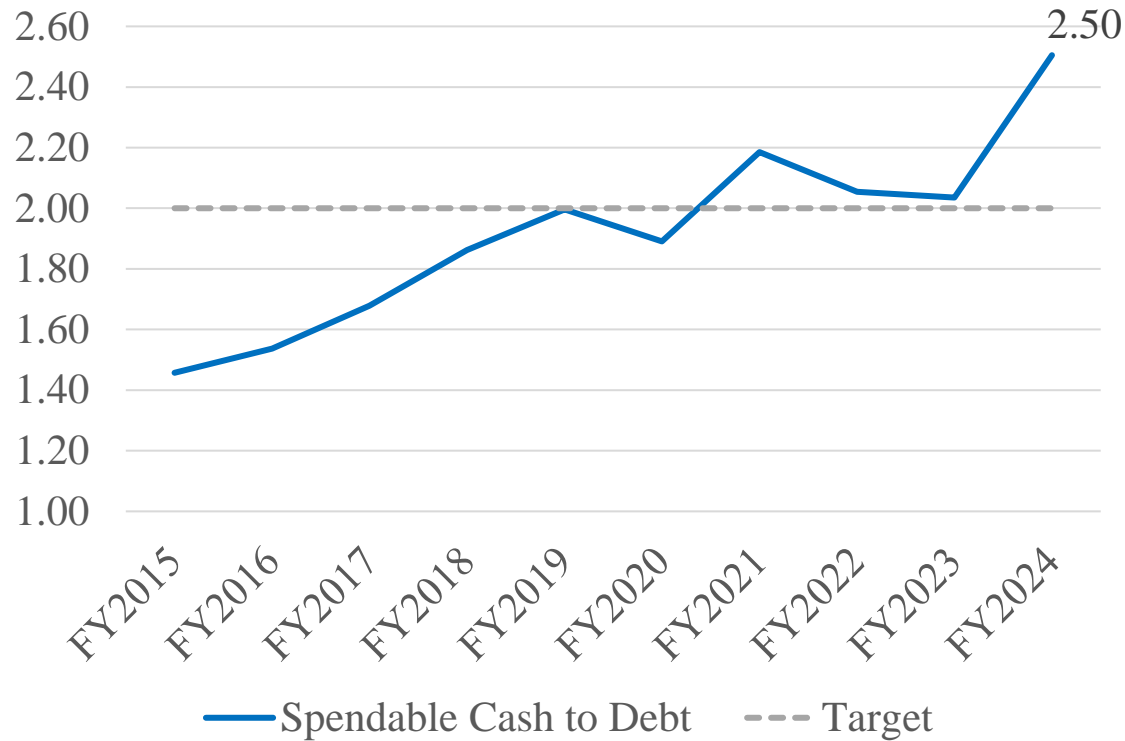
University of Missouri System

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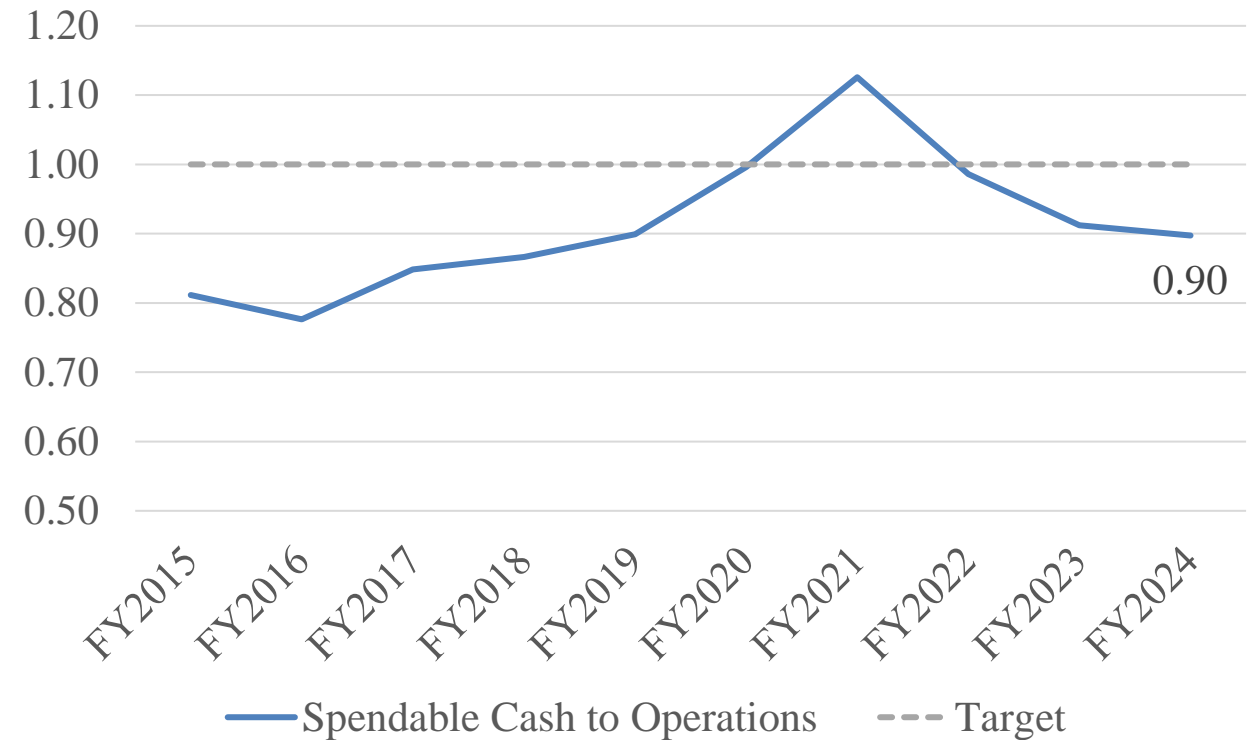
November 20, 2024

Balance Sheet Targets Remain Strong – Deleveraging Supports Lower Reserve

Spendable Cash to Debt

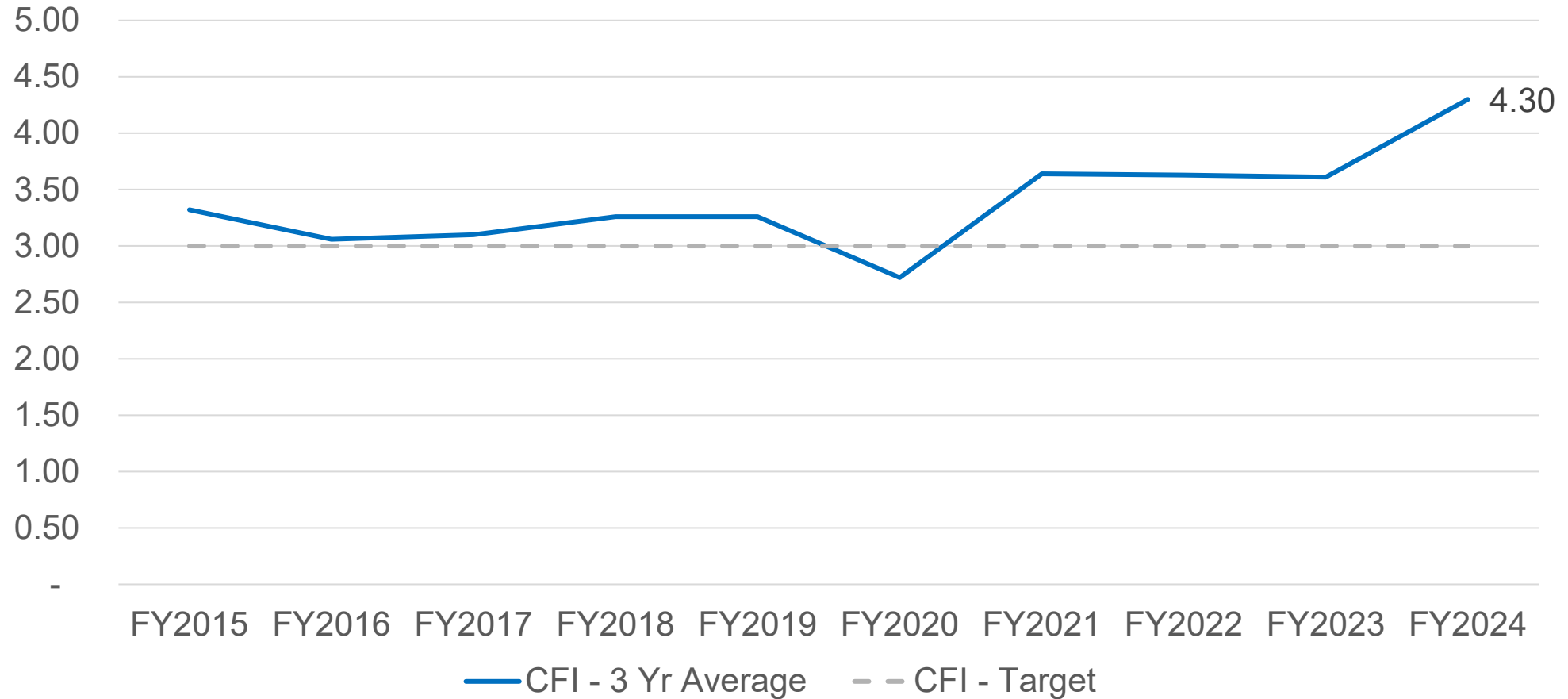


Spendable Cash to Operations



CFI Remains Above 3.0

Composite Financial Index



Next Steps

- i. Review and Approval of Financial Plans - February 2025
- ii. Review of FY 27 State Appropriation Requests - April 2025
- iii. Review of FY 26 Budget Assumptions – April 2025
- iv. Approval of Capital Plans - April 2025
- v. Approval of FY 26 Tuition - May 2025
- vi. Approval of FY 26 Budget – June 2025
- vii. Approval of FY 27 State Appropriation Requests



UMKC

MISSOURI
S&T

UMSL

University of Missouri System

OPEN - INFO - 1- 14

November 20, 2024

Questions?



UMKC

MISSOURI
S&T

UMSL

University of Missouri System

OPEN - INFO - 1- 15

November 20, 2024

Meeting Date	November 20, 2024
Action Title	Fiscal Year 2026 Student Housing and Dining Rates, UM
Action Type	Approval of Recommended Housing and Dining Rates

Executive Summary

The Board of Curators is being asked to approve the FY2026 Housing and Dining rate recommendations for each university which would become effective for the Summer Session 2025.

Room and board fees vary based on the market and student preference across the four universities. The table below outlines the current and recommended rates for the predominant room and board plan at each university. These rates are influenced by factors such as the attractiveness of each option to students and the underlying costs of running housing and dining operations. Each University proposed rate adjustments to align with student preferences and ensure the sustainability of housing and dining operations.

Summary of Predominant Room and Board Plans for an Academic Year				
	FY2025 ¹	FY2026	Increase	Percent
	\$	\$	\$	Change
MU	\$12,313	\$13,130	\$817	6.6%
UMKC	12,384	12,921	537	4.3%
Missouri S&T	11,269	11,807	538	4.8%
UMSL	12,108	12,476	368	3.0%

Note 1: Predominant plans changed in FY2026, FY2025 rate is updated to reflect comparable room and board plans.

Table of Contents

1. Executive Summary

- *Provides a high-level overview of the recommended rates by university.*

2. Recommended Action & Roll Call Vote [OPEN – FIN – 1 - 1-2]

- *The formal resolution to be voted upon by the Board to provide approval of Housing and Dining rates beginning Summer Session 2025.*

3. Housing and Dining Presentation Deck [OPEN – FIN – 1 - 3-5]

- *Slides to be presented at the November Board of Curators Meeting*

Appendix

4. Housing and Dining Rate Narrative & Tables [OPEN – FIN 1 – 8-19]

- *Narrative detail of the rate increases and tables supporting the action.*

Fiscal Year 2026 Student Housing and Dining Rates
UM

At the November 20, 2024, Board of Curators meeting, Executive Vice President Ryan Rapp will present the FY2026 Housing and Dining rate recommendations for approval. The rates would become effective for the Summer Session 2025.

Students within the University of Missouri System have access to a wide range of housing and dining options. On-campus living has been available at each university for many years, offering significant advantages:

- Improves student academic success
- Increases the likelihood of continuance and graduation
- Cultivates a sense of community among students
- Provides better security and safety through campus police and security measures.

Room and board fees vary based on the market and student preference across the four universities. The table below outlines the current and recommended rates for the predominant room and board plan at each university. These rates are influenced by factors such as the attractiveness of each option to students and the underlying costs of running housing and dining operations. Each University proposed rate adjustments to align with student preferences and ensure the sustainability of housing and dining operations.

<u>Summary of Predominant Room and Board Plans for an Academic Year</u>				
	FY2025 ¹	FY2026	Increase	Percent
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UMSL	12,108	12,476	368	3.0%

Note 1: Predominant plans changed in FY2026, FY2025 rate is updated to reflect comparable room and board plans.

The rates proposed, while increasing, are not outpacing inflation, below national averages and comparable to other SEC schools.

No. 1

Recommended Action - Fiscal Year 2026 Student Housing and Dining Rates, UM

It was recommended by the respective Chancellors, endorsed by President Choi, recommended by the Finance Committee, moved by Curator _____ and seconded by Curator _____, that the attached schedule of rates for the Residence Halls and Family Student Housing at MU, UMKC, Missouri S&T, and UMSL be approved effective beginning with the 2025 Summer Session.

Roll call vote Finance Committee	YES	NO
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Curator Blitz
Curator Fry
Curator Graves
Curator Holloway

The motion _____.

Roll call vote Full Board:	YES	NO
----------------------------	-----	----

Curator Blitz
Curator Fry
Curator Graves
Curator Holloway
Curator Krewson
Curator Layman
Curator Sinquefield
Curator Wenneker
Curator Williams

The motion _____.

Fiscal Year 2026 Student Housing and Dining Rates

November 20, 2024



UMKC

MISSOURI
S&T

UMSL

University of Missouri System

OPEN – FIN – 1 - 3

November 20, 2024

FY2026 Proposed Housing & Dining Rates Rationale

- Remain below the public university national average
- Maintain MU's position as one of the nation's best value flagship universities
- Remain competitive with housing and dining options relative to the SEC and other peer universities
- The rates are driven by:
 - Student preference and demand
 - Inflationary cost pressures



UMKC

MISSOURI
S&T

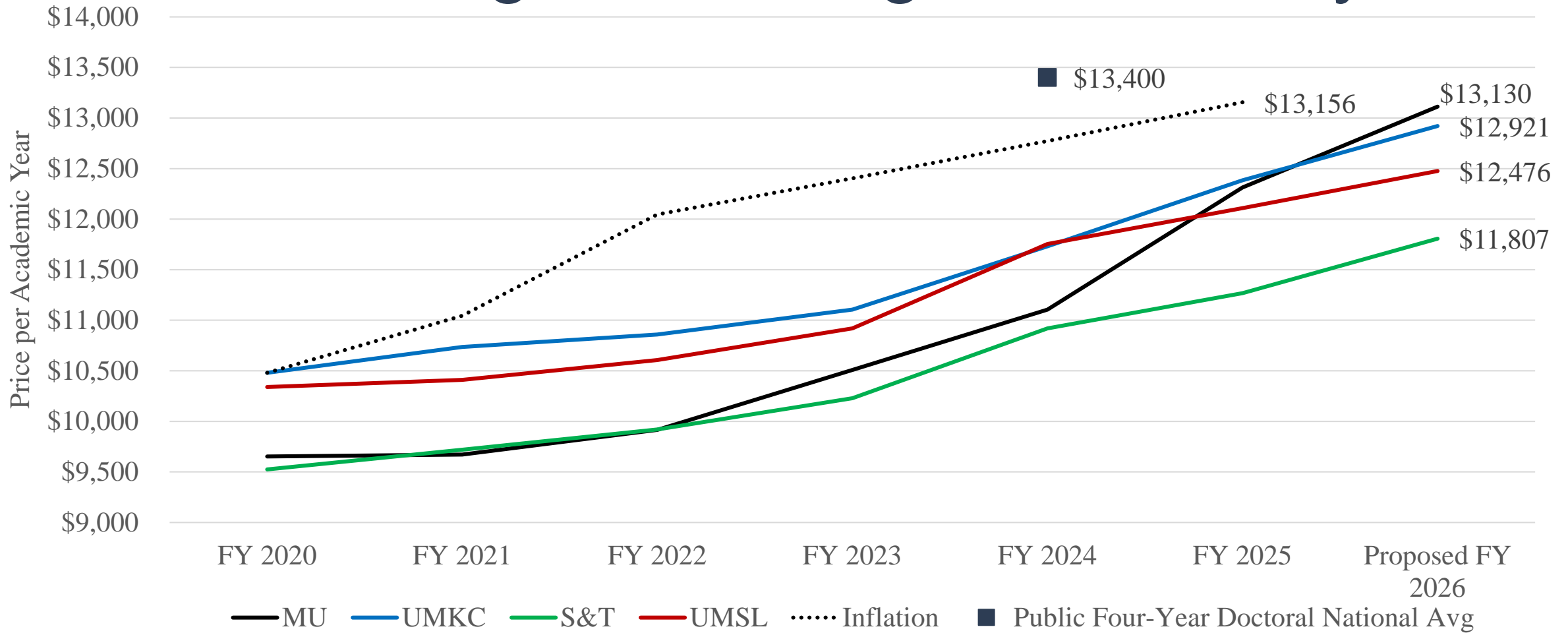
UMSL

University of Missouri System

OPEN – FIN – 1 - 4

November 20, 2024

Housing and Dining Rate History



FY2026 Housing & Dining Rates

MU

Predominant Plan
\$13,130 6.6%
H - \$8,618 7.2%
D - \$4,512 5.5%

Range

H - High \$13,500
H - Low \$7,415
D - High \$7,000
D - Low \$1,880

UMKC

Predominant Plan
\$12,921 4.3%
H - \$8,503 4.5%
D - \$4,418 4.0%

Range

H - High \$14,211
H - Low \$8,503
D - High \$4,644
D - Low \$4,418

Missouri S&T

Predominant Plan
\$11,807 4.8%
H - \$8,150 4.0%
D - \$3,657 6.5%

Range

H - High \$11,280
H - Low \$6,525
D - High \$4,387
D - Low \$2,722

UMSL

Predominant Plan
\$12,336 1.9%
H - \$8,016 3.0%
H - \$4,460 3.1%

Range

H - High \$8,016
H - Low \$5,786
D - High \$5,100
D - Low \$3,290





————— University of Missouri System —————

Naming Opportunity
Naming of the Arrival District to
The Havener Arrival Complex
Missouri S&T

Pursuant to CRR 110.080, naming and/or recognition for any Exterior Area, University Landmark, Interior Spaces, unit, or program requires Board approval. Missouri University of Science and Technology requests approval to name the Arrival District, a newly created entrance to campus in Rolla, Missouri, to the "The Havener Arrival Complex" in recognition of Gary Havener.

Gary W. Havener, a Texas entrepreneur and alumnus of Missouri S&T, has made a \$25,000,000 gift in support of the university's new Havener Arrival Complex. Havener is the founder and president of Havener Companies, a commercial real estate investment and management firm based in Fort Worth, Texas. A native of Mexico, Missouri, he earned a bachelor's degree in mathematics from Missouri S&T in 1962. After working for General Motors and serving in the U.S. Army Corps of Engineers, Havener built his career as an entrepreneur, establishing and acquiring companies in industries including electronics manufacturing, aircraft refurbishment, and commercial real estate. Havener was the lead donor to the Havener Center, the university's student center dedicated in 2005, as well as a major donor to Toomey Hall, Bertelsmeyer Hall, and the Kummer Student Design Center. The Gary W. Havener Endowed Scholarship Fund has benefitted students majoring in math since it was established nearly 40 years ago, and his support of the Finish Line Scholarship Fund has helped students nearing graduation to complete their degrees. He established the Gary W. Havener Endowed Chair in Mathematics and Statistics in 2021.

Havener has also given back as a mentor and adviser, speaking to first-year students in the Chancellor's Leadership Academy, serving on advisory and capital campaign committees, and providing strategic vision as a member of the Missouri S&T Board of Trustees and the Kummer Institute Foundation Board of Directors.

He received the university's highest honor in 2011 when he was named to the inaugural class of Alumni of Influence. His other awards include an honorary Doctor of Engineering degree in 2013 and the Miner Alumni Association's Robert V. Wolf Alumni Service Award in 2012.

The Havener Arrival Complex is a transformational construction project creating a new front door and formal entrance for the university. This expansive complex connects Missouri S&T's entry point off I-44 to campus through a series of state-of-the-art building and landscaping projects directing visitors to a new, grand entrance and campus commons. Missouri S&T is immensely grateful to Gary for his longstanding partnership, trusted leadership, and generous investment in the S&T campus.

UM System President and MU Chancellor Mun Y. Choi and Chancellor Dehghani are in support of this naming.

November 20, 2024

No. 2

Recommended Action - Naming of Arrival District to The Havener Arrival Complex,
located at Missouri S&T

It was recommended by Chancellor Dehghani, endorsed President Choi,
recommended by the Finance Committee, moved by Curator _____ and
seconded by Curator _____, that the following action be approved:

To name the Arrival District at Missouri S&T to The Havener Arrival Complex

Roll call vote Finance Committee YES NO

Curator Blitz
Curator Fry
Curator Graves
Curator Holloway

The motion _____.

Roll call vote Full Board: YES NO

Curator Blitz
Curator Fry
Curator Graves
Curator Holloway
Curator Krewson
Curator Layman
Curator Sinquefield
Curator Wenneker
Curator Williams

The motion _____.

November 20, 2024

HEALTH AFFAIRS COMMITTEE

Michael A. Williams, Chair
Robert W. Fry
Keith A. Holloway
Jeff L. Layman
Ronald G. Ashworth (non-curator)
Philip Burger (non-curator)
Daniel P. Devers (non-curator)

The Health Affairs Committee (“Committee”) assists the Board of Curators in overseeing the clinical health care operations of the University and in coordinating those operations in furtherance of the University’s teaching, research, and clinical missions.

I. Scope

The Committee provides oversight for the University’s clinical health care operations in the areas of:

- Mission, vision, and strategy;
- Governance and operational oversight;
- Quality of care and patient safety;
- Regulatory compliance;
- Financial planning and performance; and
- Coordination of the clinical, teaching, and research missions.
- Specific projects that enable meaningful collaboration among UM universities.

II. Executive Liaison

The Executive Vice Chancellor for Health Affairs of the University of Missouri-Columbia or some other person(s) designated by the President of the University, with the concurrence of the Board Chair and the Committee Chair, shall be the executive liaison to the Committee and responsible for transmitting Committee recommendations.

III. Responsibilities

In addition to the overall responsibilities of the Committee described above and in carrying out its responsibilities regarding clinical health care operations, the charge of the Committee shall include:

- A. Reviewing and making recommendations to the Board regarding:
 1. actions that are appropriate or necessary to assist the Board in overseeing clinical health care operations or coordinating the teaching, research, and clinical missions;
 2. significant actions related to health care which should require advance notice or approval by the Committee or Board; and
 3. other matters referred to it by the Board and University officers.
- B. Requesting, receiving, and reviewing reports and other information from University officers and advisors regarding health care operations, coordination of the teaching, research, and clinical missions, and related matters, including meeting at least quarterly and receiving regular reports from appropriate officers of University of Missouri Health Care, the MU School of Medicine, and the MU Health Chief Compliance Officer.

- C. Additional matters customarily addressed by the health affairs committee of a governing board for an institution of higher education.

IV. Committee Membership and Quorum Requirements

The Committee's membership may include non-Curator members in addition to Curator members. Subject to approval of the Board, the Board Chair shall determine the number of Curator and non-Curator members to appoint to the Committee and shall select individuals to serve as members of the Committee; provided that, the number of non-Curator members on the Committee shall not exceed the number of Curator members on the Committee, unless the Committee temporarily has more non-Curator members than Curator members because a Curator member of the Committee has resigned from the Board or the Committee. Non-Curator members may resign their Committee membership by providing written notice to the Board Chair. Non-Curator members of the Committee serve at the pleasure of the Board and may be removed by the Board Chair at any time, subject to approval of the Board.

A quorum for the transaction of any and all business of the Committee shall exist when:

1. Both a majority of all Curator members of the Committee and a majority of all members of the Committee are participating for Committee meetings which are held in conjunction with meetings of the Board; or
2. Both all Curator members of the Committee and a majority of all members of the Committee are participating for Committee meetings which are not held in conjunction with meetings of the Board; or
3. Both a majority of all Curator members of the Committee and a majority of all members of the Committee are participating for Committee meetings which are held solely for the purpose of reviewing and overseeing compliance matters.

EXECUTIVE VICE CHANCELLOR REPORT

Materials for this information item will be distributed prior to the meeting.

No. 1

Recommended Action - Election of Board of Curators Chair, 2025

Upon the motion of Curator _____, Curator _____ was nominated to serve as Chair of the Board of Curators for the term January 1, 2025 through December 31, 2025. The nomination was seconded by Curator _____.

Roll call vote:	YES	NO
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Curator Blitz

Curator Fry

Curator Graves

Curator Holloway

Curator Krewson

Curator Layman

Curator Sinuefield

Curator Wenneker

Curator Williams

The motion _____.

November 20, 2024

No. 2

Recommended Action - Election of Board of Curators Vice Chair, 2025

Upon the motion of Curator _____, Curator _____ was nominated to serve as Vice Chair of the Board of Curators for the term January 1, 2025 through December 31, 2025. The nomination was seconded by Curator _____.

Roll call vote:	YES	NO
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Curator Blitz

Curator Fry

Curator Graves

Curator Holloway

Curator Krewson

Curator Layman

Curator Sinuefield

Curator Wenneker

Curator Williams

The motion _____.

November 20, 2024

**Board of Curators Meeting
November 20, 2024
Appendix**

600.010 Equal Employment/Educational Opportunity and Nondiscrimination Policy - for matters involving conduct alleged to have occurred on or after August 14, 2020

Bd. Min. 2-19-71; Reaffirmed Bd. Min. 10-14-77; Amended Bd. Min. 5-23-80; Amended Bd. Min. 10-15-82; Amended Bd. Min. 10-16-03; Amended Bd. Min. 6-19-14; Revised 9-22-14 by Executive Order 41. Revised 2-5-15; Revised 2-9-17 with effective date of 3-1-17; Revised 7-28-20 with effective date of 8-14-20.

- A. Equal Employment/Educational Opportunity Policy and Statement of Nondiscrimination. The Curators of the University of Missouri does hereby reaffirm and state the policy of the University of Missouri on Equal Employment/Educational Opportunity and Nondiscrimination.
1. Equal Opportunity is and shall be provided for all employees and applicants for employment on the basis of their demonstrated ability and competence without unlawful discrimination on the basis of their race, color, national origin, ancestry, religion, sex, pregnancy, sexual orientation, gender identity, gender expression, age, disability, protected veteran status, or any other status protected by applicable state or federal law. This policy shall not be interpreted in such a manner as to violate the legal rights of religious organizations or the recruiting rights of military organizations associated with the Armed Forces or the Department of Homeland Security of the United States of America.
 2. Equal Opportunity is and shall be provided for all students and applicants for admission without unlawful discrimination on the basis of their race, color, national origin, ancestry, religion, sex, pregnancy, sexual orientation, gender identity, gender expression, age, disability, protected veteran status, or any other status protected by applicable state or federal law. This policy shall not be interpreted in such a manner as to violate the legal rights of religious organizations or the recruiting rights of military organizations associated with the Armed Forces or the Department of Homeland Security of the United States of America.
 3. The University of Missouri does not discriminate on the basis of race, color, national origin, ancestry, religion, sex, pregnancy, sexual orientation, gender identity, gender expression, age,

disability, protected veteran status, and any other status protected by applicable state or federal law. As used in this policy, the word "sex" is also inclusive of the term "gender."

The University's Nondiscrimination policies apply to any phase of its employment process, any phase of its admission or financial aid programs, other aspects of its educational programs or activities, and instances occurring in other settings, including off-campus, if there are effects of the conduct that interfere with or limit any person's ability to participate in or benefit from the University's educational programs, activities or employment. Notices of Nondiscrimination are posted online and in physical locations for the UM System and each of the Universities in the System.

The President of the University shall establish affirmative action procedures to implement this policy.

B. Definition of Discrimination and Harassment. For purposes of determining whether a particular course of conduct constitutes prohibited discrimination or harassment under this policy, the following definitions will be used:

1. Discrimination or Harassment. Conduct that is based upon an individual's race, color, national origin, ancestry, religion, sexual orientation, age, disability, protected veteran status, including sex discrimination as defined below, or any other status protected by applicable state or federal law that:
 - a. Adversely affects a term or condition of employment, education, living environment or participation in a University activity; or
 - b. Creates a hostile environment by being sufficiently severe or pervasive and objectively offensive that it interferes with, limits, or denies the ability to participate in or benefit from the University's educational programs, activities, or employment; or
2. Sex Discrimination. Sex discrimination is conduct that is based upon an individual's sex, pregnancy, gender identity, or gender expression that adversely affects a term or condition of an individual's employment, education, living environment, or participation in a University education program or activity. Sex discrimination under this policy includes the following:
 - a. Sexual Harassment, as defined in CRR 600.020, is governed exclusively by CRR 600.020 and CRR 600.030. All other forms of sex-based discrimination are governed by this policy, including sex-based harassment that does not rise to the level of Sexual Harassment as defined in CRR 600.020, and conduct that meets the substantive definition of Sexual Harassment as defined in CRR 600.020 that occurs outside the University's education programs, activities, or employment, or occurs outside the United States,

- but nonetheless has an effect that interferes with or limits any person's ability to participate in or benefit from the University's education programs, activities or employment;
- b. Workplace sexual harassment: Conduct that creates a hostile environment by being sufficiently severe or pervasive and objectively offensive that it interferes with, limits or denies the ability to participate in or benefit from the University's education programs, activities or employment;
 - c. Sex discrimination that does not involve conduct of a sexual nature.
3. Consent to Sexual Activity. Consent to sexual activity is knowing and voluntary. Consent to sexual activity requires of all involved persons a conscious and voluntary agreement to engage in sexual activity. Each person engaged in the sexual activity must have met the legal age of consent. It is the responsibility of each person to ensure they have the consent of all others engaged in the sexual activity. Consent must be obtained at the time of the specific activity and can be withdrawn at any time. Consent, lack of consent, or withdrawal of consent may be communicated by words or non-verbal acts. Someone who is incapacitated cannot consent. Silence or absence of resistance does not establish consent. The existence of a dating relationship or past sexual relations between the Parties involved should never by itself be assumed to be an indicator of consent. Further, consent to one form of sexual activity does not imply consent to other forms of sexual activity. Consent to engage in sexual activity with one person does not imply consent to engage in sexual activity with another. Coercion and force, or threat of either, invalidates consent.
4. Incapacitated or incapacitation. A state in which rational decision-making or the ability to consent is rendered impossible because of a person's temporary or permanent physical or mental impairment, including but not limited to physical or mental impairment resulting from drugs or alcohol, disability, sleep, unconsciousness or illness. Consent does not exist when the Respondent knew or should have known of the other individual's incapacitation. Incapacitation is determined based on the totality of the circumstances. Incapacitation is more than intoxication but intoxication can cause incapacitation. Factors to consider in determining incapacity include, but are not limited to, the following:
- a. Lack of awareness of circumstances or surroundings (e.g., an inability to understand, either temporarily or permanently, the who, what, where, how and/or why of the circumstances; blackout state)
 - b. Inability to physically or verbally communicate coherently, particularly with regard to consent (e.g., slurred or incoherent speech)

- c. Lack of full control over physical movements (e.g., difficulty walking or standing without stumbling or assistance)
 - d. Physical symptoms (e.g., vomiting or incontinence)
- C. Equity Officers. Duties and responsibilities of the University's Equity Officers include monitoring and oversight of overall implementation and compliance with the University's Equal Employment/Educational Opportunity and Nondiscrimination Policy, including coordination of training, education, communications and coordination with the equity resolution processes for faculty, staff, students and other members of the University community and investigation of complaints of discrimination, harassment, and retaliation. Any person having inquiries concerning this policy should contact their respective UM System or University Equity Officer. The following individuals serve as Equity Officers and are designated to handle inquiries regarding the Anti-Discrimination policies and to serve as the coordinators for purposes of compliance with those policies:

University of Missouri System and University of Missouri-Columbia

Andrea Hayes, J.D.

Equity Officer

Address:

University of Missouri

320 Jesse Hall

Columbia, MO 65211

Telephone: (573) 882-2824

Email: hayesas@missouri.edu

civilrights.missouri.edu

University of Missouri-Kansas City

KC Atchinson

Equity Officer

Address:

Administrative Center

5115 Oak Street, Room 212D

Kansas City, MO 64112

Telephone: 816-235-6910

Email: atchinsonk@umkc.edu

www.umkc.edu/titleix

Missouri University of Science and Technology

Anitra Rivera

Interim Equity Officer

Address:

605 West 11th Street

Rolla, MO 65409

Telephone: 573-341-4632

Email: riveraac@mst.edu

titleix.mst.edu

University of Missouri-St. Louis

Dana Beteet Daniels

Equity Officer

Address:
One University Boulevard
220 Woods Hall
St. Louis, MO 63121
Telephone: 314-516-4538
Email: dana@umsl.edu
www.umsl.edu/title-ix

University of Missouri Health System
Julia Settles, M.D., J.D., CPHRM, CPPS
Equity Officer
Address:
One Hospital Drive
Columbia, MO 65212
Telephone: 573-882-8187
Email: SettlesJA@health.missouri.edu
https://www.umssystem.edu/ums/dei/titleix/muhc_title_ix_office

NOTE: All references to "Equity Officer" throughout this policy refer to the Equity Officer or the Equity Officer's designee.

If the Complaint involves the University's Equity Officer, reports may be made to the System Equity Officer. If the Complaint involves the System Equity Officer, reports may be made to the System President. The contact information for the System President is:

Office of the President
105 Jesse Hall
Columbia, MO 65211
Telephone: (573) 882-2011
Email: president@umssystem.edu

NOTE: The above-listed contact information for Equity Officers may be updated as needed and without requiring the approval of the Board of Curators.

- D. Equity Resolution Processes. The University is committed to preventing and eliminating impermissible discrimination and harassment in its educational programs, activities and employment. To that end, the University maintains policies regarding reporting, investigation, and resolution of complaints of discrimination or harassment. Specifically, please see:
1. Section 600.040 – Equity Resolution Process for Resolving Complaints of Discrimination and Harassment Against a Faculty Member or Student or Student Organization
 2. Section 600.050 – Equity Resolution Process for Resolving Complaints of Discrimination and Harassment Against a Staff Member or the University of Missouri
- E. Reporting Discrimination or Harassment
1. Students, Employees, Volunteers, and Visitors. Students, employees, volunteers, and visitors of the University who have experienced any form of discrimination or harassment are

encouraged to report the incident promptly to the appropriate Equity Officer listed in Section 600.010.C above. In addition, students, volunteers, and visitors of the University who have witnessed such conduct are encouraged to report the incident promptly to the appropriate Equity Officer. The University will respond to all such reports pursuant to one of its Title IX or Equity Resolution Processes (see Sections 600.030, 600.040, 600.050).

2. Mandated Reporters. Any employee of the University, except as noted below, who becomes aware of discrimination or harassment as defined in this policy is a Mandated Reporter, regardless of whether the recipient of the behavior is a student, employee, volunteer, or visitor of the University.
3. Employees with a Legal Obligation or Privilege of Confidentiality. Employees with a legal obligation or privilege of confidentiality (including health care providers, counselors, journalists, lawyers, and their associated staff) are not considered Mandated Reporters and are not required to report when the information is learned in the course of a confidential communication. This also means that the employee seeking the exemption is employed by the University for that specific purpose and was acting in that capacity when the confidential disclosure was made. If the information is not learned in the course of confidential communication (for example, behavior is observed in class) then the employee has the same obligation as a Mandated Reporter.
4. Designated Confidential Employees. Consistent with the law and upon approval from the Office of the General Counsel, a University may also designate non-professional counselors or advocates as confidential for purposes of this policy and, therefore, excluded from the definition of Mandated Reporters.
5. Required Reporting. A Mandated Reporter is required to promptly report the information to the appropriate Equity Officer. A mandated report must be made regardless of whether the person reporting the information to the Mandated Reporter requests confidentiality and regardless of how the Mandated Reporter becomes aware of the offensive behavior (personal observation, direct information from the subject of the behavior, indirect information from a third party, etc.). If the Complainant requests confidentiality or that a report not be pursued, the Mandated Reporter should warn the Complainant that, at this stage in the process, the Mandated Reporter must report all known information to the Equity Officer.
6. Content of Mandated Report to Equity Officer. Mandated Reporters must report all details that they possess. This includes names of the Parties, if known, and all other information in the Mandated Reporter's possession.
7. Non-compliance. Failure to comply with this policy can result in disciplinary action under applicable University policies. Employees also are cautioned that non-compliance with this policy may increase their risk of personal liability. Further, an individual who fails to report as required under this policy may be determined to be ineligible for defense or protection under

Section 490.010 of the University's Collected Rules and Regulations for any associated claims, causes of action, liabilities or damages.

- F. Retaliation, False Reporting, and Witness Intimidation or Harassment.
1. Retaliation is any adverse action taken against a person because of that person's participation in protected activity. The phrase "participation in a protected activity" includes refusal to participate in proceedings involving sex discrimination under CRRs 600.040 and 600.050. Any person who engages in such retaliation shall be subject to disciplinary action, up to and including expulsion or termination, in accordance with applicable procedures. Any person who believes they have been subjected to retaliation is encouraged to notify the Equity Officer. The University will promptly respond to all claims of retaliation in accordance with this policy.
Examples of prohibited retaliation include, but are not limited to, giving a lesser grade than the student's academic work warrants because the student filed a report or Complaint of discrimination or harassment; giving lower than justified performance appraisals because a person was a witness in an investigation of alleged discrimination or harassment; and threatening to spread false information about a person for filing a report or Complaint of discrimination or harassment.
 2. False reporting is making an intentional false report or accusation in relation to this policy as opposed to a report or accusation, which, even if erroneous, is made in good faith.
 3. The University prohibits attempted or actual intimidation or harassment of any potential Party or witness. No individual participating in an investigation relating to a report or Complaint that a violation of this policy has occurred should, directly or through others, take any action which may interfere with the investigation.
 4. For situations involving alleged retaliation, false reporting, and witness intimidation or harassment, the Equity Officer will refer the matter to the appropriate University process.
- G. U.S. Department of Education – Office for Civil Rights. Inquiries concerning discrimination in educational opportunities also may be referred to the United States Department of Education's Office of Civil Rights. For further information on notice of nondiscrimination and for the address and phone number of the U.S. Department of Education office which serves your area call 1-800-421-3481.
The State of Missouri Regional Office for Civil Rights is located in Kansas City and is available to provide assistance.

Office for Civil Rights
U.S. Department of Education
One Petticoat Lane
1010 Walnut, 3rd Floor, Suite 320
Kansas City, MO 64106
Telephone: (816) 268-0550
FAX: (816) 268-0559

TDD: (800) 877-8339
Email: OCR.KansasCity@ed.gov
4854-8682-9553, v. 1

420.010 Research Misconduct

Bd. Min. 3-24-06; Amended 11-29-07; Amended 11-20-24

A. Policy for Reviewing Alleged Research Misconduct

1. Statement of Principles

- a. Integrity in scholarship and research is a fundamental value upon which the University is founded.
- b. It is the shared responsibility of all members of our academic community to ensure that misconduct in scholarship and research is dealt with in a timely and effective manner, and that the reputation of the University for high standards of scholarly and research integrity is preserved.
- c. The purpose of this policy is to reaffirm the University's commitment to integrity of research and scholarship and establish the principles and procedures that will be followed in the University's review of allegations of research misconduct. The National Science Foundation, the Public Health Service, and other federal agencies have published regulations regarding the investigation of allegations of research misconduct in the context of activities supported by those agencies. The University will comply with those statutory and regulatory requirements if applicable and this policy shall be interpreted so as to conform with those requirements.

2. Applicability

- a. This policy addresses research misconduct as defined in section A.3 of this policy in connection with any research conducted at the University of Missouri, regardless of the presence or absence of external funding or sponsorship of the specific research project. Other forms of misconduct that may relate to activities in scholarship and research are not addressed through this policy but may be addressed through other applicable University rules and policies, including but not limited to the Standards of Faculty Conduct, Section 330.110.
- b. The provisions of this policy apply to:
 - 1) All individuals who hold University appointments who are engaged in the design or conduct of research or the reporting of research results, regardless of the presence or absence of external funding or sponsorship of the specific research project; and
 - 2) Anyone engaged in the design or conduct of research or the reporting of research results through a Sponsored Program at the University of Missouri, to the extent of that research.
- c. Misconduct by undergraduate students shall be addressed through Sections 200.010, Standard of Conduct; and 200.020, Rules of Procedures in Student or Student Organization Conduct Matters.

- d. Research misconduct by graduate students generally will be dealt with under this policy, provided that, after consultation with a university's chief academic administrator for graduate studies (such as Dean of the Graduate School or similar official), the Deciding Official as defined in this rule may, determine that an allegation of research misconduct on the part of a graduate student is more appropriately addressed under Section 200.010 and Section 200.020 or duly authorized student honor systems established pursuant to CRR 200.020.E.9 and refer the allegation to appropriate officials for action in accordance with such rules or student honor systems.

3. Definitions

a. Definitions of Research Misconduct

- 1) Fabrication: making up data or results and recording them in the research record.
- 2) Falsification: manipulating research materials, equipment, or processes, and/or changing or omitting data or results such that the research is not accurately represented in the research record.
- 3) Plagiarism: the appropriation of another person's ideas, processes, results, or words without giving appropriate credit.
- 4) Research misconduct does not include honest error, author disputes, or differences of interpretation inherent in the scientific and creative processes that are normally corrected through further research and scholarship.

b. Definitions of Key Roles and Federal Agencies

- 1) Complainant: refers to an individual(s) who makes an allegation of research misconduct.
- 2) Respondent: refers to the person against whom an allegation of research misconduct is directed or the person whose actions are the subject of the inquiry or investigation. There can be more than one Respondent in any inquiry or investigation.
- 3) Research Integrity Officer (RIO): refers to the University official responsible for assessing allegations of research misconduct and determining whether such allegations warrant inquiries and for overseeing inquiries and investigations. This position is appointed by the Chancellor.
- 4) Deciding Official (DO): refers to the University official, who makes final determinations on allegations of research misconduct and any responsive institutional actions. The Chancellor may serve as the DO or may designate the Provost or other individual to serve as the DO, provided that the DO will not be the same individual as the RIO and should have no direct prior involvement in the institution's inquiry, investigation, or allegation assessment.
- 5) U.S. Public Health Service (PHS): an operating component of the U.S. Department of Health and Human Services (DHHS).

- 6) Office of Research Integrity (ORI): an operating component of the United States Department of Health and Human Services (DHSS) that is responsible for research misconduct proceedings and research integrity activities of the U.S. Public Health Service (PHS).
- c. Definitions of Other Key Terms
- 1) Allegation refers to any written or oral statement or other indication of possible research misconduct made to an institutional official, including but not limited to department chairs, deans, Research Integrity Officers (RIOs), the Vice Chancellor for Research (VCR) or equivalent, the Associate Vice Chancellor for Research (ACVR) or equivalent, and the Provost.
 - 2) Conflict of interest and commitment refers to a divergence between an individual's interests and the individual's professional obligations, such that an independent observer might reasonably question whether the individual's professional actions or decisions are determined by considerations other than the best interests of the University.
 - 3) Good faith as applied to a Complainant, Respondent, or witness, means having a belief in the truth of one's allegation or statement that a reasonable person in the individual's position could have based on the information known to the individual at the time. An allegation or statement in a research misconduct proceeding is not in good faith if made with knowing or reckless disregard for information that would negate the allegation or statement. Good faith as applied to a committee member means cooperating with the research misconduct proceeding by carrying out the duties assigned impartially. A committee member does not act in good faith if the member's acts or omissions on the committee are dishonest or influenced by personal, professional, or financial conflicts of interest with those involved in the research misconduct proceeding.
 - 4) Inquiry refers to the initial process for determining whether an allegation or apparent instance of research misconduct has substance and warrants an investigation.
 - 5) Investigation refers to the formal development of a factual record and the examination of that record to determine, based on a preponderance of evidence, whether research misconduct has occurred and, if so, to determine the responsible person and the nature and seriousness of the research misconduct.
 - 6) Research refers to any systematic investigation, including research development, testing, and reporting, designed to develop or contribute to generalizable knowledge or specific knowledge. The term encompasses basic research, applied research, and research training activities in areas such as biomedical and life sciences,

natural sciences, engineering, humanities and arts, and social and behavioral sciences.

a) Research record means any physical or electronic record of data or results that embody the facts resulting from scientific inquiry. It includes, but is not limited to data, document, computer file, computer storage device, or any other written or non-written account or object that reasonably may be expected to provide evidence or information regarding the proposed, conducted, or reported research that constitutes the subject of an allegation of research misconduct. Examples of research records include, but are not limited to, research proposals, grant or contract applications, whether funded or unfunded; grant or contract progress and other reports; abstracts; theses; oral presentations; internal reports; journal articles; laboratory notebooks; notes; correspondence; videos; photographs; X-ray film; slides; biological materials; computer files and printouts; manuscripts and publications; equipment use logs; laboratory procurement records; animal facility records; human and animal subject protocols; consent forms; medical charts; and patient research files.

7) Retaliation means any adverse action taken against an individual because the individual a) has made a good faith allegation of research misconduct or of inadequate institutional response thereto; or b) cooperated in good faith with any action or proceeding under this rule. This includes adverse action taken by any individual, the University, or any unit of the University.

8) Student refers to a person having once been admitted to the University who has not completed a course of study and who intends to or does continue a course of study in or through one of the Universities of the University System. For the purpose of these rules, student status continues whether or not the University's academic programs are in session.

4. General Principles

- a. Prohibition: Research misconduct is prohibited and subject to sanctions pursuant to this rule.
- b. Requirements for findings of research misconduct: A finding of research misconduct requires a determination that there has been a significant departure from accepted practices of the relevant academic community; that the research misconduct was committed intentionally, knowingly, or recklessly; and that the allegation has been proved by a preponderance of evidence.

- c. Handling of questionable research practices: Concerns in the context of research and scholarship that do not constitute research misconduct as defined in this rule, such as carelessness or questionable research practices, as well as authorship disputes, will generally be handled through the appropriate administrative channels or other applicable processes, including but not limited to Standards of Faculty Conduct CRR 330.110.
- d. Retaliation is prohibited and is subject to disciplinary action in accordance with applicable University policies. The University will take reasonable and practical steps to counter potential or actual retaliation against individuals participating in proceedings under this rule.
- e. Good faith participation: Complainants, respondents, and other participants in the research misconduct review process are expected to act in good faith throughout. Failure to act in good faith may lead to disciplinary action in accordance with applicable University rules and policies.
- f. Conflicts of Interest Prohibited: No individual responsible for carrying out proceedings under this rule shall have any unresolved personal, professional, or financial conflict of interest with the Complainant, Respondent, or witnesses. An individual having such a conflict of interest must promptly recuse from participation in any proceedings.
- g. Responsibility to Report Research Misconduct: All employees or individuals associated with the University of Missouri must report observed, suspected, or apparent research misconduct to the RIO. If an individual is unsure whether a suspected incident falls within the definition of research misconduct, the individual may contact the RIO to discuss the suspected misconduct informally. If the circumstances described by the individual do not meet the definition of research misconduct, the RIO may refer the individual or allegation to other offices or officials. At any time, an employee may have discussions and consultations about concerns of possible research misconduct with the RIO and will be counseled about appropriate procedures for reporting allegations.
- h. Protecting the Complainant and Cooperating Individuals: The RIO will monitor the treatment of individuals who bring allegations of research misconduct or of inadequate institutional response thereto, and those who cooperate in inquiries or investigations. The RIO will attempt to ensure that these persons will not be retaliated against and will review instances of alleged or apparent retaliation for appropriate action. Employees or those affiliated with the University or a PHS grant should immediately report any alleged or apparent retaliation to the RIO. Also, the University will maintain confidentiality as required by the terms of this rule. If the Complainant requests anonymity, the University will make a reasonable effort to honor the request during the allegation

assessment or inquiry within applicable policies, regulations, and laws, if any, but the Complainant will be advised that if the matter is referred to an investigation committee, anonymity will no longer be guaranteed. The University will take all reasonable and practical steps to protect the positions and reputations of good faith Complainants, witnesses and committee members.

- i. Protecting the Respondent: Inquiries and investigations will be conducted in a manner that will ensure fair treatment to the Respondent and confidentiality as required by the terms of this rule. The Respondent may have an advisor (who is not a witness and does not otherwise have a role in the case and who may be, but is not required to be, an attorney). The Respondent's advisor may accompany the Respondent to all interviews, meetings, and proceedings involved in the case. The advisor may actively participate and assist the Respondent. The advisor may make presentations and speak on behalf of the Respondent, request clarification of a procedural matter or object on the basis of procedure, ask any witnesses all relevant questions and follow-up questions, including cross-examination.
- j. Cooperation with Inquiries and Investigations: University employees and those working on PHS grants will cooperate with the RIO and other institutional officials involved in the review of allegations and the conduct of inquiries and investigations. Employees have an obligation to provide relevant evidence to the RIO and other University officials involved in review of research misconduct allegations.
- k. Responsibility of Institution to Respond to Credible Reports of Allegations of Research Misconduct: Because the University of Missouri values the credibility of its research activities and the integrity of its community, allegations of research misconduct are evaluated to determine whether there is specific and credible information on which to act. Just as the University protects Complainants against retaliation, the University is equally concerned about malicious or frivolous allegations made against its research community. The university performs a careful assessment of all allegations brought to the attention of institutional officials. The RIO, AVCR, VCR, and the DO shall consider and act upon any specific and credible information that comes to their attention indicating that research misconduct may have occurred. The RIO and other institutional officials assigned responsibility for handling allegations of research misconduct ensure that:
 - 1) The allegation assessment, inquiry, and investigation are completed in a timely, fair, objective, thorough, and competent manner; and

- 2) Reasonable precautions are taken to avoid bias and conflict of interest on the part of those involved in conducting the inquiry and investigation.
 - l. At any time during the assessment period or research misconduct proceedings, the University of Missouri will notify the appropriate funding and oversight agencies if:
 - 1) Public health or safety is at risk;
 - 2) Agency resources or interests are threatened;
 - 3) Research activities should be suspended;
 - 4) There is reasonable indication of possible violations of civil or criminal law;
 - 5) Federal action is required to protect the interests of those involved in the investigation;
 - 6) The University believes the research misconduct proceeding may be made public prematurely, so the agency may take appropriate steps to safeguard evidence and protect the rights of those involved or
 - 7) The research community or public should be informed.
 - m. Confidentiality:
 - 1) Disclosure of the identity of Respondents and Complainants in research misconduct proceedings is limited, to the extent possible, to those who need to know, consistent with a thorough, competent, objective, and fair research misconduct proceeding, and as allowed by law. The applicable laws and regulations may require the institution to disclose the identity of Respondents and Complainants to federal oversight agencies pursuant to the agency's review of institutional research misconduct proceedings.
 - 2) Except as may otherwise be prescribed by applicable law, confidentiality must be maintained for any records or evidence from which research subjects might be identified. Disclosure is limited to those who have a need to know to carry out a research misconduct proceeding.
 - n. Restoration of Reputations: The University of Missouri takes all reasonable and practical efforts, if requested and as appropriate, to restore the reputations of individuals alleged to have engaged in research misconduct but against whom no finding of research misconduct is made.
 - o. Referrals: If the University's review of the allegations identifies misconduct other than research misconduct, the RIO refers these matters to the proper institutional or federal office for action.
5. Sanctions
- The University may take disciplinary action, up to and including termination of employment, upon a finding of research misconduct. Applicable sanctions may include, but are not limited to:

- a. Warning. A notice in writing to the Respondent and included in the Respondent's personnel file indicating that there is a finding of research misconduct.
- b. Loss of Privileges. Denial of specified privileges of Respondent for a designated period of time. This may include but is not limited to suspending travel privileges and/or payment of travel or conference expenses, restricting use of laboratories or offices, limiting contact with students, or suspending access to teaching or research assistance or grant accounts, service on University committees or representation of the University on official business. The loss of privileges sanction may not be applied in a manner to create a constructive suspension.
- c. Education or Training. Respondent may be required to complete education or training.
- d. Restitution. Compensation by Respondent for loss, damage or injury to the University or University property. This may take the form of appropriate service and/or monetary or material replacement.
- e. Suspension. Separation of the Respondent from the University for a definite period of time, after which the Respondent is eligible to return. Conditions for return should be specified. Suspension may be with or without salary (full or partial) for a period not to exceed one-half of the individual's normal appointment period. During the suspension period, health and retirement benefits shall be maintained.
- f. Termination. Termination of an appointment with tenure will be pursuant to Section 310.060.

B. Procedure for Reviewing Alleged Research Misconduct

1. Statement of Purpose: It is the policy of the University of Missouri to inquire into and, if necessary, investigate and resolve promptly and fairly all instances of alleged research misconduct. As a recipient of federal research funds, the University of Missouri must have institutional policies and procedures in place to handle allegations of research misconduct.
2. Procedures for Conduct of Research Misconduct Proceedings
 - a. In conducting a research misconduct proceeding:
 - 1) the procedures shall be those best suited to achieve a fair and equitable review of the Allegation;
 - 2) the procedures shall reflect a spirit of mutual respect and collegiality, and may, therefore, be as informal as agreed by the Respondent under the circumstances;
 - 3) the Respondent shall have the right to have an advisor as stated in this rule;
 - 4) in all preliminary assessments, inquiries, and investigations, the Respondent shall have the right to present evidence and to identify persons who might have evidence about the allegation;

- 5) formal rules of evidence shall not apply;
 - 6) to the extent that a published regulation of a federal funding source requires a specific procedural element in the review and adjudication of an Allegation concerning a proposal to or an award from that federal funding source, that procedural element shall be included in the procedures adopted.
- b. General Counsel Advice: The Office of the General Counsel shall, when so requested, provide legal advice regarding the implementation of these procedures and other aspects of the University's review of an allegation under these procedures to the RIO, the Inquiry Committee, the Investigative Committee, the VCR, the DO, the Chancellor, and the Appellate Officer.
 - c. Admission of Misconduct: When the case involves PHS funds, the University cannot accept an admission of research misconduct as a basis for closing a case or not undertaking an investigation without prior approval from ORI. For non-PHS funding, the DO shall have authority to terminate the University's review of any allegation upon the admission by the Respondent that research misconduct occurred and that the Respondent was responsible for it, if the termination of the review of that allegation would not prejudice the University's review of another allegation against that Respondent or a different Respondent or the University's ability to assess the extent and consequences of the research misconduct and what action should be taken in response to it.
 - d. Additional Respondents. If, during the course of any research misconduct proceeding, additional Respondents are identified, they shall be notified immediately, and the RIO shall, to the degree feasible, attempt to coordinate the research misconduct proceedings against all the Respondents with respect to the same or related research misconduct.
3. Allegations of Misconduct and Preliminary Assessments
- a. Allegation of Research Misconduct
 - 1) Any member of the University community or other person who wishes to make an allegation shall contact the RIO or other institutional official who will promptly notify the RIO.
 - 2) The RIO shall notify the Respondent promptly of an allegation.
 - 3) The RIO shall advise the VCR of all allegations.
 - b. Preliminary Assessment of Allegations
 - 1) Promptly after receiving an allegation, the RIO shall assess the allegation to determine if:
 - a) it meets the definition of research misconduct;
 - b) it involves either the PHS funded research, applications for PHS research funding, or research records specified in U.S.

Code of Federal Regulations or other non-PHS funding;
and,

- c) the allegation is sufficiently credible and specific so that potential evidence of research misconduct may be identified.

c. Inquiry Not Warranted

- 1) Preliminary Assessment Report: If the RIO determines that an inquiry is not warranted because the allegation is not sufficiently credible and specific so that potential evidence of research misconduct may be identified, the RIO shall prepare a written preliminary assessment report that states the basis and rationale for the RIO's determination. The RIO shall provide a copy of the preliminary assessment report to the VCR.
- 2) End of Review: If the VCR concurs with the RIO's determination that an inquiry is not warranted, the University's review of that allegation shall be concluded. The Complainant and Respondent shall be notified in writing that the matter has been closed after preliminary assessment.

4. Conducting the Inquiry

- a. Initiation and Purpose of the Inquiry: Following the preliminary assessment, if the RIO determines that the allegation provides sufficient information to allow specific follow-up and falls under the definition of research misconduct, the RIO will initiate the inquiry process whether it involves PHS funding or not. In initiating the inquiry, the RIO should clearly identify the original allegation and any related issues that should be evaluated. The purpose of the inquiry is to make a preliminary evaluation of the available evidence and testimony of the Respondent, Complainant, and key witnesses to determine whether there is sufficient evidence of possible research misconduct to warrant an investigation. The purpose of the inquiry is not to reach a final conclusion about whether misconduct definitely occurred and therefore does not require a full review of all the evidence related to the allegation.
- b. Timeframe: The inquiry committee is generally convened within 30 days of the determination to convene an inquiry. The inquiry, including the final report of the inquiry committee and decision of whether an investigation is warranted, should generally be completed within 60 days of the convening of the inquiry.
- c. Notice to Respondent:
 - 1) Within 15 days of the determination to convene an inquiry, the RIO will notify the Respondent in writing of the allegation(s). Respondent notification includes:
 - a) The specific allegation(s);
 - b) The rights and responsibilities of the Respondent;

- c) The role of the inquiry committee;
 - d) A description of the inquiry process; and
 - e) A copy of this rule.
 - 2) The RIO also will notify the dean and department chair, or equivalent in the Respondent's department, in writing of the determination to convene an inquiry.
- d. Sequestration of the Research Records:
 - 1) After determining that an allegation falls within the definition of research misconduct, the RIO must ensure that all original research records and materials relevant to the allegation are secured. The RIO may consult with ORI for advice and assistance in this regard.
 - 2) The RIO shall take the following specific steps to obtain, secure, and maintain the research records and evidence pertinent to the research misconduct proceeding:
 - a) Either before or when the RIO notifies the Respondent of the allegation, the RIO shall promptly take all reasonable and practical steps to obtain custody of all research records and evidence needed to conduct the research misconduct proceeding, inventory those materials, and sequester them in a secure manner. Provided that in those cases where the research records or evidence encompass scientific instruments shared by a number of users, custody may be limited to copies of the data or evidence on such instruments, so long as those copies are substantially equivalent to the evidentiary value of the instruments.
 - b) Where appropriate, give the Respondent copies of, or as reasonable, supervised access to the research records.
- e. Appointment of the Inquiry Committee:
 - 1) The RIO, in consultation with other University officials (Deans, Chairs, VCR) as appropriate, will appoint an inquiry committee and committee chair. The inquiry committee should consist of at least 3 individuals who do not have real or apparent conflicts of interest in the case, are unbiased, and have the necessary expertise to evaluate the evidence and issues related to the allegation, interview the principals and key witnesses, and conduct the inquiry. These individuals may be scientists, subject matter experts, administrators, lawyers, or other qualified persons, and they may be from inside or outside the University. The majority of the committee will consist of tenured faculty.
 - 2) The RIO will notify the Respondent of the proposed committee membership in writing. If the Respondent submits a written objection to any appointed member of the inquiry committee or

expert based on bias or conflict of interest within 5 days, the RIO will determine whether to replace the challenged member or expert with a qualified substitute.

- f. Charge to the Committee and the First Meeting:
 - 1) Charge to the Committee: The RIO will prepare a charge for the inquiry committee that describes the allegations and any related issues identified during the allegation assessment and states that the purpose of the inquiry is to make a preliminary evaluation of the evidence and testimony of the Respondent, Complainant, and key witnesses to determine whether there is sufficient evidence of possible research misconduct to warrant an investigation.
 - 2) The First Meeting: At the committee's first meeting, the RIO will review the charge with the committee, discuss the allegations, any related issues, and the appropriate procedures for conducting the inquiry, assist the committee with organizing plans for the inquiry, and answer any questions raised by the committee. The RIO and the Office of the General Counsel will be available throughout the inquiry to advise the committee as needed.
- g. Inquiry Process: The inquiry committee will normally interview the Complainant, the Respondent and key witnesses as well as review relevant research records and materials. Then the inquiry committee will evaluate the evidence and testimony obtained during the inquiry. After consultation with the RIO and the Office of the General Counsel as needed, the committee members will decide whether there is sufficient evidence of possible research misconduct to recommend further investigation. The inquiry committee then prepares a report and submits it to the RIO.

5. The Inquiry Report

- a. Elements of the Inquiry Report: The written inquiry report shall contain the following information:
 - 1) The name and position of the Respondent(s);
 - 2) A description of the allegations of research misconduct;
 - 3) Research sponsorship, including, for example, grant numbers, grant applications, contracts, and publications listing PHS funding or other non-PHS funding;
 - 4) The basis for recommending that the alleged conduct does or does not warrant an investigation; and
 - 5) Any comments on the report by the Respondent or the Complainant. The report also should include recommendations on whether any other actions should be taken if an investigation is not recommended. The Office of the General Counsel will review the report for legal sufficiency.
- b. Comments on the Report by the Respondent and Complainant: The RIO will provide the Respondent with a copy of the inquiry report for

comment and rebuttal. At the RIO's discretion, the RIO also may provide the Complainant with a copy of the inquiry report for comment and rebuttal.

- 1) Confidentiality: The RIO may establish reasonable conditions for review to protect the confidentiality of the report.
 - 2) Receipt of Comments: Within 10 days of receipt of the report or summary, the Respondent and Complainant will provide their respective comments, if any, to the inquiry committee. For good cause, the Respondent or Complainant may request an extension of time from the RIO, which shall be granted whenever reasonable.
 - 3) Any comments that the Complainant or Respondent submits on the report will be shared with the inquiry committee and will become part of the final inquiry report and record. Based on the comments, the inquiry committee may revise the report as appropriate.
- c. Inquiry Decision and Notification:
- 1) Decision by VCR: The RIO will transmit the final report of the inquiry committee and any comments to the VCR, who will make the determination of whether findings from the inquiry provide sufficient evidence of possible research misconduct to warrant conducting an investigation. The inquiry is completed when the VCR makes this determination.
 - 2) Notification: The RIO will notify the Respondent and may notify the Complainant in writing of the VCR's decision of whether to proceed to an investigation. If an investigation is opened, the notice will include a reminder of the obligation to cooperate. The RIO also will notify all appropriate University officials and ORI (as applicable) of the VCR's decision.
- d. Time for Completing the Inquiry Report:
- 1) The inquiry committee will normally complete the inquiry and submit its report in writing to the RIO no more than 60 days following its first meeting, unless the RIO approves an extension because circumstances warrant a longer period. If the RIO approves an extension, the reason for the extension will be entered into the record of the proceeding. The Respondent also will be notified of the extension.
 - 2) For allegations that involve PHS funding, within 30 days of the VCR's decision that an investigation is warranted the RIO shall provide ORI with the written finding and a copy of the inquiry report containing the information required by the U.S. Code of Federal Regulations. Upon a request from ORI, the RIO shall promptly send to ORI:

- a) a copy of institutional policies and procedures under which the inquiry was conducted;
 - b) the research records and evidence reviewed, transcripts or recordings of any interviews, and copies of all relevant documents; and
 - c) the charges for the investigation to consider.
 - 3) Inquiry reports of allegations that do not involve PHS funding in accordance with the definition of research misconduct will not be forwarded to ORI, but will otherwise be in accordance with this rule.
 - e. Documentation of Decision Not to Investigate: If the VCR decides that an investigation is not warranted, the RIO shall secure and maintain for 7 years after the termination of the inquiry sufficiently detailed documentation of the inquiry to permit a later assessment by ORI of the reasons why an investigation was not conducted. These documents must be provided to ORI or other authorized HHS personnel upon request.
6. Initiation and Purpose of the Investigation
- a. Purpose of the Investigation: The investigation must begin within 30 days after the determination by the VCR that an investigation is warranted. The purpose of the investigation is to explore in detail the allegations; to examine the evidence in depth; to determine specifically whether research misconduct has been committed, by whom, and to what extent; and, if research misconduct has been committed, to recommend appropriate sanctions. The investigation also will determine whether there are additional instances of possible research misconduct that would justify broadening the scope beyond the initial allegations. This is particularly important where the alleged research misconduct involves clinical trials or potential harm to human subjects, animals, or the general public or if it affects research that forms the basis for public policy, clinical practice, or public health practice. The findings of the investigation will be set forth in an investigation report.
 - b. Sequestration of the Research Records: The RIO will promptly sequester any additional pertinent research records and evidence that were not previously sequestered during the inquiry. This sequestration should occur before or at the time the Respondent is notified that an investigation has begun and whenever additional items become known or relevant to the investigation. The need for additional sequestration of records may occur for any number of reasons, including the University's decision to investigate additional allegations not considered during the inquiry stage or the identification of records during the inquiry process that had not been previously secured. Sequestration during the investigation will proceed in the same manner as during the inquiry outlined in Section 4.d of this rule.

- c. Appointment of the Investigation Committee: The committee will consist of at least three tenured professors appointed by the Faculty Council/Senate and optionally two members appointed by the RIO. This appointment will occur as soon as practicable after the Respondent has been notified that an investigation is planned. The investigation committee should consist of individuals who do not have real or apparent conflicts of interest in the case, are unbiased, and have the necessary expertise to evaluate the evidence and issues related to the allegations, interview the principals and key witnesses, and conduct the investigation. Individuals appointed by the RIO, as well as additional consultants to the committee, may be scientists, administrators, subject matter experts, lawyers, or other qualified persons, and they may be from inside or outside the University. Individuals appointed to the investigation committee may also have served on the inquiry committee. The RIO will notify the Respondent of the proposed committee membership. If the Respondent submits a written objection to any appointed member of the investigation committee, the RIO will determine whether to replace the challenged member with a qualified substitute.
- d. Charge to the Committee and the First Meeting:
 - 1) Charge to the Committee: The RIO will define the subject matter of the investigation in a written charge to the committee that describes the allegations and related issues identified during the inquiry, defines research misconduct, and identifies the name of the Respondent. The charge will state that the committee is to evaluate the evidence and testimony of the Respondent, Complainant, and key witnesses to determine whether, based on a preponderance of the evidence, research misconduct occurred and, if so, to what extent, who was responsible, and its seriousness. During the investigation, if additional information becomes available that substantially changes the subject matter of the investigation or would suggest additional Respondents, the committee will notify the RIO, who will determine whether it is necessary to notify the Respondent of the new subject matter or to provide notice to additional Respondents.
 - 2) The First Meeting: The RIO, with the Office of the General Counsel, will convene the first meeting of the investigation committee to review the charge, the inquiry report, and the prescribed procedures and standards for the conduct of the investigation, including the necessity for confidentiality and for developing a specific investigation plan. The investigation committee will be provided with a copy of this rule and, where PHS funding is involved, the PHS regulation.

- e. Investigation Process: In conducting all investigations, the University shall:
 - 1) Use diligent efforts to ensure that the investigation is thorough and sufficiently documented and includes examination of all research records and evidence relevant to reaching a decision on the merits of the allegations;
 - 2) Interview each Respondent, Complainant, and any other available person who has been reasonably identified as having information regarding any relevant aspects of the investigation, including witnesses identified by the Respondent, and record or transcribe each interview, provide the recording or transcript to the interviewee for correction, and include the recording or transcript in the record of investigation;
 - 3) Pursue diligently all significant issues and leads discovered that are determined relevant to the investigation, including any evidence of additional instances of possible research misconduct, and continue the investigation to completion; and
 - 4) Otherwise comply with the requirements for conducting a research misconduct investigation in the U.S. Code of Federal Regulations.
 - 5) The Respondent will be notified sufficiently in advance of the scheduling his or her interview so that the Respondent may prepare for the interview and arrange for the attendance of an advisor, if the Respondent wishes.

7. The Investigation Report

- a. Elements of the Investigation Report: The RIO, in conjunction with the investigation committee, shall prepare the draft and final institutional investigation reports in writing and provide the draft report for comment as provided elsewhere in this rule and the U.S. Code of Federal Regulations. The final investigation report shall:
 - 1) Describe the nature of the allegations of research misconduct;
 - 2) Describe and document the PHS funding (if applicable), including, for example any grant numbers, grant applications, contracts, and publications listing PHS funding;
 - 3) Describe the specific allegations of research misconduct considered in the investigation and the charge to the Investigation Committee;
 - 4) If reporting to ORI is required and not already provided to ORI, include the institutional policies and procedures under which the investigation was conducted;
 - 5) Identify and summarize the research records and evidence reviewed, and identify any evidence taken into custody, but not reviewed. The report should also describe any relevant records and evidence not taken into custody and explain why.

- 6) Provide a finding as to whether research misconduct did or did not occur for each separate allegation of research misconduct identified during the investigation. For each instance where research misconduct was found, the Investigation Committee's report shall do the following:
 - a) identify it as falsification, fabrication, or plagiarism;
 - b) identify the basis for determining that it was a significant departure from accepted practices, that it was committed intentionally, knowingly, or recklessly, and that it was proved by a preponderance of the evidence;
 - c) summarize the facts and the analysis supporting the conclusion and consider the merits of any reasonable explanation by the Respondent and any evidence that rebuts the Respondent's explanations;
 - d) identify the specific PHS funding or other support (if applicable);
 - e) identify any publications that need correction or retraction;
 - f) identify the person(s) responsible for the research misconduct; and
 - g) list any current support or known applications or proposals for support that the Respondent(s) has pending with non-PHS Federal agencies or other funding entities; and
 - h) Include and consider any comments made by the Respondent and Complainant on the draft investigation report.
 - 7) Recommend one or more sanctions to be imposed on each Respondent found responsible for research misconduct.
- b. Comments on the Draft Report
- 1) Respondent: The RIO will provide the Respondent with a copy of the draft investigation report, and concurrently, a copy of, or supervised access to, the evidence on which the report is based and notify the Respondent that any comments must be submitted within 14 days of the date on which the Respondent received the draft report. For good cause, the Respondent may request an extension of time from the RIO, which shall be granted whenever reasonable. The Respondent's comments will be attached to the final report and are considered in the final investigation report.
 - 2) Complainant: At the RIO's discretion, the RIO may provide the Complainant a copy of the draft investigation report or relevant portions of that report and notify the Complainant that any comments must be submitted within 14 days of the date on which the Complainant received the draft report or relevant portions of it. For good cause, the Complainant may request an extension of

time from the RIO, which shall be granted whenever reasonable. The Complainant's comments will be attached to the final report and are considered in the final investigation report.

- 3) Review by Office of the General Counsel: The draft investigation report will be transmitted to the Office of the General Counsel for a review of its legal sufficiency. Comments should be incorporated into the report as appropriate.
 - 4) Confidentiality: In distributing the draft report, or portions thereof, to the Respondent and Complainant, the RIO will inform the recipient of the confidentiality under which the draft report is made available and may establish reasonable conditions to ensure such confidentiality. For example, the RIO may request the recipient to sign a confidentiality statement or to come to RIO's office to review the report.
 - 5) Transmittal of the Final Investigation Report: After comments have been received and the necessary changes have been made to the draft report, the investigation committee will transmit the final report with attachments, including the Respondent's comments, to the DO, through the VCR.
- c. University Review and Decision
- 1) Based on a preponderance of the evidence, the DO will make the final determination whether to accept the investigation report, its findings, and the recommended University actions, including sanctions to be imposed on each Respondent determined to be responsible for research misconduct. A preponderance of the evidence means proof by information that, compared with that opposing it, leads to the conclusion that the fact at issue is more probably true than not. If this determination varies from that of the investigation committee, the DO will explain in detail the basis for rendering a decision different from that of the investigation committee, and will include such explanation in the institution's letter transmitting the report to ORI (if applicable). The DO's explanation should be consistent with the PHS definition of research misconduct, this rule, and the evidence reviewed and analyzed by the investigation committee. The DO may also return the report to the investigation committee with a request for further fact-finding or analysis. The DO's determination, together with the investigation committee's report, constitutes the final investigation report for purposes of ORI review.
 - 2) When a final decision on the case has been reached, the RIO will notify the Respondent in writing of the decision. In addition, the DO will determine whether law enforcement agencies, professional societies, professional licensing boards, editors of journals in which falsified reports may have been published,

collaborators of the Respondent in the work, or other relevant parties should be notified of the outcome of the case. The RIO is responsible for ensuring compliance with all notification requirements of funding or sponsoring agencies.

- d. **Time Limit for Completing the Investigation Report:** An investigation should ordinarily be completed within 120 days of its initiation, with the initiation ordinarily beginning with the first meeting of the investigation committee. This includes conducting the investigation, preparing the report of findings, making the draft report available to the subject of the investigation for comment, submitting the report to the DO for approval, and submitting the report to the ORI (if applicable). If the University will not be able to complete the investigation in 120 days and the matter involve PHS funding, it will submit to ORI a written request for an extension and an explanation for the need for an extension.

8. Appeals

- a. The Respondent may appeal the decision by the DO to the appropriate Appellate Officer. If the Provost or other official served as the DO, the Appellate Officer will be the Chancellor or designee; if the Chancellor served as the DO, the Appellate Officer will be the President or designee. An appeal must state the reasons for appeal in detail and must be submitted to the Appellate Officer within seven days after receipt of notification of the decision. The appeal shall be limited to the following grounds:
 - 1) A procedural error occurred that significantly impacted the outcome of the finding or sanctions, e.g., substantiated bias or material deviation from established procedures.
 - 2) To consider new evidence, unavailable during the investigation, that could substantially impact the original findings or sanction.
 - 3) The sanction falls outside the range typically imposed for this offense, or for the cumulative disciplinary record of Respondent.
- b. Within seven days of receipt of the appeal from Respondent, the Appellate Officer shall provide a copy of the appeal to the DO.
- c. Within seven days of receiving a copy of the appeal, the DO may file a response to the appeal.
- d. Within 14 days of receiving the DO's response to the appeal, the Appellate Officer shall provide a determination in writing to the DO and Respondent. The Appellate Officer can affirm, modify or reverse the decision of the DO.
- e. The determination of the Appellate Officer is final and not subject to further review, including under the Academic Grievance Procedure in Section 370.010 of the Collected Rules and Regulations.
- f. **Status during appeal** – The Respondent may petition the Appellate Officer in writing for permission to stay the imposed sanction pending

final determination of the appeal. The Appellate Officer may permit the stay of sanctions under such conditions as may be designated pending completion of the appeal, provided such continuance will not seriously disrupt the University or constitute a danger to the health, safety or welfare of members of the University community. If a stay is granted, any final sanctions imposed shall be effective from the date of the final decision.

- g. An appeal must be completed within 120 days of its filing. If additional time is needed, the Appellate Officer may extend this deadline for good cause. If the matter involves PHS support, the deadline may be extended only if an extension is requested from and granted by ORI.

9. Requirements for Reporting to ORI:

- a. In cases involving Respondents who receive funding from the PHS, the University shall promptly provide the following information to ORI after the investigation has concluded:
 - 1) A copy of the investigation report and all attachments;
 - 2) A statement of whether the institution found research misconduct and, if so, who committed it;
 - 3) A statement of whether the institution accepts the findings in the investigation report; and
 - 4) A description of any pending or completed administrative actions against the Respondent.
- b. The University shall maintain and provide to ORI upon request all relevant research records and records of its research misconduct proceeding, including results of all interviews and the transcripts or recordings of such interviews.
- c. If the University plans to terminate an inquiry or investigation for any reason without completing all relevant requirements of the PHS regulation, the RIO will submit a report of the planned termination to ORI, including a description of the reasons for the proposed termination.
- d. If the University determines that it will not be able to complete the investigation in 120 days, the RIO will submit to ORI a written request for an extension that explains the delay, reports on the progress to date, estimates the date of completion of the report, and describes other necessary steps to be taken. If the request is granted, the RIO will file periodic progress reports as requested by the ORI.
- e. When the case involves PHS funds, the University cannot accept an admission of research misconduct as a basis for closing a case or not undertaking an investigation without prior approval from ORI.
- f. At any time during a research misconduct proceeding, the University shall notify ORI immediately if it has reason to believe that any of the following conditions exist:

- 1) Health or safety of the public is at risk, including an immediate need to protect human or animal subjects.
- 2) HHS resources or interests are threatened.
- 3) Research activities should be suspended.
- 4) There is a reasonable indication of violations of civil or criminal law.
- 5) Federal action is required to protect the interests of those involved in the research misconduct proceeding.
- 6) The University believes the research misconduct proceeding may be made public prematurely, so that HHS may take appropriate steps to safeguard evidence and protect the rights of those involved.
- 7) The University believes the research community or public should be informed.

10. Other Considerations

a. Termination of University Employment or Resignation Prior to Completing Inquiry or Investigation

- 1) The termination of the Respondent's employment with the University, by resignation or otherwise, before or after an allegation of possible research misconduct has been reported, ordinarily will not preclude or terminate the misconduct proceedings. If the Respondent, without admitting to the misconduct, elects to resign the Respondent's position prior to the initiation of an inquiry, but after an allegation has been reported, or during an inquiry or investigation, the inquiry or investigation ordinarily will proceed. If the Respondent refuses to participate in the process after resignation, the committee will use its best efforts to reach a conclusion concerning the allegations, noting in its report the Respondent's failure to cooperate and its effect on the committee's review of all the evidence.

11. Notice: All communication, including notices, decisions, and appeals may be sent via University e-mail. Notice sent to a University email account shall be deemed to have been received on the day following the day it was sent.

430.010 Industrial Security Program

Bd. Min. 6-27-24; Amended Bd. Min. 11-20-24

A. **Statement of Purpose**

1. This rule addresses The Curators of the University of Missouri (a.k.a., the University of Missouri System (UM System)) compliance with U.S. industrial security policy, including applicable federal statutes, Executive Orders (E.O.), Code of Federal Regulations (CFR), Department of Defense Instructions (DoDI), and other applicable authorities. UM System is committed to compliance for the protection of classified information disclosed to or developed by contractors of the U.S. Government (USG), employed or the responsibility of UM System (contractors).
2. This rule will be applied to achieve compliance with applicable federal authorities, including:
 - a) E.O. 12829, National Industrial Security Program
 - b) E.O. 10865, Safeguarding Classified Information within Industry
 - c) 32 CFR Part 2004, National Industrial Security Program
 - d) DoDI 5220.22, National Industrial Security Program
 - e) 32 CFR Part 117, National Industrial Security Program Operating Manual (NISPOM)
3. This rule implements policy, assigns responsibilities, and establishes requirements for the protection of classified information disclosed to, or developed by contractors across the UM System.

B. **Scope and Compliance Policy**

1. This rule applies to all cleared facilities (i.e., Facility Clearances or FCLs) within the UM System holding a FCL, to all personnel whose personnel security clearances are held by a UM System or subsidiary FCL, and to all personnel who hold roles related to ensuring compliance with the authorities outlined in subsection A.2 (e.g., Key Management Personnel or KMPs).
2. The UM System is the “corporate family” for all classified work taking place at any FCL within the System. Individual universities may have subsidiary Facility Clearances under the UM System Facility Clearance if they have federal authorization to hold classified materials on-site, a secondary place-of-performance, or flow down to a sub-tier contractor.
3. The UM System shall implement a corporate-wide Insider Threat Program to address insider threats throughout the UM System.
4. The President will appoint the following personnel to oversee and implement the UM System industrial security program (ISP) (System ISP):
 - a) Senior Management Official (SMO)
 - b) Insider Threat Program Senior Management Official (ITPSO)
 - c) Facility Security Officer (FSO)
5. The personnel identified in subsection B.4 must:
 - a) Oversee the implementation of the requirements of the NISPOM;

- b) Undergo the same security training that is required of all contractors, in addition to any position specific training;
 - c) Be designated in writing; and
 - d) Undergo a personnel security investigation and national security eligibility determination for access to classified information at the level of the entity's eligibility determination for access to classified information.
6. SMO: The President of the UM System is the SMO for the UM System FCL and for all subsidiary FCLs held by an individual university within the UM System. The SMO will:
- a) Ensure a system of security controls in accordance with the NISPOM;
 - b) Appoint an UM System ITPSO and FSO in writing;
 - c) Remain fully informed of the UM System ISP classified operations;
 - d) Make decisions based on the threat reporting and information and the potential impacts to the UM System ISP; and
 - e) Retain accountability for the management and operations of the System's ISP without delegating that accountability.
7. ITPSO: The Director, Research Security and Compliance is the ITPSO and will be designated in writing by the SMO. The ITPSO will:
- a) Ensure the FSO(s) is part of the insider threat program;
 - b) Complete training in accordance with the NISPOM; and
 - c) Develop an insider threat program that meets the requirements of the NISPOM.
8. FSO: An FSO will be appointed in writing by the SMO for any University with an active FCL. Each FSO will:
- a) Supervise and direct security measures necessary for implementing the NISPOM to ensure the protection of classified information.
 - b) Complete security training as deemed appropriate by the Cognizant Security Agency (CSA) who accredits the FCL. Both direct and reciprocity CSAs training must be met.
 - c) Appoint an Information System Security Manager (ISSM) if classified information will be processed on an information system at a University with an FCL.
9. ISSM: If classified information will be processed on an information system at a University with an FCL, the FSO will appoint an ISSM. Each ISSM will:
- a) Be adequately trained and possess the technical competence required to operate, maintain, and secure the contractor's classified information system; and
 - b) Oversee development, implementation, and evaluation of the University's classified information system program.

C. University of Missouri Research Security and Compliance Team

1. UM Research Security and Compliance Team
Each FCL within the UM System will have an appointed FSO who reports to the UM System Director of Research Security and Compliance. Each FSO shall be a member of the University of Missouri Research Security and Compliance Team ("UM RSC Team").
2. Collaboration
Recognizing both the necessity and administrative efficiencies gained, the UM RSC Team shall work in collaboration with each other and with those also holding

responsibilities for compliance with the authorities outlined in subsection A.2. to ensure that no single point of failure exists within the System.

3. **Accountability and Alignment**

To ensure the accountability and alignment of the UM RSC Team, each Chancellor shall designate one of that University's Vice Chancellors to work with the UM System Director for Research Security and Compliance, who will jointly approve the following as it relates to the FSO at each institution:

- a) Recruitment and hiring decisions;
- b) Disciplinary and termination decisions; and,
- c) Annual performance evaluations and compensation decisions.

For situations in which concurrence is not reached, the collective decision will be made with the President.

D. **Strategies**

1. The FSO(s) will develop the industrial security strategies for the UM System to establish, document, and implement processes and procedures to ensure the System remains in compliance with the authorities outlined in subsection A.2. These strategies will be brought before the UM RSC Team for approval before implementation.
2. A Standard Practice Procedures (SPP) is developed and maintained by the UM RSC Team. This SPP documents the current processes and procedures used across the System. The SPP will contain information describing acceptable structures for the Security Executive Committee (SEC).
3. University-specific appendices will be maintained within the SPP as needed.
4. At least once annually, the Board of Curators will review and ratify a Security Resolution outlining the members of the SEC and those who are excluded from the SEC in alignment with the structure outlined in the SPP.

E. **Implementation**

The FSOs and Insider Threat Program Senior Official on the UM RSC Team are responsible for the implementation of the industrial security programs and the Insider Threat Program for the UM System.

New Degree Program Proposal:

**Doctor of Philosophy in
Applied Psychology**

Missouri University of Science and Technology

November 2024 Board of Curators Meeting

Basic Program Information

Sponsoring University:	Missouri University of Science and Technology
College or School:	College of Arts, Sciences, and Education
Department:	Psychological Science
Proposed Program Title:	Applied Psychology
Degree Level/Type:	Ph.D.
Track Areas:	Applied Social/Industrial-Organizational Psychology Applied Cognitive Psychology
Program Modality:	Fully in-person (hybrid as needed)
Program CIP Code ¹ :	42.2813
Implementation:	August 2025
Expected Date of First Graduation:	May 2028

¹ A selection of CIP codes can be viewed on the National Center for Education Statistics website:
<https://nces.ed.gov/ipeds/cipcode/browse.aspx?y=55>

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Executive Summary

Missouri University of Science and Technology presents a groundbreaking initiative – the establishment of a Ph.D. program in Applied Psychology. This program addresses a significant gap in higher education offerings within the state and the broader region. It aligns seamlessly with Missouri S&T's strategic North Star goals, propelling research and graduate enrollment on our campus. Furthermore, this program positions Missouri S&T, and by extension, the UM System, as pioneers in the evolving national landscape of applied psychological science beyond traditional research and therapy.

Our proposal outlines a dynamic two-track Applied Psychology Ph.D. program, emphasizing Applied Social/Industrial-Organizational (I-O) Psychology and Applied Cognitive Psychology. Recognizing the diverse facets of cognitive psychology, we also introduce specialized concentrations, including cognition & health, cognition & technology, and cognition & organizations. These concentrations not only dovetail with S&T's strategic direction, especially in Bio-X research, but also create bridges between the broader tracks of social/I-O and cognitive psychology. The curriculum is thoughtfully crafted, leveraging departmental strengths and strategic planning while ensuring an alignment with the University's needs, strategic objectives, and regional and national demands. Beyond fulfilling the University and Department's strategic aspirations, this program is poised to meet substantial student and employer demand. Projections by the Bureau of Labor Statistics indicate rapid job growth in the areas encompassed by our degree plan over the next decade. Our program will equip graduates with sought-after knowledge, skills, and abilities, substantiated by national job posting trends. Notably, an analysis of student placements over the past 5 years indicates that over 25% of our graduates have pursued advanced degrees at other institutions in applied psychology fields. Moreover, psychology department chairs at other UM System institutions have highlighted the unmet student demand for such programs, as they currently lack offerings in this area.

While program administration will entail costs, Missouri S&T has already made significant investments in its development. Recent dual-career hires and advocacy for dedicated lab space in forthcoming building developments for applied cognitive psychology research underscore our commitment. University leadership recognizes this program as a strategic investment with the potential to drive multiple campus initiatives forward.

In sum, Missouri University of Science and Technology's proposed Ph.D. program in Applied Psychology is not just an academic endeavor but a visionary step that fulfills educational gaps, bolsters regional and national needs, and reaffirms our commitment to excellence in higher education. This program promises to be a transformative force in the field of applied psychology and the broader academic landscape.

1. Introduction

The American Psychological Association documented in their [2023](#) and [2024](#) emerging trends in Psychology the increasing need and roles psychologists play in “every day” work beyond the research lab or clinic. Psychologists are relied upon to address a range of issues, including but not limited to worker well-being with the changing nature of work and workplaces, as well as [ethical issues surrounding the use of AI](#) and user experience with technology. One example mirroring these trends, the [Psychology of Technology Institute](#) is a rapidly growing professional organization that has exploded in membership since its creation less than 10 years ago. All of these career trajectories inherently flow from the concept of [Applied Psychology](#) or psychology that “focuses on the application of psychological theories and methods to real-world settings and problems, such as business and industry, healthcare, government, education, military, and community settings.” With more companies, communities, government, military, and industry entities relying on psychologists to enhance their workplaces, to understand the use and provision of technology, to identify improved care delivery, and to address systemic equity and inclusion problems, the need for experts trained in the application of psychology (including relevant skills and expertise related to collecting, analyzing, and interpreting people-driven data) will only grow.

The curriculum (described in greater detail below) has been specifically designed to ensure preparedness for careers in industry in particular as that is where the greatest growth in hiring psychology Ph.D.’s is occurring and will continue to occur. For example, according to [O*Net](#), Industrial-Organizational Psychologists, Human Factors specialists, and non-clinical Psychologists all have “Bright Outlooks”, defined as career paths projected to grow faster than average nationwide, or more than 5% between 2022-2032, and/or projected to have over 100,000 job openings at the doctorate level nationwide between 2022-2032. These projections are based on recently released [U.S. Bureau of Labor Statistics](#). Thus, we will be preparing graduates for careers desperately needed across the U.S. Additionally, we are building off our department’s current strengths as we currently offer an MS in Industrial-Organizational Psychology (ranked two-years in a row by [Forbes as a Top Ten program](#) for a master’s in psychology) as well as undergraduate certificates in neuroscience, human factors, industrial-organizational psychology, and diversity and inclusion. Thus, we are inherently an applied psychology department already.

We propose the development of a Ph.D. in Applied Psychology, housed in the Psychological Science department at Missouri S&T.

This program will serve the following purposes:

1. To grow graduate enrollment at Missouri S&T and within the UM System by offering a new Ph.D. program specifically and purposefully designed around the applications of social, behavioral, and brain sciences to the real world.
2. To meet workforce demands that increasingly draw on experts who

specialize in people-driven processes to provide better products, technology, workplaces, and care delivery models, as well as to ensure their approaches are equitable and inclusive.

3. To increase the representation of social, behavioral, and brain sciences on campus, allowing for improved and increased opportunities for faculty and students within the department, but also additional collaboration opportunities between psychological science faculty and other departments/groups on campus.
4. To provide one of the few applied-focused Psychology Ph.D. programs in the state of Missouri, and even the region.

The proposed Ph.D. program in Applied Psychology will be housed and administered within the Psychological Science Department at Missouri S&T. It's development and success will be overseen by the department chair and the assistant chair of graduate studies, determined by nomination and department chair appointment.

2. University Mission & Program Analysis

2.A. Alignment with University Mission & Goals

The tagline for Missouri S&T is “solving for tomorrow” with a mission focused on integrating “education, research, and application to create and convey knowledge that serves our state and helps solve the world’s greatest challenges.” A degree in Applied Psychology directly aligns with that mission as it is focused specifically on applying psychological science and research to real world circumstances and development.

Additionally, S&T’s vision states that “Missouri S&T will be the leading technological research university for discovery, creativity, and innovation”. For basic research to translate to application and usage in the real world, it ultimately requires a human-centered focus and understanding of human impact and usage. Thus, a Ph.D. in Applied Psychology will directly contribute to S&T’s vision to become the leading public technology institution.

We have specifically designed the program to align with S&T initiatives and values, including technology and the Kummer Institute (cognition & technology concentration, cognition & organizations concentration), Bio-X (cognition & health concentration), and enhancing diversity and inclusion (applied social/I-O). Our curriculum is designed to optimize potential partnerships (another key S&T value) across departments and colleges as we integrate expertise and curriculum from Biological Sciences, Business, Information Systems & Technology, Computer Science, Technical Communication, and Engineering Management. Thus, our students will be exposed to an interdisciplinary understanding of the challenges faced and solutions available in healthcare, technology, management, and information systems. Additionally, faculty and students in other programs and departments will have

greater opportunities to gain experience from and collaborate with the psychological science faculty and graduate students who can help ensure a human-centered perspective is at the core of these endeavors.

Currently, the Psychological Science faculty have collaborations with faculty in computer science, engineering management, technical communication, music, biological sciences, mechanical engineering, and economics. Our faculty are part of the Center for Biomedical Research, the Intelligent Systems Center, the Center for Science, Technology and Society, the Ozark Biomedical Initiative, among other research collaborations across campus, and support other Engineering Research Center efforts. Additionally, we have undergraduate and graduate students from other departments choosing to join our research labs, including students from engineering management, computer science, and biological sciences. A Ph.D. in Applied Psychology will only enhance the robust collaborations the department has already established across campus to advance the university's mission.

In terms of the department's mission, the Psychological Science department has always been unique with its applied focus. Currently, it offers undergraduate certificates and minors in similar areas we propose to offer at the Ph.D. level, including Psychology of Health Care, Human Factors Psychology, Neuroscience, Industrial-Organizational Psychology, and Psychology of Diversity & Inclusion. Thus, it is natural we extend that focus to the graduate level. With this extension, it would also be natural that we retain our brightest undergraduate students to serve as feeders into the Ph.D. program.

Additionally, our current graduate programs (terminal MS in I-O psychology and the graduate certificates in applied workplace psychology and human factors-psychology) will serve as a direct feeder program into either track of the Ph.D. program – showing that we are building and enhancing strengths already existing in the department. Both our undergraduate and MS programs are on track to surpass past enrollment for the 2024-2025 academic year¹. A Ph.D. in Applied Psychology will further enhance our department's mission to “emphasize the importance of learning by doing” and “to take learning from the traditional classroom into the real world to solve real problems”. More details on student interest in this program are provided below (see sec. 3.A.1).

In terms of the College and University's overall support for this program, we believe there is no better indication of that support than the recent hiring support provided. Specifically, the Provost and Dean's offices approved the hire of two assistant professors in I-O psychology, slated to start Fall 2024. This will result in an immediate impact on our ability to not only continue to support our growing terminal MS in I-O psychology (particularly the revenue-producing online

¹ According to trends tracked via Power BI throughout the Spring 2024 semester.

component) but will also allow us to even more quickly offer the courses and research support necessary to support the Ph.D. program in Applied Psychology. As discussed below, another hire for the Applied Cognitive Psychology track will ensure we have the requisite faculty support for that track as well. The Dean's Office also proved critical in advocating for the psychological science department to acquire future lab-space in building developments across campus, again securing resources necessary for the success of this Ph.D. program.

2.B. Duplication & Collaboration within Campus, Across System

This degree program will not duplicate any other Ph.D. psychology/psychological science programs across the UM System, and there are currently no other social science Ph.Ds. offered at Missouri S&T. The University of Missouri-Columbia offers Ph.D. programs/tracks in the following disciplines: Clinical Psychology, Cognition & Neuroscience, Developmental Psychology, Quantitative Psychology, Social/Personality Psychology, Counseling, and School Psychology. While our proposed program also incorporates concepts from cognitive psychology and social psychology, our applied focus (rather than basic research focus), including foci on cognition and technology, cognition and health, and cognition and organizations separates us from the programs currently offered at the University of Missouri-Columbia. Additionally, the social psychology track we propose is complemented with an I-O focus, separating it from the personality component in the social psychology program at Columbia.

The University of Missouri-St. Louis also offers a Ph.D. program in Behavioral Neuroscience and Clinical Psychology. Our degree program in applied cognitive psychology includes a few courses in neuroscience, but it is not the main focus of the Applied Cognitive Psychology track. Finally, the University of Missouri-Kansas City offers a Ph.D. program in Counseling psychology, which is not related to either applied psychology track we propose here. Notably, UMKC does have an applied cognitive brain science graduate program listed in their catalog. However, discussion with the chair of psychology at UMKC confirmed that they do not currently offer the courses for that program (see Appendix 4) and are embarking on their own graduate program degree changes to focus more on counseling psychology. In fact, the chair mentioned that many UMKC undergraduate psychology students would be particularly interested in an I-O psychology Ph.D. program.

The department chairs of the psychology programs at UMSL, UMKC, and MU were all consulted prior to submitting the full proposal, and all indicated support for an Applied Psychology program at Missouri S&T. Two chairs specifically pointed out that these tracks would make much needed contributions to public higher education offerings in the state (see Appendix 4).

In fact, there are no programs at any public institution in the state of Missouri that offer programs like what we propose here (Saint Louis University offers an I-O

psychology Ph.D. and is the only university in the state with a related program). Missouri State University offers a Psy.D. in Clinical Psychology which is a degree focused on the application of clinical psychology practice and working with clinical patients, not on the application of psychology to applied areas (e.g., industry, healthcare, government, etc.). Within the broader region, according to the CIP code data available, there is only one university across Missouri and the eight states that touch Missouri (i.e., Arkansas, Illinois, Iowa, Kansas, Kentucky, Nebraska, Oklahoma, and Tennessee) that has a graduate program designated as Applied Psychology (Wichita State University).

Considering the significant gap in the region to offer applied psychology as well as the lack of duplication with Ph.D. programs offered from other UM System campuses, we believe that our program will make a significant contribution to S&T and the UM System overall to increase the expertise in our region related to the scientific understanding of people across real-world settings and issues.

As mentioned, in line with the University's research goals and value of interdisciplinary research, we believe this program will directly contribute to the Psychological Science's department ability to continue to collaborate with programs across the region. We will be able to further enhance collaborations already occurring between Psychological Science and departments such as Engineering Management, Computer Science, Mechanical Engineering, Technical Communication, Mining Engineering, among others, and collaborations occurring with healthcare teams at Phelps Health and Mizzou Healthcare. These collaborations have already brought in millions of dollars in research funding to S&T and having proof of institutional capacity to support doctoral level research in applied psychology will only strengthen proposals submitted for future funding.

Additionally, we will be able to further contribute to success of key research centers on campus that psychology faculty are already members of, including Center for Biomedical Research, Center for Science, Technology, & Society, and the Intelligent Systems Center.

3. Business-Related Criteria & Justification

3.A. Market Analysis

3.A.1. Rationale & Workforce Demand for the Program

As mentioned previously, the demand for psychologists in the "real world" is growing, with an increasing focus on assisting employers to provide competitive positive experiences for employees (I-O psychology; cognition & organization concentration), enhancing diversity, equity, and inclusion directives across institutions and settings (social), as well as addressing significant changes in technology and how people interact with technology (cognition & technology

concentration) and continuing improvements in health and healthcare (cognition & health concentration). According to Lightcast (see full reports in Appendix 1), there is a 43.5% projected national job growth from 2018-2032 for students trained in cognitive psychology doctoral programs (i.e., Applied Cognitive Psychology track) and social psychology doctoral programs (i.e., Applied Social/I-O track), and a 40.6% projected national job growth from 2018-2032 for students trained in I-O psychology doctoral programs (i.e., Applied Social/I-O track).

Regionally, projected job growth in these discipline areas hovers around 24-28% growth potential. Additionally, according to the Bureau of Labor Statistics and [O*Net](#), Industrial- Organizational Psychologists and Psychologists in areas such as applied social and applied cognitive psychology, are considered “Bright Outlook” careers. According to O*Net, [Bright Outlook occupations](#) “are expected to grow rapidly in the next several years” (defined as “employment increase of 5% or more over the period 2022-2032 for the US nationwide” based on Bureau of Labor Statistics employment projections), and “will have large numbers of job openings”.

Major companies that hire these students include the VA (Veterans Affairs), the United States Army, community-health-focused organizations, KPMG, Johnson & Johnson, UnitedHealth Group, and others. Additionally, companies such as Google, Microsoft, and Amazon frequently hire psychologists for research & development and user experience positions. In fact, according to the [S&T Career Outcomes Dashboard](#), students who graduated with their MS in I-O psychology degree from S&T in 2023 were hired by major companies such as Door Dash (corporate), Amazon, Engagedly, Inc., Pace Industries (corporate), Global Medical Response, and Black Diamond Networks, with an average starting salary of \$70,775 (highest salary at \$97,500). Other alumni have been hired by Coca-Cola, Blue Origin, Deloitte Consulting, Capitalize Consulting, Sandia National Laboratories, UKG, Washington University, United Airlines, Allegis Global Solutions, and more, indicating that S&T is already gaining a reputation among employers in developing experts in applied psychology. Opportunities such as these will only increase for students with doctoral-level degrees as indicated by the Bureau of Labor Statistics mentioned.

Notably, based on the most recent [employment report from the Society of Industrial-Organizational Psychology](#), doctoral-level respondents earned \$37,000 more than masters-level respondents (\$137k median vs. \$100k median, respectively). This difference holds even across years of experience. The median base salary of doctoral-level respondents <2 years since degree was \$100k while the median base salary of master’s-level respondents <2 years since degree was 65k. This difference in income has held steady overtime (since at least 1997) suggesting that there is a career-long advantage to earning a doctoral degree in I-O if that path is available to students.

Importantly, 62% of doctoral-level respondents in this most recent survey were practitioners (38% worked in academia). This has also remained a consistent ratio overtime – suggesting there is practitioner-based employment security in earning a

PhD in I-O psychology even though MS level candidates are also successful at finding careers post-degree. Finally, it takes about 15 years post-MS to “catch-up” in employment standing (e.g., position and salary) to doctoral-level practitioners – suggesting that overall, a PhD does provide a boost in employment opportunities upon degree completion.

Additionally, according to O*Net, individuals who hold advanced degrees in industrial- organizational psychology and other applied psychology areas possess [certain in- demand skills](#) (i.e., most frequently cited skills in job-postings according to nationwide LightCast reports for 2023) including expertise in learning management systems, and are proficient in “Hot Technologies” (i.e., requirements most frequently included across all employer job postings) such as data analytic tools and coding. These are skills that will be developed and mentored in our proposed program as well (see curriculum plan outlined in Appendix 2).

3.A.2. *Student Demand for the Program*

This program will fill a significant student demand need. Psychology is one of the most earned baccalaureate degrees (with over 133,260 baccalaureate degrees completed nationally in 2021 and over 15,560 degrees completed regionally the same year), but it is often assumed to have few opportunities for students outside of clinical/counseling work or academia. A Ph.D. program in Applied Psychology, focused on areas such as applied cognitive and applied social/I-O psychology, will cater to potentially *tens of thousands* of students across the nation and thousands in the region who understand the value of social, behavioral, and brain sciences but may not see themselves as clinicians, counselors, or professors (although, this degree program can still prepare graduate students to go into academia if they choose).

In fact, in the past 5 years, 16 S&T psychology students have applied to different Ph.D. programs (at other universities) in the areas of applied social, I-O, and cognitive/neuro psychology. This does not include the psychology majors that have applied for Ph.D. programs in other areas of psychology at other institutions (e.g., clinical, counseling, or education psychology). Additionally, each year we have on average 3-5 S&T psychology majors that choose to continue on at S&T with their MS in I-O psychology. Overall, this estimates to 28% of our current undergraduate psychology students (on average, we have 57 undergraduate psychology majors total) interested in pursuing an advanced degree specifically in applied psychology (rather than going straight into the job market or one of the other dozen possible areas of psychology), suggesting that within our department alone we have the potential to initiate a healthy pipeline of students to launch a doctoral program in applied psychology. To add to the undergraduate pipeline, on average we have 50 graduate psychology students enrolled in a given year (either as an MS or certificate student), which can also serve as a healthy pipeline to either track of the applied psychology Ph.D. program. Finally, each academic year on average we graduate 39 psychology minors, including minors in I-O psychology, cognitive neuroscience,

human factors, and psychology of health care.

These minor graduates could also serve as a potential pipeline for the Ph.D. in applied psychology since they will have completed the most relevant undergraduate curriculum. Finally, as mentioned previously, the chairs of the psychology departments at the other UM System institutions explicitly mentioned the need this program would fulfill for the state, indicating they have majors graduating from their baccalaureate programs who would be interested in a Ph.D. in applied psychology. Considering the regional draw as well as the local pipeline, we anticipate success in enrolling future students, particularly considering the enrollment projections outlined in the tables below.

Table 1a. Student Enrollment Projections (anticipated total number of students enrolled in the program during the first five fall semesters following implementation.)

Year:	1	2	3	4	5
Full-time	4	7	10	15	20
Part-time					
Total	4	7	10	15	20

In anticipation of the program, we have asked current MS graduate student interest in continuing on with a Ph.D. if it were available. At least 4 students have confirmed that they would plan on continuing with a Ph.D. in the Applied I-O track alone, as early as Fall 2025 (based on anticipated graduation from their MS), and another 3-5 have expressed an overall interest. At least 3 alumni of the MS I-O program have expressed interest in returning to complete their doctorate as well. Once we are able to also market the Applied Cognitive Psychology track, we expect that we will bring in the undergraduate student pipeline as well as external students to increase our numbers each year. It will take an additional year to create the foundational curriculum for the Applied Cognitive Psychology track. This year will allow us time to fully market both tracks of the program, particularly the Applied Cognitive track throughout the region to build the first cohort for that track estimated to start FS2026. Between the two tracks, and faculty available to mentor research across both tracks (including providing fellowship and grant-funded GRA positions as the program is established), we believe 20 students (equates to roughly a 3:1 student:faculty ratio for research mentoring) in 5 years is sustainable.

Table 1b. New Student Enrollment Projections (anticipated number of students enrolled in the program during the first five fall semesters following implementation that are new to the University.)

Fiscal Year:	1	2	3	4	5
Full-time	2	3	5	8	12
Part-time					
Total	2	3	5	8	12

Table 1c. Projected Number of Degrees Awarded

Year:	1	2	3*	4	5	6	7	8	9	10
# of Degrees Awarded	0	0	3	3	4	6	6	6	6	6

*Note: We expect that the first cohort of students will consist primarily of students continuing onto the Ph.D. program after completing their MS in I-O psychology. Thus, they will already have much of the curriculum requirements completed and should be able to complete the Ph.D. sooner.

3.B. Financial Projections

A completed Pro Forma for the financial projections is included in Appendix 3. The summary of this budget is provided in Table 2.

3.B.1. Additional Resources Needed

One new faculty line – The Dean of CASE has pledged one new tenure-track faculty line in the next five years to support the development of the Ph.D. program and resulting growth for the department. As a tenure-track line, there will also be an associated start-up package to help launch that faculty member’s research. This start-up package (estimated at \$200k) will be competitive with start-up packages typical for faculty in the areas of cognitive and/or health psychology, the targeted discipline areas for the hire, in line with the Applied Cognitive Psychology track. In total, this new hire will bring the faculty head count in the psychological science department to 12, 11 tenure/tenure-track and one NTT faculty. This will enable us to realistically grow the Ph.D. program to 20-25 students by year five and maintain a productive mentoring balance of 2-3 graduate students per tenure-track faculty member. It may be possible to hire a tenured faculty member for this position, but that will depend on enrollment numbers to offset increased costs associated with a more senior hire.

Notably, the tenure-track faculty member is projected to be hired in the third year of the program to have the human power to develop the courses necessary for the Applied Cognitive Psychology track (see curriculum plan in Appendix 2) while also ensuring we have the enrollment necessary to warrant that the additional hire is economically feasible. It will not be possible for us to recruit students to this program if we cannot offer the curriculum or research advising promised, and this hire is necessary to develop that curriculum. Additionally, because a new tenure-track hire is allotted one course release per semester in their first year, it will take until the second year for their teaching load to reach the capacity necessary to offer all courses in the Applied Cognitive Psychology track. However, while this track will take a few years to be fully implemented in terms of curriculum, the Applied Social/I-O track will be able to accept students right away as many of those courses are already available through the terminal MS program. Additionally, the recent dual-career hire resulting in two assistant I-O professors has made this even more feasible as we will

immediately be less reliant of adjuncts to cover the graduate level courses in this track. This will allow us time to build into both tracks while still having students actively enrolled.

Given the recent hire of two I-O faculty (translating into a significant financial commitment), we will ensure there is appropriate enrollment so that it is economically feasible to hire the proposed tenure-track faculty member in cognitive or health psychology. The pro forma available in Appendix 3 outlines the balance of costs and revenue associated with the program, including providing enrollment numbers that will help offset the costs. Notably, as indicated in Table 2, we maintain relatively neutral to positive net cost-benefits, resulting in cumulative revenue increase overtime.

Office staff support – This Ph.D. proposal fits within the College of Arts, Sciences, and Education plans to add new doctoral programs (including the recently approved Biological Sciences program). New programs require additional office support. At present, one business support specialist serves the psychological science department. The person’s job duties include hiring and payroll management, ordering and package receiving (teaching and research), filing work orders, assistance with budget management (all department and faculty accounts), office receptionist, and liaison to administrative departments on campus. This additional office support is not included in the budget of this proposal as its cost is not specific to any one Ph.D. program in CASE.

Expanded workspace – As graduate students are admitted, begin dissertation work, and are hired to contribute to faculty research, they will need workspaces to manage research labs, run participants, and conduct relevant experiments. Currently, the psychological science department has space to seat 3-5 students. Ultimately, we project needing spaces for up to 20 graduate students. Notably, a ‘BioPlex’ interdisciplinary life sciences research lab building has been proposed and recently added to the Campus Master Plan. The cost has been estimated at \$100 million. This building will provide life sciences research lab space, including graduate workspaces, and host interdisciplinary life science research for several departments, including Psychological Science, Biological Sciences, Chemistry, Chemical and Biochemical Engineering, and Materials Science and Engineering. This new building will be integral to the expanded research lab needs of the psychological science department, particularly as it relates to the Applied Cognitive Psychology track and cognition and health concentration and associated graduate workspaces. This proposed new interdisciplinary building will serve future needs of researchers in programs across campus, as such it is not included in the specifics of our budget. If this building takes longer than anticipated to complete, we will utilize space in both Humanities and Social Science building (where the department is currently located) as well as look into space in the updates to the [Engineering Research Lab for applied research](#), which has already broken ground.

Graduate student assistantships – In order to support graduate students and remain

competitive with psychology Ph.D. programs in the region, it is important that we have assistantship lines available to students. By year 5, we expect that 1/3-1/2 of graduate student assistantships will be externally funded and the remaining 2/3-1/2 lines will be internally funded, either through needed graduate teaching assistantships and/or professional graduate assistantships (e.g., graduate students supporting research-based work in HR, Marketing & Communications, Title IX, Office of Student Involvement, Institutional Research, Instructional Design, Student Well-being, etc.).

In terms of externally funded assistantships, as of May 2024, the department averages \$38,537 in external awards per faculty member, and \$67,371 per faculty member in external expenditures. Additionally, as of Spring 2024, the department faculty have already contributed to proposals totaling \$2.23 million in requested funding, with plans to submit proposals requesting an additional \$0.5 million, totaling at minimum contributions to requests for \$2.73 million in funding for 2024. Additionally, we have identified federally funded graduate fellowship programs (e.g., U.S. Department of Education Graduate Assistance in Areas of National Need [GAANN], NSF Scholarships in Science, Technology, Engineering, and Mathematics program) that we will be eligible to apply for (and plan to apply for) once the program is established.

In terms of internally funded assistantships, Ph.D. GTAs will support undergraduate general psychology courses, undergraduate lab courses (e.g., research methods) as well as grading and TA support for the terminal MS students (after they have completed their own graduate courses). Additionally, one graduate assistant at .5 FTE for a 9-month stipend and 18 credit hours of tuition remission costs about \$31,100 compared to a staff member with benefits for 9 months, which costs roughly \$40,000 (assuming a low-scale pay rate of \$18.50 per hour). Thus, ultimately, these graduate assistantships will offset costs related to adjunct instructors and/or the need to hire additional NTTs as well as currently vacant staff positions and/or understaffing in relevant departments across campus. While we cannot formally project these costs savings in the budget lines associated with our program, we do expect to offset some of the projected costs in our department and other areas of the university as a result of strategically placed assistantships. Discussions of these lines are actively occurring in yield tactic meetings with the Provost Office (see email from the Provost Office attached in Appendix 4).

Additional investments. Finally, our terminal MS program currently brings in about 20 new online students per year (with an average of 40 distance students enrolled in courses at any given time), paying a premium tuition rate of \$950 per credit hour. Traditionally, the department receives 20% of the revenue generated by online student tuition. For the Psychological Science department, this equates to ~\$75,000 in revenue back to the department each academic year. Fifty percent of that is divided among the faculty members to support their research (used at the individual discretion of each faculty member given their current research status) and to cover individual travel expenses to give research/academic presentations. The remaining 50% is used at the discretion of the department chair to ensure

success of the programs housed in the department. In the past, this has translated to graduate student career development, matching faculty research funds as needed, ensuring competitive start-up packages for new hires, etc. We anticipate utilizing the funds from the terminal MS online program to support our Ph.D. program (e.g., contributing to the start-up package for the future tenure-track hire, advancing our marketing strategy, supporting student travel stipends as needed, etc.). The recent hire of two assistant I-O professors to start Fall 2024 (see sec. 2.A) will ensure that we have the faculty support necessary to manage both the terminal MS program (and thus continue revenue generation) as well as the Ph.D. program in Applied Psychology from the very beginning of the new program launch. In total, the Psychological Science department anticipates investing over \$225,240 of its own discretionary funds into this program over the next 8-9 years.

3.B.2. Revenue

Revenue from a doctoral program in applied psychology will come from two sources:

- Direct revenue will come in the form of tuition dollars generated by sponsored support for graduate student research. We anticipate an increase in graduate enrollment to about twenty doctoral students across the two tracks within five years of the initiation of the program, and we anticipate that 1/3-1/2 of graduate student support will come from sponsored research, fellowships, and other sources. Students supported through sponsored research results in external funding covering tuition, rather than university tuition waivers, ultimately contributing to program revenue. Notably, those students supported by internally funded assistantships will have their tuition covered by the university. To reflect this proportion of revenue generated via tuition covered from external-sources while accounting for those assistantships which the tuition will be covered by internal-sources, we calculated tuition with a 20% reduction across the board as a best estimate of overall revenue generated while accounting for assistantship lines.
- The increased capacity for research provided by a doctoral program will result in enhancement of overhead revenue from sponsored projects. We expect a boost in grant productivity resulting from growth of our department and enhanced research capabilities.

3.B.3. Net Revenue

Doctoral programs are not net revenue generators. Recurring expenses include salary and benefits for one new faculty member and graduate stipends for positions that ultimately support the University even beyond teaching. Notably, as indicated in Table 2, we do anticipate relatively neutral to positive net cost-benefits, resulting in cumulative revenue increase overtime. Part of this is due to the existing revenue stream from our online MS program which we plan to use to help offset certain costs (e.g., marketing and professional development, see sec. 3.C.).

Table 2. Financial Projections for Proposed Program for Years 1 Through 5.

	Year 1	Year 2	Year 3	Year 4	Year 5
1. Expenses per year					
A. One-time					
<i>New/Renovated Space</i>					
<i>Equipment</i>					
<i>Library</i>					
<i>Consultants</i>					
<i>Others – Start-up</i>			\$200,000		
Total one-time			\$200,000		
B. Recurring					
<i>Faculty</i>			\$75,000	\$77,250	\$79,568
<i>Staff</i>					
<i>Benefits</i>			\$28,050	\$28,586	\$29,137
<i>Graduate Student Stipends</i>	\$62,280	\$85,530	\$154,164	\$226,830	\$233,635
<i>Equipment</i>					
<i>Library</i>					
<i>Other</i>					
Total recurring	\$62,280	\$85,530	\$257,214	\$332,666	\$342,340
Total expenses (A+B)	\$62,280	\$85,530	\$457,214	\$332,666	\$342,340
2. Revenue per year					
<i>Tuition/Fees (net after assistantship tuition waivers)</i>	\$77,042	\$138,917	\$204,480	\$316,008	\$434,016
<i>Institutional Resources</i>					
<i>State Aid –CBHE</i>					
<i>State Aid – Other</i>					
Total revenue	\$77,042	\$138,917	\$204,480	\$316,008	\$434,016
3. Net revenue (loss) per year	\$14,762	\$53,387	(\$252,734)	(\$16,658)	\$91,676
4. Cumulative revenue (loss)	\$14,762	\$68,149	(\$184,585)	(\$201,243)	(\$109,567)

3.B.4. Academic and Financial Viability

There are no financial concerns associated with this program. Academically, the program requires a minimum enrollment of 10 students to maintain a vibrant and active learning environment. Because doctoral programs are not generally expected to generate direct net revenue, there is no minimum enrollment for financial viability for this program.

Table 3. Enrollment for Academic and Financial Viability

Viability	Minimum Enrollment
Academic	10
Financial	N/A
Overall	10

3.C. Business Plan: Marketing, Student Success, Transition & Exit Strategies

3.C.1. Marketing Plan

A marketing strategy for the Ph.D. program in Psychology will be developed in coordination with the Vice Provost for Enrollment Management. In fact, the Enrollment Management Office has hired a Director of Enrollment Management Communication and this individual's responsibility will be to ensure accurate and consistent messaging about programs on campus, including bridging connections between department programs and Marketing & Communications. Furthermore, in partnership with Enrollment Management, we currently utilize active emailing campaigns, virtual information sessions, and social media to market our MS program, and will expand those efforts to target students specifically for the Ph.D. program.

The target population for this program will be baccalaureate and master's graduates from colleges and universities throughout the region, particularly since we are filling a significant regional gap. The initial strategy will include the engagement of our department faculty with colleges and universities across the nine-state region as well as national and regional conferences (e.g., the Midwest Psychology Association annual conference), extending our current advertising efforts already in place at the MPA annual conference. Additionally, we will make sure that we are documented in all relevant listservs and databases, for example, the [American Psychological Association's database of graduate programs](#) (the department's current MS in I-O psychology is already listed in this database). Furthermore, the department chair and assistant chair of graduate studies will work closely with the undergraduate programs at the other UM System universities in order to recruit students, since we are not duplicating any programs and instead offering options that the other universities are not able to provide.

Power BI, SLATE, and other reporting available to the department chair and assistant chair of graduate studies will be used to track applications, number of admitted students and their application characteristics (e.g., location, merit, etc.), number of students enrolled and their original application characteristics, and number of students retained overtime. These are the systems currently in use to track enrollment for the MS in I-O psychology program. Additional reporting will be

requested from the Enrollment Management Office as needed.

As we grow, we anticipate that we will begin to market nationally, beyond regional colleges and universities. To accomplish a national campaign, we will commit existing revenue generated by the online MS program to boost marketing for the PhD program (see 3.B.1 above). The online MS program generates revenue provided directly to the department for discretionary use by the department. For example, one use of those funds will be to secure a spot in the American Psychological Association's virtual graduate program fair that is offered each semester (estimated cost ~\$400). They first offered this virtual fair to students in [November 2023](#). We participated Spring 2024 for the MS graduate program with success and we will plan to participate Fall 2024 and/or Spring 2025 in order to recruit for our first cohort slated for Fall 2025.

3.C.2. Student Success Plan

The Psychological Science Department at Missouri S&T has a strong history of supporting students and ensuring student success at both the graduate and undergraduate levels. Thus, our student success plan will build upon current practices while also incorporating practices that will be specific to doctoral students.

Professional Development

Currently, to provide career development opportunities to the MS I-O psychology students, the department supports a graduate student travel policy that states that the department can provide a small travel stipend to each graduate student for one academic conference per academic year. For the current I-O psychology graduate students, this usually means attending the annual Society for Industrial-Organizational Psychology conference, which includes a free-to-students career center and career development program as part of their membership. However, we have also supported graduate students to attend the annual Society for Personality and Social Psychology conference as well as Psychology and Technology conferences.

Of course, with the expansion of our graduate program offerings into applied cognitive psychology, we will support students who plan to attend professional conferences in those research areas as well. We do not require that students present at the conference to receive a small stipend, as often acceptance rate to these conferences are highly competitive and we believe the career development value is just as relevant whether a student is presenting or not. However, we do provide additional incentive for students who are presenting at the conference, as stipulated in our department policy. We have had multiple MS students land career opportunities right after graduation as a result of participating in the career centers and/or networking associated with these professional conferences (whether they presented or not), and thus believe this strategy is a worthwhile investment for the department. This professional development is and will continue to be supported by existing revenue generated by the online MS program.

In addition to travel support to attend academic conferences, we also provide and will expand our 1 credit hour course on ethics and professional responsibilities. As identified in our curriculum plan, students will have the option to complete the current course on ethics and professional responsibility (mostly geared towards applied social/I-O psychology students) or a to-be-developed 1 credit seminar course which will take professional development, bringing in speakers, networking, etc. We also have a department colloquium series that brings in speakers from across the discipline, introducing research and work beyond the expertise of faculty in the department. This ensures students are exposed to a wide range of examples in using their doctorate.

Finally, it is our goal that every doctoral student that comes through our program will receive funding at some capacity in the form of graduate teaching assistantships, graduate research assistantships, or professional graduate assistantships (see explanation in sec. 3.B.1). Not only will these assistantships provide financial support to students so that they are able to more clearly focus on their work while enrolled in the program, but they also provide critical professional development opportunities for students. In particular, we hope to offer professional development in teaching, research, or applied work so that we can match students' professional goals with an assistantship that will provide them with the most relevant experience (e.g., a student interested in going into consulting will be better suited for a professional graduate assistantship while a student interested in academia might be better suited for a GTA position).

Mentoring Structures

The faculty in the psychological science department are highly recognized on campus and in their professional fields for their teaching and research expertise. Eighty percent of the faculty in the department have received university and/or regional/national recognition for their teaching, research, or student mentoring; 60% of the faculty have received recognition at the university and/or regional/national level for at least *two* of the three areas (e.g., teaching & research; research & student mentoring, teaching & student mentoring). Thus, we are highly recognized for our ability to develop students and lead national and international research programs, both critical to mentoring doctoral students.

In addition to the talent in the department, we will implement a departmental policy along with a mentoring plan template that will clearly communicate to doctoral students the expectations for performance, expectations of what will be required for a dissertation, and expectations for satisfactory assistantship performance. This will ensure that both faculty and students have a clear understanding of what successful student performance entails in order to earn a doctorate, including research output (e.g., grant proposal support, manuscript preparation support). As an example of current transparency efforts, we have a thesis guideline document we share with MS students who plan to pursue the thesis-track. This document clearly outlines the expectations of what qualifies as a quality thesis and ensures consistency across

thesis advisors in terms of expectations placed on students. Similar types of documents will be created for the Ph.D. program. In addition to this, our policy will dictate a process for monitoring and supporting student progress throughout their degree plan so that students and advisors intentionally keep on track with the student's degree goals. At minimum, annual performance review discussions will be required for each doctoral student to ensure that all parties are clear on expectations and progress towards those expectations.

Finally, we will build upon our current new student program-specific orientation, incorporating doctoral-specific components. We offer this orientation to all students the week before classes start each semester so that they have a chance to connect with multiple faculty and current students before launching straight into the curriculum. We have found that this orientation offers a great way to build positive relationships early on with students, so that they are comfortable approaching faculty/advisors early on with questions and mentoring insights as they start the new program.

3.C.3. Transition Plan

The program's administrative functions will be overseen by the department chair and the assistant chair of graduate studies for the department. A policy is in place about how the assistant chair is determined; specifically, they are appointed by the department chair for a two-year term. At the end of the term, the chair allows all faculty to self-nominate or nominate another if they are interested in the position with the chair then making the selection. These appointment procedures can be used if in the midst of that two-year term the assistant chair were to leave and/or take on additional responsibilities.

Procedures are also in place at the department and college levels for chair transitions to ensure continuity of work. Finally, one of the responsibilities of the assistant chair of graduate studies is to oversee and guide the graduate committee within the department (currently made-up of the assistant chair and two other faculty members highly involved in providing graduate education in the department). It is likely that this committee will expand to the assistant chair and three other faculty members in order to reflect the expansion into the applied cognitive psychology field, and the graduate committee does and will continue to serve as another system in place to ensure oversight and continuity of program processes.

3.C.4. Exit Strategy

If the program does not meet University expectations after seven years, the program will undergo remediation at the department level. The department efforts, led by the Assistant Chair of Graduate Studies, will begin the remediation by re-evaluating who is the target audience, examining recruitment strategies, and identifying any misguidance in success outcomes and assessment of the program. We expect that by

year 7, a minimum of 10 students will be enrolled at various stages in the Ph.D. program to achieve academic viability.

The decision to discontinue the program will be based on a discussion between the Department Chair, Dean, and Provost. At that time, current Ph.D. students can finish their program obtaining the same degree, but no more students will be recruited. Students could also choose to graduate with their MS and continue on a degree program at another university.

4. Institutional Capacity

As mentioned previously, Missouri S&T has already indicated strong support for the development of this Ph.D. through its support to hire a second assistant professor in I-O psychology earlier than anticipated and through leadership's advocacy to include psychological science lab space in future building developments, lab space that will support the applied cognitive psychology program in particular. With this support and the financial resources mentioned in section 3, we believe we will have the capacity to incorporate the Ph.D. program into our department while still maintaining strong undergraduate programs and the terminal MS program as its own program.

As indicated in the 5-year curriculum plan included in the appendix, we will be able to distribute the teaching load to ensure that necessary new curriculum is integrated while also ensuring that new course preparations and workload, etc. are evenly distributed across current and future faculty. The faculty have had chances to provide feedback on this curriculum plan, indicating their support. Additionally, the earlier than anticipated addition of a second I-O faculty member will ensure we have the human capital to provide curriculum oversight to the new program while still maintaining appropriate oversight of the terminal MS program.

The lab spaces advocated for by leadership in addition to the stated support for the assistantships will ensure we can have a competitive start to the program, which will translate into continued success for the department in acquiring external funding and research expenditures. Additionally, maintaining the revenue stream from the online MS program will help supplement committed resources from campus.

5. Program Characteristics

5.A. Program Outcomes

Students completing the Applied Psychology Ph.D. program will have the ability to:

- Apply knowledge of subject matter within the field of applied psychology, specifically applied social/I-O psychology and applied cognitive psychology.
- Utilize research and critical thinking skills to apply the science of

applied psychology to industry- and every-day-focused challenges, solutions, and outcomes.

- Communicate effectively with scientists and non-scientists alike as determined by the context.
- Independently identify, explain, and develop scholarship (professional or research-based), including a clear plan for addressing research- and practice- driven questions.
- Exhibit ethical and professional conduct, both in academic and in industry-based roles.
- Promote a climate of inclusion and engage with diverse members of a variety of communities.

5.B. Program Design & Content

Applied Psychology involves the application of science from a wide range of psychology subfields, including industrial/organizational (I-O) psychology, developmental psychology, social psychology, cognitive psychology, counseling, human factors, health psychology, and program evaluation. To target key areas, particularly those areas likely to have the most growth potential based on identified national and labor market trends, as well as build off the current expertise and programs currently available in the department, this doctoral curriculum will include two tracks: Applied Social/Industrial- Organizational Psychology and Applied Cognitive Psychology.

Applied Social/Industrial- Organizational Psychology focuses on societal and organizational/workplace systems and structures that influence individuals, particularly employees, as well as the ways in which individuals impact and influence their organizational/workplace/societal institutions too.

Applied Cognitive Psychology focuses on the application of foundational cognitive processes (e.g., attention, sensation, perception, motivation, rationality, decision-making, neurological processes, etc.) to real-world challenges and solutions (e.g., by improving health, improving technology, and improving socio-technical systems such as institutions).

Additionally, to enhance interdisciplinary collaborations between departments and as part of our alignment to S&T's strategic initiatives, we will offer within-track concentrations and new offerings related to cognition and health, cognition and technology, cognition and organizations, and more options for health care and technology electives within the social/I-O program.

The program was designed utilizing example curriculum from other top programs in the country (e.g., [Drexel University's Ph.D. in Applied Cognitive & Brain Sciences](#), [New York University's Ph.D. in Psychology & Social Intervention](#)) as well as capitalizing on our department's current strengths (e.g., [faculty research areas](#) as

well as current graduate curriculum offered in the [MS in I-O psychology program](#) and reflecting emphasis areas in our [undergraduate curriculum](#)) and university strategic directions (e.g., Bio-X initiatives identified in the [Missouri S&T Research Roadmap](#) and STEM application as dictated by S&T's [Mission & Vision statements](#)). Initial discussions for a Ph.D. in psychology began January 2023 with the Psychological Science faculty approving the concept of applied psychology as the overall direction in May 2023. This direction was chosen based upon national market trends as identified, as well as ensuring meeting state higher education needs while avoiding potential redundancies.

As indicated in section 5.F, a curriculum plan was then developed to determine how the necessary courses for this degree plan would integrate into current faculty teaching loads as well as necessary faculty hires in order to support additional coursework. As mentioned previously, the Dean and Provost's Offices support to hire two assistant I-O professor positions (one of which was ahead of schedule according to the Dean's Office strategic hiring plan) means that we will be able to launch certain curriculum structures faster than anticipated, allowing for earlier integration of the Ph.D. program, particularly the applied cognitive psychology track, into our curriculum plans. As a result of hiring the I-O assistant professors, we will be able to more quickly "free-up" other more technology- and cognitively-focused psychology faculty to instead teach courses and mentor students for the applied cognitive psychology tracks (and concentrations within: cognition & health, cognition & technology, and cognition & organizations). This will result in greater alignment of faculty skills and expertise to proposed program tracks, and thus better ability to meet program outcomes as stated above.

Below is the outline of curriculum for both the Applied Social/I-O Psychology Track and the Applied Cognitive Psychology Track. Within the Applied Cognitive Psychology Track, students are also able to choose a particular concentration (cognition & health, cognition & technology, and cognition & organizations). Because of the variety of ways cognitive psychology can be applied to the world, we believed it would enhance degree marketability (to both students and employers) if students could tailor their doctoral degree to key strategic areas aligned with S&T's strengths (i.e., technology, health, and socio-technical systems). Applied Social/I-O psychology as a track of applied psychology is already tailored to the role of individuals in workplaces and organizations. Within both tracks, students can take electives outside of the department. As research and the application of that research to field settings is increasingly interdisciplinary, it is important that students gain exposure to expertise and curriculum outside of the psychology department in order to ensure a well-rounded education ready for industry and opportunities outside of academia. The department chairs of each department with relevant electives were consulted in development of this degree plan prior to the pre-proposal review process to ensure early acceptance of the proposed degree plan.

Courses that are required for the Applied Social/I-O Psychology Track serve as electives for the Applied Cognitive Psychology Track and vice-versa, so many courses

are listed under both tracks, but are organized differently to better meet the learning outcomes for each track.

Notably, we will “double-dip” and utilize our current MS courses as part of the PhD degree program. However, since it is an MS and not a MPS (master’s in professional studies) we have still maintained significant expectations that students acquire theoretical understanding and scientific methodology to succeed in the courses. Most courses are discussion based, require similar reading levels as first and second-year doctoral coursework, and since the doctoral program is applied focused, the courses with practicum-based projects should still be of relevance to first- and second-year doctoral students. Additionally, courses that have yet to be developed and that do not count towards the MS (e.g., multilevel modeling) will be designed at the advanced doctoral level. Finally, currently and moving forward, all our data analysis/statistics-based curriculum teaches and encourages use of coding/programming statistics software (e.g., R) to ensure students gain competitive data analytic skills.

Applied Social/I-O Psychology Track

Students in the Applied Social/I-O Psychology Track will complete many of the same courses included in the terminal MS in I-O Psychology (currently offered in the department), plus additional courses to tailor their degree. They will complete 34 credits of foundational, core content (core content is tailorable) and methods courses, plus 6 credits of electives:

Required Foundational Content (6 credit hours total)

Psych 5020 – Introduction to I-O Psychology
Psych 5600 – Advanced Social Psychology

Required Core Content – Choose 5 (15 credit hours total)

Psych 5604 – Advanced Diversity Science
Psych 5603 – Advanced Social Influence
Psych 5740 – Occupational Health & Safety
Psych 5601 – Small Group Dynamics
Psych 5700 – Job Analysis & Performance Management
Psych 6602 – Organizational Development & Employee Perspectives
Psych 6610 – Leadership, Motivation, & Culture
Psych 6702 – Personnel Selection
Psych 6700 – Training & Development
Psych 6200 – Multilevel Modeling

Required Methods Courses (13 credit hours total)

Psych 5202 – Applied Psychological Data Analysis
Psych 5210 – Advanced Research Methods
Psych 5201 – Psychometrics

Psych 5012 – Ethics & Professional Responsibilities (1 credit hour)

OR

Psych 6010 - Professional Seminar (1 credit hour)

Data analysis/statistics-based elective from outside the department – to be chosen with advisor approval

Elective Courses (6 credit hours total)

Psych 5400 – Advanced Cognition

Psych 5710 – Advanced Human Factors

Psych 5720 – Advanced Psychology of Social Technology

Psych 6085 – Internship

Psych 6400 – Advanced Cognitive Neuroscience

Psych 6401 – Advanced Rationality & Decision-Making

Psych 6500 – Advanced Health Psychology

Psych 6502 – Cognition & Aging

Psych 6501 – Substance Use & Health

Psych 6720 – Moral Psychology of Technology

Psych 6402 – Cognition & AI

IS&T 5251 – Management & Leadership of Technological Innovation

Econ 5644 – Creativity, Innovation, & Sustainability

Bus 5111 – Business Negotiations

Bus 5980 – Business Models for Entrepreneurship & Innovation

Eng Mgt 5320 – Project Management

Eng Mgt 5710 – Six Sigma

Comp Sci 5409 – Applied Social Network Analysis

Applied Cognitive Psychology Track

Students in the Applied Cognitive Psychology Track will have the same concept of core content and core methods courses (22 credit hours total), plus they will choose an additional concentration (18 credit hours total) to tailor their degree plan:

Required Core Content (9 credit hours total)

Psych 5400 – Advanced Cognition

Psych 5710 – Advanced Human Factors

Psych 6400 – Advanced Cognitive Neuroscience

OR

Psych 6401 – Advanced Rationality & Decision Making

Required Methods Courses (13 credit hours total)

Psych 5201 – Psychometrics

Psych 5202 – Applied Psychological Data Analysis

Psych 5210 – Advanced Research Methods

OR

Psych 5211 – Research Methods in Cognition & Neuroscience

Psych 5012 – Ethics & Professional Responsibilities (1 credit hour) OR

Psych 6010 – Professional Seminar (1 credit hour)

Data analysis/statistics-based elective from outside the department – to be chosen with advisor approval

Applied Cognitive Psychology students will be able to choose among a variety of electives and concentrations based on their area of interest and work with their advisor (18 credits total – 6 courses). Students will be encouraged to choose a particular concentration, but they may be able to build their own concentration with appropriate advisor approval/guidance. Of the 18 credit hours, students will be required to complete a minimum of 9 of those hours in the Psychological Science department. Beyond the courses listed below, students may consider additional advanced statistics courses in other departments if agreed upon with their advisor.

Applied Cognition & Health

Psych 5740 – Occupational Health & Safety

Psych 6500 – Advanced Health Psychology

Psych 6502 – Cognition & Aging

Psych 6501 – Substance Use & Health

Psych 6085 – Internship

Bio Sci 5343 – Biology of Aging

Bio Sci 5353 – Developmental Biology

Bio Sci 6533 – Advanced Neurobiology

Comp Sci 5401 – Evolutionary Computing

Applied Cognition & Technology

Psych 5700 – Job Analysis & Performance Management

Psych 5720 – Advanced Psychology of Social technology

Psych 6402 – Cognition & AI

Psych 6720 – Moral Psychology of Technology

Psych 6085 – Internship

Tch Com 5530 – Usability Studies

Bus 5730 – Machine Learning & Artificial Intelligence for Business

IS&T 5885 – Human-Computer Interaction & User Experience

IS&T 5251 – Management & Leadership of Technological Innovation

IS&T 5450 – Introduction to Information Visualization

IS&T 5887 – Human-Computer Interaction Evaluation

Comp Sci 5400 – Introduction to Artificial Intelligence

Comp Sci 5403 – Introduction to Robotics

Comp Sci 5404 – Introduction to Computer Vision

Applied Cognition & Organizations

Psych 5700 – Job Analysis & Performance Management

Psych 5740 – Occupational Health & Safety

Psych 6700 – Training & Development

Psych 6200 – Multilevel Modeling
Psych 6085 – Internship
Eng Mgt 5110 – Managerial Decision Making
Bus 5730 – Machine Learning & Artificial Intelligence for Business
IS&T 5887 – Human-Computer Interaction Evaluation
IS&T 5251 – Management & Leadership of Technological Innovation
Econ 5644 – Creativity, Innovation, & Sustainability
Comp Sci 5409 – Applied Social Network Analysis

5.C. Program Structure

Consistent with the graduate catalog requirements at Missouri S&T, the Applied Psychology Ph.D. program will require 72 hours of graduate credit. For students who enter the program directly with a baccalaureate degree, this will include a minimum of 40 credit hours of 4000-, 5000-, and 6000-level lecture courses, and a minimum of 30 credit hours of graduate research (the remaining 2 credit hours can either be research credit or curriculum credit as determined by the student's degree plan). A minimum of 15 lecture credit hours (of the 40 total credit hours) should be completed in 6000-level courses.

Students who enter with a master's degree in a related field can receive up to 30 credits toward the 72-credit requirement. In line with S&T graduate degree requirements, they then will be required to complete an additional minimum of 12 credit hours of 4000-, 5000-, and 6000-level lecture courses and 24 credit hours of research. A minimum of 9 lecture credit hours (of the 12 credit hours required to be completed at S&T) should be completed in 6000-level courses.

A qualifying exam will be successfully completed no later than the end of the fifth semester of enrollment, and a plan of study will be approved by a student's advisory committee by the end of the semester in which the qualifying exam is passed. A comprehensive exam will be completed after the student has completed at least 50% of the coursework. Upon conclusion of the research, the student will complete a written dissertation and successfully defend it in an oral defense.

Notably, Missouri S&T allows for a publication option for its dissertation requirements. This means that students can structure their dissertation around three submitted manuscripts to help encourage follow-through with publishing research. While this won't be a required structure for the dissertation, it can help encourage research output if need be.

5.C.1. Program Structure Form

1. Total Credits Required for Graduation: 72

2. **Residence requirements, if any:** Not applicable
3. **General education**
 - a. Total general education credits: Not applicable
4. **Major Requirements**
 - a. Total credits specific to degree: 72

Applied Social/I-O Psychology Track Courses
(specific course or distribution area and credit hours):

Course	Hrs	Course	Hrs	Course	Hrs
Foundational Content	6	Lecture/Content Electives	6	Research credit	30
Core Content (choose 5 out of 10 courses to tailor degree)	15	Methods & Data Analysis Content	13	Free Electives (can be research or lecture/content credits)	2

Applied Cognitive Psychology Track Courses
(specific course or distribution area and credit hours):

Course	Hrs	Course	Hrs	Course	Hrs
Core Content	9	Selected Concentration Content (minimum of 9 credits completed in Psychological Science Department)	18	Research credit	30
Methods & Data Analysis Content	13			Free Electives (can be research or lecture/content credits)	2

5. **Free elective credits**
 - a. Total free elective credits: 2 credits can be lecture/content or research credit depending on the student's degree plan
6. **Requirement for thesis, internship or other capstone experience:**
All students will conduct research and complete a dissertation, requiring a minimum of 30 research credits. Internship (Psych 6085) is an optional elective.
7. **Any unique features such as interdepartmental cooperation:**
Students choose either Applied Social/I-O Track or the Applied Cognitive

Psychology Track. Within the Applied Cognitive Psychology Track, students can choose one of three concentrations (Cognition & Health, Cognition & Technology, Cognition & Organizations) or work with their advisor to create their own track (e.g., Cognition & Applied Data). Each of these concentrations allows students to choose courses from a variety of departments to complete their degree requirements. No specific interdepartmental cooperative agreements are proposed, however the department chairs of each department with relevant electives have been consulted in development of this degree plan.

5.D. Program Goals and Assessment

Following the department's current procedures for assessing program learning outcomes, the department faculty will engage in a curriculum assessment matrix exercise to identify which courses and/or program activities (e.g., colloquiums, conference attendance, assistantship performance, etc.) will contribute to student development in each learning outcome. This practice is currently in place for both the undergraduate and graduate programs already in existence. Additionally, under the guidance of the department's assessment committee, each faculty member provides individual course metrics at the end of each semester capturing student success rates related to each learning outcome. We will utilize these same procedures to determine assessment of the learning outcomes associated with the Ph.D. program.

In order to support student success and retention, as well as to capture student perspectives as part of program assessment, we will also implement a graduate student climate survey every 2 years. This process is currently in place for the MS program in the department and has provided valuable, implementable information on how to continue to refine and improve the program to meet student needs and expectations.

In terms of retention, we will utilize the projections identified in Tables 1a-1c to determine if we are on track to meet retention goals. Additionally, as described in sec. 3.C.2, transparent degree expectations combined with supportive mentorship will be key to supporting student success and retention.

In terms of placement, and to avoid duplicating efforts already in existence on campus, we will work closely with the Advancement and Career Opportunity (e.g., see career dashboard linked earlier) offices on campus to survey alumni and determine placement rates. We have also had success of identifying alumni placement for the MS graduate program via their shared LinkedIn profiles, and that data has traditionally been maintained in a department spreadsheet. After a large enough sample of alumni has been acquired, we will then begin benchmarking our placement rates against national trends as reported by LightCast and other sources, as well as track within program trends overtime.

5.E. Student Preparation

The target population for this program will be students who completed a bachelor's or master's degree in psychology/psychological science or a related undergraduate or graduate program. Additionally, students with baccalaureate minors and/or certificates in related areas of psychology will be considered a target population. Students who have targeted their baccalaureate or master's degrees to focus on one of the focal areas of the Ph.D. tracks (i.e., social psychology, industrial-organizational psychology, cognitive psychology, health psychology, neuroscience, human factors) will be encouraged to apply, but all areas of psychology and related fields will be considered. Depending on a given student's previous preparative study, their committee will have the right to determine if additional coursework is necessary for the student to succeed in their chosen track.

5.F. Faculty and Administration

The individual with primary responsibility for the success of this new graduate program will be the Assistant Chair of Graduate Studies in Psychological Science, with support provided by the Department Chair of Psychological Science. Dr. Clair Kueny currently serves as Department Chair and, as past Assistant Chair of Graduate Studies, currently fulfills those responsibilities as well. However, with the recent hires and proposed additional third hire for the department, along with expanded focus of graduate education for the department, it is expected that a tenured-faculty member will be able to fulfill the Assistant Chair role by Fall 2025, when the program will officially launch.

The curriculum required to support the Applied Social/I-O Psychology Track is primarily in place, and currently supports the Industrial-Organizational psychology master's program in the department. As mentioned, a five-year curriculum plan has been created (see Appendix 2) showing how the remaining curriculum necessary to offer the Applied Cognitive Psychology Track will be integrated in the faculty teaching load distributions. As can be seen, all graduate courses supporting the proposed program will be taught by members of the graduate faculty.

Members of the Psychological Science Department who are members of the graduate faculty (CVs for each individual included in Appendix 5):

- Amy Belfi – Associate Professor (.75 FTE devoted to the program)
- Devin Burns – Associate Professor (.50 FTE devoted to the program)
- Jessica Cundiff – Associate Professor (.75 FTE devoted to the program)
- Amber Henslee – Associate Professor (.50 FTE devoted to the program)
- Merilee Krueger – Teaching Professor (.25 FTE devoted to the program)
- Clair Kueny – Associate Professor (.50 FTE devoted to the program while serving as Department Chair)
- Matthew Ng – Assistant Professor (starting Fall 2024) (.75 FTE devoted to the program)

- Vahe Permezian – Assistant Professor (.75 FTE devoted to the program)
- Ann Schlotzhauer – Assistant Professor (starting Fall 2024) (.75 FTE devoted to the program)
- Daniel Shank – Associate Professor (.75 FTE devoted to the program)
- Ting Shen – Assistant Professor (.75 FTE devoted to the program)

5.G. Alumni and Employer Survey

Feedback from both alumni and employers will be critical to the success of this program, particularly employers in corporate industry and other fields (e.g., government, healthcare, etc.). As such, we propose the following methods for soliciting feedback from each group:

- For Alumni:
 - We will conduct an electronic, online survey every 5 years of alumni who had graduated within the previous 7 years. Due to the small sample size of students projected to graduate each year, and the length of time to complete a doctoral program, the first survey will launch three years after the first graduating cohort and then will follow a 5-year timeline after that.
 - To supplement the time in-between surveys, and to gather more immediate feedback (based less on recall) advisors will also conduct exit interviews with their doctoral candidates upon successful completion of their dissertation defense.
 - As noted previously, the Career Opportunities office on campus already tracks placement rates, thus these surveys/interviews will focus more on specifics related to the program strengths and weaknesses, the student experience, and perceived preparedness for the field after graduating.
- For Employers:
 - Due to the nature of doctoral programs (e.g., longer time completion, small cohort sizes, etc.), it will take time to develop frequent hiring patterns with employers (i.e., establish employers who regularly hire our graduates). Notably, it is also possible that there will be a wide-variety of employers that hire our graduates due to the nature of the content-area. This will also impact the ability to identify a meaningful sample and trends early on.
 - To combat these challenges, our first step will be to build an employer advisory board. We will invite those employers who hire our initial cohorts of graduating doctoral students as well as employers who could serve as likely hirers in the future (e.g., ones who have hired our MS graduates in the past) to join the board. To thank board members for their time, we will endeavor to provide each member with a small honorarium as well as host them on campus annually. We will also consider strategically including alumni as part of this advisory board.

- This board will provide feedback on hireability of our doctoral candidates, critical skill development, and monitoring trends in relevant fields in terms of desired and burgeoning skills needed to stay competitive.
- The department chair and assistant chair of graduate studies will be responsible for organizing, convening, and utilizing the board for the program's development.

In addition to providing valuable feedback for program development, we anticipate that these efforts to develop relationships with alumni and employers will also allow us to establish more formal internship and practicum opportunities/pipelines overtime as well.

5.H. Program Accreditation

There is no official accrediting body for non-clinical psychology programs. That said, the program closely follows recommendations from relevant professional societies (e.g., American Psychological Association, Society for Industrial-Organizational Psychology, Society for Personality & Social Psychology, and Division 21: Applied Experimental & Engineering Psychology) on graduate education and training content. Finally, the program will be part of the Psychological Science department's five-year external review process as part of the Higher Learning Commission accreditation requirements.

6. Appendices

- Curriculum Map
- Pro Forma
- Letters of Support

Appendices

1. Curriculum Map [\(Click here\)](#)
2. Pro Forma [\(Click here\)](#)
3. Letters of Support [\(Click here\)](#)

Appendix 2: Curriculum Matrix

Faculty	FS23		SP24		SS24	FS24		SP25		SS25	FS25*		SP26		SS26	FS26**	
New TT Hire																	
Schlotzhauer						Psych 5202	Start-up	Psych 5740	Start-up		Psych 5202	Psych 4600	Psych 5740	Psych 5604		Psych 5202	Psych 4600
Ng						Psych 4700	Start-up	Psych 5700	Start-up		Psych 4700	Psych 1101	Psych 5700	Psych 5201		Psych 4700	Psych 1101
Belfi	Psych 4410	Buyout	Psych 4001	Buyout		Psych 4410	Buyout	Sabbatical	Sabbatical		Psych 4410	Psych 5400	Psych 6400	Psych 4001		Psych 4410	Psych 5400
Burns	Psych 4411	Psych 5202	Psych 2200	Psych 4400		Psych 4400	Psych 4411	Psych 2200	Psych 4995		Psych 4411	Psych 5710	Psych 2200	Psych 4400		Psych 4411	Psych 5710
Cundiff	Psych 4993	Buyout	Buyout	Psych 5604		Psych 4993	Buyout	Buyout	Psych 5600		Psych 4993	Psych 5603	Psych 5600	Psych 4600		Psych 4993	Psych 5603
Henslee	Psych 3501	Psych 4501	Psych 4510	Psych 4590	Psych 1101	Psych 3501	Psych 4501	Psych 4510	Psych 4590	Psych 1101	Psych 3501	Psych 4501	Psych 4510	Psych 4590	Psych 1101	Psych 3501	Psych 4501
(50% Teach)	Psych 4990		Psych 4990			Psych 4990		Psych 4990			Psych 6501		Psych 4990			Psych 6501	
Krueger (NTT)	Psych 1101	Psych 2300	Psych 1101	Psych 3311	Psych 3310	Psych 4310	Psych 2300	Psych 1101	Psych 3311	Psych 3310	Psych 4310	Psych 2300	Psych 1101	Psych 3311	Psych 3310	Psych 4310	Psych 2300
	Psych 3310	Psych 4992	Psych 4610	Psych 6610		Psych 3310	Psych 4992	Psych 4610	Psych 6610		Psych 3310	Psych 4992	Psych 4610	Psych 6610		Psych 3310	Psych 4992
	Psych 6610																
Kueny (Chair)	Psych 1101	Psych 6602	Buyout	Psych 5012		Psych 1101	Psych 6602	Psych 4500	Psych 5012		Psych 1101	Psych 6602	Psych 4500	Psych 5012		Psych 1101	Psych 6602
Murray (Admin)	Psych 4700			Psych 5740	Psych 4700												
Permazadian	Psych 5020	Psych 6702	Psych 4602	Psych 6700		Psych 5020	Psych 6702	Psych 4602	Psych 6700		Psych 5020	Psych 6702	Psych 4602	Psych 6700		Psych 5020	Psych 6702
Shank	Psych 4600	WL Adjust	Psych 4720	Psych 5601		Psych 4601	WL Adjust	Psych 4720	Psych 5601		Psych 4601	WL Adjust	Psych 4720	Psych 5601		Psych 4601	Psych 6720
Shen	Stat 1115	Psych 5210	Stat 1115	Psych 5201		Stat 1115	Psych 5210	Stat 1115	Psych 5201		Stat 1115	Psych 5210	Stat 1115	Psych 6200		Stat 1115	Psych 5210
Stratman (Adj)	Psych 1101		Psych 1101	Psych 4600		Psych 1101	Psych 1101	Psych 1101	Psych 4600	Psych 4600	Psych 1101		Psych 1101			Psych 1101	Psych 1101
Staff (Future GTAs)	Psych 1101	Psych 5710	Psych 5700			Psych 1101	Psych 5710				Psych 1101						

*first cohort Applied S/IO Phd?

**first cohort Applied Cog Phd?

Faculty	SP27		SS27	FS27		SP28		SS28									
New TT Hire				Psych 6500	Start-up	Psych 6502	Start-up		Psych 6500	Psych 1101	Psych 6502	Psych 4400	Psych 6500	Psych 1101	Psych 6502	Psych 6402	
Schlotzhauer	Psych 5740	Psych 5604		Psych 5202	Psych 4600	Psych 5740	Psych 5604										
Ng	Psych 5700	Psych 5201	Psych 4700	Psych 4700	Psych 1101	Psych 5700	Psych 5201	Psych 4700									
Belfi	Psych 6400	Psych 5211		Psych 4410	Psych 5400	Psych 4001	Psych 5211										
Burns	Psych 4400	Psych 4995		Psych 4411	Psych 5710	Psych 6401	Psych 4400										
Cundiff	Psych 5600	Psych 4600		Psych 4993	Psych 5603	Psych 5600	Psych 4600										
Henslee	Psych 4510	Psych 4590	Psych 1101	Psych 3501	Psych 4501	Psych 4510	Psych 4590	Psych 1101									
(50% Teach)	Psych 4990			Psych 6501		Psych 4990											
Krueger (NTT)	Psych 1101	Psych 3311	Psych 3310	Psych 4310	Psych 2300	Psych 1101	Psych 3311	Psych 3310									
	Psych 4610	Psych 6610		Psych 3310	Psych 4992	Psych 4610	Psych 6610										
Kueny (Chair)	Psych 4500	Psych 5012		Psych 1101	Psych 6602	Psych 4500	Psych 5012										
Murray (Admin)																	
Permazadian	Psych 4602	Psych 6700		Psych 5020	Psych 6702	Psych 4602	Psych 6700										
Shank	Psych 4720	Psych 5601		Psych 5720	Psych 6720	Psych 4720	Psych 5601										
Shen	Stat 1115	Psych 6200		Stat 1115	Psych 5210	Stat 1115	Psych 6200										
Stratman (Adj)	Psych 1101			Psych 1101		Psych 1101											
Staff (Future GTAs)	Psych 2200			Psych 4601		Psych 2200											

Legend	
Red Text	Overload/additional cost
Purple Text	New course prep
Blue highlight	Graduate level course

See spreadsheet attached

The attached spreadsheet incorporates the five-year curriculum plan for the department, including a breakdown of when and by whom current and new courses will be offered. In the document, courses in red font are currently (or projected to be) taught at additional expense and/or curriculum overload as they cannot be covered within the available faculty workload. This helps to visualize how the new faculty and GTA lines will fill in for the department overtime. Courses in purple font indicate new course preps for faculty, and to visualize the balance of new preparations that will be required. Finally, courses in blue highlight help to visualize the balance of graduate courses (blue highlight) vs. undergraduate courses both within and across faculty.

New Degree Program Pro Forma

Records

Proposed program: **Psych Phd**
 University: **Missouri University of Science and Technology**
 College: **College of Arts, Sciences, and Education**
 Submitted: **[Insert date]**
 Preparer: **Jackie Sansone**

Reviewed by College Fiscal Officer: **Jackie Sansone** Fiscal Officer Name: **Jackie Sansone**
 Reviewed by University-Level Fiscal Officer: **[insert date]** Fiscal Officer Name: **Alysha Oneil**

PROGRAM:	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33
Enrollment Projections								
Head Count Students - <i>new campus incoming</i>	4	7	10	15	20	20	20	20
Head Count Students - <i>new distance incoming</i>								
Head Count Students - <i>transfers within campus</i>								
Student Credit Hours								
Campus-enrolled students	72	126	180	270	360	360	360	360
Distance-enrolled students								
Tuition Rate/Credit Hour								
Campus-enrolled students								
Distance-enrolled students								
Fee Rate/Credit Hour	1,338	1,378	1,420	1,463	1,507	1,552	1,599	1,647
Tuition Discount Rate (%)	20%	20%	20%	20%	20%	20%	20%	20%
Scholarship Allowances (\$)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Revenue Projections	*****CALCULATED CELLS*****							
Tuition from campus-enrolled students	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Tuition from distance-enrolled students	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Supplemental & Other Fees	\$96,303	\$173,646	\$255,600	\$395,010	\$542,520	\$558,720	\$575,640	\$592,920
Scholarship Allowances	\$ (19,261)	\$ (34,729)	\$ (51,120)	\$ (79,002)	\$ (108,504)	\$ (111,744)	\$ (115,128)	\$ (118,584)
Net Tuition and Fees	\$77,042	\$138,917	\$204,480	\$316,008	\$434,016	\$446,976	\$460,512	\$474,336
TOTAL PROGRAM REVENUE	\$77,042	\$138,917	\$204,480	\$316,008	\$434,016	\$446,976	\$460,512	\$474,336
Recurring State Support								
TOTAL REVENUE	\$77,042	\$138,917	\$204,480	\$316,008	\$434,016	\$446,976	\$460,512	\$474,336
Expenditure Projections								
Faculty Salaries			\$ 75,000	\$ 77,250	\$ 79,568	\$ 81,955	\$ 84,414	\$ 86,946
<i>New Tenure Track Faculty</i>								
Graduate Instructor Stipends (50% FTE)								
<i>GTA,3@20760,4@21382,7@22023, 10@22683, ect.</i>	\$ 62,280	\$ 85,530	\$ 154,164	\$ 226,830	\$ 233,635	\$ 240,440	\$ 247,245	\$ 254,050
Total Salaries								
Benefits (faculty only)			\$28,050	\$28,586	\$29,137	\$29,705	\$30,291	\$30,893
Subtotal Salaries and Benefits	\$ 62,280	\$ 85,530	\$ 257,214	\$ 332,666	\$ 342,340	\$ 352,100	\$ 361,949	\$ 371,890
Operating Expense								
Computing Expenses								
NonCapital Maintenance & Repair								
Noncapital Equipment								
Supplies								
Travel & Training								
Marketing Expenses								
Subtotal Operating Expense								
One-time Expenditures (Startup Costs)			\$200,000					
<i>startup package for new faculty - including funds from all sources</i>								
Additional Space Costs								
Subtotal One-time Expense	\$ -	\$0	\$ 200,000	\$0	\$0	\$0	\$0	\$0
TOTAL EXPENDITURES	\$ 62,280	\$ 85,530	\$457,214	\$332,666	\$342,340	\$352,100	\$361,949	\$371,890
DIRECT MARGIN	\$14,762	\$53,387	(\$252,734)	(\$16,658)	\$91,676	\$94,876	\$98,563	\$102,446
CUMULATIVE DIRECT MARGIN	\$14,762	\$68,149	(\$184,585)	(\$201,243)	(\$109,567)	(\$14,691)	\$83,872	\$186,318
Revenue from Transfers within Campus								
NET MARGIN TO THE CAMPUS	\$14,762	\$53,387	(\$252,734)	(\$16,658)	\$91,676	\$94,876	\$98,563	\$102,446
CUMULATIVE NET MARGIN TO THE CAMPUS	\$14,762	\$68,149	(\$184,585)	(\$201,243)	(\$109,567)	(\$14,691)	\$83,872	\$186,318
Campus Overhead Allocation	\$ 20,552	\$ 28,225	\$ 150,881	\$ 109,780	\$ 112,972	\$ 116,193	\$ 119,443	\$ 122,724
MARGIN AFTER CAMPUS OVERHEAD	(\$5,790)	\$25,162	(\$403,615)	(\$126,437)	(\$21,296)	(\$21,317)	(\$20,880)	(\$20,277)
CUMULATIVE MARGIN AFTER CAMPUS OVERHEAD	(\$5,790)	\$19,372	(\$384,243)	(\$510,680)	(\$531,977)	(\$553,294)	(\$574,174)	(\$594,452)

University: **Missouri University of Science and Technology**
 College: **College of Arts, Sciences, and Education**
 Submitted:
 Preparer: **Jackie Sansone**
 Reviewed by College Fiscal Officer: **Jackie Sansc** Fiscal Officer Name: **Jackie Sansone**
 Reviewed by University-Level Fiscal Officer **[insert date]** Fiscal Officer Name: **Alysha O'Neil**

	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33
Enrollment Projections								
Head Count Students - <i>new campus incoming</i>	2	3	5	7	10	10	10	10
Head Count Students - <i>new distance incoming</i>								
Head Count Students - <i>transfers within campus</i>								
Student Credit Hours								
Campus-enrolled students	36	54	90	126	180	180	180	180
Distance-enrolled students								
Tuition Rate/Credit Hour								
Campus-enrolled students								
Distance-enrolled students								
Fee Rate/Credit Hour	1,338	1,378	1,420	1,463	1,507	1,552	1,599	1,647
Tuition Discount Rate (%)	20%	20%	20%	20%	20%	20%	20%	20%
Scholarship Allowances (\$)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Revenue Projections	*****CALCULATED CELLS*****							
Tuition from campus-enrolled students	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Tuition from distance-enrolled students	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Supplemental & Other Fees	\$48,151	\$74,420	\$127,800	\$184,338	\$271,260	\$279,360	\$287,820	\$296,460
Scholarship Allowances	\$ (9,630)	\$ (14,884)	\$ (25,560)	\$ (36,868)	\$ (54,252)	\$ (55,872)	\$ (57,564)	\$ (59,292)
Net Tuition and Fees	\$38,521	\$59,536	\$102,240	\$147,470	\$217,008	\$223,488	\$230,256	\$237,168
TOTAL PROGRAM REVENUE	\$38,521	\$59,536	\$102,240	\$147,470	\$217,008	\$223,488	\$230,256	\$237,168
Recurring State Support								
TOTAL REVENUE	\$38,521	\$59,536	\$102,240	\$147,470	\$217,008	\$223,488	\$230,256	\$237,168
Expenditure Projections								
Faculty Salaries			\$ 75,000	\$ 77,250	\$ 79,568	\$ 81,955	\$ 84,414	\$ 86,946
<i>New Tenure Track Faculty</i>								
Graduate Instructor Stipends (50% FTE)								
<i>GTA,2 @20760,2 @21382,3 @22023, 4 @22683, ect.</i>	\$ 41,520	\$ 42,764	\$ 66,069	\$ 90,732	\$ 116,817	\$ 131,149	\$ 151,006	\$ 170,862
Total Salaries								
Benefits (faculty only)			\$28,050	\$28,586	\$29,137	\$29,705	\$30,291	\$30,893
Subtotal Salaries and Benefits	\$ 41,520	\$ 42,764	\$ 169,119	\$ 196,568	\$ 225,523	\$ 242,810	\$ 265,710	\$ 288,701
Operating Expense								
Computing Expenses								
NonCapital Maintenance & Repair								
Noncapital Equipment								
Supplies								
Travel & Training								
Marketing Expenses								
Subtotal Operating Expense								
One-time Expenditures (Startup Costs)			\$200,000					
<i>all sources</i>								
Additional Space Costs								
Subtotal One-time Expense	\$ -	\$0	\$ 200,000	\$0	\$0	\$0	\$0	\$0
TOTAL EXPENDITURES	\$ 41,520	\$ 42,764	\$369,119	\$196,568	\$225,523	\$242,810	\$265,710	\$288,701
DIRECT MARGIN	(\$2,999)	\$16,772	(\$266,879)	(\$49,097)	(\$8,515)	(\$19,322)	(\$35,454)	(\$51,533)
CUMULATIVE DIRECT MARGIN	(\$2,999)	\$13,773	(\$253,106)	(\$302,203)	(\$310,718)	(\$330,040)	(\$365,493)	(\$417,027)
Revenue from Transfers within Campus								
NET MARGIN TO THE CAMPUS	(\$2,999)	\$16,772	(\$266,879)	(\$49,097)	(\$8,515)	(\$19,322)	(\$35,454)	(\$51,533)
CUMULATIVE NET MARGIN TO THE CAMPUS	(\$2,999)	\$13,773	(\$253,106)	(\$302,203)	(\$310,718)	(\$330,040)	(\$365,493)	(\$417,027)
Campus Overhead Allocation	\$ 13,702	\$ 14,112	\$ 121,809	\$ 64,867	\$ 74,422	\$ 80,127	\$ 87,684	\$ 95,271
MARGIN AFTER	(\$16,700)	\$2,660	(\$388,688)	(\$113,964)	(\$82,937)	(\$99,449)	(\$123,138)	(\$146,805)
AFTER CAMPUS OVERHEAD	(\$16,700)	(\$14,041)	(\$402,729)	(\$516,694)	(\$599,631)	(\$699,079)	(\$822,218)	(\$969,023)

Appendix 4: Emails

Re: PhD Psych Programs at UMKC

McDowd, Joan M.<mcdowdj@umkc.edu>

Sun 10/22/2023 8:49 AM

To: Reynolds Kueny, Clair Ann <kuenyc@mst.edu>

Hi Clair - thanks for your email; your new programs sound very cool. We have a number of undergraduate students who express interest in 1/0 but we don't have much to offer them here. In any case, on to your question....

Yes, we have an option called Applied Cognitive and Brain Sciences. However, that option is not active and we are not accepting students into it. We don't have the resources to run multiple doctoral programs, unfortunately. I don't imagine that we would reactivate it any time soon.

I would love to connect once you return, just to hear more about what you are planning. And I can share more about the status of our graduate programs. Mondays and Fridays are usually good days for me - please suggest a couple dates and we can get something set up.

Thanks,
Joan

Joan M. McDowd, Ph.D.

Professor & Chair | Department of Psychology & Counseling

314 Cherry Hall | University of Missouri - Kansas City | Kansas City, MO 64110

816-235-1321 | mcdowdj@umkc.edu



Artwork by Shelby Fry @Fry Designs

From: Reynolds Kueny, Clair Ann <kuenyc@mst.edu>

Date: Thursday, October 19, 2023 at 9:59 AM **To:**

McDowd, Joan M.<mcdowdj@umkc.edu> **Subject:**

PhD Psych Programs at UMKC

Hi Joan,

I hope this email finds you well! I reached out back in July as the new chair of Psychological Science at Missouri S&T. I believe at that time I mentioned that we are pursuing the possibility of launching a PhD program in Psychology with tracks focused on Applied Cognition and Applied Social/I-0 Psychology.

The pre-proposal has been approved by the UM System and we are about to move forward with the full proposal. In our discussion with the UM System, Steven Chaffin mentioned that in UMKC's catalog the following is listed as an option for students: <https://catalog.umkc.edu/colleges-schools/educ-socwk-psychological-sciences/psychology/doctor-of-philosophy-psychology-applied-cognitive-brain-science/>

But I noticed on your website that Counseling and Clinical Psychology are the listed offered PhDs.

I definitely want to make sure that any program we propose makes sense for the UM System as a whole. So I wanted to reach out and see if we could connect sometime and I can learn more about what UMKC is working towards and what can make sense for both of our programs.

I'm about to head out of town for a bit, but I'm available again after 11/1. Would you be available for a Zoom or phone call sometime in November to touch base?

Thank you!
Clair

Clair Reynolds Kueny, PhD
Chair & Associate Professor - Department of Psychological Science
Program Director - 1-0 Graduate Programs (MS & Certificates) Missouri
University of Science & Technology

136 Humanities & Social Sciences 500
W. 14th St., Rolla, MO 65409
Email: kuenyc@mst.edu Phone:
573-341-4732



RE: Applied Psychology PhD Proposal at Missouri S&T

Bell, Debora (Psychological Sciences) <belldeb@missouri.edu>

Tue 1/2/2024 12:46 AM

To: Reynolds Kueny, Clair Ann <kuenyc@mst.edu>

Hi Clair,

Good luck- this sounds like a good addition to options in the state! I have no advice but look forward to your progress.

Best, Debi

*** My work routine may look different from yours. Please respond during your normal work hours (if I really need a more immediate reply, I'll let you know!). ***

Debora J. Bell, Ph.D.

Professor and Chair

Department of Psychological Sciences

University of Missouri-Columbia

210 McAlester Hall

Columbia, MO 65211

ph: (573) 882-2254

email: belldeb@missouri.edu

Editor, *Training and Education in Professional Psychology*

Please be aware that e-mail is not a secure medium and that confidentiality cannot be guaranteed.

If you think you have received this transmission in error, please notify the sender via return e-mail or other means.

From: Reynolds Kueny, Clair Ann <kuenyc@mst.edu>

Sent: Monday, November 27, 2023 10:37 AM

To: Bell, Debora (Psychological Sciences) <belldeb@missouri.edu>

Subject: Applied Psychology PhD Proposal at Missouri S&T

Hi Debora,

I hope you had a pleasant Thanksgiving break and that the end of semester doesn't look too overwhelming.

I reached out this summer, mentioning that the Psych Dept at Missouri S&T was working on a proposal for a PhD program in Applied Psychology. We received approval from the UM System to move forward with the full proposal, which will circulate across campuses hopefully early on in the Spring semester. The program will include two tracks: Applied Social/1-0 Psychology and Applied Cognition (with a focus on cognition & health and cognition & technology). I believe that given our different department offerings that this program can complement the other psychology PhD programs offered in the UM System. I'd certainly welcome any feedback you might have about our next steps to offer such a program in our department!

Thank you! All the best, Clair

Graduate Admissions - Research Degrees (PhD & Thesis MS) - regarding meeting on December 7 at noon

Chambers, Krista <krista@mst.edu> on behalf of

Potts, Colin <colin.potts@mst.edu>

Thu 11/16/2023 2:46 PM

To: Spivey, David <david.spivey@mst.edu>; Duvernell, David <duverneld@mst.edu>; Elrod, Cassie <cassa@mst.edu>; Yang, Hu <huyang@mst.edu>; Sotiriou-Leventis, Lia <cslevent@mst.edu>; Burken, Joel G. <burken@mst.edu>; Park, Seung-Jong <seungjong.park@mst.edu>; Kimball, Jonathan W. <kimballjw@mst.edu>; Swenson, Kristine <kswenson@mst.edu>; Enke, David L. <enke@mst.edu>; Gao, Stephen S. <sgao@mst.edu>; Moats, Michael S. <moatsm@mst.edu>; Wang, Xiaoming <xiaomingwang@mst.edu>; Bayless, David <dbayless@mst.edu>; Newkirk, Joseph W. <jnewkirk@mst.edu>; Awuah-Offei, Kwame <kwamea@mst.edu>; Vojta, Thomas <vojta@mst.edu>; Reynolds Kueny, Clair Ann <kuenyc@mst.edu>; Raper, Stephen A. <sraper@mst.edu>; Faley, Timothy <tfaley@mst.edu>
Cc: Olbricht, Gayla R. <OlbrichtG@mst.edu>; Adekpedjou, Akim <akima@mst.edu>; Kim, Chang-Soo <ckim@mst.edu>; Lewis, Stephanie <lewisstep@mst.edu>

Graduate Admissions - Research Degrees (PhD & Thesis MS)

This year I would like once again to organize college-wide meetings of chairs to discuss efforts that you are making and that we can assist with to increase enrollment at the university. For convenience, I propose we separate these discussions again into those concerning undergraduate and graduate enrollment. *This memo refers to graduate enrollment in research degrees only.*

Research graduate enrollment is multi-faceted. Some of your departments admit students directly into PhDs or through an MS on-ramp, others have stand-alone thesis master's degrees. Most of your departments have a mix of research and non-research graduate degrees. Some don't have or don't yet have graduate programs. Thus, a one-size fits all set of questions and plans will not serve the university well. Add to all this the fact that it does our students little good if we admit them and they do not stay through graduation. This year, therefore, we will discuss the various kinds of graduate programs and issues of admissions and retention together; they are intimately connected.

Last year, the onus on the answers was what were *you* going to do? This year, I want the discussion to be more balanced: what must *we* (departments, colleges, and campus administration) do to successfully attract and retain students?

Here are the issues that we need to resolve at or immediately following the meetings. Within seven days of each meeting, we will circulate a who-does-what plan for the remainder of the academic year and summer of 2024.

Graduate Enrollment in General

- The COACHE survey results indicate that our faculty rate the quality of our graduate students as a disadvantage of being a faculty member at S&T. This dissatisfaction is distinctive to S&T and uncommon nationwide. *Does it apply to your research students? If so, what exactly is the source of the dissatisfaction? What can your department and the administration do to ensure that the quality of the research student population matches the reputation of the university and expectations of the faculty?*
- The advanced nature of the subject matter of research degrees means that unlike undergraduate admission decisions (and even non-research graduate degrees), departments need to be intimately involved in the student selection process. *If you are concerned by the quality of accepted research students, what will your department do to review applications critically and*

promptly so that the best students are accepted quickly? What outreach to students do you plan and by when or depending on what triggering events? What support do you expect?

Enrollment in Research Degrees (PhD and standalone Thesis Masters)

- To be competitive, PhD programs depend on a constant supply of funded students. *How and when are decisions made to assign students to a research advisor? What obligations does the department commit to concerning the continued funding and funding level for incoming and continuing research students and for how long? Given the uncertain future of funding for principal investigators when they accept a student, what safety nets does your department have if funding for the student drops before the student can reasonably be expected to graduate? What resources are needed in your department to make up the shortfall?*
- In the case of the new non-STEM majors (esp. TC) there will be a need to support students using non-standard GTAs (e.g. advising in the WCC) or GRAs conducting research-related professional work in an S&T administrative unit (e.g. Marcom) in addition to standard GTA/GRA-ships. *How many such assistantships do you predict being necessary in the first two years of the program?*
- *If your department has a doctoral program, what are you doing to reduce the prominence of the thesis master's program except as an on-ramp to or off-ramp from the PhD? ^[1] What marketing/web publication steps are necessary?*

Research students' progress and retention

- Research students have many stresses and concerns, including work-life balance and uncertainty of career opportunities. *What is your current completion rate for students who start your research program(s). When do those who leave drop out, and what reasons do they give? What support do your students need from S&T to ensure that they stay on track and receive the kinds of support they need?*
- We need to strive toward our goal of 4,000 graduate students by the year 2030. This will probably entail enrolling about 1,000 research students. *Given the current number of research students in your program(s) (or projected number during the first year it will be offered), and therefore the proportion of total research students that this represents, what number of students would you need to have enrolled by 2030 for the university to meet its target? (This assumes uniform growth across all programs. That will not happen, but this is for general awareness.) What is your program doing differently this year to recruit more research students? What support do you need from the university to meet the goal?*
- Some programs may support students in the future using creatively defined GTAs (e.g. STEM GTAs providing tutoring support, ETC GTAs consulting in the Writing and Communication Center) or GRAs (e.g. Applied Psychology GRAs working on research-relevant projects with Marketing and Communications or HR). *How many such non-standard GTAs or GRAs do you need annually?*
- Unlike undergraduate and non-research masters' students, research students expect financial support from research grants and contracts. *What capacity does your department have for research students, given current grants and contract funding? What are you doing to increase the amount and availability of these funds?*

To reach resolutions and a plan, it will be essential to prepare your department's response to each of the above questions (where appropriate, given your mixture of programs and when the students enter them) in advance of the meeting. Please answer these questions as appropriate and be prepared to share and discuss at the meeting. There is no need to present slides; we will circulate the responses as a collated document.

Krista Chambers will be in touch to schedule the meeting (Meeting is Thursday, December 7 from noon until 2 PM and you should have an invitation on your calendar) and to establish deadlines for the

preparation work.

Thank you for your commitment to our students and for everything you do. Colin

Colin Potts, Ph.D.

Provost and Executive Vice Chancellor for Academic Affairs Professor,
Computer Science

colin.potts@mst.edu (573) 341-4138

102 Parker Hall, 300 W. 13th Street, Rolla, MO 65409 [https://
/provost.mst.edu](https://provost.mst.edu)



[1]

- Physics excepted. There is an acknowledged market demand for thesis MS Physics graduates and little demand for Physics non-thesis masters' graduates.

Appendix 6: Letters



Office of the Provost

102 Parker Hall
300 W. 14th Street
Rolla, MO 65409
573-341-4138
provost@mst.edu
provost.mst.edu

September 5, 2023

To: UM System Office of Academic Affairs

From: Colin Potts, Provost, and Executive Vice Chancellor for Academic Affairs

Subject: New Program Preproposal, Psychology Ph.D.

Missouri S&T proposes the creation of Doctor of Philosophy in Applied Psychology degree through the Psychological Science Department in the College of Arts, Sciences and Education. Missouri S&T is well known for developing highly competent engineers, scientists and technology experts who are prepared to face the significant challenges of the future. These challenges are not just technology related, but also require significant and complex human and systems interactions. This program will prepare its graduates for not only understanding the human condition, but also in relation to technology and its impact.

The program will include two tracks – Applied Social/I-O Psychology and Applied Cognitive Psychology and have a mix of current courses and 12 new courses. The Applied Cognitive Psychology track also has multiple concentrations and electives. Multiple programs are contributing to elective courses including, Business, IS&T, Economics, Biological Sciences, Computer Science and Engineering Management. Two additional tenure/ tenure track faculty and one non-tenure track faculty will support delivery of this proposed program and current programs in Psychological Sciences. One tenure/tenure track has already been slated for Fall 2024.

This program is unique in the state and the region with only one program in the 9-state region with an identifiable Applied Psychology Ph.D., and none in the state of Missouri. With an identifiably large number of undergraduate psychology students graduating nationally, in the region, and the state, an opportunity exists to attract students to this program. Additionally, our successful MS program in I-O Psychology presents an immediate recruitment pool.

This proposed degree supports the mission of S&T, its values, and ongoing initiatives as specified in this proposal to include the Kummer Institute, creativity and innovation, and bio-related activities. It will also strongly contribute to our drive to obtain R-1 status for the university.

This office strongly supports the creation of this unique doctoral degree program and looks forward to your review and suggestions for improvement and refinement.

Sincerely,

A handwritten signature in black ink, appearing to read 'Colin Potts', is written over a light blue horizontal line.

Colin Potts
Provost and Executive Vice Chancellor for Academic Affairs.

To: Colin Potts, Provost and Executive Vice Chancellor for Academic Affairs

From: Samuel Frimpong, Vice Provost for Graduate Education

Date: September 29, 2023

RE: Support Letter for the Ph.D. Program in Applied Psychology at Missouri S&T

Throughout its history, Missouri University of Science and Technology (S&T) has produced engineers, scientists, humanists, and graduates with business, entrepreneurial and innovation mindset and skills for industry and academia within Missouri, United States, and around the globe. The emerging industry 5.0, with complex industrial aggregation, intelligent processes, human-machine interactions, human health and safety challenges, diversity and inclusive environments, and professional ethics have heightened the need for advanced education in psychology for preparing the next generation professionals for industry and academia. The doctoral program in psychology would allow the pursuit of research and education for meeting this need.

The expanding healthcare needs of Americans, cyber-terrorism and its toll on human and network security, data and financial losses, competitive advantage in the marketplace and national security challenges and their impact on defense and security require a depth of understanding into psychology. The new PhD program in Applied Psychology comes at a time when industry, society and nations must adapt to the effects of integrating computational and artificial intelligence within human-centered and technologically driven industry 5.0. Advanced technologies, intelligent systems, and change management principles are shaping this paradigm. Within these environments, psychology research and education are essential in providing solutions to difficult challenges to ensure progress, innovations, and competitive business strategies.

The alignment of the PhD program with S&T's vision, core values and strategic initiatives in research, education, and service provides a firm foundation with strong pillars for a successful enterprise. The design of the curricula provides potential synergistic partnerships with several disciplines in science, engineering, humanities, and business and with opportunities for comprehensive education, research, and the requisite experiential learning. Many multi-million-dollar research programs at S&T could also benefit from doctoral students in this program. The unavailability of such students has limited efforts in psychology in these research initiatives to a greater extent.

The new PhD program in Applied Psychology will also strengthen and expand S&T's graduate offerings to attract females, minorities, veterans, and other population groups to diversify the graduate student population. These benefits make the PhD in Applied Psychology strategically important and a welcome addition to S&T's doctoral programs.



College of Arts, Sciences, and Education

Date: September 28, 2023

To: Dr. Colin Potts, Provost and Executive Vice Chancellor for Academic Affairs *Mehrzad Boroujerdi*

From: Dr. Mehrzad Boroujerdi, Vice Provost and Dean, College of Arts, Sciences, and Education

Subject: Support for developing a Ph.D. in Psychological Science

The State of Missouri needs to augment its human capital in the realm of life sciences considering that it is currently ranked forty-two in the nation in terms of public health and quality of health care. The proposed Ph.D. in psychological science (CIP 42.2813 Applied Psychology) at our institution is one important step toward realizing that goal. Missouri S&T is the one STEM-focused campus in the UM System and yet, ironically, it currently does not offer a Ph.D. degree in psychological science.

The field of psychology has witnessed significant advancements, becoming increasingly interdisciplinary and diverse. A doctoral program in applied psychology will allow S&T to prepare students to address the evolving challenges in mental health, cognitive sciences, organizational psychology, and various applied areas. As S&T embarks on its crucial Bio-X initiative, this proposed doctoral program can serve to augment our efforts by covering an important knowledge domain.

Furthermore, there is a pressing need for qualified psychologists across various sectors, including education, government, healthcare, and industry. By offering a doctoral program, we will be seizing the opportunity to expand our academic offerings and cater to the growing demand for specialized expertise in the field of psychology.

The Psychological Sciences department already offers BA, BS, and MS degrees and the addition of a Ph.D. program is the next logical step. The new doctoral program will take advantage of our existing human capital, facilities, research areas, and curricular offerings on the S&T campus and will be enhanced by future investments. As envisioned, the new Ph.D. in Applied Psychology will enable students to pursue both non-academic as well as academic pathways. It will (a) expand the menu of course options available to doctoral candidates enrolled in any of the four UM system campuses; (b) help bring more grant revenues to Missouri in the areas of cognitive psychology and industrial- organization psychology; and (c) enhance the skill set of the local labor force.

The College of Arts, Sciences, and Education (CASE) recognizes the need for investment in the Psychological Sciences Department to capitalize on program growth potential and achieve expected outcomes. In addition to currently [searching](#) for a tenure-track assistant professor in the area of Industrial-Organizational Psychology beginning in August 2024, the college



commits to two faculty lines (salary, fringe, startups) over the next five years, an additional staff member, and additional anticipated operating expenses as stated in the proposal.

In summary, the establishment of a doctoral program in Psychological Science at S&T aligns with our institutional vision and strategic objectives. This program will not only contribute to the advancement of knowledge in psychology but also enhance our university's position as a center of academic excellence.

Sherry Mahnken, Research Librarian, College of Arts, Sciences and Education compiled the following report regarding Library resources relating to the program proposal for a new doctoral degree in Psychology.

After reviewing the program proposal, it was determined the Library can provide the basic support that will be needed for the new program. Below is a preliminary list of databases the Library subscribes to that contain information about the subjects students will be researching:

- PsycInfo
- ABI/Inform
- ACM
- IEEE
- Scopus (although the faculty would prefer Web of Science)
- Pubmed/Medline
- Academic Search Premier

Several of these databases contain full text articles, although ABI/Inform and ASP have the drawback of embargos on recent issues. The Library also has access to journal packages with a significant number of relevant titles: PsycArticles, Springer, and Wiley.

The Library could do more, however. Some of the journals that are embargoed are important ones, such as the Journal of Business and Psychology and the Journal of Cognitive Neuroscience. There also should be more investigation as to whether the Library has the core journals they will need, particularly those related to cognitive psychology. The following short list are recommended journals of potentially useful titles that aren't currently included in our collection:

- Academy of Management Review – AOM
- Aging, Neuropsychology, and Cognition – Taylor & Francis
- Brain and Cognition – ScienceDirect
- Cognition – ScienceDirect
- Cognitive Neuroscience – Taylor & Francis
- Cognitive Psychology – ScienceDirect
- Journal of Cognitive Engineering and Decision Making – Sage
- Organization Science - Informs
- Trends in Cognitive Sciences – Cell Press

There is also one resource that is likely on Psychology's wish list. Psychological Science is a premier journal in the study of psychology. It is only sold by Sage as part of a bundle. Because of high cost per use for the bundle, the Library cancelled it in FY21, so coverage ends in 2020. The cost to resubscribe is \$11,019.00.

February 7, 2024

From: Dr. Petra DeWitt
Chair, Campus Curriculum Committee

To: Dr. Clair Kueny
Chair, Department of Psychology

RE: Letter of Support for Ph.D. in Applied Psychology

Dear Dr. Kueny,

Thank you for sharing the proposed Ph.D. program in Applied Psychology. I think that this program is worth pursuing. It would offer undergraduates working on a bachelor degree in Psychology at Missouri S&T the opportunity to progress all the way to a doctorate. It would also attract graduates from other universities in Missouri and beyond because Missouri S&T would be the only university in the state and only the second one in the eight-state region to offer this program.

The selection of courses for the two track options appears sound, follow the required 72 hour structure for a Ph. D. program, and students should understand what is required of them to earn the degree.

It is likely that the Campus Curriculum Committee will approve the proposed curriculum structure.



Alyssa De Santi desanti@
Google LLC 500 W. 2nd
St Suite 2400
Austin, TX 78701

January 31, 2024

PdD Program Committee
% Dr. Kueny
Missouri University of Science and Technology 107
Humanities and Social Sciences Building 500 W
14th St
Rolla, MO 65409

Dr. Kueny,

Please share the following letter of support with the appropriate committee.

To whom it may concern,

My experience in the Psychological Sciences Department at UMR/MST was exemplary and equipped me with skills that have proven invaluable since.

The standpoint from which the undergraduate degree in psychology is taught is unique. When I was searching for a graduate school in 2015 I interviewed at a litany of schools internationally and found that an experimental focus is rare outside of behavioral/abnormal psychology. The fact that I am rooted in a background of experimental qualitative and quantitative methods is rare and has been vital for me in interviewing for jobs as well as in my daily work.

During my time at the university, Dr. Krueger, Dr. Shank, and Dr. Samaranayake (Math & Stats Dept.) were particularly impactful. While completing my degrees, I had the chance to compare my learnings with peers pursuing the same degree at other Universities. Each time I found my knowledge base was far superior. The breadth and depth of the courses I took left me with an unshakable foundation that has allowed me an edge when applying to jobs in this difficult market as well as opening me to a variety of alternate career fields.

Dr. Krueger's classes provided groundwork for going into child/developmental psychology or teaching. Dr. Sam's course in statistics (required for the psychology degree) left me with an understanding of stats that is beyond what I thought I was capable of and has proven a highly desirable skill in the job market. My experience working as a research assistant for Dr. Shank was influential in landing my current role as a User Researcher for Google and lessons I learned during that time are still relevant to my daily work. These professors would comprise a phenomenal PhD program that would continue this stellar education.

My tenure as a research assistant for Dr. Shank while pursuing my Master's at S&T was a vital selling point when interviewing for my current position for Google (YouTube). I honed skills like scoping a project appropriately, asking the right questions to gather the correct data without confounding variables, and writing research papers. Working on research related to AI was also influential as it is a hot topic in the industry. This experience gave me an edge in a highly competitive market and set me apart from my cohort.

I graduated from MST with a Bachelor of Science in Psychology in 2011 when there was no graduate degree available. When the Master's program opened up, I left a graduate program at another school to return to MST and graduated with a Master of Science in Industrial/Organizational Psychology in 2018. As of now, you can consider me the first person in line to be enrolled in the future I/O PdD program.

Sincerely,

Alyssa De Santi
User Researcher
YouTube Rapid Research Team

The Google logo is displayed in its characteristic multi-colored font, positioned in the lower right quadrant of the page.

New Degree Program Proposal:

**Master of Science in
Economics and Innovation**

Missouri University of Science and Technology

November 2024 Board of Curators Meeting

Basic Program Information

Sponsoring University:	Missouri University of Science and Technology
College or School:	Kummer College of Innovation, Entrepreneurship, and Economic Development
Department:	Economics
Proposed Program Title:	Economics & Innovation
Degree Level/Type:	Master of Science Emphasis
Areas:	1. Value-Driven Innovation 2. Energy Economics
Program Modality:	Fully in-person and/or hybrid
If online component:	Asynchronous and/or synchronous.
Program CIP Code ¹ :	45.0603
Implementation:	August/2025
Expected Date of First Graduation:	May/2027

¹ A selection of CIP codes can be viewed on the National Center for Education Statistics website: [NCES CIP Code](#)

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NOTE: Additional appendices will be made available upon request.

Executive Summary

Advances in technological innovation have been a primary driver of economic growth in the 21st century. To thrive in an increasingly technology-driven economy, it is essential to have a workforce capable of navigating the intersection of economics and technological innovation. Industry leaders worldwide share the pressing need for skilled professionals who can make interconnected decisions about the technical and economic viability of innovations. They seek the competency to take a comprehensive approach to assess how economic factors, conditions, incentives, market structures, and regulatory frameworks impact the value of their engineering projects and technological investments. In addition, they emphasize building a value-creation ecosystem—a collaborative system that generates win-win situations and creates value for all participants—to ensure the sustainability of innovations in the marketplace.

The proposed interdisciplinary Master’s degree in Economics and Innovation (MEI) at Missouri S&T is designed to respond to this noted growing need by developing a technically trained workforce of strategic decision-makers who can assist private and public sectors in building innovation ecosystems and driving economic growth for the state of Missouri, the Midwest, the United States, and beyond. The MEI curriculum integrates economics and innovation knowledge, emphasizing practical skills built on a foundation of economic theories and quantitative methods to ensure the economic feasibility and sustainability of innovation projects or ventures. The program prepares graduates for high-impact careers, equipping them to apply innovative technologies and solutions to create sustainable economic and societal value. MEI graduates will have the technical and collaborative skills to bring **sustainable value-creation technologies and innovations** to market.

One of the MEI program’s focus areas is Value-Driven Innovation, which teaches students the collaborative process necessary for creating purposeful innovations to deliver value to customers, stakeholders, or society. As a leading technology-focused research institution, S&T consistently invents technologies through its laboratories and projects. Training students with the MEI curriculum to make complex decisions in a value-creation ecosystem approach can turn these technologies into valuable innovations for various societal challenges. For example, to enhance resilience in underserved rural communities, students can collaborate with local governments, renewable energy companies, and community organizations to develop a community-based microgrid system that integrates solar panels, energy storage, and smart grid technology to provide clean, reliable energy. Another focus area of the MEI program is Energy Economics and Global Sustainability, which aligns strategically with S&T’s expertise in energy technologies across engineering programs. The focus area will prepare students to address global energy challenges through multidisciplinary education and collaborations between engineers and economists.

Demand for the MEI program among employers and students is high. Lightcast™ demonstrates a significant national and regional need for econometrics and quantitative economics master’s graduates, with top job titles projected to grow by 27 % in the U.S. over the next decade. Importantly, Lightcast™ highlights, “*Missouri and Illinois are the hotspots for this kind of jobs,*” with a 19.9% growth projection from 2023-2033. The surveys conducted among S&T students from economics, engineering, and science disciplines with a strong connection to mathematics that can feed directly into the MEI program show a strong student demand, with 35 out of 44 (80%) expressing interest and 29 (66%) likely to pursue it. Robust student demand and industry support (see letters of support) underscore the MEI program’s economic feasibility.

1. Introduction

Advances in technological innovation have been a primary driver of economic growth in the 21st century. Today's global market believes that innovations are more likely to be sustainable and transformational, addressing real-world challenges when the innovators go beyond the technical aspect of an engineering project. Industry leaders consistently seek innovators skilled in taking a comprehensive approach to assessing how economic factors, conditions, incentives, market structures, and regulatory frameworks impact the value of their engineering projects and technological innovations. Economic knowledge is a critical part of the design of corporate strategies and public policies developed to foster the sustainability of innovation-led growth. As a result, integrating economics and innovation knowledge is necessary to prepare a workforce that can make informed decisions in technological investment and design well-coordinated public policies to advance economic growth and social progression across local, state, and national communities and beyond.

To address this need, we propose a stand-alone degree program to complement individuals with engineering backgrounds, a significant population at S&T. The curriculum will enhance engineers' ability to navigate complex decision-making processes related to technology investment, including in uncertain economic and policy environments.

Academic Components and Career Paths

The proposed master's degree program in Economics and Innovation (MEI) at Missouri S&T integrates economics and innovation knowledge to advance the design, operation, and interactions among economic, technological, and social systems. The primary educational goal is for our MEI graduates to be uniquely attractive to employers in the technology, policy, and industry sectors. To do so, the MEI program differentiates itself from standard economics programs with a curriculum focused on interdisciplinary industry-driven skills.

The MEI curriculum emphasizes practical skills built on a foundation of economic theories and quantitative methods to ensure the economic feasibility (aligning internal financial resources and external economic conditions) and sustainability (aligning people, planet, profit, and policy) of an innovation project or a venture that generates economic and societal values for all participants. In contrast, standard master's degree programs in economics focus on teaching economic theories, statistical methodologies, and econometric techniques that prepare students to analyze economic outcomes like production, growth, inflation, and employment.

Table 1 demonstrates this curriculum distinction by comparing the core courses of S&T's proposed MEI program with those of standard economics master's programs in the United States. Two primary distinctions are evident: first, the course titles highlight the MEI program's emphasis on applying economic knowledge and quantitative methods in practical contexts. Second, the MEI core curriculum includes two distinctive non-economics core courses: Project

Management and Integrated Product and Process Design—areas of expertise crucial for any industry innovation projects.

Table 1.A Curriculum Comparison via Program Core Courses -

Missouri S&T’s MEI Program	Mizzou’s MA Economics Program¹
<i>Economics Core Courses:</i>	<i>Economics Core Courses:</i>
1. Microeconomics: Managerial & Project Economics	1. Microeconomic Theory
2. Macroeconomics: Navigating Risks and Trends	2. Macroeconomic Theory
3. Econometrics and Forecasting	3. Introduction Econometrics
4. Data-Driven Strategic Insights	4. Applied Econometrics
	5. Quantitative Economics
<i>Non-Economics Core Courses:</i>	6. Game Theory
5. Project Management	7. Research Workshop
6. Integrated Product and Process Design	8. Economics Problems

Note: 1. This information is available via the [Mizzou MA Economics Program](#)

Within the overarching MEI core curriculum noted above, students can choose an industry-driven focus area in Value-Driven Innovation or Energy Economics & Global Sustainability to meet their personalized career interests and objectives. The Value-Driven Innovation focus area has the learning objective of developing students’ skills in empowering technology teams to create products and solutions that deliver unique value to customers, stakeholders, or society by building collaborative innovation ecosystems, while the Energy Economics & Global Sustainability focus area equips students to tackle global challenges at the intersection of energy systems, economic policies, and environmental sustainability. See Table 1.B for required area courses.

Table 1.B The MEI program’s Required Focus Area Courses -

Value-Driven Innovation	Energy Economics & Global Sustainability
7. Innovation and Value Generation	7. Energy Policy & Economic Analysis
8. Innovation Economics and Finance	8. Innovation Economics and Finance
9. Innovation to Market	9. Building Sustainability & Environmental, Social and Governance (ESG)
10. Seminar: Contemporary Issues in Technology and Innovation	10. Seminar: Contemporary Issues in Energy Economics

While the MEI program proposal is under review, we also seek approval for two graduate certificates: Value-Driven Innovation and Energy Economics & Global Sustainability. Each certificate consists of four courses (12 credit hours), as listed above. As a result, MEI students who complete the corresponding focus area will fulfill the requirements for a graduate certificate and receive both a master’s degree and a graduate certificate.

The MEI program positions graduates as strategic decision-makers in technology and innovations for a wide range of career paths vital to revolutionizing industries and advancing economic progression. Table 1.C provides a representative, though not exhaustive, list of current job titles relevant to MEI graduates. However, we view the MEI program as a pioneering academic initiative that prepares students for leadership roles in high-impact careers, leveraging disruptive and innovative technologies to create sustainable economic and societal value. We believe the market has yet to fully define job titles and roles for a workforce emerging from programs like the MEI.

Table 1.C A Representative List of Job Titles for MEI Graduates -

Job Title	Job Description
Innovation Strategist	Guides companies in crafting and implementing innovation strategies.
R&D Manager	Oversees research and development teams to ensure projects align with economic goals.
Economic/Business Development Manager	Explores economics/business development opportunities in the tech domain, considering economic feasibility.
Technology Economist	Analyzes the economic impact of new technologies and advises on their adoption.
Policy Analyst (Economics & Tech)	Advises on technology policies and their economic implications.

Source: Glassdoor.com, Payscale.com, and Salary.com

Evolution of the Program Concept

The MEI program concept is market-driven and primarily motivated by numerous conversations over the years with industry leaders who pinpoint the need to have their engineers equip the necessary economic knowledge to make informed investment decisions in technologies and innovations of their engineering projects. The establishment of Kummer College of Innovation, Entrepreneurship, and Economic Development in July 2022 provides a perfect timing and setting to plan and implement the concept of the MEI program, as the College was built to connect the often-disconnected points throughout the learning ecosystem to advance economic development for Missouri communities.

The MEI program housed in Kummer College will set the stage for increasing education and research collaborations across the Missouri S&T campus. The program will start with two focus areas – Value-Driven Innovation and Energy Economics, each of which will contribute to the College’s mission of having a meaningful impact beyond the university. Value-driven innovation aims to advance innovation-enabled communities by teaching students to identify a purposeful innovation and develop an ecosystem to accelerate and sustain innovation-driven economic growth. Energy Economics will synergize Missouri S&T’s well-known energy technology research expertise to teach students how to provide sustainable solutions for pressing energy challenges through developing an ecosystem to coordinate technological innovations with public policies.

The objectives of the proposed MEI program are as follows:

- (1) To prepare students with a state-of-the-art interdisciplinary curriculum in the combined six (6) core courses, four (4) in economics and two (2) in engineering management, that prepare students to identify and assess the economic potential of a new technology or new line of business within an existing firm.
- (2) To increase associations and interactions through education and research collaborations with other academic departments at S&T, the technology and innovation industry, and organizations across the local, regional, national, and global communities to extend S&T's upward trajectory in external grant funding and partnerships.
- (3) To develop a technically trained workforce of critical thinkers that benefits the state of Missouri, the Midwest, and the United States by assisting the public and private sectors in building innovation ecosystems to sustain economic and community growth.

Integration of Existing Courses

Existing courses, such as Data-Driven Strategic Insights, Project Management, and Integrated Product and Process Design, provide a supporting foundation for the proposed MEI program. The program's interdisciplinary nature will allow students to take advantage of the wide range of expertise and resources available at Missouri S&T, fostering a culture of collaboration essential for breakthrough innovations in solving current and future societal challenges. In addition, the program will develop new courses and seminars to address emerging issues in technology and energy fields.

Program Coordinator

The individual responsible for the success of the proposed MEI program is Dr. Melody Lo, the Steinmeyer Memorial Endowed Chair and Professor of Economics. She can be reached at melodylo@mst.edu or (573) 341-4618. Dr. Lo is in charge of the development and implementation of the program, ensuring its alignment with the University's strategic goals and the needs of students and employers. In addition to her department chair position, Dr. Lo will serve as the MEI Program Director for the first two years to oversee student recruitment efforts and coordinate graduate studies to ensure a seamless and enriching experience for all students in the program. When the MEI program experiences significant growth, we will appoint a faculty member as the Associate Director to assist the Chair in ensuring its continued success.

The program will be evaluated annually to determine if a designated staffing is necessary to support its growth and success. Planning for such staffing will begin once program enrollment exceeds 50 and is expected to surpass 60.

2. University Mission & Program Analysis

2.A. Alignment with University Mission & Goals

Alignment with campus goals

The mission of Missouri S&T is to integrate education, research, and technology development to create and convey knowledge that serves our state and helps solve the world's great challenges. The proposed MEI program closely aligns with the university's mission because the curriculum is designed to foster the convergence of ideas, expertise, and technologies across disciplines to stimulate innovative solutions to solve our society's problems. Missouri S&T is also actively pursuing three primary "North Start Goals" by 2030: growing enrollment to 12,000 students (of which 4,000 are graduate students), elevating the university's rank and reputation, and advancing to an R1 Carnegie classification. To achieve these goals, the S&T campus is dedicated to developing new market-driven educational programs to prepare more students for rapidly evolving and advanced fields like those associated with the proposed MEI program's two industry-focus areas of Value-Driven Innovation and Energy Economics. In addition, the interdisciplinary nature of the MEI program will energize engineers, economists, and scientists at S&T to collaborate on cutting-edge research problems. The program will help S&T compete better for external funding opportunities, particularly in the energy technology space, through collaborations. As a result, we expect the establishment of the MEI program to increase the University's overall research productivity, rank, and reputation.

Alignment with college goals

Kummer College was established as a path-breaking model for social impact, technology transfer, and interdisciplinary collaboration within a forward-thinking STEM-focused university. One of the College's main goals is to actively contribute to the university's expansion of its innovation ecosystem. This involves developing new groundbreaking academic programs to connect often-disconnected learning points and enhancing collaborations internally and externally to drive economic development. The MEI's program aligns well with the college's objective as we tailor the curriculum to boost collaborations with academic departments, industry, and organizations and to cultivate a skilled workforce fostering innovation ecosystems for economic and community growth in Missouri, the Midwest, and beyond.

Alignment with department goals

In July 2022, the Economics Department joined Kummer College, initiating a crucial revision of its mission. The revised department mission is to educate students through distinct market-relevant academic programs that are agile to industry changes, and we amplify education impact by having a supportive curriculum for a STEM-focused Technology University and fostering engagement through meaningful interdisciplinary collaborations on degree programs and innovative research projects based on industry needs. The MEI

program embodies this exact mission, offering a curriculum that addresses the industry's need for a workforce with expertise in technical intricacies, economic forecasting, and decision-making to enhance the impact of sustainable technologies and innovations on society and the economy.

2.B. Duplication & Collaboration within Campus, Across System

Duplication

There is no similar master's degree program at any UM System universities, or other universities in Missouri.

The proposed MEI program at Missouri S&T is one of its kind across the UM system, as there is no standalone graduate program with a curriculum integrating core knowledge in Economics, Innovation, Engineering Management, and Public Policies to advance the design, operation, and interactions among economic, technological, and social systems. As noted in Section 1, the MEI curriculum differs from the standard master's degree programs in economics nationwide.

Currently, the three other UM System universities (the University of Missouri-Columbia (MU), University of Missouri–St. Louis (UMSL), and University of Missouri – Kansas City (UMKC)) each offer standard master's programs in economics focus on teaching economic theories, statistical methodologies, and econometric techniques to develop student's independent research skills to rationalize economic outcomes. In contrast, the MEI program curriculum emphasizes practical skills built on economic theories and quantitative methods to ensure the economic feasibility and sustainability of an innovation project or venture purposefully designed to generate economic and societal impact for all participants.

The MEI's two industry focus areas – value-driven innovation and energy economics would also be unique across the UM system. The energy economics focus area, preparing students to address current and future global energy challenges, does not exist in any UM System universities or other universities in Missouri. For value-driven Innovation, the primary goal of the curriculum is to empower technology-powered teams to build collaborative systems that generate economic and societal impact for all participants. The closest comparator is the MU graduate life science innovation and entrepreneurship certificate. This MU certificate is for the biomedical industry and is topic-specific. So, the clear distinction between the two is that S&T's focus area is not industry or topic-specific and teaches students how to harness technology and design innovation to create, optimize, and sustain value systems through the understanding and utilization of the interconnections of personal, enterprise, and societal values.

Another crucial aspect highlighting the uniqueness of our innovation curriculum is its emphasis on teaching students the economic and engineering design phase of innovation before the launch (or hitting the marketplace) of new products, services, or processes. This curriculum fundamentally differs from most existing technology and innovation management certificates nationwide, focusing on management and market strategies post-launch. For instance, within the UM system, two graduate certificates center on managerial

and marketing strategies: UMKC's technology innovation and management and S&T's entrepreneurship and technological innovation. The distinction in the curriculum is evident from the required core courses.

Specifically, two core courses required for S&T's entrepreneurship and technological innovation certificate are business models for entrepreneurship, innovation, and international marketing.

Collaboration Efforts

The proposed MEI program brings together faculty from all three S&T colleges (the College of Engineering and Computing (CEC), the College of Arts and Science and Education (CASE), and the Kummer College of Innovation, Entrepreneurship, and Economics Development) to be the participating program faculty (see **Appendix 1**).

Faculty members at Kummer College and CEC have been actively engaged in dialogues to explore the potential of Energy Economics in advancing energy education and fostering research collaborations. Leveraging the robust energy research infrastructure established on the S&T campus, these discussions have led to the development of the Energy Economics focus area within the MEI program. Concurrently, ongoing discussions have aimed to break down silos and enhance the coordination efforts toward education in innovation across the campus. The result of these discussions is the Value-driven Innovation focus area in the MEI program, which marked the pioneering joint endeavor of Kummer College and CEC to synchronize the innovation curriculum with valuable insights from industry stakeholders.² In addition, the MEI program administrator has actively engaged with department chairs and program directors across S&T to communicate the significance of the value-driven innovation curriculum. Several graduate programs at S&T have already shown interest in integrating the four-course Value- Driven Innovation focus area into their offerings once they become available, underscoring the broader impact and relevance of these collaborative efforts.

At Missouri S&T, we actively cultivate partnerships with other institutions within our system. A significant potential collaboration in this endeavor is with MU's Economics Department. We visited their administrators — the Associate Department Chair and the Director of Master's Programs — in January 2024 and discussed the MEI program's curriculum. Acknowledging the distinct strengths of S&T's MEI program and MU's MA Economics program, as well as their different target audiences, we are dedicated to an ongoing dialogue to identify opportunities to leverage each other's curriculum in specialized areas once the MEI program is established. One potential collaboration discussed is campus course sharing, which would allow MU's MA Economics students to enroll in S&T's Energy Economics & Global Sustainability focus area within the MEI program. Additionally, since S&T does not plan to offer three of the four core MEI Economics courses online, S&T could utilize similar core courses from MU's MA Economics program.

² The MEI program has an innovation curriculum design team of six (6) members led by John Lovitt. John Lovitt is an S&T Board of Trustee member, and he has worked exclusively with startups, mainly as a mentor and advisor, but also as CEO, board member, and investor. His current focus is on tech startup founders, predominantly in Silicon Valley.

Furthermore, the MEI program administrator has initiated discussions with the Missouri Department of Higher Education and Workforce Development (MDHEWD) to explore collaborations regarding workforce development for Missouri's energy sectors through the Energy Economics & Global Sustainability focus area. Initial conversations and meetings in December 2023 and January 2024 with the State Energy Program Manager, the Officer for

Energy Education, and the Chief of Policy and Resources Unit for the Division of Energy were productive, setting the direction for further exploration of effective strategies to support advancing the state's energy sector workforce. Follow-up meetings and exchanges took place in April and June 2024. We are piloting a mentoring program in collaboration with MDHEWD in Fall 2024 for S&T students enrolled in ECON 4440 Environmental and Natural Resource Economics and ECON 4540 Energy Economics. This pilot program will help us formally establish a mentoring program for MEI's Energy Economics and Global Sustainability students the following year.

Lastly, a vital aspect of the MEI learning approach is collaborative, experiential learning activities. The MEI program will regularly bring together diverse community stakeholders, including representatives from industry, the Department of Economic Development, consumer advocates, regulators, and academic researchers, to facilitate open dialogues. These gatherings will identify significant unresolved social issues, including energy challenges. Subsequently, program faculty and students will collaborate with industry partners and the government/public sector to develop impactful policy-and-technology coordinated solutions tailored to benefit communities across Missouri.

As we implement our proposed MEI program, it is important to note that no existing programs will be combined, placed on inactive status, or deleted.

3. Business-Related Criteria & Justification

3.A. Market Analysis

3.A.1. Rationale & Workforce Demand for the Program

For Economics majors, the employment opportunities are diverse, and the typical jobs for economics graduates include but are not limited to data scientists, program managers, financial analysts, management consultants, operations analysts, and policy analysts. The U.S. Bureau of Labor Statistics (BLS) projects that the employment of economists will grow 6% from 2022 to 2032 (faster than the average growth rate of 3% for all occupations). This growth is driven by the increasing demand for economic analysis in various fields, including business, industry, government, and academia. The Lightcast™ Program Overview (**Appendix 2**) confirms the need for a large workforce with an Economics degree, showing 672,023 total job postings for those with a degree from the Economics program (CIP code of 45.0603) nationwide in the last 12 months from July 2022 to June 2023.

As to the workforce need in Missouri, we note that the MEI program will contribute exceptionally well to the “Professional, Scientific, and Technical Services” industry as it has a curriculum that develops a technically trained workforce who are strategic decision-makers in technology and innovations. The Lightcast™ Economic Overview (**Appendix 3**) for the State of Missouri indicates that “Professional, Scientific, and Technical Services” is the 6th largest industry with approximately 180,000 job positions, and it ranks 5th place with the largest jobs growth industry in the state.

Because the MEI program is a new concept with an innovative curriculum that provides more interdisciplinary industry-driven skillsets than existing standard Economics programs, it is not feasible to pull an exhaustive list of possible job titles for graduates from the Lightcast™ reports. Even for the existing standard Economic programs, the list of job titles can be too extensive to report here. Consequently, we utilize the four (4) most common job titles (including economists, data scientists, financial managers, and financial and investment analysts) contained in the Lightcast™ report to get a representative workforce demand situation for econometrics and quantitative economics graduates. A market demand analysis via Lightcast™ demonstrates a sizeable national and regional need for econometrics and quantitative economics master’s graduates. Specifically, Lightcast™ Occupation Overview (**Appendix 4**) projects that these top job titles will grow by 27 % in the U.S. over the next decade of 2023 – 2033. Critically, Lightcast™ highlights, “*Missouri and Illinois are the hotspots for this kind of jobs, and have an aggressive job posting demand,*” with a 19.9% growth projection from 2023 – 2033. This finding is encouraging since many S&T graduates seek employment opportunities beyond Missouri and into Illinois.

This robust workforce demand underlines the importance of an Economics and Innovation Master’s program to meet Missouri's academic and economic needs. We also have received letters of support from employers, community partners, and other stakeholders, which can be found in **Appendix 5**. Quotes from the letters emphasize the value of this program and its alignment with key competencies employers seek in graduates, further validating the proposed curriculum.

John Lovitt, Trustee Missouri S&T, Retired Silicon Valley Senior Executive, and Founder of Getting To Value, states, “*...This program will prepare students for leadership roles in high impact careers applying innovative and disruptive technologies to generate sustainable economic and societal value...As a Missouri S&T alum whose career has been focused on application of cutting edge technologies, I deeply understand the power, but also the challenges in moving from what’s possible to realized and sustainable results...My entire career has been leading teams responsible for designing, selling, and applying transformative technologies for McDonnell Douglas, Hewlett Packard, Rational Software, and multiple startups. In total, these amounted to billions of dollars of product and services and thousands of high paying jobs.*

During this entire time, I never had enough skilled professionals capable of making critical decisions regarding the technical and economic viabilities of technologies. This need is shared by technology companies worldwide, and it emphasizes the urgency to educate and empower students with the knowledge and skills to support the collaboration necessary to

make sound decisions that lead to economic and societal impact...I strongly believe the MEI program represents a strategic opportunity for Missouri S&T to fill a critical and growing workforce need..."

John Wagner, Trustee Missouri S&T, Director of the Department of Energy at Idaho National Laboratory, and President of Battelle Energy Alliance, LLC, points out, "*...As a Missouri S&T alum and the Director of a Department of Energy national laboratory leading clean energy and national security research and development initiatives for the nation, I deeply understand the pivotal role that scalable and sustainable technology plays in today's marketplace...At Idaho National Laboratory, we're in a period of remarkable growth. With half of our workforce being new to the laboratory in the last five years, we see a pressing need to build a new generation of skilled professionals capable of making critical decisions regarding the technical and economic viabilities of technologies...The MEI program offers an opportunity to build a workforce with an engineering background also capable of navigating the complex decision-making process surrounding technology investment, particularly in the face of policy uncertainty. By integrating economic knowledge and decision-making frameworks into their skill set, MEI program graduates will be equipped to assess the economic feasibility and sustainability of technology projects, even amidst uncertain policy landscapes...The program will foster increased collaboration between engineers and economists, leading to more comprehensive and impactful solutions to energy challenges. Through multidisciplinary education and collaboration, graduates will be able to tackle current and future energy issues with creativity and innovation..."*

Emily Wilbur, Director; Nora Maxwell, State Energy Program Manager; and Justin Sherwood, Policy and Resources Supervisor of the Division of Energy at Missouri Department of Natural Resources, indicate that "*...Missouri Department of Natural Resources' Division of Energy (department) houses Missouri's federally designated State Energy Office whose core objectives include but are not limited to the support of new and existing initiatives that aim at building a resilient, sustainable, and forward-looking energy workforce...we find the most success in state energy planning when the stakeholders we engage with have interdisciplinary perspectives that can be applied at micro and macro scales to drive truly transformative market policy...One outstanding aspect of the program that we wish to highlight in this letter of support is the program's focus area on Energy Economics. We are heartened to see this commitment to proactively offering interdisciplinary policy perspectives within the curriculum, particularly through the courses on "Energy Policy & Economic Analysis," "Building Sustainability and ESG," and "Seminar: Contemporary Issues in Energy Economics." Therefore, future MEI graduates entering our local, state, and national workforces will be more equipped and more likely to have higher contributions to our interconnected energy landscapes and globalized economies..."*

Josh Campbell, Executive Director of Missouri Energy Initiative, states that "*...the MEI program's dedication to producing a workforce adept at forecasting economic trends and anticipating technological progressions aligns well with our vision for sustainable and groundbreaking innovations for economic growth and social well-being of our Missouri communities...I believe that Missouri S&T's proposed new program will benefit the academic community and contribute significantly to the advancement of economic development,*

innovation, and education in the energy sector for Missouri, the Midwest, and beyond...I strongly support the approval of the establishment of the Master of Science program in Economics and Innovation at Missouri S&T. This initiative transcends mere academia; it represents a strategic leap toward cultivating a workforce poised to instigate impactful transformations within our state and beyond. As a proud member of the Missouri Energy Initiative, I am confident that this program will serve as a cornerstone in shaping the trajectory of Missouri's energy domain..."

Michael Eaton, Executive Director of the Missouri Association of Manufactures, notes that *"...Founded in 1992, the Missouri Association of Manufacturers represents the over 7,000 Missouri manufacturing companies, and over 266,000 Missouri manufacturing employees... Through our various conferences, tours and meetings - we have witnessed the shift from the need for simply a warm body to show up, to a strong demand for skilled roles. They know that the future is dependent on innovation. The survival of manufacturing is truly innovation that is sustainable and transformational...This interdisciplinary approach equips students with the skills necessary to navigate the complexities of innovation-driven economies. The MEI program's emphasis on practical skills and industry-driven knowledge is what Missouri companies and communities need through focusing on value creation of engineering projects, economic feasibility, and sustainability. Potential employers will find that MEI program graduates can confidently lead various projects, teams, and divisions in their organizations. Without any reservation, we strongly recommend that the University of Missouri System approve the development of the MEI program at Missouri S&T..."*

Ryan Senciboy, Treasurer & Head of FP&A of US Strategic Metals (formerly known as Missouri Cobalt), states that *"...As a graduate of the University of Missouri – Columbia's accountancy masters program, my academic credentials have bolstered my career and given me an appreciation for higher education's impact on both the individual student and their future employers...In each of my corporate roles, I have seen firsthand how innovation and a corporation's response, or lack thereof, can have a deep financial impact on the organization. The role of finance must include a deep understanding of how innovation may alter the course of the business and what levers are available to convert such risks into opportunities. As a leader in the technology and innovation sector, USSM is keenly aware of the critical role that comprehensive economic understanding plays in driving sustainable innovation and economic growth. The MEI program at S&T addresses this need directly by providing students with a unique interdisciplinary curriculum that bridges the gap between technical expertise and economic acumen...The MEI program's focus areas, particularly Value-Driven Innovation and Energy Economics, directly address our industry's pressing challenges and opportunities. We believe that graduates of this program will possess the knowledge and skills necessary to drive meaningful change and contribute to the success of organizations like USSM...We at USSM look forward to collaborating with the program and welcoming its graduates into our workforce."*

Marcus Vasquez, Director of Commercial Development of Greentech Renewables, points out, *"...I've held roles ranging from Purchasing Manager to Commercial/Governmental Project Manager at Greentech Renewables, the US's largest residential solar Distribution Company... Throughout my career in the renewable energy sector, I've been immersed in the industry's challenges and opportunities. This firsthand experience underscores my enthusiasm*

for the MEI program and its focus on preparing students for leadership roles capable of assessing technology projects' economic feasibility and sustainability. The MEI program's objective aligns perfectly with the evolving demands of today's workforce...The emphasis on practical economics acumen and essential knowledge in industry innovation projects within the MEI curriculum perfectly meets the demands of real-world scenarios. From my experience, I've seen the critical need for individuals with technical proficiency, an ability to understand long-term market shifts, and a comprehensive understanding of economic principles and policy dynamics.

...I look forward to sharing the MEI program curriculum with executive industry leaders and considering enrolling in it when it becomes available..."

Jeff Medows, Professional Engineer of ARCHER-ELGIN Engineering, Surveying, and Architecture, notes that “*...There is a strong need for professionals skilled at navigating both the technical and economic challenges of engineering projects and innovations, particularly within growing communities...We commend the program's focus on ensuring graduates have not only the skills to analyze economic outcomes but also the ability to evaluate the economic viability and sustainability of projects...We believe the MEI program can truly make a difference, supporting positive change in both local communities and on a global scale...The objectives outlined for the MEI program align closely with our own values and objectives as a company...we offer our full support for the Master's Program in Economics and Innovation at Missouri S&T. We are excited about the prospect of collaborating with the university to further enhance the program's impact..*”

Bonnie Prigge, Executive Director of Meramec Regional Planning Commission, notes that “*...MRPC is currently updating our regional Community Economic Development Strategy (CEDS) that includes Crawford, Dent Gasconade, Maries, Osage, Phelps, Pulaski and Washington counties. A master's program in economics and innovation aligns with and could enhance economic development efforts in our region and throughout the state of Missouri. Engineers trained in these areas will be better equipped to assist our local communities in preparing for infrastructure needs as well as the energy, environmental, and sustainability challenges of the future.*”

In addition to these external letters of support, we include two internal letters: one from Dr. Mohammad Deghani, Chancellor, and Dr. Colin Potts, Provost and Executive Vice Chancellor for Academic Affairs. Another letter is from Dr. James Sterling, Vice Provost and Dean of Kummer College of Innovation, Entrepreneurship, and Economic Development.

3.A.2. Student Demand for the Program

In 2008, the National Academy of Engineering identified 14 Grand Challenges for Engineering in the 21st century ([see here](#)). These challenges served as a call to action for engineers, scientists, and policymakers to work together to address the most pressing issues facing our society through building sustainability, resilience, and efficiency of technological discoveries. The MEI

curriculum fully embraces this collaborative approach to education by preparing for the future workforce at the intersection of technology and economics to improve the quality of life of all people globally.

According to the Lightcast™ reports (**Appendix 2**), in 2022, a total of 3,577 master's degrees in Econometrics and Quantitative Economics were conferred by 152 public and private institutions in the United States. Among these degrees, 1,882 were awarded by public institutions and 1,695 by private institutions. Each institution produced an average of 23.5 master's degrees.

According to the Bureau of Labor Statistics, students need at least a master's degree to enter an economic position beyond entry-level to assist in strategic decision-making in an organization. In Missouri, five (5) institutions currently have master's level Economics Programs with CIP code 45.0603 in operation. They are the University of Missouri-Columbia (32), Saint Louis University (16), University of Missouri-Kansas City (10), University of Missouri-St Louis (5), and Washington University in St Louis (5). The number in () indicates the number of master's degrees conferred from that institution in 2021. These five institutions conferred a total of 68 master's degrees in 2021. The growing workforce demand, noted earlier, for graduates from Econometrics and Quantitative Economics programs in this region and the U.S. is strong, and the pace of program building has not met the workforce demand. Even more critically, Missouri S&T's MEI program will be the only educational program systematically producing a workforce for the intersection of technology and economics in the region.

Our MEI program welcomes students from diverse academic backgrounds, all of whom share the goal of exploring educational and career opportunities at the intersection of technological innovation and economics. The program aims to attract students interested in a career path that will assist private and public sectors in building innovation ecosystems by enhancing the economic and societal impact of **sustainable value-creation technologies and innovations**. The MEI program fosters collaboration among engineers, economists, and scientists through its interdisciplinary design, contributing to the university's innovation ecosystem.

Within the Missouri S&T campus, all undergraduates with strong mathematical foundations can be recruited to join the MEI program. Consequently, we conducted an anonymous survey among undergraduate economics, engineering, and science students. According to the survey outcomes, students pursuing a BS in Economics are most interested in pursuing the MEI program, with 15 out of 15 students interested in the MEI program and either very likely or somewhat likely to pursue it when it becomes available at S&T. Compared to Economics majors, students who currently pursue an engineering BS degree (including Mechanical Engineering, Environmental Engineering, Nuclear Engineering, etc.) are less interested in the proposed MEI program. However, the percentage of engineering student respondents interested in the proposed MEI program is still considerably high at 70% (16 out of 23 positive responses), and 52% (12 out of 23 positive responses) would either very likely or somewhat likely consider pursuing it if the degree program becomes available at S&T. Finally, science majors (e.g., Applied Mathematics and Environmental Science) have the least interests in the MEI program, with 4 out of 6 (equivalent to 66.7%) interested in the

program, and only 2 out of 6 (=33%) would consider pursuing it at S&T. Overall, these survey results are extremely encouraging as they show a strong student demand, with 35 out of 44 (= 80%) respondents expressing interest and 29 out of 44 (= 66%) likely to pursue it. It is also relevant to point out that 100% of respondents noted that S&T should offer this degree program to students regardless of whether they will personally pursue it. Table 3.A.2 provides these summarized survey results, and **Appendix 6** gives the complete survey results.

Table 3.A.2. S&T students’ interests in the MEI program.

Degree Program	No. of Respondents	Interested in the proposed MEI program	Likely to consider pursuing the MEI program at S&T
Economics BS	15	15	15
Engineering BS	23	16	12
Science BS	6	4	2
Total	44	35	29

In addition to a pipeline of local students in economics, engineering, and science programs, the MEI program’s unique curriculum should attract other undergraduate students in Missouri and the nation if proper recruitment is done to market the degree program.

Even more importantly, as all organizations worldwide are driven by innovation and challenged by energy issues, MEI programs with marketable focuses on innovation and energy issues should also be desirable in the global educational markets. In the pre-proposal stage, we have started communicating with several potential international universities to seek their interest in a collaborative educational partnership with S&T’s future MEI program. The responses are overwhelmingly positive and enthusiastic. The MEI program administrator will officially establish partnerships with reputable international universities to send their best-qualified students to enroll in the program as soon as the MEI program is formally approved. In more detail, we expect to utilize the MEI program as a platform to build 20 global university partnerships. Our target distribution includes seven (7) universities in Asia, seven (7) in Europe, four (4) in the Middle East, one (1) in Australia, and one (1) in Africa. We plan to visit 75% of potential partner institutions (15 out of 20) and secure formal agreements before the MEI program’s launch date. During the summer of 2024, we visited several potential partners and have verbally secured 30% of the partnerships (6 out of 20). We will require each university partner to send at least two qualified students annually to apply for the MEI program to maintain these collaborative partnerships.

With the local student demand and recruitment plan of other students nationally and internationally, we anticipate healthy total enrollments once the MEI program is established. Specifically, we project a starting enrollment of 20 students in year 1, with a steady growth of 5 to 10 additional new-student enrollment per year until it reaches a total enrollment of 60 students in year 5. Table 1a summarizes these student enrollment projections. Within the S&T campus, we target to recruit ten (10) students to enter the MEI program in year 1, with a steady growth of 5 additional each year until it reaches 25 students. As to the enrollment for students who are new to the S&T campus, Table 1 b summarizes our projection, showing ten

(10) students in year 1, with a significant growth in year 2 to 25 students because the global partnerships are in place, and then until it grows to 35 students in year 5.

Table 1a. Student Enrollment Projections (anticipated total number of students enrolled in the program during the first five fall semesters following implementation.)

Year:	1	2	3	4	5
Full-time	20	40	50	55	60
Part-time¹					
Total	20	40	50	55	60

Note: 1. We anticipate having a minimal number of part-time students in the program, as it primarily offers face- to-face instruction at the S&T campus. Most core courses (5 out of 6) will be taught at the Rolla campus. Consequently, we are restricting the enrollment projection to full-time students.

Table 1b. New Student Enrollment Projections (anticipated number of students enrolled in the program during the first five fall semesters following implementation that are new to the University.)

Fiscal Year:	1	2	3	4	5
Full-time	10	25	30	30	35
Part-time¹					
Total	10	25	30	30	35

Note: 1. See the note in Table 1a.

Given that the MEI is a two-year, 30-credit-hour program, we expect to award the degree to students starting in year 2. Since the fall of 2018, the completion % of all of S&T’s MS programs, where students enrolled full-time at entry and conferred degrees within two years, has been 83.6%. We project that 90% of students enrolled in the MEI program will graduate on time in two (2) years.³ Table 1c provides the associated projection number of degrees awarded from years 1 to 10, showing that the MEI program will award 18 degrees in year 2, which will grow until it reaches 36 degrees in year 6. It is important to note that our projected number of degrees awarded is promising compared to the average performance of the existing 142 non- distance Econometrics and Quantitative Economics Master’s programs in the U.S. market, that in 2022, each institution produced an average of 21 master’s degrees per year (see Lightcast™ Report in **Appendix 2**).

Table 1c. Projected Number of Degrees Awarded

Year:	1	2	3	4	5	6	7	8	9	10
# of Degrees Awarded	0	18	18	27	31	36	36	36	36	36

³ The 90% program completion rate is slightly higher than the 83.6% completion rate of other master’s programs at the S&T campus. This projection is largely based on the Program Director’s successful track record with the interdisciplinary master’s program she developed and managed at the University of Texas System. The key to achieving such high completion rates lies in the program’s student-centric approach, which includes substantial mentoring support, industry networking, and development activities.

3.B. Financial Projections

Appendix 7 includes a completed Pro Forma for the financial projections, which S&T's fiscal officer reviewed and endorsed.

3.B.1. Additional Resources Needed

The new MEI program has been designed to rely primarily on existing personnel, resources, and infrastructure at Missouri S&T. The host department and college are committed to providing needed support for additional resources, including a new (tenured) faculty member, several industry executives who will be adjunct faculty members starting in year 1 of the MEI program, and an Associate Program Director starting from year 3.

We've already entered the national search to hire a new faculty member in Energy Economics. The salary cost of this hiring is the primary expense of launching the MEI program. Adding faculty with energy economics and policy expertise aligns with the university's broader objective of becoming a leading authority in addressing present and future global energy challenges through interdisciplinary collaborations between engineers and economists.

Presently, the Economics department has two (2) T/TT faculty members specializing in Energy or Environmental Economics. Adding one (1) new faculty member would bring the department's total to seven (7) T/TT faculty members, bringing it more in line with the staffing levels of other institutions offering master's degree programs in Economics.

To support the MEI program curriculum, we need to develop ten new courses as outlined in Table 5.B.2. To improve efficiency, we will shift some undergraduate teaching responsibilities to graduate classes and hire industry executives to teach industry-focused courses (e.g., ECON 5338 Innovation and Value Generation, and ECON 5648 Innovation to Market). We plan to hire five (5) adjunct faculty members annually, each costing about \$10,000, reflecting their unique expertise and leadership roles in the industry.

Finally, additional program costs will include up to \$10,000 annually for marketing and recruitment activities during the first three years. Starting in the third year, we will also allocate funds for the salary of an Associate Program Director to coordinate and support operations for program growth.

3.B.2. Revenue

The tuition paid by students represents major revenue from the MEI program. The tuition generated by these graduate students in the MEI program will be approximately \$1,033,217 in year 5, with a projected enrollment of 60 students, each taking 6 courses (equivalent to 18 credit hours) a year. Given the MEI program's significant partnerships with international universities, we project that 40% of its enrollment will be non-resident international students. The tuition rate per credit hour for International students (Missouri Residence) is \$1,300 (\$550). See **Appendix 7** for details on how we arrive at the total program revenue.

We will evaluate the MEI program annually and track costs and revenue. This annual analysis will provide a basis for allocating internal resources and justifying student support and additional faculty and staff positions.

3.B.3. Net Revenue

Table 2 provides financial projections for the proposed MEI program from year 1 to year 5. These projections indicate that annual revenue is expected to surpass annual expenses from the inaugural year onwards.

Another essential revenue stream is the tuition from online industry graduate certificates offered through the MEI program. Specifically, discussions have begun with industry leaders to develop two specialized certificate programs, each consisting of four courses, targeting industry professionals. For example, courses on value-driven innovation or energy economics can be packaged as a four-course (or 12-credit-hour) certificate (refer to Table 5.B.2). Note that we are submitting two (2) graduate certificate proposals – 1. Value-driven Innovation certificate proposal, and 2. Energy Economics & Global Sustainability certificate proposal, along with MEI program proposal. The MEI program aims to enroll 40 students per cohort for each certificate program. Operating one cohort of 40 students can yield additional program revenue of

\$264,000 (calculated as $\$550 \times 12 \times 40$), based on the minimum per credit hour rate for Missouri residents. At the minimum, we expect to operate one cohort for each certificate in year 1. We expect the number of cohorts to grow over time, but they are not currently reflected in Table 2 to restrict the financial projection primarily for the MEI program.

Financial projections for a 50% enrollment scenario have also been provided in **Appendix 7**.

Table 2. Financial Projections for Proposed Program for Years 1 Through 5.

	Year 1	Year 2	Year 3	Year 4	Year 5
1. Expenses per year					
A. One-time					
<i>New/Renovated Space</i>					
<i>Equipment</i>					
<i>Library</i>					
<i>Consultants</i>					
<i>Marketing</i>	\$10,000	\$10,000	\$10,000		
<i>Faculty start-up</i>	\$16,667	\$16,667	\$16,666		
Total one-time	\$26,667	\$26,667	\$26,667	0	0
B. Recurring					
<i>Faculty (Assoc. Prof.)</i>	\$140,000	\$144,200	\$148,526	\$152,982	\$157,571
<i>Faculty (Adjuncts.)</i>	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
<i>Faculty (Assoc. Directors)</i>			\$31,111	\$32,044	\$33,006
<i>Staff</i>					
<i>Benefits</i>	\$53,693	\$55,189	\$56,730	\$58,317	\$59,952
<i>Equipment</i>					
<i>Library</i>					
Total recurring	\$243,693	\$249,389	\$286,367	\$293,343	\$300,529
Total expenses (A+B)	\$270,360	\$276,056	\$313,034	\$293,343	\$300,529
2. Revenue per year					
<i>Tuition/Fees</i>	\$834,000	\$1,174,200	\$1,371,744	\$1,496,490	\$1,627,486
<i>Scholarship Allowance</i>	(136,044)	(280,251)	(360,823)	(408,812)	(459,356)
<i>State Aid -- CBHE</i>					
<i>State Aid -- Other</i>					
Total revenue	\$697,956	\$893,949	\$1,010,921	\$1,087,678	\$1,168,130
3. Net revenue (loss) per year	\$427,596	\$617,893	\$697,888	\$794,334	\$867,601
4. Cumulative revenue (loss)	\$427,596	\$1,045,489	\$1,743,377	\$2,537,711	\$3,405,312

3.B.4. Academic and Financial Viability

Academically, the program requires a minimum enrollment of 20 students to maintain a vibrant and active learning environment. When there is an enrollment of 20 students, there will be no financial concerns associated with the program because it will generate net revenue for the university.

Table 3. Enrollment for Academic and Financial Viability

Viability	Minimum Enrollment
Academic	20
Financial	NA
Overall	20

3.C. Business Plan: Marketing, Student Success, Transition & Exit Strategies

3.C.1. Marketing Plan

The marketing plan for our new MEI program will involve a multifaceted approach to reaching our target audience, promoting the program's unique offerings, and attracting prospective students. The program administrator will make a significant effort to do the initial marketing before the university officially launches the program. Regionally, we will focus on the surrounding universities with quantitative-focused economic programs and engineering programs. The MEI program administrator will visit these peer institutions to introduce the program, develop trust-based relationships with crucial faculty members in those institutions, and have them recruit their students for S&T's MEI program. As noted earlier, the MEI program administrator will also target highly ranked international universities with solid engineering and economics programs and seek collaborative partnerships to have them systematically feed their most qualified students to S&T's MEI program. Finally, given that the industries we have spoken to are highly interested in energy economics and value-driven innovation focus areas, we will work with executives in various corporations to recruit working professionals for the degree program. Additional marketing efforts will be managed by the University's Marketing and Communications Department, with shared responsibility by the Department Chair of Economics and our program participating faculty members.

Key components of our marketing plan include:

Digital Marketing: We will leverage our university's website, social media platforms, and digital media to highlight the program's strengths, share news about research collaborations and breakthroughs, showcase faculty expertise, and present student success stories. Digital marketing will include search engine optimization, targeted Google Ads, and social media advertising campaigns.

Recruitment Events: Our admissions team will attend regional and national college fairs, graduate school visits, and other targeted recruitment events to raise awareness about the program. We will also host open house events, virtual information sessions, and webinars and develop workshops to provide prospective students and their families with an opportunity to learn more about our program and campus.

Collaboration with Universities, Research Institutions, and External Partnerships: We will establish partnerships with universities, research institutions, national organizations, foundations, and community organizations to facilitate joint research projects, conferences, and events to increase program awareness and encourage enrollment.

Alumni Engagement and Industry Partnerships: We will engage our alumni network and industry partners to serve as ambassadors for the program, share their experiences, and help us connect with prospective students and create opportunities for research collaborations, internships, and job placements for our graduates.

Press Releases and Announcements: When the program launches, we will prepare a press release and send out announcements to appropriate professional societies and networks, such as the American Economic Association and the Keen Entrepreneurial Engineering Network, and target corporations through a listserv or other forms of communication.

We will monitor enrollment trends and marketing analytics and collect feedback from enrolled students to better understand their decision-making process, which will help us refine our marketing efforts. We will evaluate the program annually to track costs and revenue and adjust marketing and recruiting strategies as needed. We plan to spend up to \$15,000 annually as the program's marketing expenditure to cover the cost of launching marketing campaigns targeting specialized professional publications and sending program administrators/faculty to attend regional or national events to promote the program for the first five years.

3.C.2. Student Success Plan

The Department of Economics at Missouri S&T is committed to fostering the success of MEI students. We have developed a comprehensive student success plan that focuses on supporting and retaining students through graduation. The plan incorporates the following key components:

Academic Support: The department will provide academic support services such as tutoring, workshops, and study groups to assist students in mastering challenging course material. We will also provide access to research resources, such as software and facilities, to help students excel in their research endeavors.

Faculty Mentorship: Each MEI student will have a faculty mentor/advisor to guide them through their academic journey. Mentors will offer advice, support, networking opportunities, and regular progress meetings to ensure students stay on track with their degree milestones.

Financial Support: Most MEI students will be self-funded. The Economics department fosters a culture of seeking external grants to support faculty research and student involvement. Faculty will utilize their external grant funding to support exceptional students in GRA positions. Additionally, the department aims to establish corporate sponsorships to aid student financing and offer valuable professional opportunities.

Professional Development: The Office of Graduation Education on campus will offer professional development workshops and seminars on skills such as grant writing, research presentations, job searching, and networking. These opportunities will prepare students for successful careers in academia, industry, or government sectors.

Interdisciplinary Collaboration: Students will be encouraged to collaborate with researchers from other departments and disciplines within the University. This exposure to diverse perspectives will enrich their research experience and expand their professional network.

Career Services: We will work closely with the University's Career Services to provide students with access to job listings, resume workshops, mock interviews, and job fairs. These services will help students successfully transition from the program to rewarding careers in their chosen fields.

Wellness and Mental Health Support: We recognize the importance of mental health and well-being, so we will provide students with access to counseling services, stress-management workshops, and wellness resources to help them maintain a healthy work-life balance throughout their graduate program journey.

Peer Support: The department will facilitate the creation of student-led support groups, where students can share experiences, discuss challenges, and celebrate successes. These groups will foster a sense of community and belonging among students.

Regular Progress Assessment: The department will closely monitor student progress through annual evaluations, ensuring they are on track to completing their degree requirements in a timely manner. This feedback will help students identify areas of improvement and address any challenges they may face.

The student success plan is designed to support MEI students in achieving their academic and professional goals. By implementing this plan, we aim to ensure that our MEI students graduate with the skills, knowledge, and experiences necessary to excel in their careers.

3.C.3. Transition Plan

If the department chair primarily responsible for the program leaves the institution or assumes other responsibilities, a transition plan will be in place to ensure program continuity and quality. The plan includes appointing an interim department chair by the vice-provost and dean of Kummer College. This will be followed by a national search to identify and hire a new department chair. If the program coordinator leaves or assumes other responsibilities, the department chair will appoint a new faculty member as the program coordinator.

3.C.4. Exit Strategy

If the program underperforms expectations or fails to meet minimum enrollment criteria for financial viability continuously for several years after the initial period, the following exit strategy will be implemented:

1. The Office of the Provost will conduct a thorough program evaluation to identify any areas needing improvement or adjustment.
2. Marketing and recruitment efforts will be reassessed and adjusted to attract more students.
3. If the program continues to underperform after implementing these changes, the University will suspend it to reevaluate its offerings and strategies.
4. If the program must be discontinued, the department will develop a teach-out plan to ensure that currently enrolled students can complete their degree requirements in a timely manner. This may include offering necessary courses until all enrolled students graduate or assisting students in transferring to comparable programs at other institutions.

4. Institutional Capacity

Missouri S&T has a strong foundation and the necessary resources to support implementing the new MEI program.

While leveraging existing assets to a maximum extent, this new program includes developing and delivering several new courses. The Department of Economics currently has six (6) T/TT faculty, one of whom is the department chair. The department is searching nationally for a senior faculty position in Energy Economics and Policies to add to the MEI program. The Economics department currently has two (2) T/TT faculty specializing in Energy and Environmental Economics. The one (1) new hire would raise the department to a total of seven (7) T/TT faculty. Importantly, this expansion will establish a notable concentration in Energy Economics/Policy, solidifying the department's intellectual leadership in this field within the region. Further hires in Energy Economics may be considered to support significant and continual program growth.

Additionally, the department has several affiliated faculty members from other departments to support MEI's curriculum and research collaborations.

The Economics department is housed on the 1st floor of Harris Hall, with sufficient space to accommodate faculty and staff for the new MEI program. Like all undergraduate Economics classes, we will operate MEI's face-to-face classes in various buildings across S&T's campus.

The Office of Graduate Education at Missouri S&T also offers a comprehensive range of services to support current and prospective graduate students.

5. Program Characteristics

5.A. Program Outcomes

The learning outcomes of MEI graduates upon completing the program are:

- Possess a comprehensive understanding of the intersection of economics and technological innovation, including its implications for economic development, market dynamics, and public policy frameworks.
- Demonstrate proficiency in economic forecasting, economic decision-making, and the economic implications of technological innovations.
- Apply interdisciplinary knowledge from economics, engineering management, and public policy to advance the design, operation, and interactions among economic, technological, and social systems.
- Acquire technical and collaborative skills necessary to enhance the economic and societal impact of sustainable value-creation technologies and innovations.
- Possess specialized expertise in value-driven innovation or energy economics, empowering them to tackle societal challenges and navigate complex global energy issues.

Additionally, graduates of the MEI program possess special skills, including:

- Ability to integrate economic theories and quantitative methods into assessing engineering projects and technological innovations, ensuring economic feasibility and sustainability.
- Proficiency in strategic planning and project management, essential for guiding innovation projects and ventures towards economic and societal impact.
- Competence in analyzing the economic impact of emerging technologies and advising on their adoption and implementation.
- Capacity to develop and implement innovation strategies, fostering economic growth and technological advancement within organizations.

- Expertise in policy analysis, particularly regarding the economic implications of technological policies and regulations, for informing public and private decision-making.

Overall, the MEI graduates will be equipped with the technical and quantitative skills, economic knowledge, and innovative and teamwork ability necessary for sound decision-making in all aspects to excel in their chosen careers in academic, industrial, or public settings.

5.B. Program Design & Content

The Department of Economics at Missouri S&T, housed in Kummer College of Innovation, Entrepreneurship, and Economic Development, will manage the proposed MEI program. The degree program will involve collaboration in teaching and research among faculty members across all three (3) colleges at Missouri S&T, including Kummer College, the College of Engineering and Computing, and the College of Arts, Sciences, and Education.

The MEI degree program is an applied professional graduate program focused on practical applications; thus, it does not require a thesis. We design the curriculum to ensure all students acquire core competencies in econometrics/quantitative economics and product and project management through program-required core courses. Expanding upon the core foundational knowledge, we offer a flexible curriculum structure, allowing students to tailor their studies within the overarching theme of Economics and Innovation by selecting a focus area. Students can choose between two available focus areas: (1) value-driven innovation and (2) energy economics, enabling them to specialize according to their career interests and objectives within leading engineering, scientific, and technology (STEM) organizations. For further details, refer to Table 5.B.1, which outlines the general curriculum structure of the MEI program.

Table 5.B.1. Curriculum Structure

A total of 30 graduate credit hours (10 courses) will be required beyond a bachelor’s degree. The breakdown of course requirements is as follows:		
Program Courses	18 credit hours	Students must take 18 credit hours (6 courses) from the Program Core Courses. Four (4) economics core courses and two (2) engineering management core courses make up the six (6) program core courses.
Focus-Area Courses	12 credit hours	Students must take 12 credit hours (4 courses) from the Area Core Courses designated for each focus area. The student’s advisor must approve any deviations from these required area core courses, which will be chosen based on the student's specific career goals and interests.
		Students can combine four (4) core courses from energy economics and value-driven innovation. In this case, they will graduate with a general MEI degree.
Total	30 credit hours	

Table 5.B.2 below provides a complete list of MEI program courses. As previously mentioned, the MEI program targets to admit qualified students from economics, engineering, and science backgrounds with a strong foundation in mathematics. Consequently, admitted students can enroll in all core courses directly without any prerequisites. As seen, ten (10) courses (out of fourteen (14)) in the MEI program are new and will be created. As the MEI program evolves and expands, additional focus areas and associated courses will be developed and added. We anticipate that some students (who earned an S&T bachelor’s degree) entering the MEI program might have already completed some existing S&T courses (ECON 5360, ECON 5513, ENG MGT 5320, and ENG MGT 5515) listed in the table. In such cases, standard practice dictates waiving these courses and substituting them with alternatives deemed appropriate by the program administrator and the student’s advisor upon request. In some rare cases where admitted students require lower division leveling courses (e.g., introductory economics courses) to enter the program core courses, the student’s advisor will identify and recommend suitable courses.

Table 5.B.2. List of Program Courses

Course No.	Course Name	New Course?
The MEI Program Core Courses		
There are a total of six (6) program core courses. Four (4) core courses cover core knowledge in Economics, while two (2) cover core knowledge in Engineering Management.		
<u>Economics Core Courses</u>		
1.	ECON 6301 Microeconomics: Managerial & Project Economics	YES
2.	ECON 6302 Macroeconomics: Navigating Risks and Trends	YES
3.	ECON 6355 Econometrics and Forecasting	YES
4.	ECON 5360 Data-Driven Strategic Insights	
<u>Engineering Management Core Courses</u>		
5.	ENG MGT 5320 Project Management	
6.	ENG MGT 5515 Integrated Product and Process Design	
Required Area Courses		
For each focus area, there are four (4) required courses.		
<u>Energy Economics and Global Sustainability Focus Area¹</u>		
7.	ECON 6638 Energy Policy & Economic Analysis	YES
8.	ECON 5643 Innovation Economics and Finance	YES
9.	ECON 6658 Building Sustainability & ESG	YES
10.	ECON 6010 Seminar: Contemporary Issues in Energy Economics	YES
<u>Value-driven Innovation Focus Area¹</u>		
7.	ECON 5338 Innovation and Value Generation	YES
8.	ECON 5643 Innovation Economics and Finance	YES
9.	ECON 5648 Innovation to Market	YES
10.	ECON 6020 Seminar: Contemporary Issues in Technology and Innovation	YES

Notes: 1. Courses 7, 8, 9, and 10 under either focus area can be utilized and cross-listed by any graduate programs at S&T.

5.C. Program Structure

Students entering the program must hold a bachelor's degree and fulfill a minimum of 30 credit hours of 5000- and 6000-level courses as specified in Table 5.B.2. To avoid redundancy, please consult Tables 5.B.1 and 5.B.2 for a comprehensive overview of the MEI program curriculum structure.

5.C.1. Program Structure Form

1. Total Credits Required for Graduation: 30
2. Residence requirements, if any: None
3. General education
 - a. Total general education credits: None
4. Major Requirements
 - a. Total credits specific to degree: 18; These are the six (6) MEI program core courses listed in Table 5.B.2.
 - b. Depending on the student's chosen focus area, he/she must take four (4) area core courses (equivalent to 12 credits).

Courses (specific course or distribution area and credit hours):

Course	Hrs	Course	Hrs	Course	Hrs
For all MEI students:		For students in the Value-driven Innovation Focus Area:		For students in the Energy Economics Focus Area:	
Microeconomics: Managerial & Project Economics	3	Innovation and Value Generation	3	Energy Policy & Economic Analysis	3
Macroeconomics: Navigating Risks and Trends	3	Innovation Economics and Finance	3	Innovation Economics and Finance	3
Econometrics and Forecasting	3	Innovation to Market	3	Building Sustainability & ESG	3
Data-Driven Strategic Insights	3	Seminar: Contemporary	3	Seminar: Contemporary	3
		Issues in Technology and Innovation		Issues in Energy Economics	
Project Management	3				
Integrated Product and Process Design	3				

5. Free elective credits
 - a. Total free elective credits: None.
6. Requirement for thesis, internship or other capstone experience: None
7. Any unique features such as interdepartmental cooperation:

Most required courses for the program will be taught by faculty members from the Economics department, with a select few offered by the Engineering Management & Systems Engineering faculty members. Additionally, seminar courses within the focus areas are anticipated to entail collaborative endeavors between faculty members from economics and pertinent engineering disciplines. Importantly, all faculty members teaching the program will communicate and coordinate to ensure cohesive delivery of course content that is aligned with the program's learning objectives.

5.D. Program Goals and Assessment

The MEI program at Missouri S&T is committed to ensuring students achieve the Graduate Learning Outcomes (GLOs) in knowledge, communication, integrity and ethics, scholarship independence, and critical thinking.

Knowledge: Students will demonstrate mastery of the contemporary state of knowledge within their discipline through original and substantial contributions.

Communication: Students will demonstrate mastery in communication (oral and written) by following the standards of published work in their discipline.

Integrity and Ethics: Students will demonstrate the highest standards of professional behavior, integrity, and ethical conduct.

Scholarship Independence: Students will demonstrate the ability to independently identify, explain, and develop scholarships, including a clear plan for addressing open research questions in their field.

Critical Thinking: Students will demonstrate the independent, self-directed, ability to evaluate arguments, assess assumptions about information and data, and synthesize knowledge.

To achieve this, the program will develop and implement a comprehensive assessment plan that evaluates students' progress in these areas. This assessment plan includes mapping course learning outcomes to departmental and campus learning outcomes, selecting appropriate assessment tools linked to specific activities or courses, and specifying the frequency of measurements for each tool. A well-defined plan for reviewing and using assessment data will be established, including setting clear criteria for meeting learning outcomes, such as requiring a certain percentage of students to achieve a specific score or

level. This comprehensive approach will ensure the program's effectiveness in fostering student success and achieving its goals.

Specific goals for student retention and graduation rates will be set based on historical data, benchmarking with peer institutions, and ongoing program improvements to ensure the program's success. These rates will be monitored and reported regularly. We anticipate 90% retention and graduation rates or higher. Furthermore, we aim for a 100% placement rate. Graduates will secure positions or roles in academia, industry, or government.

Additionally, the program will describe other measures of success, such as external research funding, industry partnerships, or alumni achievements. These measures will be assessed regularly to ensure that the program achieves its goals and contributes to assisting private and public sectors in building innovation ecosystems and driving economic growth for the state of Missouri, the Midwest, the United States, and beyond.

5.E. Student Preparation

The MEI program at Missouri S&T targets highly motivated students who have completed a bachelor's degree in economics, engineering, or science, have a solid foundation in mathematics, and are strongly interested in a career path involving enhancing the economic and societal impact of sustainable value-creation technologies and innovations.

To ensure the student's success, the program admission committee will carefully evaluate the applicant's academic foundation in mathematics. Applicants must also submit a compelling statement of purpose outlining their career interests and goals, along with letters of recommendation from faculty or industry professionals. The program recognizes the interdisciplinary nature of the MEI program and welcomes well-prepared students from peripheral disciplines. Some students may need to take elective courses to accommodate diverse academic backgrounds to build the foundation for core courses. In rare cases, lower division leveling courses identified by the program admission committee might be required, which fall outside the standard program curriculum. This inclusive approach ensures that all admitted students can strengthen their foundational knowledge and excel in the MEI program, regardless of their academic background.

5.F. Faculty and Administration

The MEI program will leverage the expertise of fifteen participating faculty members (listed in **Appendix 1**) from various departments who are slated to offer courses and conduct research projects. Dr. Melody Lo, department chair, will be the primary point person for the program. She will also serve as the MEI program director for the first two years to establish partnerships, recruit students, track activities, and advise for the proposed MEI program.

This program hinges on interdepartmental collaboration to propel student success forward. A pivotal aspect of the MEI program is its inclusive ethos, which welcomes researchers, students, industry partners, and ideas from diverse backgrounds. Faculty members actively engage as mentors for enrolled students, fostering individualized study plans in

collaboration with program advisors. This setup cultivates mutually beneficial opportunities for faculty and students in research and education. While the core curriculum has a powerful set of core courses, the program emphasizes flexibility, empowering students to pursue specific focus areas of interest. Notably, the MEI program encourages students to select a participating faculty member as a mentor for research projects aligned with Missouri S&T's existing energy, sustainability, and innovation strengths, even though the program does not mandate a thesis requirement.

An advisory committee comprising representatives from industry partners and participating faculty members will conduct an annual curriculum evaluation alongside the Chair of the Economics department. This committee will convene annually to review and discuss potential updates regarding curricular requirements, co-curricular activities, admission criteria, student- advisor assignments, and other pertinent aspects of the program.

5.G. Alumni and Employer Survey

We are dedicated to gathering valuable feedback from both alumni and employers to assess and enhance the quality of this new program. Surveys and communication channels are employed to gather pertinent information, ensuring alignment with the expectations and needs of both groups. The following methods and schedules outline how feedback is collected from these key stakeholders:

Alumni Survey:

Method: Online questionnaires and mailed surveys are sent to alumni who graduated three to five years prior. The survey focuses on evaluating their satisfaction with the program and the extent to which it prepared them for their careers.

Schedule: Alumni surveys are conducted biennially, allowing for a comprehensive and up-to-date understanding of alumni perspectives.

Expected/desired satisfaction rates: The department aims to achieve a satisfaction rate of at least 85% among respondents to improve the program based on alumni feedback continuously.

Employer Survey:

Method: Online questionnaires and surveys are distributed to employers of the program's graduates. The surveys seek to evaluate alumni's preparedness and performance in their respective workplaces and solicit suggestions for program improvements.

Schedule: Employer surveys are conducted every three years, allowing sufficient time to gather meaningful feedback while keeping the information current.

Expected/desired satisfaction rates: The department aims to achieve a satisfaction rate of at least 85% among employer respondents, using their input to adapt the program to meet industry needs and expectations better.

In addition to the scheduled surveys, the department encourages ongoing communication with alumni and employers through various channels, including departmental events, advisory committee meetings, and direct communication with alumni and employers at on-campus career fairs. This continuous feedback loop helps ensure that the program stays relevant and aligned with the needs of alumni and employers.

5.H. Program Accreditation


The new MEI program does not require accreditation to operate but will undergo assessment by the Higher Learning Commission.

6. Appendices

- Letters of Support
- Pro Forma

Appendices

1. Letters of Support [\(Click here\)](#)
2. Program Budget [\(Click here\)](#)



May 17, 2024

To: UM System Office of Academic Affairs

From: Colin Potts, Provost and Executive Vice Chancellor for Academic Affairs

Subject: New Program Proposal, M.S. in Economics and Innovation

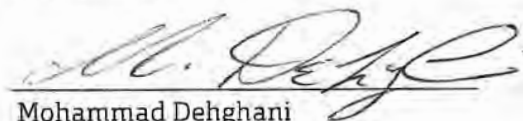
I enthusiastically recommend that the full proposal for the M.S. Degree in Economics and Innovation advance to the UM System for comprehensive review. This pioneering master's degree program will be administratively located in the Economics Department in the Kummer College of Innovation, Entrepreneurship and Economic Development. It will be the first new degree offered in the recently launched college and includes core curriculum requirements from Engineering Management, another graduate program offered by the college. Additional letters of recommendation and support are included in the proposal.

This degree program is unique in the state and in the region in offering a core curriculum that focuses "on the interface of economics, engineering, management, and public policy to advance the design, operation, and interactions among economics, technological and social systems" while directly addressing the vision of the Kummer College to harness entrepreneurship and innovation in society. The energy economics focus area leverages and builds on current campus strengths in a highly critical approaches and content in economics to one of evaluation and analysis over the entire value-creation life cycle. Combining either one of the focus areas with the interdisciplinary core creates a program that will prepare strategically focused and quantitatively adept graduates for public and private sector positions and opportunities.

The program builds on current faculty expertise, but the Economics Department has started a nationwide search to hire a faculty member in Energy Economics and will also engage highly qualified adjuncts as professors of the practice in delivery of specific focused courses as articulated in the full proposal. New courses will be developed to offer in the program, which in turn provide additional opportunities as elective courses for current campus engineering and science students. As indicated in the full proposal, the two focus areas will also be offered as independent graduate certificates in economics, opening an even larger potential market for corporate partners and individuals looking to enhance their professional credentials in critical areas of need.

This degree requires minimal additional campus resources and directly supports the campus North Star Goals, particularly in reaching our master's level graduate enrollment goals and S&T's mission to promote higher learning STEM and STEM adjacent areas. The unique nature and structure of the program, has exciting potential for intercampus curriculum, research, and scholarly collaborations.

Approved by:



Mohammad Dehghani
Chancellor

5/23/24

Date

May 14, 2024

To: Colin Potts, Provost and Executive Vice Chancellor for Academic Affairs

From: James Sterling, Vice Provost and Dean of Kummer College
(effective June 1, 2024)



Subject: Support for the Master of Science in Economics and Innovation (MEI) Program at S&T

The proposed MS degree aims to prepare graduates who can design and implement solutions that utilize new technology within the context of economic constraints that are imposed by regulatory, geopolitical, resource, and financial considerations. The curriculum is designed to leverage S&T strengths in technological innovation within the broader context of macroeconomics, microeconomics, econometrics and data-driven strategy. This approach complements the contributions of technical and business acumen with economic expertise that addresses innovation in the broader social context.

The two initial focus areas are (1) Value-Driven Innovation and (2) Energy Economics are designed to educate graduates who can contribute to corporate innovation strategy to ensure substantial return-on-investment (ROI) within the context of complex historically- or legislatively-constrained markets. As a prime example, S&T engineering disciplines span the gamut of energy-systems, from petroleum, geothermal, biochemical, wind and solar, to nuclear engineering that are all supported by chemical, civil, mechanical and electrical engineering disciplines. However, fuel taxes, transportation, electrical transmission, and nuclear regulatory frameworks strongly constrain these energy markets. Therefore, it is appropriate to address energy economics and global sustainability in this program. Assessment of ROI of innovation is muddled by this reality. Our MEI graduates will be prepared to succeed in this complex environment.

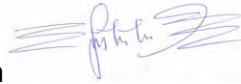
Since the MEI program is designed to foster a vibrant learning ecosystem across the S&T campus through internal collaborations in research and education, it brings together faculty from all three S&T colleges, and the discussions regarding leveraging the two MEI focus areas across departments have already begun. These focus areas are *intentionally* designed to be cross-listed (or co-listed) by any graduate program at S&T and can integrate into any forthcoming professional science programs. As the curriculum for these focus areas evolves,

faculty within Kummer College will work together to ensure that both BIT and EMSE programs can benefit from and contribute to the existing and planned curriculum, enhancing their offerings and attracting more students. It is also imperative that we leverage faculty expertise across new I&E programs to coordinate the curriculum. Furthermore, we will leverage our corporate partnerships to extend the reach of our teaching and research and our graduate placement beyond the regional to include national and international opportunities where the economics of innovation and energy are substantially different from that in Missouri and the region.

The proposal addresses the strong support of industry employers for this program. I find the proposal compelling and therefore, I strongly support the launch of this new program and believe that this will be one of the shining examples of new I&E programs that help to successfully meet S&T's North Star Goals and to ensure that the vision of Fred and June Kummer is realized.

To: Colin Potts, Provost and Executive Vice Chancellor for Academic Affairs

From: Samuel Frimpong, Vice Provost for Graduate Education



Date: November 28, 2023

RE: Support Letter for the Master of Science in Economics and Innovation (MEI) Program at S&T

Missouri University of Science and Technology (S&T) has produced engineers, scientists, humanists, and graduates with economics, entrepreneurial and innovation mindset and skills for industry and academia with impact around the globe. The Kummer Institute Foundation (KIF) was recently established to augment initiatives to elevate the stature of S&T, and provide broad outreach for STEM education, with impact on the economy of South-Central Missouri and the State of Missouri. This three-component KIF mission provides a stronger focus on innovation and entrepreneurship towards start-ups, and technologically driven industries. The Master of Science in Economics and Innovation (MEI) will solidify and reinforce the innovative and industry economics aspects of S&T's education and preparation of professionals.

The proposed program occupies a strategic focus area within the educational sector of Missouri, US, and the global community. The MEI curriculum and objectives are well-fitted within the Kummer College and the broader S&T campus. The curriculum interfaces and integrates economics, engineering management, technology, and public policy to prepare graduates for future leadership toward enhancing the economic and social values of technologies and innovations. The MEI program focus areas in energy economics and value-driven innovation will uniquely position graduates to drive sustainable solutions via technological innovations. The MEI program will thus contribute to S&T's path towards a powerful regional technology hub to advance economic, technological, and societal impacts beyond Missouri and the Midwest.

The engagement of industry expertise in the design of the MEI program adds strength to the program. The provision in the MEI proposal of an expert to engage tech start-ups, in Silicon Valley, is a powerful element for success. The MEI program is strategically fitted and aligned with most S&T campus/programs. Energy economics provides synergy with S&T's extensive research expertise in energy across engineering disciplines, including but not limited to, chemical and biochemical; civil, architectural, and environmental; electrical and computer; mechanical and aerospace; mining and explosives; and petroleum engineering.

The MEI program creates value for its stakeholders. The program will uniquely position graduates as strategic decision-makers in start-ups and technologically focused industries vital to the economic development of South-Central Missouri, and the State of Missouri. The program is also designed to increase education and research collaborations among academic disciplines within S&T to extend the upward trajectory in external grant funding and partnerships. Lastly, the production of highly qualified and skilled workforce will benefit the state of Missouri, the Midwest, and the United States.

Overall, the MEI program will augment the graduate education and research programs within S&T campus, provide opportunities for research and education collaborations within S&T, start-ups, and technologically driven industries with value addition to its stakeholders. Therefore, I strongly support this creative and novel graduate program in Economics and Innovations.

May 3, 2024

Dr. Melody Lo
Steinmeyer Memorial Endowed Chair, Chair and Professor of Economics
Kummer College of Innovation, Entrepreneurship, and Economic Development
Missouri University of Science and Technology
Rolla, MO 65401

SUBJECT: Letter of Support for Master's Program in Economics and Innovation at
Missouri S&T

Dear Dr. Lo:

I strongly support the proposed interdisciplinary master's degree program in Economics and Innovation (MEI) at Missouri S&T. This program will prepare students for leadership roles in high impact careers applying innovative and disruptive technologies to generate sustainable economic and societal value.

As a Missouri S&T alum whose career has been focused on application of cutting edge technologies, I deeply understand the power, but also the challenges in moving from what's possible to realized and sustainable results. This journey from potential value to realized impact is a complex and multifunctional system that requires collaboration among multiple disciplines. This program will help build a workforce equipped to navigate these complexities.

My entire career has been leading teams responsible for designing, selling, and applying transformative technologies for McDonnell Douglas, Hewlett Packard, Rational Software, and multiple startups. In total, these amounted to billions of dollars of product and services and thousands of high paying jobs. **During this entire time, I never had enough skilled professionals capable of making critical decisions regarding the technical and economic viabilities of technologies.** This need is shared by technology companies worldwide, and it emphasizes the urgency to educate and empower students with the knowledge and skills to support the collaboration necessary to make sound decisions that lead to economic and societal impact

The MEI program offers an opportunity to build a workforce with an engineering background also capable of understanding full value generation systems and the complex decision-making process surrounding technology application. By integrating economic knowledge and decision-making frameworks into their skill set, MEI program graduates will be equipped to collaboratively design, build, and operate sustainable value generating systems that provide impactful results at all levels.

I strongly believe the MEI program represents a strategic opportunity for Missouri S&T to fill a critical and growing workforce need. If you have any questions or would like more information, please do not hesitate to contact me.

Sincerely
John Lovitt
Missouri S&T alum and Trustee





May 1, 2024

Dr. Melody Lo
Steinmeyer Memorial Endowed Chair, Chair and Professor of Economics
Kummer College of Innovation, Entrepreneurship, and Economic Development
Missouri University of Science and Technology
Rolla, MO 65401

SUBJECT: Letter of Support for Master's Program in Economics and Innovation at Missouri S&T - Addressing Global Energy Challenges through Strategic Workforce Development

Dear Dr. Lo:

I am writing to express my strong support for the proposed interdisciplinary master's degree program in Economics and Innovation (MEI) at Missouri S&T. This program is timely and critically needed for preparing students to address global energy challenges with innovative and economically viable solutions.

As a Missouri S&T alum and the Director of a Department of Energy national laboratory leading clean energy and national security research and development initiatives for the nation, I deeply understand the pivotal role that scalable and sustainable technology plays in today's marketplace. The need for continuous innovation coupled with economic and policy considerations is essential to addressing the ever-evolving challenges. This program will help build a workforce equipped to navigate these complexities.

At Idaho National Laboratory, we're in a period of remarkable growth. With half of our workforce being new to the laboratory in the last five years, we see a pressing need to build a new generation of skilled professionals capable of making critical decisions regarding the technical and economic viabilities of technologies. This need is shared by technology companies worldwide, and it emphasizes the urgency to educate and empower students with the knowledge and skills to navigate technological advances and make sound decisions.

The MEI program offers an opportunity to build a workforce with an engineering background also capable of navigating the complex decision-making process surrounding technology investment, particularly in the face of policy uncertainty. By integrating economic knowledge and decision-making frameworks into their skill set, MEI program graduates will be equipped to assess the economic feasibility and sustainability of technology projects, even amidst uncertain policy landscapes.

The program will foster increased collaboration between engineers and economists, leading to more comprehensive and impactful solutions to energy challenges. Through multidisciplinary education and collaboration, graduates will be able to tackle current and future energy issues with creativity and innovation.

Dr. Melody Lo

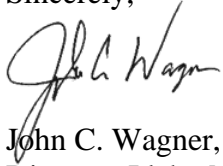
May 1, 2024

Page 2

In closing, I believe the MEI program represents a strategic opportunity for Missouri S&T to fill a critical workforce need. I strongly encourage support for this program.

Thank you for considering this opportunity to support the MEI program. If you have any questions or would like more information, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "John C. Wagner". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

John C. Wagner, Ph.D.

Director, Idaho National Laboratory

and President, Battelle Energy Alliance, LLC

CJT:MRR



MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

Michael L. Parson
Governor

Dru Buntin
Director

April 26, 2024

To whom it may concern:

Please accept this letter as support for Missouri University of Science and Technology's (S&T) program proposal for a prospective Master's Program in Economics and Innovation (MEI). Missouri S&T has a distinguished reputation for fostering industry perspective in its curriculum and other initiatives.

Missouri Department of Natural Resources' Division of Energy (department) houses Missouri's federally designated State Energy Office whose core objectives include but are not limited to the support of new and existing initiatives that aim at building a resilient, sustainable, and forward-looking energy workforce. Other core objectives of the division include serving as custodians of Missouri's State Energy Security Plan as well as serving as the nexus for statewide, interdisciplinary, public, and private state energy planning.

Everyone has agency to deliver a more sustainable, secure, and resilient energy landscape in Missouri that will in turn drive a more robust economy, whether you are an individual energy consumer, an energy provider, industry stakeholder, or educational institution. With that said, we find the most success in state energy planning when the stakeholders we engage with have interdisciplinary perspectives that can be applied at micro and macro scales to drive truly transformative market policy.

The department appreciates the opportunity to review S&T's MEI executive summary. One outstanding aspect of the program that we wish to highlight in this letter of support is the program's focus area on Energy Economics. We are heartened to see this commitment to proactively offering interdisciplinary policy perspectives within the curriculum, particularly through the courses on "Energy Policy & Economic Analysis," "Building Sustainability and ESG," and "Seminar: Contemporary Issues in Energy Economics." Therefore, future MEI graduates entering our local, state, and national workforces will be more equipped and more likely to have higher contributions to our interconnected energy landscapes and globalized economies.



Thank you for considering this letter of support for S&T's Master's Program in Economics and Innovation proposal. The department looks forward to continuing our relationship with S&T and the overall University of Missouri system to growing Missouri's workforce, energy landscape, and economy.

Sincerely,

DIVISION OF ENERGY



Emily Wilbur
Director



Nora Maxwell
State Energy Program Manager



Justin Sherwood
Policy and Resources Supervisor



March 31, 2024

Melody Lo, PhD

Steinmeyer Memorial Endowed Chair and Professor of Economics

Kummer College of Innovation, Entrepreneurship, and Economic Development

Missouri University of Science and Technology

Subject: Letter of Support for Master of Science Program in Economics and Innovation at Missouri S&T

Missouri Energy Initiative is a unique 501(c)3 nonprofit collective of private and public companies and organizations collaborating on innovative ideas to drive economic development, innovation, and education in the energy sector. We are a trusted source of information on emerging energy issues within Missouri and the Midwest. Missouri Energy Initiative started in 2009 to pursue the many challenges and opportunities presented by and in the state's energy sector. Energy cuts across all sectors of Missouri's economy. Clean, abundant, reliable, and affordable energy is critical to a prosperous future for the state. To bring about this future, all sectors of the state's economy must collaborate on critical energy issues.

I enthusiastically support the proposed Master of Science Program in Economics and Innovation (MEI) at the University of Missouri S&T. I support our member, University of Missouri S&T, because I believe this proposed graduate program holds tremendous potential to advance our collective goals and impact Missouri's energy landscape.

I am excited about the interdisciplinary approach of the proposed MEI program, which aligns with Missouri Energy Initiative's mission to connect all stakeholders to collaborate on identifying opportunities and solutions for Missouri's energy needs. This academic program stands out for its focus on developing future leaders capable of enhancing economic and social values in the ever-evolving field of technology and innovation.

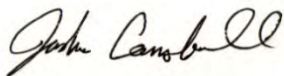
I particularly appreciate the program's unique curriculum, which spotlights the integration of economics, engineering management, and public policy and is tailored to equip graduates with technical prowess, economic insight, and collaborative skills vital for informed decision-making. At Missouri Energy Initiative, we recognize the value of transcending the purely technical facets of engineering endeavors, and the MEI program's dedication to producing a workforce adept at forecasting economic trends and anticipating technological progressions aligns well with our vision for sustainable and groundbreaking innovations for economic growth and social well-being of our Missouri communities.

The proposed MEI program's objectives, including preparing students with a cutting-edge interdisciplinary curriculum, fostering collaborations with various stakeholders, and developing a technically trained workforce, directly complement many of Missouri Energy Initiative's ongoing collaborative work and projects. I believe that Missouri S&T's proposed new program will benefit the academic community and contribute significantly to the advancement of economic development, innovation, and education in the energy sector for Missouri, the Midwest, and beyond. I look forward to collaborating with Missouri S&T to support its program's success and bring real impact to our Missouri communities.

In closing, I strongly support the approval of the establishment of the Master of Science program in Economics and Innovation at Missouri S&T. This initiative transcends mere academia; it represents a strategic leap toward cultivating a workforce poised to instigate impactful transformations within our state and beyond. As a proud member of the Missouri Energy Initiative, I am confident that this program will serve as a cornerstone in shaping the trajectory of Missouri's energy domain.

Thank you for considering my enthusiastic support for this significant program initiative.

Sincerely,

A handwritten signature in black ink that reads "Josh Campbell". The signature is written in a cursive, flowing style.

JOSH CAMPBELL, JD

Executive Director

Missouri Energy Initiative



April 9, 2024

Melody Lo, Ph.D.
Steinmeyer Memorial Endowed Chair and Professor of Economics
Kummer College of Innovation, Entrepreneurship, and Economic Development
Missouri University of Science and Technology, Rolla, MO 65401

Subject: Letter of Support for MEI program

Dear Dr. Lo:

On behalf of the Missouri Association of Manufacturers (MAM), I am writing to express my strong support for Missouri University of Science and Technology's establishment of a Master's Program in Economics and Innovation.

Founded in 1992, the Missouri Association of Manufacturers represents the over 7,000 Missouri manufacturing companies, and over 266,000 Missouri manufacturing employees. The Association's mission is to Promote, Preserve, and Advance manufacturing in the state of Missouri.

With this in mind, we have visited and toured over 210 manufacturing facilities all of the state of Missouri over the last 36 months, to better understand and connect with manufacturers and their operations. Focused on building relationships with manufacturers and those that support the manufacturing industry - we work hard identifying and understanding the challenges and issues facing manufacturers today.

Through our various conferences, tours and meetings - we have witnessed the shift from the need for simply a warm body to show up, to a strong demand for skilled roles. They know that the future is dependent on innovation. The survival of manufacturing is truly innovation that is sustainable and transformational.

We are pleased to learn about the development of the Master of Science Program in Economics and Innovation (MEI) program at Missouri S&T as it fills a crucial gap in the current educational landscape by offering a curriculum that integrates economics, engineering management, and public policy. This interdisciplinary approach equips students with the skills necessary to navigate the complexities of innovation-driven economies. The MEI program's emphasis on practical skills and industry-driven knowledge is what Missouri companies and communities need through focusing on value creation of engineering projects, economic feasibility, and sustainability. Potential employers will find that MEI program graduates can confidently lead various projects, teams, and divisions in their organizations.

Without any reservation, we strongly recommend that the University of Missouri System approve the development of the MEI program at Missouri S&T. We believe that by investing in education and fostering partnerships between academia and industry, we can create a sustainable and brighter future for all.

Sincerely,

A handwritten signature in black ink that reads "MICHAEL EATON". The signature is written in a cursive, slightly stylized font.

Michael Eaton
Executive Director



May 2, 2024

Melody Lo, Ph.D.

Steinmeyer Memorial Endowed Chair and Professor of Economics

Kummer College of Innovation, Entrepreneurship, and Economic Development

Missouri University of Science and Technology, Rolla, MO 65401

Subject: Letter of Support for Master's Program in Economics and Innovation at Missouri S&T

I am writing to express my enthusiastic support, on behalf of US Strategic Metals also known as Missouri Cobalt (USSM), for the proposed Master's degree program in Economics and Innovation (MEI) at Missouri University of Science and Technology (S&T) and to highlight its significant relevance to USSM's workforce development needs.

USSM is building an integrated mine and metals refinery in Fredericktown, Missouri, that will provide ethically sourced, domestic minerals crucial for the energy transition. To date, we have completed important environmental remediation, begun processing historical mine tailings, and are in the process of engineering and constructing a hydrometeorological metals refinery. Additionally, we operate a large-scale pilot plant for research and development in critical minerals refining.

As a graduate of the University of Missouri – Columbia's accountancy masters program, my academic credentials have bolstered my career and given me an appreciation for higher education's impact on both the individual student and their future employers. I began my career in public accounting as an auditor and transitioned into accounting and finance roles at large publicly traded manufacturing companies. Currently, I serve as the Treasurer and Head of FP&A at USSM. In each of my corporate roles, I have seen firsthand how innovation and a corporation's response, or lack thereof, can have a deep financial impact on the organization. The role of finance must include a deep understanding of how innovation may alter the course of the business and what levers are available to convert such risks into opportunities. As a leader in the technology and innovation sector, USSM is keenly aware of the critical role that comprehensive economic understanding plays in driving sustainable innovation and economic growth. The MEI program at S&T addresses this need directly by providing students with a unique interdisciplinary curriculum that bridges the gap between technical expertise and economic acumen.

Here are a few reasons why the MEI program is crucial for addressing USSM's workforce development needs:

Interdisciplinary Expertise: The MEI program equips students with a diverse skill set encompassing technical and economic perspectives. Graduates emerge with the ability to identify and assess the economic potential of new technologies or business lines within existing firms, a capability that is invaluable in an industry as dynamic as ours.

Education and Research Collaborations: The program seeks to enhance collaborations with academic departments, technology and innovation industries, and organizations locally, nationally, and globally. These partnerships are essential for driving innovation and maintaining competitiveness in the rapidly evolving landscape of technology and economics.

Building Innovation Ecosystems: By developing a skilled workforce and fostering innovation ecosystems, the MEI program contributes to sustaining economic and community growth in Missouri, the Midwest, and the U.S. as a whole. This aligns perfectly with USSM's mission to drive economic development and create opportunities for advancement in our region.

The MEI program's focus areas, particularly Value-Driven Innovation and Energy Economics, directly address our industry's pressing challenges and opportunities. We believe that graduates of this program will possess the knowledge and skills necessary to drive meaningful change and contribute to the success of organizations like USSM.

In conclusion, I wholeheartedly recommend that the UM system approve the establishment of the MEI program at Missouri S&T. I believe it will play a pivotal role in shaping the future of our industry. We at USSM look forward to collaborating with the program and welcoming its graduates into our workforce.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ryan W. Senciboy', with a stylized flourish at the end.

Ryan W. Senciboy
Treasurer and Head of FP&A
US Strategic Metals



May 5, 2024

Melody Lo, Ph.D.

Steinmeyer Memorial Endowed Chair and Professor of Economics

Kummer College of Innovation, Entrepreneurship, and Economic Development

Missouri University of Science and Technology

Subject: Letter of Support for Master's Program in Economics and Innovation at Missouri S&T

I am thrilled to wholeheartedly support Missouri S&T's proposed master's degree program in Economics and Innovation (MEI). As a recent (2021) alumnus of the Missouri S&T Economics Bachelor's Program and a professional in the renewable energy sector, I am deeply interested in the university's academic initiatives, particularly those aimed at fostering innovation and sustainability.

I've held roles ranging from Purchasing Manager to Commercial/Governmental Project Manager at Greentech Renewables, the US's largest residential solar Distribution Company. Recently, I transitioned to a directorial position in commercial development for a Texas-based installer of commercial and utility-scale solar projects. Throughout my career in the renewable energy sector, I've been immersed in the industry's challenges and opportunities. This firsthand experience underscores my enthusiasm for the MEI program and its focus on preparing students for leadership roles capable of assessing technology projects' economic feasibility and sustainability.

The MEI program's objective aligns perfectly with the evolving demands of today's workforce. Integrating economics, engineering management, and public policy offers a forward-thinking approach to tackling the complex challenges posed by technological advancements. The MEI program will significantly advance sustainable value-creation technologies and innovations by equipping graduates with the technical expertise and collaborative skills to navigate economic, technological, and social systems.

The emphasis on practical economics acumen and essential knowledge in industry innovation projects within the MEI curriculum perfectly meets the demands of real-world scenarios. From my experience, I've seen the critical need for individuals with technical proficiency, an ability to understand long-term market shifts, and a comprehensive understanding of economic principles and policy dynamics. Moreover, I firmly believe that the MEI program will have far-reaching implications beyond economics. By integrating energy economics and policy knowledge into the energy engineering-focused curriculum in Electrical Engineering, Mechanical Engineering, Computer Science, and Mining programs, Missouri S&T will further maximize technological advancements' economic and societal impact, cementing its position as a leader in innovation, and furthering S&T's brand as a premier university in industry relationships.

With great enthusiasm, I look forward to sharing the MEI program curriculum with executive industry leaders and considering enrolling in it when it becomes available. In conclusion, I wholeheartedly endorse the establishment of the MEI program and commend Missouri S&T for its unwavering commitment to innovation and excellence in education. I am confident, without a doubt, that this program will not only meet the needs of today's dynamic job market but also significantly contribute to the university's reputation as a hub of interdisciplinary research and learning.

Please feel free to contact me if you require further information or assistance. Thank you for considering my endorsement, and I eagerly anticipate the success of the MEI program.

Sincerely,

A handwritten signature in black ink, appearing to read "Marcus Vasquez", with a stylized flourish at the end.

Marcus Vasquez

Director of Commercial Development
Greentech Renewables



May 6, 2024

Dr. Melody Lo
Economics Department
Missouri University of Science and Technology
101A Harris Hall
500 W. 13th St.
Rolla, MO 65409

Dear Ms. Lo:

Archer-Elgin Engineering, Surveying, and Architecture would like to express our support for the proposed Master's Program in Economics and Innovation (MEI) at Missouri S&T. At Archer-Elgin, we are committed to innovative solutions that actively improve our communities while staying mindful of the economic and regulatory challenges facing our clients. We see great value and potential with the MEI program goals.

There is a strong need for professionals skilled at navigating both the technical and economic challenges of engineering projects and innovations, particularly within growing communities. The MEI program's interdisciplinary approach and unique curriculum are tailored to meet this need, equipping students with comprehensive skills essential for developing sustainable solutions and driving positive societal impact. We commend the program's focus on ensuring graduates have not only the skills to analyze economic outcomes but also the ability to evaluate the economic viability and sustainability of projects. We support the program's focus areas, including Value-Driven Innovation and Energy Economics, which tackle real-world challenges. We believe the MEI program can truly make a difference, supporting positive change in both local communities and on a global scale.

The objectives outlined for the MEI program align closely with our own values and objectives as a company. We believe that by equipping students with the skills and knowledge needed to identify and assess the economic potential of innovation, the program will contribute to the growth and prosperity of our industry and community alike.

In conclusion, we offer our full support for the Master's Program in Economics and Innovation at Missouri S&T. We are excited about the prospect of collaborating with the university to further enhance the program's impact and look forward to the opportunity to engage with its students and faculty in the future.

Respectfully Submitted,

Jeff Medows, P.E.

310 E. 6th St.
Rolla, MO 65401

267 E. 3rd St.
Lebanon, MO 65536

Phone:
573-364-6362

ARCHER-ELGIN.COM





A Council of Local Governments
Serving the Meramec Area

4 Industrial Drive
St. James, MO 65559-1689
(573) 265-2993
FAX (573) 265-3550

May 7, 2024

RE: Support for Proposed Master of Science Program
in Economics and Innovation at Missouri S&T

Dear Decision-Maker:

I am writing today to express support for the development of a Master’s Program in Economics and Innovation (MEI) at the Missouri University of Science & Technology (MS&T). The Meramec Regional Planning Commission (MRPC) is very interested to learn of the development of the MEI program as it fills a crucial gap in the current educational landscape in our region and the entire state by offering a curriculum that integrates economics, engineering management, and public policy. We understand that the MEI program’s emphasis will be on the practical skills and industry-driven knowledge needed to make changes within organizations and communities by focusing on economic feasibility, sustainability and value creation of engineering projects.

MRPC has had a long history of collaborating with MS&T in such areas as assisting Dr. Joan Schuman and her Engineering Management class in finding local communities to do design work for; working with Dr. Joel Burken on environmental projects and issues and most recently in developing a public engagement component for MST’s Tech Hub proposal to the Economic Development Administration. We look forward to exploring additional ways to collaborate with MS&T through this new master’s program.

MRPC is currently updating our regional Community Economic Development Strategy (CEDS) that includes Crawford, Dent, Gasconade, Maries, Osage, Phelps, Pulaski and Washington counties. A master’s program in economics and innovation aligns with and could enhance economic development efforts in our region and throughout the state of Missouri. Engineers trained in these areas will be better equipped to assist our local communities in preparing for infrastructure needs as well as the energy, environmental and sustainability challenges of the future.

Thank you for considering our support for this important initiative. Please do not hesitate to reach out if you have any questions or require further assistance.

Best Regards,

Bonnie Prigge
Executive Director

Chairman: Mary Heywood
Representing the Unemployed

Vice Chairman: Darryl Griffin
Presiding Commissioner, Osage County

Executive Director: Bonnie J. Prigge

Secretary: Joey Auxier
Presiding Commissioner, Phelps County

Treasurer: Sean Wilson
Mayor, City of Waynesville

New Degree Program Pro Forma

Records

University: Missouri University of Science and Technology

Submitted: 14-May-24

Preparer: Melody Lo, Anna Love

Reviewed by College Fiscal Officer: Anna Love

Fiscal Officer Name: Anna Love

Reviewed by University-Level Fiscal Officer [insert date]

Fiscal Officer Name: [insert name]

PROGRAM:	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32
Enrollment Projections								
Head Count Students - <i>new incoming</i>		10	20	25	28	30		
Head Count Students - <i>transfers within campus</i>		-	-	-	-	-		
Student Credit Hours (Missouri Residence)		108	216	270	302	324		
Student Credit Hours (Non-Residence International = 40% of Enrollmnet)		72	144	180	202	216		
Tuition Rate / Credit Hour (Missouri Residence)		\$550.00	\$566.50	\$583.50	\$601.00	\$619.03		
Tuition Rate / Credit Hour (Non-Residence Int'l)		\$1,300.00	\$1,339.00	\$1,379.17	\$1,420.55	\$1,463.16		
Fee Rate/Credit Hour								
Tuition Discount Rate (%)								
Scholarship Allowances (\$)								
Revenue Projections	*****CALCULATED CELLS*****							
Tuition from the MEI program	-	153,000	315,180	405,794	468,124	516,609	-	-
Tuition from Industrial/Graduate Certificates (one cohort for each certificate)	-	264,000	271,920	280,078	288,480	297,134	-	-
Supplemental & Other Fees	-	-	-	-	-	-	-	-
Scholarship Allowances	-	(68,022)	(140,125)	(180,411)	(208,123)	(229,678)	-	-
Net Tuition and Fees	-	417,000	587,100	685,872	756,604	813,743	-	-
Other Income								
TOTAL PROGRAM REVENUE	\$0	\$417,000	\$587,100	\$685,872	\$756,604	\$813,743		
Recurring State Support								
TOTAL REVENUE	\$0	\$417,000	\$587,100	\$685,872	\$756,604	\$813,743		
Expenditure Projections								
Faculty Salaries		\$ 140,000	\$ 144,200	\$ 148,526	\$ 152,982	\$ 157,571		
1 TT Assoc Prof @ \$140k								
Technical Salaries				\$ 31,111	\$ 32,044	\$ 33,006		
Associate Program Director - 2 mnths summer; based on \$140k sal								
Support Salaries		\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000		
5 adjuncts @ \$10k								
Total Salaries	-	190,000	194,200	229,637	235,026	240,577	-	-
Benefits	-	53,693	55,189	56,730	58,317	59,952	-	-
Subtotal Salaries and Benefits	-	243,693	\$249,389	\$286,367	\$293,343	300,529		
Operating Expense								
Computing Expenses								
NonCapital Maintenance & Repair								
Noncapital Equipment								
Supplies								
Professional & Consulting								
Travel & Training								
Misc. Expenses (marketing)		10,000	10,000	10,000				
Subtotal Operating Expense	-	\$10,000	\$10,000	\$10,000	\$0	\$0		
One-time Expenditures (Startup Costs)		\$16,667	\$16,667	\$16,666				
<i>New faculty with a \$50,000 startup for the first 3 years</i>								
Additional Space Costs								
Subtotal One-time Expense	\$ -	\$16,667	\$16,667	\$16,666	\$0	\$0		
TOTAL EXPENDITURES	\$0	\$270,360	\$276,056	\$313,033	\$293,343	\$300,529		
DIRECT MARGIN	\$0	\$146,640	\$311,044	\$372,839	\$463,261	\$513,214		
CUMULATIVE DIRECT MARGIN	\$0	\$146,640	\$457,684	\$830,523	\$1,293,784	\$1,806,998		
Subtract:								
Revenue from Transfers within Campus								
NET MARGIN TO THE CAMPUS	\$0	\$146,640	\$311,044	\$372,839	\$463,261	\$513,214		
CUMULATIVE NET MARGIN TO THE CAMPUS	\$0	\$146,640	\$457,684	\$830,523	\$1,293,784	\$1,806,998		
Campus Overhead Allocation		\$ 89,219	\$ 91,098	\$ 103,301	\$ 96,803	\$ 99,175		
MARGIN AFTER CAMPUS OVERHEAD	\$0	\$57,421	\$219,945	\$269,538	\$366,458	\$414,039		
CUMULATIVE MARGIN AFTER CAMPUS OVERHEAD	\$0	\$57,421	\$277,367	\$546,905	\$913,362	\$1,327,402		

New Degree Program Proposal:

Bachelor of Science in Criminal and Justice Studies

University of Missouri-Columbia
November 2024 Board of Curators Meeting

Basic Program Information

Sponsoring University: University of Missouri–Columbia

College or School: Health Sciences

Department: Social Work

Proposed Program Title: Criminal and Justice Studies

Degree Level/Type: Bachelor of Science (B.S.)

Emphasis Areas: N/A

Program Modality: Classroom

If online component: N/A

Program CIP Code: 45.1102 – Applied/Public Sociology

Implementation: Fall 2025

Expected Date of First Graduation: Fall 2027

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1. Executive Summary

Faculty in the School of Social Work (SSW) – which is part of the MU College of Health Sciences – worked in collaboration with criminal-legal professionals across the state and other MU faculty to develop a curriculum that is responsive to the workforce needs of the state. As a first step, in 2018, the SSW established a Criminal Justice minor. The minor now has over 150 students enrolled. In addition to demand among current MU students, colleagues at MU who work in the areas of recruiting veterans and athletes report that having a criminal justice degree at MU would benefit their recruitment efforts.

The BS in Criminal & Justice Studies degree provides critical foundational knowledge about the adult criminal-legal system and juvenile justice system including theory, key policy, and cutting-edge research on delinquency and desistance. Theories and research on the intersections of substance use, mental illness, poverty, community surveillance, and crime are interrogated. Coursework also includes contemporary approaches to the prevention and treatment of crime that rely on multisystem (macro, mezzo, micro) and community-based approaches used in the criminal-legal field. This content will prepare graduates to meet the workforce demands of the state and to be leaders in this field.

The curriculum builds on the strengths of MU SSW faculty practice and research expertise. It also leverages expertise from faculty within the College of Health Sciences and across campus. A core component of the curriculum includes experiential learning through internships, study abroad, and/or service learning, which aligns with the land grant mission of the university. Given the depth of expertise in the criminal-legal field at MU, the economic feasibility of this program is strong. Many of the courses required for the degree are already offered at MU on a regular basis. Given the fiscal stability of the College and SSW, we are well positioned to support this new program.

2. University Mission & Program Analysis

2.A. Alignment with University Mission & Goals

Establishing a BS in Criminal & Justice Studies aligns with Mizzou’s interlocking mission of excellence in teaching, research, and service. The School of Social Work faculty and faculty across campus bring expertise in training our students to be leaders in the criminal-legal field by embedding our cutting-edge research into the classroom and leveraging strong community partnerships for experiential learning opportunities. The development of this major is in direct response to the stated needs of Missouri’s criminal-legal community. Preparing students to work in the changing criminal-legal field will increase their readiness to work in this industry and will equip them to better serve the needs of the state.

The University of Missouri–Columbia does not have a degree program to prepare future leaders in the employment areas of law enforcement, corrections, or court services. There is

a documented increase in the number of unfilled positions in these disciplines alongside growing student interest. The goal of the BS in Criminal & Justice Studies is to provide interested applicants with a program to gain training and access to employment in these critical areas through curriculum and experiential education so they may be prepared to enter a range of employment opportunities in the criminal-legal field. The program aligns well with the land grant mission of the University of Missouri to be a resource to the people of this state. The local, statewide, and national job market for graduates of this program will find gainful employment in a market with presently more job openings than there are available highly qualified and trained personnel to fill those positions.

2.B. Duplication & Collaboration within Campus, Across System

UMSL and UMKC have strong, successful, and important criminal justice degree programs. Good faith efforts have been made by the leadership in the MU-SSW since developing the Criminal Justice Studies minor to collaborate with both the UMSL and UMKC programs. In the development of the present proposal to establish the MU BS in Criminal & Justice Studies degree program, the MU-SSW development team has continued these efforts with some promising conversations regarding potential collaborations with the chairs of the UMSL and UMKC programs.

For example, the MU-SSW has faculty strengths in the areas of clinical strategies, child welfare, mental health and drug courts, diagnoses and evidence-based community care for persons living with mental health and substance abuse challenges; professional experiences working in the social and justice systems; and a history of research and practice building multisystemic partnerships with courts, law enforcement, and community service providers to build effective community policing programs. Similarly, UMSL and UMKC have strengths in areas of procedural and substantive law and law enforcement training. Opportunities for course sharing and cross enrollment opportunities have been and will continue to be explored.

Criminal and justice related professions are facing historical staffing shortages across both the United States and in mid-Missouri. The market demand is greater than the current pipeline – including UMSL and UMKC’s programs – can produce. Thus, there is more than sufficient opportunity, market demand, and student interest in our region to support three programs focused on training criminal and justice-oriented professionals.

Beyond the programs offered within the UM System, programs exist at Central Methodist University, Columbia College, Drury University, Missouri State University, St. Louis University, Truman State University, University of Central Missouri, and Washington University. These programs utilize a traditional approach and curriculum in their criminal justice degree programs, in contrast with this program, which emphasizes systems theory; trauma, mental illness, and substance use; economic and social factors impacting crime and justice; interdisciplinarity; and experiential learning. All these programs are valuable to meeting state needs.

MU is also a research-intensive public institution with high quality and affordable tuition which makes this degree program different than some of the other non-UM, Missouri-based degree programs. MU provides students with opportunities to be engaged with relevant, emerging, and innovative research. For example, the MU-SSW faculty in our Center for Juvenile and Criminal Justice Reform Priorities currently have over \$6M in funded research projects with numerous Mid-Missouri partners from corrections, courts, and law enforcement entities. These funded projects provide students with opportunities to observe the research development process, collect data on programs and services in these settings, analyze those data and pose their own research questions, and participate in the publishing process.

3. Business-Related Criteria & Justification

3.A. Market Analysis

Rationale & Workforce Demand for the Program

When establishing the MU Collaborative for Criminal and Juvenile Justice Priorities (CCJJP) in 2018, we brought together community members to discuss the state's needs for research and education in the criminal-legal field. There were approximately 30 state and local criminal-legal professionals including judges from the Circuit Courts, Department of Corrections professionals, Columbia Police Department officers, local providers who treat substance use and mental health disorders, and representatives from the MO Department of Mental Health. One of our primary discussions was on the needs around education and research. Attendees reported a need for more professionals ready to work in the criminal-legal field. They perceived a need for Mizzou to have a criminal justice-related major that infused some traditional criminal justice content and an increased focus on addressing contemporary criminal-legal issues such as substance use, trauma exposure, and mental health while also equipping students with practical skills and experiences (e.g., active listening, critical thinking, displaying empathy). Shortly after this meeting, the MU-SSW faculty established the Criminal Justice minor, which now has over 150 active students—84% of whom report they would like a major in a BS in Criminal and Justice Studies.

The Bureau of Labor Statistics lists a 9.1% increase in social and community service manager jobs, a 7.8% increase in community social service occupations, a 5.9% increase in legal occupations, and a 3.3% increase in police officer positions nationally. Using MERIC's (Missouri Economic Research and Information Center's) top job projections in Missouri, patrols officers, legal professionals, protective service workers, counselors, and lawyers have B or higher scores for job outlook projections.

The BS in Criminal & Justice Studies major would impact the state and region in important ways. The major would provide graduates badly needed to fill a growing field. As shown by the University of Missouri Law Enforcement Training Institute (LETI)—a partner in this degree program—over the past four years there have been 290 graduates who have sought

training through LETI. Of these, only one trainee was not employed in a law enforcement position due to seeking employment in a related field. Other Mid-Missouri state and county officials report that they have open positions that they are unable to fill due to lack of graduates or qualified professionals.

To verify market demand, letters of support were obtained from leaders across the state in the criminal-legal field. Letters of support from the following persons are included in the appendix:

1. Sheriff Carey, Boone County Sheriff
2. Ruth McClusky, Boone County Chief Juvenile Officer
3. Jill Schlude, Chief of Police, Columbia Police Department
4. Susan Pulliam, Director of MO DOC, Human Services Division
5. Casey Clevenger, 13th Judicial Circuit Treatment Court Supervisor
6. Steve Hollis, Human Resources Director for Columbia/Boone County Department of Public Health and Human Services
7. Aaron Cook, MU Senior Assistant Director of Out of State Recruitment
8. Meckenzie Hayes, MO Department of Corrections
9. Allison Lee, Director of the MU Discovery Center
10. John Worden, MU extension, LETI
11. Pam Bruzina, MU Faculty Athletics Representative to SEC/NCAA

Student Demand for the Program

Table 1a. Student Enrollment Projections (anticipated total number of *new and transfer* students enrolled in the program during the first five fall semesters following implementation).

Year:	1	2	3	4	5
Full-time	35	101	162	224	265
Part-time	0	0	0	0	0
Total	35	101	162	224	265

Table 1b. Projected Number of Degrees Awarded

Year:	1	2	3	4	5	6	7	8	9	10
# of Degrees Awarded	0	0	20	30	50	65	65	70	70	80

3.B. Financial Projections

Additional Resources Needed

The development of the Criminal & Justice Studies program will benefit from existing SSW resources such as field/internship infrastructure, faculty with experience in the justice system, and student support systems within the CHS and the SSW. These existing investments enable a relatively low new investment to launch the BS in Criminal & Justice

Studies program. Coupled with the partnership between the MU-SSW and the Law Enforcement Training Institute (LETI), minimal costs are expected to include one additional Tenure Track faculty and one NTT faculty to cover additional development and delivery of courses plus two 0.50 adjuncts, as needed based on enrollment trends.

There are also modest costs associated with computers, marketing or other expenses necessary to support the program and its students. Revenues generated from the program are expected to offset the related program costs as the program matures over its initial start. Even in a reduced enrollment model, the program will achieve net positive revenue by FY29. In addition, it should be noted that these financial projections do not include research and external grant funded projects which will provide indirect rates to MU and the SSW to support program growth over time.

In summary, we have planned these projections as conservatively as possible on both the revenue and expense side of the budget sheet, but we do expect the program to continue growth into the future.

Revenue

Financial projections show revenues generated by the program will fully support the program after year 4 and investments will continue to be recouped in subsequent years. Revenue projections reflect FY24 Tier 2 undergraduate rates with a 3.5% annual increase. Projections also only reflect the portion of revenue resulting from the new student enrollment and tuition hours while expenses are fully-loaded for program delivery to all students—a conservative approach to planning. Attrition allowance was not included due to the conservative approach. Students in the program will be assessed standard MU/College undergraduate rates and a share of revenue is expected from programming delivered in alignment with historical MU and College resource allocation models. Expenses for the projections provide for annual salary increases of faculty at 2.5% and a 1% increase in operating expenses. Benefits were calculated for a 0.50% annual increase to the per person and pay based benefit rates. FICA remains flat.

With enrollment starting in the Fall of 2025, Table 1a. presents both transfer and new student credit hours. However, when focused on only the average annual enrollment of new students, projections indicate with 23 new MU students in the program in year 1, 58 in year 2, 90 in year 3, 125 in year 4, and 148+ in years 5-7, total revenues from the BS in Criminal & Justice Studies will exceed \$112,772 annually by year 4, allowing the program to be out of annual cumulative deficit spending at year 6.

Existing SSW infrastructure along with resources derived from an 80% share from new credit hour revenues will combine to support the program; anticipated revenues will enable the program to achieve financial break-even annually by FY28 and cumulatively by FY30. With estimated positive balances of \$112,772 and \$203,437 respectively. It is also anticipated that other revenue sources will support the degree program. For example, faculty in the MU-SSW affiliated with the Center for Juvenile and Criminal Justice Priorities presently manage over \$6M in externally funded projects that, once expended, will produce

over \$900,000 in administrative indirect overhead for the MU system. Furthermore, under the current campus revenue share model, approximately \$36,000 will return to the MU-SSW to invest in new programming.

Under the worst-case, 50% reduced enrollment scenario where recruitment would start in the Fall of 2025 and the program is fully enrolled using average annual enrollment of 12 new MU students in year 1, 29 students in year 2, 45 in year 3, 63 students in year 4, 74 new students in years 5-7, total revenue from the BS in Criminal & Justice Studies will be revenue positive by year 8.

Table 2. Financial Projections for Proposed Program for Years 1 Through 5.

	Year 1	Year 2	Year 3	Year 4	Year 5
1. Expenses per year					
A. One-time					
<i>New/Renovated Space</i>					
<i>Equipment</i>	3,000	3,030	3,060		
<i>Library</i>					
<i>Consultants</i>					
<i>Other</i>					
Total one-time	3,000	3,030	3,060		
B. Recurring					
<i>Faculty</i>	178,000	182,450	172,961	177,285	181,717
<i>Staff</i>					
<i>Benefits</i>	39,774	40,645	62,293	63,582	64,905
<i>Equipment</i>					
<i>Library</i>					
<i>Other</i>	13,450	10,985	8,520	6,055	6,095
Total recurring	231,224	234,079	243,774	246,922	252,717
Total expenses (A+B)	234,224	237,109	246,834	246,922	252,717
2. Revenue per year					
<i>Tuition/Fees</i>	88,844	253,666	449,607	737,077	938,652
<i>Institutional Resources</i>					
<i>State Aid -- CBHE</i>					
<i>State Aid -- Other</i>	(34,649)	(98,930)	(175,347)	(287,460)	(366,074)
Total revenue	54,195	154,736	274,260	449,617	572,578
3. Net revenue (loss) per year	(180,029)	(82,373)	27,426	202,695	319,860
4. Cumulative revenue (loss)	(180,029)	(262,402)	(234,976)	(32,281)	287,580

Academic and Financial Viability

Current enrollment and projections are rooted in current application, matriculation, and graduation rates at institutions of higher education in similar markets as the University of Missouri, including institutions here in Missouri and the Midwest as well as programs at UMKC and UMSL. These projections are also based upon the post-graduation market for employment as estimated by the US Department of Labor and the Missouri Labor Department.

In Table 1a. above, we present the new and existing students at MU who are projected to enroll in the degree program that underlie the financial projections listed above. As we listed before, less than 1% of students in CHS and the SSW are part-time students. As such, we are not projecting to start a part-time program, however, if the need arises a part-time program will not have added overhead as those students will take the same courses that are loaded to the projected expenses of the program, only they will take fewer courses each semester and obtain their degree over a longer period of time.

We expect the program would be academically viable (e.g., sufficient class sizes for a fulfilling academic experience) at 40 students, and financially viable at 80 students.

Table 3. Enrollment for Academic and Financial Viability

Viability	Minimum Enrollment
Academic	40
Financial	80
Overall	80

3.C. Business Plan: Marketing, Student Success, Transition & Exit Strategies

Marketing Plan

Given current indications of student demand, we anticipate interest in the program will soon outpace our capacity without the need for much additional marketing; campus and community colleagues indicate that a critical mass of potential students already exists. Currently we have 150 active students who have declared pursuit of the Criminal Justice minor.

Though our expectation is that latent demand and current partnerships will largely achieve enrollment goals, we nevertheless will engage in a campaign to stimulate additional interest and enthusiasm for the new major. We will engage in the following strategies for marketing the new major:

- A website for the program will be developed and include search engine optimization to make our program be prioritized for searches on "Justice Studies" and "Criminal Justice" through our new College of Health Sciences website;

- Purchase of Google Adwords and targeted Facebook and social media advertising will help drive prospective students to our site;
- Direct email marketing in coordination with the Division of Enrollment Management;
- Word of mouth advertising through networks of alumni and colleagues in the field; and
- Collaboration with LETI, the Veteran's Center, local and mid-Missouri law enforcement and court services departments, MU's ROTC and military personnel, and marketing with Missouri area community colleges.

Student Success Plan

The College of Health Sciences has one of the highest retention rates on campus. The strategies used in CHS to maintain this high retention rate includes an engaging academic advisement model and utilizing MU Connect to engage with students. However, another factor to consider is that a good proportion of these applicants will be recruited from the LETI training program. Many of the LETI training applicants already have jobs in law enforcement or want to work in a position in law enforcement so the motivation to obtain both the LETI training and to have a college degree simultaneously will encourage these applicants to complete the program.

Transition Plan

This major was developed by a team of faculty including two SSW associate professors and the School's Director. If anyone from the team departs MU, there are other SSW faculty team members with expertise to support the transition of leadership for the program.

Exit Strategy

The College of Health Sciences is committed to the success of this program. If, however, total enrollment does not reach 80 students (worst case scenario) by program maturity at year 5 or if new enrollment does not reach 20 by year 5 (again, worst case scenario), then the program will cease to admit new students and will not continue teaching and degree support activities except to enable completion by students already enrolled in the program.

4. Institutional Capacity

Per the market analysis that informs the existing projections related to student enrollment (new students and transfer students within MU) that our revenue and expenditure projections are based on, the program will be revenue neutral by year 3 and revenue positive by year 4. Even under a conservative 50% reduced enrollment projection scenario, we expect the program to be revenue neutral by year 4 and revenue positive by year 8. Current faculty in the MU-SSW teach courses relevant to about 50% of the new degree program requirements, reducing the need for new faculty and new courses to support the degree program. Existing faculty in the MU-SSW exemplify the professional overlap between social

work and criminal and justice studies as nearly 50% of the existing faculty have worked in the juvenile or adult justice systems. This existing expertise makes available additional courses that can be used as electives for the major and provides networking and resources to assist students to locate work-study opportunities. We do intend and did budget to hire one 9-month tenure track faculty and one non-tenure track teaching faculty to advance the program's goals. The tenure track faculty will have 40% of their positions dedicated to fulfilling the expectation to develop a program of research and obtain external grants or contracts to generate that research. As such, it is worth mentioning that neither of the enrollment budget scenarios (full or 50% reduced) account for any indirect revenues expected to result from externally funded research activity. Furthermore, the SSW recently provided the Director of LETI with a faculty appointment in SW, Professor John Worden. Professor Worden and the SSW faculty intend to translate existing LETI courses to be credit bearing to entice those taking LETI credit for Missouri Law Enforcement Academy certification to also obtain an undergraduate degree.

To support recruitment and marketing, the College of Health Sciences has two full-time staff dedicated to recruitment and marketing of our programs. To support students, the College of Health Sciences also has a full suite of academic advisors with an advisor to student ratio of 1 to 240 students. The recommended ratio is 1:300, so we are well within those margins. The SSW faculty currently advises students in their professional pursuits—part of a comprehensive plan to retain and graduate students on time. Our current faculty to student ratio for professional advising is 1 faculty to 18 students. Prior to adding several faculty in the SSW we easily held faculty to student advisement ratios of 1:25, so there is room to grow and support students. We also are open to collaborating and sharing courses with our sister programs at UMSL and UMKC, and chairs in those respective departments and home colleges are supportive of figuring that out as we go forward. Lastly, the Dean of the College of Health Sciences has pledged to support the development and growth of the Criminal & Justice Studies degree through strategic investments in the program that permit the program to grow at a reasonable, sustainable, and successful rate.

5. Program Characteristics

5.A. Program Outcomes

The Criminal & Justice Studies major has three goals:

1. Establish a new major at MU to address high student and workforce demands that is responsive to the changing criminal and juvenile justice field, through a hybrid format;
2. Deliver a major that integrates traditional, rehabilitative, and community-engaged perspectives into criminal and juvenile justice content infused with social work theories and perspectives that is distinct from existing criminal justice undergraduate programs in the state;
3. Coordinate curricular opportunities currently available on campus to develop a new and appealing option to those considering attending MU who are specifically

interested in careers in law enforcement and justice services, but currently have no such option.

The Criminal & Justice Studies major includes the following student learning objectives:

1. Graduates of MU's BS in Criminal & Justice Studies program will be equipped to work throughout Missouri and beyond to implement evidence-based practices, shape policy, manage programs, and create new and innovative interventions.
2. Providing an interdisciplinary perspective to the study of the criminal and juvenile justice systems while utilizing a community-oriented and human service lens will prepare students to work within this complex system and effectively intervene with vulnerable populations impacted by the criminal-legal system.
3. Students will be exposed to theories and best practices of social work, law, public affairs, criminal justice, psychology, prevention science, sociology and other disciplines to create a new major to serve the contemporary needs of policy makers, practitioners, and law enforcement professionals.
4. Students will be prepared with the knowledge and skills for the contemporary demands of criminal and juvenile systems as providers, responders, policy and program developers, and administrators.

5.B. Program Design & Content

The BS in Criminal & Justice Studies major will require 36 credit hours. The major's curriculum will build from the Criminal Justice minor curriculum already in place in the School of Social Work (established in 2018).

The courses on the following page are some of the potential required courses for the Criminal & Justice Studies major. Established courses are noted in **bold**; new courses are not bolded. Existing MU courses can be offered on a regular basis. In addition, the major will also require a Service-Learning course with elective options that include study abroad coursework.

Some courses will be available through online options--though the degree could be completed by taking 100% in-person or face-to-face classes on MU's campus. These courses will be asynchronous.

5.C. Program Structure

MU Course Offerings – Required Courses for Major

- **SOC_WK 1200: Criminal Justice**
- **SOC_WK 4370: Delinquency, Corrections and Social Treatment**
- **SOC_WK 2000: Exploration in Social and Economic Justice (PEA_ST 2000)**
- **SOCIO 3600: Criminology (PEA_ST 3600)**
- **BL_STU 4303: Race, Class, Gender and U.S. Social Policy**
- SW: Criminal justice policy analysis and reform (*new course*)

- SW: Skills for public safety professionals (*Course would be modified from an existing course*)
- SW: Substance use and mental health treatment for justice involved populations – overview (*modified existing course*)
- SW: Applied research and statistics in justice systems
- Service learning component –TBD OR **SOC_WK 4401: Comparative Criminal and Juvenile Justice (Study Abroad)**

MU Course Offerings – Elective Courses for Major (Select two)

- **SOC_WK 4400: Domestic Violence (WGST 4400)**
- **SOC_WK 4410: Law and Social Work Practice**
- **SOCIOL 1650: Social Deviance**
- **POL_SC 2100: State Government**
- **POL_SC 2200: The Judicial Process**
- **SOC_WK 4401: Contemporary Issues in Human Trafficking**
- **SOCIOL 2200: Social Inequalities (BL_STU 2200)**
- **PATH_AS 4220W: Forensic Pathology and Death Investigation (WI)**
- **HIST 4415: African Americans and American Justice (BL_STU 4415)**
- **H_D_FS 4200: Latino/a Youth and Families**
- **PSYCH 3860: Law and Psychological Science**
- **WGST 3260: Themes in Gender, Law and Justice**
- **LAW 1100: Cases and Controversies in American Law**
- **LAW 2001/4001: Topics in Law—Social Science**
- **LAW 2020: Law of the Internet**
- **LAW 3800: Logical Reasoning and Legal Analysis [CKE1]**

Other potential new courses for the major include:

- Human services case management
- Law Enforcement Training Institute (LETI) course content
- Vulnerable populations in the criminal justice system (*new course*)
- Policy and programmatic responses to mass incarceration (*new course*)
- Survivor justice and policy (*new course*)
- Sexual assault (*new course*)
- Trauma informed service delivery for survivors of interpersonal violence (*new course*)
- Creating trauma-informed policies and practices (*new course*)

As the program grows, additional courses listed above will be developed. Faculty from College of Health Sciences with expertise in Criminal and Justice Studies include:

- School of Social Work
- Law Enforcement Training Institute (LETI)
- Public Affairs
- Health Sciences
- Public Health

Students will be required to complete at least 3-credit hours of experiential learning through an internship or service learning. The only requirement is that the experience needs to be within the criminal-legal field. Students will be provided with options for placement and SSW faculty and staff will support students in identifying the options that are the best fit for their career interests.

5.D. Program Goals and Assessment

Each course will utilize unique assignments to gauge student learning outcomes. Course instructors design these assignments and associated grading rubrics that align with the course's learning outcomes. Graduates will meet the major's overall learning objectives through successfully passing all required courses prior to graduation.

The College of Health Sciences has a robust plan for supporting students towards graduation and for improving our 4-, 5-, and 6-year graduation rates. The planned student supports include a fully staffed academic advising office with multiple touch points each semester with 100% of students, social support and scholarship opportunities for all CHS students rooted in financial need and academic excellence, and a robust faculty professional advisement model that is cohort or group based and provides direct interactions between faculty advisors and students. Together, these strategies show that 88.2% of our students are retained and of those who start our degree programs, 90.4% graduate. Using these baseline points, we hope to increase the retention rate to 92% by 2027 and graduation rates to 95% by 2028.

5.E. Student Preparation

Students entering MU as freshmen are able to enroll in their major. They do not require any special preparation for the major beyond the support that MU offers students to promote success.

Based on feedback we received during the development process for this major, we expect three specific populations to be interested in this program in addition to the general student population: veterans, athletes, and law enforcement officers.

5.F. Faculty and Administration

The SSW with support from the College of Health Sciences, is responsible for the success of this program. The SSW Director will appoint a program director by the end of the first year of the program. The program director will hold a PhD in criminal justice, social work, or a related field, and will have an active research agenda in the criminal-legal field along with experience in academic program administration. The expenses will be covered from indirect revenues from research grants and contracts as well as investments from the SSW and from

the CHS allocation funds loaned to the SSW to support the development in the BS in C&JS program.

There are no strict credentials for teaching. We anticipate faculty will hold a PhD, MSW, JD, or other graduate degree and have prior professional experience in adult/juvenile law, courts, corrections, or related work. We anticipate that 70% of the credit hours in the major will be assigned to full-time faculty.

5.G. Alumni and Employer Survey

Alumni of the program will be contacted annually for five years following graduation to complete a short survey. The first year will include questions about satisfaction with the program. Each year, alumni will be asked to indicate their employment (or graduate school) status, approximate annual income, and job title. Surveys will be distributed via Qualtrics. Questions will be aligned with the Alumni questionnaire used by MU.

Employers across the state will be surveyed bi-annually through Qualtrics in order to obtain feedback about MU graduates. The CCJJP faculty will leverage their contacts throughout the state and include other employers that have hired MU graduates. Surveys will include satisfaction questions and questions about graduates' preparedness for employment. Employers will also have space to leave recommendations and general feedback.

5.H. Program Accreditation

There is no accrediting body or organization that oversees this type of degree program.

6. Appendices

- Letters of Support

Appendices

1. Letters of Support [\(Click here\)](#)



City of Columbia, Missouri



Police Department

May 6, 2024

Dear Director Thompson,

I am writing to express my wholehearted support for the newly proposed Bachelor of Science in Criminal and Justice Studies, as presented by the MU School of Social Work. As the Chief of Police for the City of Columbia, I have had the privilege of witnessing firsthand the positive impact of collaborative efforts between law enforcement agencies and social service organizations in our community fostered by the faculty in the School of Social Work.

The proposed degree program aligns perfectly with our shared commitment to fostering safer, healthier, and more resilient communities. It builds upon the ongoing research and collaborations between several community partners—including the Columbia Police Department, juvenile office, court services, public health, school districts, and parenting and community advocacy groups spearheaded by the faculty in the School of Social Work at the University of Missouri. These partnerships have produced a number of integrated communities supports that benefit my department and my officers, particularly initiatives such as the Family Access Center of Excellence (FACE). FACE has been instrumental in diverting youth away from the juvenile justice system by providing coordinated support and resources to youth and families in need. It is amazing what we as a community have accomplished, and I believe this degree program in Criminal Justice Studies will only further these accomplishments.

I would like to emphasize the importance of addressing the pressing need for skilled professionals in law enforcement, court services, and corrections within our community. As you are aware, vacancies in these positions are becoming increasingly difficult to fill, and traditional training programs often fall short in preparing recruits for the complex challenges they will encounter in the field. As I write this, my agency is currently experiencing a 15% vacancy rate, which equates to about 28 police officers. In a City of our size this creates a significant burden and reduces the amount of time my staff has to build relationships through non-enforcement contacts. This also places a great deal of stress upon existing officers who remain in their positions and carry out their duties. I believe programs such as the one you are proposing will help us close our hiring gap and better prepare our future law enforcement leaders.

The experiential approach proposed by the Bachelor of Science in Criminal and Justice Studies program will be invaluable in addressing this gap. By placing recruits with the Columbia Police Department, we can provide them with hands-on training and real-world experience that will better prepare them for the demands of modern policing. Furthermore, the partnership between the School of Social Work and the Law Enforcement Training Institute at the University of Missouri will ensure that cadets receive the tactical training they need as well as the comprehensive training in advanced social and human-oriented policing skills, including addressing issues such as drug addiction and community mental health. It is essential for new graduates entering law enforcement to possess the skill set necessary to effectively address the complex behavioral health problems that are better addressed through community policing approaches. By equipping them with the tools and knowledge needed to navigate these challenges with empathy and professionalism, we can work towards building stronger relationships between law enforcement agencies and the communities they serve.



City of Columbia, Missouri



Police Department

In conclusion, I enthusiastically endorse the approval of the Bachelor of Science in Criminal and Justice Studies proposed by the MU School of Social Work. This program has the potential to make a significant difference in our community by producing well-rounded professionals who are equipped to meet the evolving needs of our criminal justice system.

Thank you for your attention to this matter, and I look forward to our continued collaboration in advancing the safety and well-being of our community.

Sincerely,

A handwritten signature in black ink that reads 'Jill Schlude'.

Jill Schlude
Chief of Police
City of Columbia

**THIRTEENTH JUDICIAL CIRCUIT COURT
FAMILY COURT
Juvenile Division**

705 East Walnut
Columbia MO 65201

573-886-4200 Telephone
573-886-4030 Fax



Cindy Garrett, Court Administrator

Ruth McCluskey, Juvenile Officer

Angie Bezoni, Supervisor

May 15, 2024

Subject: Support for the Approval of Proposed BS in Criminal & Justice Studies

Dear Esteemed Members of the University of Missouri Board of Curators,

I am writing to express my strong support for the approval of the newly proposed BS in Criminal and Justice Studies at the University of Missouri. As the Chief Juvenile Officer of the 13th Circuit, I have witnessed firsthand the pressing need for qualified professionals in various sectors of our juvenile and criminal justice systems. This degree program presents a vital opportunity to address many needs and make a meaningful impact on our community.

Mid-Missouri is currently facing a shortage of skilled individuals to fill positions in law enforcement, court services, and juvenile and adult correctional facilities. This shortage not only strains the existing workforce but also compromises the effectiveness and efficiency of our justice system. By approving this degree program, the University has the chance to equip graduates with the knowledge, skills, and experience necessary to address this shortage and contribute positively to our community.

Allow me to present some compelling statistics that underscore the urgency of this matter:

1. **Vacancy Rates:** According to recent data, vacancy rates in law enforcement agencies across Mid-Missouri have been steadily increasing over the past few years. This trend poses significant challenges in maintaining public safety and ensuring swift and fair administration of justice.
2. **Retention Issues:** Furthermore, retention rates among current employees in the criminal justice sector have been declining. Many individuals cite burnout, lack of career advancement opportunities, and inadequate training as reasons for leaving their positions. Without intervention, this trend could exacerbate the existing workforce shortage.
3. **Demand for Specialized Skills:** The complexity of modern-day criminal justice issues necessitates professionals with specialized knowledge in areas such as juvenile justice, rehabilitation, and community policing. However, there is a notable gap in the availability of degree programs that cater specifically to these needs.

The proposed BS in Criminal and Justice Studies has been designed to address these challenges head-on. By offering a comprehensive curriculum that combines theoretical knowledge with practical experience, this program will prepare students to excel in various roles within the juvenile and criminal justice systems. Additionally, partnerships with local agencies and

internships will provide students with invaluable hands-on training and networking opportunities.

Moreover, the ripple effects of this degree program extend beyond addressing immediate workforce shortages. By nurturing a new generation of compassionate, ethical, and well-rounded criminal justice professionals, the University of Missouri will contribute to the long-term health and resilience of our community and state.

In conclusion, I urge the University of Missouri Board of Curators to wholeheartedly support the approval of the Bachelor's Degree in Criminal and Justice Studies. By doing so, we can take a proactive step towards strengthening our criminal justice system, enhancing public safety, and fostering a brighter future for Mid-Missouri.

Thank you for your time and consideration.

Sincerely,

/s/Ruth A. McCluskey
Chief Juvenile Officer
13th Circuit



City of Columbia, Missouri



Police Department

May 6, 2024

Dear Director Thompson,

I am writing to express my wholehearted support for the newly proposed Bachelor of Science in Criminal and Justice Studies, as presented by the MU School of Social Work. As the Chief of Police for the City of Columbia, I have had the privilege of witnessing firsthand the positive impact of collaborative efforts between law enforcement agencies and social service organizations in our community fostered by the faculty in the School of Social Work.

The proposed degree program aligns perfectly with our shared commitment to fostering safer, healthier, and more resilient communities. It builds upon the ongoing research and collaborations between several community partners—including the Columbia Police Department, juvenile office, court services, public health, school districts, and parenting and community advocacy groups spearheaded by the faculty in the School of Social Work at the University of Missouri. These partnerships have produced a number of integrated communities supports that benefit my department and my officers, particularly initiatives such as the Family Access Center of Excellence (FACE). FACE has been instrumental in diverting youth away from the juvenile justice system by providing coordinated support and resources to youth and families in need. It is amazing what we as a community have accomplished, and I believe this degree program in Criminal Justice Studies will only further these accomplishments.

I would like to emphasize the importance of addressing the pressing need for skilled professionals in law enforcement, court services, and corrections within our community. As you are aware, vacancies in these positions are becoming increasingly difficult to fill, and traditional training programs often fall short in preparing recruits for the complex challenges they will encounter in the field. As I write this, my agency is currently experiencing a 15% vacancy rate, which equates to about 28 police officers. In a City of our size this creates a significant burden and reduces the amount of time my staff has to build relationships through non-enforcement contacts. This also places a great deal of stress upon existing officers who remain in their positions and carry out their duties. I believe programs such as the one you are proposing will help us close our hiring gap and better prepare our future law enforcement leaders.

The experiential approach proposed by the Bachelor of Science in Criminal and Justice Studies program will be invaluable in addressing this gap. By placing recruits with the Columbia Police Department, we can provide them with hands-on training and real-world experience that will better prepare them for the demands of modern policing. Furthermore, the partnership between the School of Social Work and the Law Enforcement Training Institute at the University of Missouri will ensure that cadets receive the tactical training they need as well as the comprehensive training in advanced social and human-oriented policing skills, including addressing issues such as drug addiction and community mental health. It is essential for new graduates entering law enforcement to possess the skill set necessary to effectively address the complex behavioral health problems that are better addressed through community policing approaches. By equipping them with the tools and knowledge needed to navigate these challenges with empathy and professionalism, we can work towards building stronger relationships between law enforcement agencies and the communities they serve.

Michael L. Parson
Governor



2729 Plaza Drive
P. O. Box 236
Jefferson City, MO 65102
Telephone: 573-751-2389
Fax: 573-526-0880

Anne L. Precythe
Director

State of Missouri
DEPARTMENT OF CORRECTIONS
"Improving Lives for Safer Communities"

October 20, 2023

To Whom It May Concern,

I am writing this letter in support of the University of Missouri's establishment of an undergraduate degree program within the School of Social Work that would integrate the criminal justice and social work fields of study. Offering a Bachelor of Science degree in Criminal & Justice Studies in mid-Missouri could help build the workforce of people working in the field.

At the Department of Corrections, we have many opportunities for individuals to serve in a social work capacity, working both with the justice-involved population, and in support of staff wellness and crisis response. Having new graduates enter the workforce with knowledge about the criminal justice system would greatly improve their preparedness to work in our industry.

We at the Department of Corrections look forward to opportunities to further partner with the University and the School of Social Work in support of experiential learning for interns in the BS in Criminal & Justice Studies degree program.

Thank you for the opportunity to write in support of the Criminal and Justice Studies program.

Sincerely,

A handwritten signature in black ink that reads "Susan Pulliam". The signature is written in a cursive, flowing style.

Susan Pulliam
Director, Division of Human Services
Missouri Department of Corrections

CIRCUIT JUDGES

J. Hasbrouck Jacobs
Division I

Jeff Harris
Division II

Kevin Crane
Division III

Joshua C. Devine
Division IV

COMMISSIONERS

Sara Miller
Family Court, Division VIII

Casey L. Clevenger
Treatment Court, Division XII



**CIRCUIT COURT OF MISSOURI
THIRTEENTH JUDICIAL CIRCUIT**

ASSOCIATE CIRCUIT JUDGES

Kimberly J. Shaw
Division V

Christopher Wilson
Division VI

Sue Crane
Division VII

Tracy Z. Gonzalez
Division IX

Kayla Jackson-Williams
Division X

Stephanie M. Morrell
Division XI

October 10, 2023

To Whom It May Concern,

I am writing this letter in support of the University of Missouri School of Social Work's pursuit to establish an undergraduate degree program that integrates criminal justice and social work. Offering a BS in Criminal & Justice Studies in mid-Missouri is important to increase the workforce of people working in the criminal-legal systems.

In my role as Treatment Court Commissioner, I lead a multi-disciplinary team to offer alternatives to incarceration to individuals who come into the justice system as a result of a substance use disorder and/or mental illness. In the courts over which I preside, I regularly see how social work and criminal justice intersect to improve outcomes for public safety. In my field, having new graduates enter the workforce with knowledge regarding the criminal justice system, mental health, substance use, and the impacts of poverty, for example, would greatly improve graduates' preparedness to work with the clients we serve.

As a person who herself achieved a degree in criminal justice studies, I know that that knowledge and experience led me to pursue law school and enter into the field of prosecution, eventually landing me in my current role on the bench. Studying criminal justice in my undergraduate program started the passion for me to pursue the career I have achieved.

We look for opportunities to partner with the University to work with interns and through research projects. My team would welcome ongoing collaborations with the School of Social Work to identify experiential learning opportunities for students in the BS in Criminal & Justice Studies degree program.

Sincerely,

/s/ Casey L. Clevenger

Casey L. Clevenger
Treatment Court Commissioner
13th Judicial Circuit
Casey.Clevenger@courts.mo.gov

Boone County Courthouse, 705 East Walnut, Columbia, MO 65201-4487
Telephone: (573) 886-4050 / Fax: (573) 886-4070

Callaway County Justice Center, 5 East 2nd Street, Fulton, Missouri 65251
Telephone: (573) 642-0780 / Fax (573) 642-0700

OPEN -- ASARED-- 3-24

November 20, 2024

April 29, 2024

TO: University of Missouri Board of Curators:

RE: Endorsement for the Approval of a BS in Criminal and Justice Studies

Members of the University of Missouri Board of Curators:

I am writing to offer my full support for the approval of the newly proposed BS in Criminal and Justice Studies, as presented by the faculty at the MU School of Social Work. As the Director of Human Relations for the Columbia/Boone County Department of Public Health and Human Services, I have had the privilege of witnessing the transformative impact of collaborative efforts between our department and the School of Social Work faculty in addressing pressing issues within our community.

The proposed degree program aligns seamlessly with our shared commitment to enhancing public safety, supporting law enforcement and court professionals in their duties, and fostering healthier communities. It builds upon existing collaborations, such as those facilitated through the Family Access Center of Excellence, which serves as a vital bridge between law enforcement, social services, and community resources to reduce the juvenile school-to-prison pipeline and provide community support services to those in need.

Allow me to highlight some pertinent statistics that underscore the urgent need for innovative approaches in addressing complex behavioral health issues within our criminal justice system:

1. **Drug Addiction and Mental Health:** Studies have consistently shown that a significant portion of individuals involved in the criminal justice system struggle with substance abuse disorders and mental health issues. Traditional law enforcement, court, and correctional solutions often fail to adequately address these underlying issues, leading to cycles of recidivism and perpetuating the burden on our justice system.
2. **Community Policing:** Community policing has emerged as a promising alternative to traditional law enforcement practices, emphasizing collaboration between police departments, social services, and community stakeholders to address the root causes of crime and disorder. However, many police and sheriff's departments in Mid-Missouri lack the necessary training and resources to fully embrace this approach.

Indeed, through a partnership between the Columbia/Boone County Department of Health and Human Services and the Columbia Police Department, we have recently begun to partner trained

social services staff with police officers to support the growing mental health needs of the public. However, law enforcement officers need this basic training as well. The BS in Criminal and Justice Studies proposed by the MU School of Social Work faculty presents a unique opportunity to address these challenges comprehensively. By equipping students with a deep understanding of behavioral health dynamics, trauma-informed practices, evidence-based person-level engagement and community engagement strategies, this program will empower future justice-oriented professionals to navigate complex situations with empathy, skill, and competence.

Moreover, the curriculum's emphasis on interdisciplinary collaboration and experiential learning aligns perfectly with the needs of our evolving criminal justice landscape. Graduates of this program will be well-positioned to work collaboratively with law enforcement agencies, social service organizations, court services, and community partners to develop holistic and community-wide solutions that prioritize prevention, diversion, and rehabilitation over traditional punitive measures.

In conclusion, I urge the University of Missouri Board of Curators to approve the BS in Criminal and Justice Studies proposed by the MU School of Social Work. By doing so, we can take a significant step forward in addressing the underlying factors driving crime and incarceration in our community, ultimately fostering safer, healthier, and more equitable communities for all. Thank you for your attention to this important matter.

Thank you for your consideration.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Steve Hollis", enclosed in a thin black rectangular border.

Steve Hollis, Human Services Manager

April 28, 2024

Dear Dr. Thompson,

In my role as Senior Assistant Director of Out of State Recruitment, I spearhead all non-Missouri domestic recruitment efforts for Mizzou Admissions.

In our interactions with prospective and current students, we routinely hear that students are interested in the criminal justice field. In my experiences and from what I hear from colleagues, having a criminal justice major at Mizzou would be appealing for prospective students and would assist with recruitment efforts. This especially holds true in major markets like Chicago and Dallas.

My interactions with colleagues at other institutions also confirm that it is a popular major. Having a criminal justice degree for students interested in attending Mizzou would strengthen the offerings we have in place already and would attract new and transfer students with an interest in pursuing a criminal justice degree. I am aware that the School of Social Work is proposing a new Criminal and Justice Studies undergraduate degree and support. This would be an exciting addition to our majors, and I do hope that Mizzou will be able to offer it in the near future.

Sincerely,

Aaron C Cook

Michael L. Parson
Governor

Anne L. Precythe
Director



2729 Plaza Drive
P. O. Box 236
Jefferson City, MO 65102
Telephone: 573-751-2389
Fax: 573-526-0880

State of Missouri
DEPARTMENT OF CORRECTIONS
"Improving Lives for Safer Communities"

October 20, 2023

To Whom It May Concern,

I am writing this letter in support of the University of Missouri School of Social Work's pursuit to establish an undergraduate degree program that integrates criminal justice and social work. Offering a Bachelor of Science degree in Criminal & Justice Studies in mid-Missouri is important to increase the workforce of people working in the criminal-legal systems.

I am currently an LCSW and a graduate of the MU School of Social Work. I have spent the majority of my career working in the criminal justice and mental health arena. Whether working with the justice-involved population or assisting first responders, having new graduates enter the workforce with knowledge about the criminal justice system at each sequential intercept (arrest, pre-trial, post-conviction, etc) would greatly improve graduates' preparedness to work with the clients we serve. The ability to utilize a criminal justice lens to study topics like mental health, substance use, and the impacts of trauma and poverty would better equip graduates to serve in this field.

I would personally be willing to assist in any way I am able in the establishment of this program.

Thank you for the opportunity to write in support of this innovative approach to learning.

Sincerely,

A handwritten signature in black ink, appearing to read "Meckenzie Hayes". The signature is fluid and cursive, with the first name being the most prominent.

Meckenzie Hayes, MSW, LCSW
Meckenzie.Hayes@doc.mo.gov
816-582-2335

May 10, 2024

Dear Dr. Thompson,

As Interim Director of the Discovery Center, my team assists undergraduate students in finding a major at this University. I am very excited to hear about the potential of an undergraduate degree in Criminal and Justice Studies.

My team routinely hears an interest from incoming and current students looking for a degree to match their interests in several areas: Criminal Justice, Forensics, Criminology, Advocacy, and joining the FBI. Many of these students can match that interest with the current Criminology/Criminal and Juvenile Justice minor. Using data from our department's academic advising meetings and new student pre-advising survey reports, we have identified over 60 incoming and current students through our office in the last academic year who have expressed an interest in this field of study.

At this time, we have connected students with majors partially related to the field through the degree programs currently offered at the University. A Criminal and Justice Studies degree would provide a relevant major to their interests and potential careers. My team and I believe an undergraduate degree in Criminal and Justice Studies would be desirable for incoming students at the University.

This degree would be a wonderful addition to the University and our department supports the School of Social Work endeavor to offer this degree in the future. Please feel free to reach out to me if you have any questions.

Sincerely,



Alison Lee
Interim Director

September 4, 2023

Dr. Aaron Thompson,

The Law Enforcement Training Institute (LETI) has been providing basic and advanced training for law enforcement in Missouri since 1948. We have graduates working in all levels of government and at all ranks within those jurisdictions. While other training institutions have had enrollment declines, we have seen record numbers. In the past four years LETI has had more graduates than any other academy in the state. Two Hundred and Ninety-Four graduates are serving Missouri citizens in thirty-eight counties at fifty-five departments. In the past four years, we had one graduate not employed within three months of graduation. That young man decided to pursue a different profession.

I strongly endorse a Bachelor of Criminal and Justice Studies degree at the University of Missouri. Having worked in law enforcement for over twenty years, I saw firsthand the value of peace officers attaining a college degree. The continued increase in responsibilities and public expectations make it even more beneficial for officers than in the past. Many departments offer increased pay for criminal justice degrees and while some departments have lowered their hiring standards, others require a degree to be considered for promotion and additional departments require advanced degrees for administrative positions.

As the expectations for law enforcement evolve it will be increasingly necessary for officers to have a deeper understanding of the public. Individuals with higher levels of education will be able to better serve the public. I believe individuals educated in the MU School of Social Work will be even more able to correctly respond to those public expectations.

Respectfully submitted,



John Worden
Senior Director, MU First Responder Education
University of Missouri Extension

April 24, 2024

Dear Interim Provost Martens,

I write to express my support for the proposed undergraduate major in Justice Studies. I understand that although this major has been in development for some time, it has yet to go through the review and approval process. Current Mizzou student-athletes, as well as many prospective student-athletes whom we seek to recruit to our campus, hope to have careers in law enforcement and therefore are interested in studying forensics or criminal justice. My interactions with colleagues at other institutions confirm that it is a popular major for student-athletes as it is for the general student body. First responders and law enforcement professionals are in high-demand, and I hope that Mizzou will provide students interested in these careers this new major that provides optimal education and preparation.

Please let me know if I can do anything to facilitate review and approval of the proposed major in Justice Studies. Unfortunately, MU has lost potential student-athlete recruits because we are currently lacking this program in our curriculum. A strong Justice Studies program would be a significant recruiting tool as we promote the strengths of Mizzou to potential student-athletes. Thank you for your shared commitment to academic excellence and to continuing to evolve to attract students to the University of Missouri.

Kind regards,



Pamela S. Bruzina
Professor of Nutrition and Exercise Physiology
Faculty Athletics Representative to the SEC and NCAA

New Degree Program Proposal:

**Master of Business Administration in
Business Analytics**

University of Missouri-Kansas City

November 2024 Board of Curators Meeting

Basic Program Information

Title of Proposed Program:	Master of Business Administration in Business Analytics
University:	University of Missouri – Kansas City
College/School:	Henry W. Bloch School of Management
Department:	Dean’s Office
Emphasis Area(s):	NA
Degree Level (select one):	<input type="checkbox"/> Bachelor’s <input checked="" type="checkbox"/> Master’s <input type="checkbox"/> Education Specialist <input type="checkbox"/> Doctoral (Professional) <input type="checkbox"/> Doctoral (Research)
Degree Type:	Master of Business Administration, MBA
Instructional Modality:	Classroom, Hybrid and Fully Online
CIP Classification (6-digit):	52.1302
Total Credit Hours:	36
Delivery Site:	UMKC
Proposed Implementation Term:	Fall 2025
Expected Term of 1st Completion:	Fall 2026

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NOTE: Additional appendices available upon request.

Executive Summary

The proposed program relies on existing courses that constitute the Graduate Certificate in Business Analytics and the core of the Master of Business Administration curriculum. This program proposal also has provision for using one existing non-Bloch course in Computer Science, Mathematics, or Statistics as an elective. No new course creation or allocation of new resources will be required for the proposed program. No existing programs will be combined, placed on inactive status, or deleted as a result of implementing this program.

The program's target population includes individuals in and aspiring to be in analytics roles in business, nonprofit, and public sector organizations. Students will be recruited locally, regionally, and internationally—particularly through the emerging partnerships with several universities in Asia. To date, relationships have been established with 11 partner institutions in India and China. This program is in a field of study (CIP code 52.1302) included in the U.S. Department of Homeland Security (DHS) STEM Designated Degree Program List. A STEM-designated program of this nature is expected to significantly boost student recruitment pipelines and enrollment—a priority for UMKC and the Bloch School.

The proposed program aligns with several campus and academic unit strategic priorities. Of particular relevance are *UMKC Strategic Plan Pillar 1: Provide exceptional student learning, success, and experience*; *UMKC Strategic Plan Pillar 3: Transform our community and region with impactful engagement*; *Bloch School Strategic Plan Theme 1: Building Capabilities for Innovation and Harnessing Emerging Technology*; and *Bloch School Strategic Plan Theme 2: Delivering Transformative Opportunities for Experience-Based Learning*. Bloch School Theme 1 calls for developing programs that prepare students for new career paths, both as technology-specialists and technology-savvy business professionals. The proposed program is one such initiative where the focus will be on blending technology-specific capabilities with competencies for innovation and problem-solving. Our efforts under Bloch School Theme 2 to build an experience-based learning portfolio with partner organizations will jump-start skill development and lead to outstanding career opportunities. The proposed program will have significant impact in advancing this agenda.

Bloch School Business Analytics Advisory Board is an active body comprised of faculty and industry professionals in the discipline. Business Analytics faculty lead the activities, including student-centered activities and events of the board. Faculty are also active in the relevant research and professional organizations and are expected to continue such engagements.

1. Student Population and Preparation

Special Admissions Requirements

Applicants to the MBA program will be considered for admission based on their undergraduate cumulative grade point averages, resumes, and goal statements. Students with recorded scores of 600 or higher on the [GMAT](#) or its [equivalent on the GRE](#), will receive automatic admission. GMAT waivers may be granted to applicants with a 3.0 minimum cumulative GPA or at least two years of work experience. The general campus requirements for admission to graduate study in all UMKC graduate programs include:

1. A bachelor's or first-level professional degree from a regionally accredited institution. If the degree is from a non-U.S. college or university, the institution must be recognized and approved by the Ministry of Education or commission responsible for higher education in the country where the degree is earned. The degree must at least be equivalent to a four-year U.S. bachelor's degree or first-level professional degree. The registrar will vet and make a recommendation to dean of School of Graduate Studies for approval.
2. A satisfactory academic record.

Target student population for the proposed program

This program is well suited for students with undergraduate preparation in quantitative disciplines such as Accounting, Finance, Business Analytics, Marketing, Supply Chain Management, Statistics, Mathematics, Informatics, and Engineering. Individuals with management degrees and industry experience in the above-noted sectors will also fit well in the program.

[A STEM designated MBA program](#) is particularly attractive to international students on F-1 visa, as it can extend their post completion Optional Practical Training from 12 to 36 months (STEM OPT). Through our efforts to create new pipelines of international students, it is already apparent that having a STEM designated MBA program will give us significant competitive advantage in recruiting students internationally. Partnership agreements are in place or in process with multiple universities/institutions in Asia, including 11 institutions in India and China.

2. Student Learning Outcomes and Assessment

Table 1. Student Learning Outcomes and Assessment

1	<ul style="list-style-type: none"> • Learning Outcome: Formulate business decisions using analytical tools and decision frameworks found in the major business disciplines. • Assessment Plan: Assessed with a project in MKT 5504 in years 1 and 3 in a four-year assessment rotation plan.
2	<ul style="list-style-type: none"> • Learning Outcome: Contextualize how a given business decision or problem affects an organization using systematic reasoning, data analytics, and critical thinking. • Assessment Plan: Assessed with case exam in MGT 5514 in years 1 and 3 in a four-year assessment rotation plan.
3	<ul style="list-style-type: none"> • Learning Outcome: Assemble a diverse and inclusive team to solve a given business analytics problem. • Assessment Plan: Assessed by integrated project in MGT 5512 in years 2 and 4 in a four-year assessment rotation plan.
4	<ul style="list-style-type: none"> • Learning Outcome: Construct data analyses for descriptive and predictive purposes using common business analytics models and algorithms. • Assessment Plan: Assessed in predictive model building assignment in MKT 5566 in years 1 and 3 in a four-year assessment rotation plan.
5	<ul style="list-style-type: none"> • Learning Outcome: Apply methods and tools for data cleaning, pre-processing, and standardization methods for performing data analyses. • Assessment Plan: Assessed in an assignment in MIS 5552 in years 2 and 4 in a four-year assessment rotation plan.
6	<ul style="list-style-type: none"> • Learning Outcome: Interpret the results of data analyses and communicate those results to stakeholders using analytical models and visualizations. • Assessment Plan: Assessed in assignments in DSOM 5558 in years 2 and 4 in a four-year assessment rotation plan.

Skills

The program graduates are expected to develop business problem identification, data handling, analysis, visualization, and presentation skills using common analytics software, such as Python, R, Tableau, and PowerBI.

3. Program Structure

Program Structure

- A. Total credits required for graduation: 36
- B. Residency requirements, if any: A majority of the coursework applicable to any graduate degree at UMKC must be completed at UMKC. UM traveling scholar credits are not considered transfer credits. However, the sum total of credits from other UM campuses, and other transfer credits (not more than 20 percent of the total credits) cannot exceed 14 credits on a 30-credit master's degree program, or a proportional equivalent (approximately 46 percent) on programs exceeding 30 credits; and must be within the limits stated above.

General Education

- C. Total general education credits: NA

Major/Degree-Specific Requirements

- D. Total major/degree-specific credits: 36

<u>Course Number</u>	<u>Credits</u>	<u>Course Title</u>
ACCTNG 5503	3	Financial Accounting for Decision Making
DSOM 5511	3	Global Supply Chain and Operations Management
FIN 5509	3	Financial Management
MGT 5512	3	Leading and Managing People, Teams and Organizations
MGT 5514	3	Strategic Management in the Globalized World
MIS 5507	3	Business Analytics and Statistics
MKT 5504	3	Marketing Management
MKT 5566	3	Predictive Analytics Using R
MIS 5552	3	Database Management
DSOM 5558	3	Data Visualization (or other application course)
Two Courses from:	6	
HLTH-ADM 5578		Data Analysis for Health Care Managers
MIS 5559		Data Wrangling
MKT 5562		Marketing Research and Analytics
One course may be from:		
COMP-SCI 5525		Cloud Computing
COMP-SCI 5560		Knowledge Discovery and Management
COMP-SCI 5582		Computer Vision
MATH 5545		Mathematical Methods in Data Science
STAT 5561		Time Series Analysis
TOTAL	36	

Table 2. Example Semester by Semester Path to Completion

<u>Term 1</u>	<u>Course Title</u>	<u>Credit Hours</u>	<u>Course Status</u>
ACCTNG 5503	Financial Accounting for Decision Making	3	Existing
MIS 5507	Business Analytics and Statistics	3	Existing
MGT 5512*	Leading and Managing People, Teams and Organizations	3	Existing
<u>Term 2</u>			
MKT 5504*	Marketing Management	3	Existing
DSOM 5511	Global Supply Chain and Operations Management	3	Existing
MIS 5559	Data Wrangling	3	Existing
<u>Term 3</u>			
FIN 5509	Financial Management	3	Existing
MIS 5552*	Database Management	3	Existing
DSOM 5558	Data Visualization (or other application course)	3	Existing
<u>Term 4</u>			
MGT 5514*	Strategic Management in the Globalized World	3	Existing
MKT 5566*	Predictive Analytics Using R	3	Existing
HLTH-ADM 5578	Data Analysis for Health Care Managers	3	Existing

Blue Required; Green Elective Options

**Program Assessment Occurs*

Emphasis Area Requirements (if applicable):

Emphasis areas refer to options within a program of study that will appear on a student's transcript. These differ from other types of options using a variety of names (e.g., tracks, focus areas, concentrations, etc.).

Does this program have one or more emphasis areas? Yes **No**

E. **Free Elective credits:** Program allows for 6 hours of elective choice restricted to designated options (provided above).

F. **Requirements for thesis, internship or other capstone experience:**

No thesis or internship requirement, but two classes in the curriculum, DSOM 5558 and MGT 5514, provide integrated application-based learning through a series of projects.

G. Any unique features such as interdepartmental or intercampus collaboration:

- The proposed program includes the option of 3 credit hours of elective coursework from the School of Science and Engineering
- The program is open to developing Course Share with other UM System campuses

4. Student Enrollment, Completion and Outcomes

Table 3. Student Enrollment Projections, Years 1-5

Year	1	2	3	4	5
Full time	23	40	44	53	59
Part time	12	20	21	26	29
Total	35	60	65	79	88

Enrollment built with an estimated two-thirds (67%) of students taking 18 hours (full-time) in one year and one-third (33%) of students taking 12 hours in one year (part-time).

Table 4. Student Completion Projections, Years 1-10

Year	1	2	3	4	5	6	7	8	9	10
Completions	0	20	30	35	41	46	51	56	60	65

Assuming 84.8% retention rate, anticipated percentage of full-time students, and new admission growth in years 8-10 in increments of 5.

5. Evidence of Workforce and Student Demand

Workforce Demand

- There is sustained, increasing demand for analytics skills in the job market for the foreseeable future. According to the U.S. Bureau of Labor Statistics, data-science jobs are projected to grow 36 percent from 2021 to 2031, much faster than the average for all occupations. Much faster than average job growth is also projected for Management Analyst positions. An analysis of Q3 2024 Lightcast® national labor market data for Missouri for the CIP code (52.1302) associated with the proposed program shows substantial growth in institutions offering master's degree in this field (45% growth in 2019-2023) and degree completions (96% growth in 2019-2023). Jobs in target occupations associated with the field are expected to grow by 24.8% between 2022 and 2032; in 2022, there were 116,760 jobs in these occupations with median earnings of \$97.2K/year.

- Likewise, an analysis of Q3 2024 Lightcast® labor market for the state of Missouri for the CIP code (52.1302) indicates that jobs in target occupations associated with the field are expected to experience growth above the national average, specifically by 26.0% between 2022 and 2032. In 2022 in the state of Missouri, there were 2,139 jobs (1% above the national average) in these occupations with median earnings of \$77.62K/year.
- Most frequently used specific occupation category was *Operations Research Analysts*. Top companies posting job openings include major management consulting, aerospace and defense, healthcare, and e-commerce companies. Top specialized skills mentioned in the job postings include *project management, systems engineering, Python programming language, data analysis, information systems, finance, and automation*. Top common skills mentioned in the job postings include *management, communication, leadership, operations, planning, and problem solving*. The curriculum of the proposed program will prepare graduates with these skills.
- Like in the United States, individuals with business analytics skills are also in high demand in other parts of the world.

Student Demand

- We expect the program, with its DHS STEM designation, will generate substantial new interest among international students. This expectation is validated by industry trends. A recent [Poets&Quants](#) article, (a leading resource for Business education) indicates that of “112 admissions officers surveyed in fall 2022, 30% said their programs are now designated as STEM Programs, up from just 13% the in 2020.” Further feedback from UMKC’s international partners reinforces this interest as well (see Appendix A: Letters of support).
- The student demand and growth projections in the pro-forma worksheet are based on applicant inquiry, industry trends, industry professionals’ feedback, and international recruitment agency and institutional partners’ feedback.
- The Bloch School has worked with several schools and agencies across the world regarding other Bloch STEM designated degrees, namely the Master of Science in Accounting (MSA) and Master of Science in Finance (MSF). We are seeing demand and application growth in both programs. A number of contractual agreements are in place establishing international student pipeline to these programs; similar pipelines are expected to be established for the proposed program.
- We expect the program, with its DHS STEM designation, will generate substantial new interest among international students. This expectation is validated by industry trend.

- We believe that overcapacity of current business analytics coursework suggests pent up demand for a dedicated MBA in this area. When reviewing the current demand in our courses that form the Business Analytics Certificate, we see strong enrollment trends in the last several consecutive semesters. For example, DSOM 5558 – Data Visualization, and MIS 5559, Data Wrangling have both been at or overcapacity the past few semesters. Recent hiring of tenured, non-tenure and adjunct faculty will ensure appropriate instructional capacity to address increased demand.

	FS2020	SP2021	FS2021	SP2022	FS2022	SP2023	FS2023	SP2024
DSOM 5558		22		30		42		38
HLTH-ADM 5578		11			12			12
MIS 5559				36		49		44
MKT 5562	14		11		7		17	

- Students were able to officially pursue the Business Analytics Certificate starting fall 2020 and to-date 91 certificates have been awarded. Most students have completed the certificate in combination with another Bloch School degree.

	Pursuing Business Analytics Certificate w/Bloch Degree	Business Analytics Certificate Only	Business Analytics Certificate Awarded
Fall 2020	14	0	0
Spring 2021	28	1	4
Summer 2021	16	0	1
Fall 2021	48	1	11
Spring 2022	55	3	11
Summer 2022	19	1	5
Fall 2022	50	2	10
Spring 2023	55	3	18
Summer 2023	16	0	0
Fall 2023	51	4	10
Spring 2024	57	6	21

- According to the most recent accreditation data report submitted to the Association to Advance Collegiate Schools of Business (AACSB), the Bloch School of Management graduate programs have a headcount of 571, with 278 degrees conferred in AY 2023-24. These data suggest robust demand for programs offered by the Bloch School of Management.

6. Similar Programs Offered at Missouri Public Universities and Peer Institutions

To develop this program, the UMKC Dean of the Bloch School of Management discussed the proposal with MU, UMSL, and Missouri S&T. Communications with the relevant deans (listed below) are included in Appendix A.

- Balaji Rajagopalan, Dean of Robert J. Trulaske, Sr. College of Business
- Shu Schiller, Dean of College of Business Administration, UMSL
- James Sterling, Vice Provost and Founding Dean of Kummer College of Innovation, Entrepreneurship, and Economic Development, Missouri S&T

No other UM System degrees are currently designated as Business Analytics/Statistics, with the CIP Code of 52.1302.

Following are the relevant degree programs in the University of Missouri System:

- University of Missouri-Columbia: MBA with Marketing Analytics specialty. Requires 12 hours of (marketing) analytics-related courses. According to FAQ on their website, the program is currently not STEM designated.
- UMSL: MBA, Business Analytics Emphasis. Requires 15 hours of analytics-related courses. We did not find any indication that the MBA program is STEM designated.
- Missouri S&T: MBA Program. According to their website, S&T is “a STEM-focused research university” with a designated CIP code of 52.1399.
- University of Missouri – Kansas City: MS in Data Science and Analytics. It is a degree program with heavy emphasis on computer science with 9 hours of elective options from Bloch School courses: MIS 5507; MIS 5556 and MKT 5566. Industry stakeholders, including members of the Bloch School Advisory Board and Bloch School Business Analytics Advisory Board have consistently expressed interest in two different desirable profiles with respect to workforce in this area—those with business acumen and data analytics skills and those with a computer science-intensive background. There is room and opportunity for both sets of individuals within the field.

We believe the STEM Designated MBA Programs in the state of Missouri include:

- Washington University in St. Louis, MBA (with STEM designation).
- Fontbonne University, MBA, Applied Business Analytics (52.1301) closing in AY25.
- Missouri State University, MBA, Business Administration-STEM (52.1301)
- Webster University, MBA, Emphasis in Analytics (52.1301)

We believe the STEM Designated MBA Programs is only offered by one designated Peer Institutions:

- Portland State University, MBA/MSF (Finance) Dual Degree Option

7. Program Quality Assurance and Accreditation

Special requirements/training for faculty

Faculty must meet requirements outlined in the Higher Learning Commission's (HLC's) Assumed Practices, Section B.2., and UMKC's Academic Teaching Credential Policy, included in the appendix.

Estimated percentage of credit hours assigned to full-time faculty members

Although some sections of the multi-section courses listed for the program are taught by adjunct instructors, it is safe to estimate that greater than 75% of the credit hours in the program will be assigned to full-time faculty members.

Expectations of faculty for professional activities, student mentorship, and/or teaching/learning innovation

The School's annual evaluation process and process for assessing the maintenance of AACSB faculty qualifications call for efforts to maintain currency with research and publishing activities, engagement with professional organizations, and/or professionally-relevant consulting activities. The annual evaluation process also calls for faculty to demonstrate innovation within the classroom and other efforts to improve the student experience. Involvement in teaching effectiveness workshops is actively encouraged. The faculty review process also encourages engagement with students outside of the classroom through such means as serving as faculty advisor for student organizations or providing career guidance. It also encourages engagement with industry through organizations such as the Bloch School Business Analytics Advisory Board.

Accreditation

All academic programs in business at the Bloch School fall under the school's accreditation by AACSB International. Once operational, the proposed program will be part of regular data reporting to and the next accreditation review by AACSB.

Professional Licensure/Certification

The proposed MBA in Business Analytics does not lead to specific professional licensure or certification.

8. Financial Projections and Program Viability

Resources

A full program budget can be found in Appendix C. The proposed program relies on existing courses that constitute the Graduate Certificate in Business Analytics and the core in the Master of Business Administration curriculum. This program proposal also has provision for using one existing non-Bloch course in Computer Science, Mathematics, or Statistics as an elective. No new course creation or allocation of new resources will be required for the proposed program. No existing programs will be combined, placed on inactive status, or deleted as a result of implementing this program.

The program anticipates using existing courses and faculty at its inception. As shown in the Pro Forma, additional faculty will be hired when the program headcount reaches 65 in Year 4. Additional staff capacity in admissions and advising (1.0 FTE) will also be added at that time.

- Arif Ahmed, Associate Dean for Academic Affairs will be primarily responsible for the success of this program and will devote 3.75% time to the program.
- Instructional needs of the program will be met by utilizing currently scheduled existing courses.

The following faculty members will be primarily involved in teaching the analytics courses in the program:

Name	Title	Full Time	% time
Roozmehr Safi	Associate Professor	Y	15%
Joseph Bartling	Assistant Teaching Professor	Y	15%
Max Terekhov	Assistant Professor	Y	15%
Xinyu Zang	Assistant Professor	Y	15%
Dave Mihanovic	Instructor	Y	15%

Faculty involved in teaching other courses in the program include:

Name	Title	Full Time	% time
Leigh Salzsieder	Associate Professor	Y	10%
Alan Weber	Associate Teaching Professor	Y	10%
David Jarrett	Assistant Teaching Professor	Y	10%
David Nicol	Assistant Teaching Professor	Y	10%
Bryan Hong	Associate Professor	Y	10%
Larry Wigger	Associate Teaching Professor	Y	10%
Zhihao Zhang	Assistant Professor	Y	10%
John Clark	Associate Professor	Y	10%
Jae Jung	Associate Professor	Y	10%
Ranjit Christopher	Associate Professor	Y	10%
Christopher Garmon	Assistant Professor	Y	10%

Table 5. Additional faculty required to offer program

Level	Number of Hires (Headcount) Years 1-5
Tenure track	1
Non-tenure track	0
Post-doctoral fellows	0
Graduate assistants	0
Adjuncts	0
Advising Staff	1

Table 6. Minimum Enrollment for Program Viability

Minimum Enrollment at Year 5	30
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A critical mass of students is needed to allow for the development of multiple partnerships with employers in the region. Employers are less likely to engage with programs where enrollment is small, largely because program will not be seen as an important part of their effort to develop a talent pipeline. For an applied graduate program in business, such partnerships can play an important role in enhancing student success. Employers engage in the classroom, provide projects for students to work on, and support the sourcing of talent from the program.

Program Review/Evaluation

The Bloch School academic programs submitted self-study reports for Academic Program Review in Spring 2023. The proposed program will comply with Academic Program Review timeline prescribed by the UMKC administration. The Faculty Director of Accreditation, Assessment, and Data Reporting, currently Dr. Larry Wigger, will be responsible for compiling and submitting that review. The program review criteria include application, enrollment, retention, completion and job placement of program graduates, and financial health of the program. In the unlikely event of significant sustained decline in these indicators, the hiatus or discontinuation will be considered. It should be restated that the proposed program relies on existing resources and thus is not likely to face any significant financial headwind.

9. Appendices

Appendix A: Letters of Support (Internal, External)

Appendix B: Program Curriculum Map

Appendix C: Program Budget

Appendix D: Faculty Credential Evaluation Form

Appendices

Appendix A: Letters of Support [\(Click here\)](#)

Appendix B: Program Curriculum Map [\(Click here\)](#)

Appendix C: Program Budget [\(Click here\)](#)

Appendix D: Faculty Credential Evaluation Form [\(Click here\)](#)



Office of the Provost and Executive Vice Chancellor

September 3, 2024

Dear Colleagues,

I am writing in support of the proposed Master of Business Administration (MBA) in Business Analytics program developed by the Bloch School of Management at UMKC. This proposal extends Bloch School's deep expertise and experience in delivering responsive and relevant business analytics programming, and we are excited to have the proposal advancing through the approval process.

This program advances several campus and academic unit strategies, largely utilizing existing resources and personnel. It also creates a robust pathway for enrollment growth because of its eligibility for inclusion in the U.S. Department of Homeland Security STEM Designated Degree Program List, which is pivotal in establishing and enhancing international student pipelines.

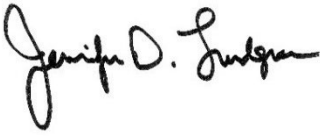
As you know, there is sustained and increasing demand for analytics skills in most disciplines, including business. Availability of workforce with deep skills in business analytics is paramount for economic wellbeing and growth of the Kansas City region. Expertise to drive innovation and change in business requires private and public sector leaders with skills and technical knowledge at the intersection of entrepreneurship, leadership, management, and analytics. With Bloch School's deep history and expertise at this intersection, the MBA in Business Analytics represents a valuable extension of our existing management and analytics programming. Not only does it provide a channel for emerging business and industry professionals to develop their abilities and enhance their career trajectory, but it also creates a robust pipeline of business analytics workforce, prepared in a rigorous academic program, for the organizations in the region and beyond.

Notably, the MBA in Business Analytics program is a key component of Bloch School's overarching strategy to deepen its relationship with Kansas City's business community and enhance its reputation as Kansas City's business school.

As with other academic programs, the MBA in Business Analytics program will receive marketing and promotional support at a level consistent with student demand and community partner interest. This support criterion extends to faculty and course scheduling within the program.

Please do not hesitate to let me know if I can provide anything further and thank you as always for your assistance and guidance in the development process.

Best Regards,

A handwritten signature in black ink that reads "Jennifer D. Lundgren". The signature is written in a cursive, flowing style.

Jennifer D. Lundgren, PhD
Provost and Executive Vice Chancellor
University of Missouri-Kansas City

From: Schiller, Shu <shu.schiller@umsl.edu>

Sent: Sunday, August 4, 2024 11:07 PM

To: Brian Klaas <klaasb@umkc.edu>

Subject: Re: UMKC MBA program

Brian, thank you for reaching out. I enjoyed our conversation on Friday.

I support your plan to include business analytics or business statistics in your MBA program. I trust that your college has or will align the content and learning outcomes to satisfy the new or updated CIP code (52.1302)....

Shu

[Shu Schiller](#), Ph.D.

Dean

Professor of Information Systems

[College of Business Administration](#)



From: Rajagopalan, Balaji <brajagopalan@missouri.edu>
Sent: Thursday, August 8, 2024 1:21 PM
To: Brian Klaas <klaasb@umkc.edu>
Cc: DeLaval, Audra <adelaval@missouri.edu>; Richins, Marsha <Richins@missouri.edu>
Subject: Re: UMKC MBA Program Change

Hi Brian,

Great to hear from you!

Good to hear that you are making curricular changes to align with market demands.

Marsha is leading efforts on the MBA program re-design at our end and I am copying her on this email. If you have questions, she can respond to them.

Looking forward to seeing you at the Dean's Conference!

Balaji

Brian Klaas <klaasb@umkc.edu>
Sent: Tuesday, July 30, 2024 3:20 PM
To: Dean Balaji Rajagopalan <umcbusdeansoffice@missouri.edu>
Subject: UMKC MBA Program Change

Hi Balaji

I am writing to follow-up on a prior message regarding a curriculum and program change that we are pursuing at UMKC's Bloch School of Management.

We currently have a MBA program with a CIP code for business administration and management (52.0201). Within that program, students have a number of options with regard to electives and certificate programs, including a certificate program in business analytics. We are now pursuing curriculum changes to also offer a MBA with a CIP code for business analytics or business statistics (52.1302). Our MBA offering with the business analytics or business statistics CIP code would include many of the same courses as our MBA with a CIP for business administration and management. Students in the MBA with business analytics or business statistics CIP code and students in the MBA with the business administration and management CIP code would both take the same required courses in several areas (e.g., strategic management, organizational behavior, accounting, finance, and supply chain). However, all students in the MBA with the CIP code for business analytics or business statistics will be required to take a sequence of business analytics courses. Also, while students in the MBA with the business administration and management CIP code may select from several options to fulfill an experiential learning requirement, students in MBA with the business analytics or business statistics CIP code will be required to take a specific experiential learning course, one focused on analytics.

Since we are both part of the University of Missouri system, I wanted to make sure you were aware of this development and I also wanted to ask whether you have any concerns with this effort.

I hope things are going well at Trulaske. I look forward to meeting in the near future, perhaps at an upcoming AACSB Dean's meeting. I would very much like to learn about initiatives at your school.

Best

Brian

Dear Brian,

Thanks very much for reaching out. I do look forward to meeting you and discussing opportunities.

It's very interesting that you are requiring an experiential learning course focused on analytics. One of my areas of emphasis in joining S&T has been to insist on strong corporate, client-based team capstones. These are burdensome but can be very effective in building employer relationships.

Is an objective of yours to use the new CIP code to access STEM-affiliated benefits so that international students will get an OPT extension?

In any case, it sounds like you are making some very thoughtful changes & I wish you the best of luck with your program changes.

Sincerely,
Jim

James Sterling, PhD

Vice Provost and Founding Dean of Kummer College of
Innovation, Entrepreneurship, and Economic Development
Professor, Business and Information Technology
jsterling@mst.edu (573) 341-4613 kummercollege.mst.edu





School of Science and Engineering
Division of Computing, Analytics and Mathematics

August 2, 2024

RE: MBA in Business Analytics

To Whom It May Concern:

I am writing to verify that the Division of Computing, Analytics, and Mathematics supports MBA in Business Analytics students taking one of the following courses:

COMP-SCI 5525 Cloud Computing
COMP-SCI 5560 Knowledge Discovery and Management
COMP-SCI 5582 Computer Vision
MATH 5545 Mathematical Methods in Data Science
STAT 5561 Time Series Analysis

These courses are offered regularly in my Division. Should you need any additional information, please contact me at dxu@umkc.edu.

Sincerely,

A handwritten signature in black ink, appearing to read "Dianxiang Xu", is written in a cursive style.

Dianxiang Xu, Ph.D.
Professor and Director
dxu@umkc.edu

UNIVERSITY OF MISSOURI-KANSAS CITY

Flarsheim Hall, Room 352 | 5110 Rockhill Road | Kansas City, MO 64110

[o: 816-235-5550](tel:816-235-5550) | sse.umkc.edu

OPEN -- ASARED -- 4-20

November 20, 2024



International Student Affairs

September 12, 2024

Dear Colleagues,

I am writing a brief letter in support of the proposed Master of Business Administration in Business Analytics program developed by the Bloch School of Management at UMKC. In addition to many of the overall benefits of including STEM within this degree, the STEM designation will aid the institution in continuing to attract steady numbers of highly talented applicants from other nations. For many years, international students have chosen to complete STEM designated degrees in the United States to avail themselves of the opportunity to work in country up to three years (a two-year extension beyond the typical offering).

A brief look at the business school graduate education landscape across the United State will show that the nation's finest business schools have created programs with STEM designation beginning in 2016 when the University of Wisconsin received approval for its program. Since then, there are more than 100 MBA programs with STEM designation across the country. I am optimistic that the Bloch School Management will leverage this new program to attract, educate and graduate talented STEM trained graduates to serve the State of Missouri and more locally the growing employment needs within the Kansas City metro from its growing tech and innovation sector.

Best regards,

A handwritten signature in blue ink that reads "Mark Daly".

Mark Daly, PhD
Senior Internationalization officer and
Director of International Affairs
University of Missouri – Kansas City

Subject	Number	Student Learning Outcomes		High Impact Practice	MBA in Business Analytics						
		Bloom's Taxonomy		(Modified from AAC&U) <ul style="list-style-type: none"> • Capstone Courses and Projects • Collaborative Assignments and Projects • Common Intellectual Experiences • Diversity/Global Learning • ePortfolios • First-Year Seminars and Experiences • Learning Communities • Service Learning, Community-Based Learning, Community Engaged Learning (CEL) • Undergraduate Research/EUReka • Writing-Intensive Courses • Internship/Clerkship 	Course: <ul style="list-style-type: none"> • Introduces (I) Outcome, • Develops (D) Outcome, or • Assesses (A/M) Mastery of Outcome 						
					Formulate business decisions using analytical tools and decision frameworks found in the major business disciplines.	Contextualize how a given business decision or problem affects an organization using systematic reasoning, data analytics, and critical thinking.	Assemble a diverse and inclusive team to solve a given business analytics problem.	Construct data analyses for descriptive and predictive purposes using common business analytics models and algorithms.	Apply methods and tools for data cleaning, pre-processing, and standardization methods for performing data analyses.	Interpret the results of data analyses and communicate those results to stakeholders using analytical models and visualizations.	
Required											
ACCTNG	5503	Financial Accounting for Decision Making 1. Analyze information contained in financial statements to make investment and credit decisions 2. Examine the role of accounting in capital formation, investor and creditor decisions, and the public confidence in the capital markets 3. Analyze the financial statement impact of different accounting principles 4. Examine the limitations of financial statement analysis 5. Analyze a case study utilizing financial statement information 6. Analyze a case in teams 7. Write a summary of their case analysis and use appropriate technology to present their findings to the class			I		I			I	
DSOM	5511	Global Supply Chain and Operations Management 1. Define, analyze, and evaluate business decisions in a global setting through an integrated analysis using tools found in the major business disciplines 2. Use fundamental quantitative tools to interpret and evaluate quantitative information and synthesize that information with relevant non-quantitative information 3. Work in teams and collaborate on analysis of current/recent business challenge and communicate findings			D		I	I		D	
DSOM	5558	Data Visualization 1. Apply design, psychology and cognitive science concepts to the development of visualizations and stories. 2. Critique and design visualizations for effective communication 3. Compose a data story using narrative storytelling techniques		Integrated Application Based Experience	D				I,D	Assess Mastery	

FIN	5509	<p>Financial Management</p> <ol style="list-style-type: none"> 1. Define, analyze and devise solutions for structured and unstructured business problems and issues 2. Use cohesive and logical reasoning patterns when evaluating information, materials, and data 3. Evaluate project cash flows using capital budgeting methods including net present value and internal rate of return 4. Utilize the concept of time value of money to measure the value of cash flows and corporate financial securities, such as stocks and bonds 		I		I			I
MGT	5512	<p>Leading and Managing People, Teams and Organizations</p> <ol style="list-style-type: none"> 1. Illustrate principles, theories and processes relevant to effective and ethical leadership and organizations 2. Analyze leaders' performance, effectiveness, and ethical acumen within a specific organization's context through case evaluations 3. Create the design for an effective talent management strategy by synthesizing across research findings and best practices 4. Demonstrate knowledge of techniques related to conflict management skills 5. Demonstrate critical thinking skills by reviewing case studies and completing a team project that includes professional, well-informed recommendations for best leadership and management practices 				D, Assess Mastery			
MGT	5514	<p>Strategic Management in the Globalized World</p> <ol style="list-style-type: none"> 1. Define strategic management concepts and theories, including competitive advantage 2. Analyze external environmental factors, including international factors 3. Analyze internal environmental factors – resources and capabilities 4. Compare various strategies at the business and corporate levels, including international strategies 5. Apply their knowledge to strategic management decisions 	Integrated Application Based Experience			D, Assess Mastery			
MIS	5507	<p>Business Analytics and Statistics</p> <ol style="list-style-type: none"> 1. Apply business analytics tools and techniques to contribute to the enterprise across various functions and contexts 2. Formulate business problems and apply business analytics methods to solve them 3. Recognize ethical issues involved in using business analytics initiatives 4. Work effectively in teams to apply business analytics tools and techniques to solve problems 5. Compose reports and give oral presentations based on findings from a business analytics project 6. Apply business analytics techniques using spreadsheets and other tools 7. Describe and summarize data using various techniques, including tables and graphs 8. Predict outcomes of new, unseen cases using various data mining and statistical techniques 9. Prescribe new courses of action based on optimization methods 			I	D	I,D		I,D
MIS	5552	<p>Database Management</p> <ol style="list-style-type: none"> 1. Demonstrate their understanding of the relational database model and draw entity-relationship diagrams 2. Interpret and write simple SQL commands 3. Demonstrate their understanding of normalization of database tables and create a database explain issues and concepts associated with database administration 4. Use Microsoft Access to create a database 							D, Assess Mastery
MKT	5504	<p>Marketing Management</p> <ol style="list-style-type: none"> 1. Evaluate principles within the field of marketing across fundamental subject areas 2. Apply the fundamentals of marketing to creating and managing innovation and/or new business development 3. Analyze how technology, data, societal and demographic changes, and other forces are impacting marketing 	Project Based Learning		Assess Mastery				I

MKT	5566	Predictive Analytics Using R 1. Identify and use the appropriate data analytic techniques to answer business questions pertaining to predicting customer behavior/business outcomes using past data 2. Prepare and model secondary customer data for business purposes such as forecasting, classifying, and segmenting 3. Analyze and interpret customer data pertaining to marketing related business problems in order to make evidence-based managerial decisions 4. Collaborate and engage in joint-work with their team members to reinforce their understanding of the fundamental concepts of customer data analytics 5. Summarize and report the key findings of a data analytics exercise in a language understood by both technical and non-technical stakeholders of a business	Project Based Learning				Assess Mastery	D	D
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Financial Projections for Proposed New Degree Program, Years 1-5

Title of Proposed Program:

UMKC MBA - Business Analytics

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Revenue						
Projected enrollment headcount		35	60	65	79	88
Projected student credit hours		560	955	1,047	1,263	1,411
Tuition rate per credit hour		\$ 522.65	\$ 533.10	\$ 543.76	\$ 554.64	\$ 565.73
Fee rate per credit hour		\$ 122.91	\$ 125.37	\$ 127.88	\$ 130.43	\$ 133.04
Tuition discount rate (%)		25%	25%	25%	25%	25%
Gross tuition and fee revenue		361,512	628,798	703,280	865,118	985,735
Tuition and fee discount		(89,879)	(157,200)	(175,820)	(215,086)	(245,074)
Institutional/donor support		-	-	-	-	-
State funding support		-	-	-	-	-
Total net revenue		271,633	471,599	527,460	650,032	740,662

Expenditures						
One-time start-up expenses						
Space (new and renovated space)		\$ -	\$ -	\$ -	\$ -	\$ -
Equipment and supplies		\$ -	\$ -	\$ -	\$ -	\$ -
Library resources		\$ -	\$ -	\$ -	\$ -	\$ -
Consultants		\$ -	\$ -	\$ -	\$ -	\$ -
Other one-time expenses	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ -
<i>Subtotal one-time expenses</i>	<i>\$ 30,000</i>	<i>\$ -</i>	<i>\$ -</i>	<i>\$ -</i>	<i>\$ -</i>	<i>\$ -</i>

Recurring expenses						
Salaries and Benefits						
Faculty Salaries		\$ -	\$ -	\$ -	\$ 178,601	\$ 182,173
Staff Salaries		\$ -	\$ -	\$ -	\$ 59,534	\$ 60,724
Other Salaries		\$ -	\$ -	\$ -	\$ 12,989	\$ 13,249
Benefits		\$ -	\$ -	\$ -	\$ 89,450	\$ 91,239
<i>Subtotal salaries and benefits</i>		<i>\$ -</i>	<i>\$ -</i>	<i>\$ -</i>	<i>\$ 340,575</i>	<i>\$ 347,386</i>
Operating Expenses						
Computing and supplies		\$ -	\$ -	\$ -	\$ -	\$ -
Non-capital maintenance and repair		\$ -	\$ -	\$ -	\$ -	\$ -
Non-capital equipment		\$ -	\$ -	\$ -	\$ -	\$ -
Professional and consulting		\$ -	\$ -	\$ -	\$ -	\$ -
Travel and training		\$ -	\$ -	\$ -	\$ -	\$ -
Marketing		\$ -	\$ -	\$ -	\$ -	\$ -
Campus overhead allocation		\$ -	\$ -	\$ -	\$ -	\$ -
Other operating expenses		\$ 30,600	\$ 31,212	\$ 31,836	\$ 32,473	\$ 33,122
<i>Subtotal operating expenses</i>		<i>\$ 30,600</i>	<i>\$ 31,212</i>	<i>\$ 31,836</i>	<i>\$ 32,473</i>	<i>\$ 33,122</i>
<i>Subtotal recurring expenses</i>		<i>\$ 30,600</i>	<i>\$ 31,212</i>	<i>\$ 31,836</i>	<i>\$ 373,048</i>	<i>\$ 380,509</i>
Total expenditures	\$ 30,000	\$ 30,600	\$ 31,212	\$ 31,836	\$ 373,048	\$ 380,509

Direct margin	\$ (30,000)	\$ 241,033	\$ 440,387	\$ 495,624	\$ 276,985	\$ 360,153
Cumulative direct margin	\$ (30,000)	\$ 211,033	\$ 651,420	\$ 1,147,044	\$ 1,424,028	\$ 1,784,181

The Higher Learning Commission (HLC) [Assumed Practices, Section B.2](#) and UMKC's [Academic Teaching Credential Policy](#) specify the following requirements:

- Instructors (faculty/staff in a teaching role) excluding teaching assistants enrolled in a graduate program and supervised by faculty, must possess an academic degree relevant to what they teach and at least one level above the level at which they teach, except in programs for terminal degrees or when equivalent experience is established.
- In terminal degree programs, instructors (faculty/staff in a teaching role) must possess the same level of degree.
- Each academic unit must define a minimum threshold of experience and an evaluation process to be used in the appointment process with approval of the provost, when instructors (faculty/staff in a teaching role) are employed based on equivalent experiences.
- Faculty teaching general education courses, or other non-occupational courses, hold a master's degree or higher in the discipline or sub-field. If a faculty member holds a master's degree or higher in a discipline or sub-field other than that in which they teach, that faculty member should have completed a minimum of 18 graduate credit hours in the discipline or sub-field in which they teach.
- Instructors teaching in graduate programs should hold the terminal degree determined by the discipline and have a record of research, scholarship or achievement appropriate for the graduate program.

This purpose of this form is to document each academic unit's process for evaluating instructor qualifications. Each academic unit, at the level at which teaching credentials are evaluated, is required to complete this form and maintain an up-to-date version of this form in the BOX Folder "UMKC Instructor Credentialing". Additional instructions and space for required signatures are provided at the end of the document.

Henry W. Bloch School of Management

I. Review of Faculty Credentials for Teaching Assignments

- a. Please provide a narrative of how your unit reviews faculty credentials at the time of hire and teaching assignments. If your school has separate criteria at the discipline, department, or division level, but all use the same process, describe that process below (e.g., chair reviews credentials at time of hire and reviews assignments prior to each semester to ensure assigned instructors are appropriately qualified). If different sub-units use different processes, list each sub-unit with their process below.

Bloch School guidelines for reviewing faculty credentials at the time of hire are described in this section. Faculty candidates will be classified into one of five categories as outlined in Standard 15 in the AACSB standards at the time of hire. The five categories are: a) Scholarly Academic (SA); b) Practice Academic (PA); c) Instructional Practitioner (IP); d) Scholarly Practitioner (SP); and e) Additional (A). A Scholarly Academic earned a doctorate in a relevant field from an AACSB or similarly accredited institution and maintains currency largely through impactful and high quality scholarship and related activities. A Practice Academic earned a doctorate in a relevant field from an AACSB or similarly accredited institution and maintains currency largely via professional engagement with the world of practice (e.g., consulting work, executive education, or the management of student consulting projects). An Instructional Practitioner typically has a master's degree along with significant professional experience. An IP faculty member maintains currency primarily through continued professional engagement within the world of practice. A Scholarly Practitioner has significant professional experience (a doctorate is not required) and maintains currency--to a significant degree--through impactful scholarship related to prior and current professional engagement. Candidates who do not fit any of the above classifications will be rated as Additional and would not be eligible for hire. The above reference four faculty classifications are described in detail below:

Scholarly Academic (SA)

To qualify for the Scholarly Academic (SA) classification, a Bloch School faculty member will need to have earned a research-based doctorate in their teaching area or a closely related discipline from an AACSB or similarly accredited institution. Consistent with AACSB guidelines, doctoral recipients will maintain their SA classification for five years from the awarding of the degree. Dissertation stage candidates will be considered SA for three years from the start of the dissertation stage. When a faculty member is granted a tenure extension for family or medical issues, the faculty member's initial SA classification will also be extended. Faculty in roles that are primarily administrative in nature will be classified as SA if that classification was appropriate when they entered into the administrative role, with that classification retained post assignment for a period that is appropriate in light of the length of the administrative assignment. SA status may be granted for faculty teaching business law if they have an appropriately accredited graduate degree in law. SA status may also be granted for faculty teaching taxation if they have a graduate degree in taxation or an appropriate combination of graduate degrees in accounting and law.

A faculty member will be judged to have maintained his/her qualifications for the SA classification if the faculty member meets the requirements specified below for Intellectual Contributions over a rolling five-year period. Both forthcoming and in-print publications are considered.

Intellectual Contributions

- The faculty member has an active research agenda as evidenced by at least 2 peer-reviewed journal publications in outlets where impact factors or other indicators suggest that the outlet is well positioned within an academic discipline or an interdisciplinary area. A scholarly book published by a respected academic press will be viewed as the equivalent of a peer-reviewed journal publication. At least one other scholarly contribution is also required. Other possible intellectual contributions include: book chapters in scholarly books, paper presentations at respected regional, national, or international conferences, textbooks requiring synthesis and integration of research findings, service in a significant editorial role for a respected scholarly journal, leadership roles for respected academic organizations (e.g., program chair), and externally funded research grants. The faculty member's overall research portfolio over the review period is relevant, suggesting the need for on-going research projects at various stages of development.

Practice Academic (PA)

To qualify for the Practice Academic classification, a Bloch faculty member will need to have earned a research-based doctorate in their teaching area or a closely related discipline from an AACSB or similarly accredited institution to be qualified for the Practice Academic (PA) classification. PA status may be granted for faculty teaching business law if they have an appropriately accredited graduate degree in law. PA status may also be granted for faculty teaching taxation if they have a graduate degree in taxation or an acceptable combination of graduate degrees in accounting and law (from appropriately accredited institutions). Faculty in roles that are primarily administrative in nature will be classified as PA if that classification was appropriate when they entered into the administrative role, with that classification retained post assignment for a period that is appropriate in light of the length of the administrative assignment. PA status applies to faculty who meet the above referenced degree requirements and who have developed and maintained significant levels of engagement with the business community, the public-policy community, or relevant non-profit organizations. The engagement should be linked to prior areas of study and current areas of instruction. The engagement needs to be of an amount and nature such that it would require an in-depth understanding of current business and organizational practices and/or public policy issues. Engagement with the world of practice can also be demonstrated via publications in applied outlets related to the faculty member's area of expertise. A faculty member will be judged to have maintained his/her qualifications for the PA classification if the faculty member engages in five activities over a rolling five year period. Shown below is a list of professional engagement activities and a list of scholarly contribution. At least three of the faculty member's activities must be in the professional engagement category. In instances where the faculty engages in board membership or roles in professional organizations over multiple years, each year of service would count as a separate activity. Both forthcoming and in-print publications are considered.

Professional Engagement

- Consulting or expert witness work requiring at least three days of time (with three days counting as an activity)
- Faculty led student consulting or field projects requiring at least three days of corporate or project engagement (with each three day allotment counting as an activity).
- Faculty-led short-term study abroad projects requiring significant corporate engagement.
- Executive education program design and delivery (with 3 days counting as an activity)
- Active roles in business or applied professional associations
- Maintenance of recognized professional designations. Where maintenance of a professional designation requires meaningful engagement in continuing education and/or other activities on an annual basis, each year of activity focused on maintenance will count as an activity.
- Maintenance of full-time or significant part-time employment related to teaching responsibility (with each year of employment counting as three activities)
- Board membership and similar forms of organizational engagement, including for relevant non-profit organizations
- Significant and documented engagement with the business and/or civic community in developing course materials or conducting classes or co-curricular activities with experiential learning components.
- Ownership interest in new entrepreneurial ventures
- Publication of trade books, cases, book reviews, or articles in applied outlets, including those with a public policy focus
- Technical guides or manuals that demonstrate content expertise
- Presentations at conferences with an applied, practitioner, or public policy focus
- Organizing and facilitating Bloch Advisory Board sessions focused on industry developments or organizing and facilitating workshops for industry practitioners
- Service on an Industry Committee/Task Force/Working Group (for government, non-profit and for-profit sectors)
- Grant funding for applied research
- Publications in applied outlets

Intellectual Contributions

- Papers presented at an academic conference
- Published book reviews in an academic outlet
- Editorial board service
- Regular and on-going service as a reviewer for academic meetings and journals
- Refereed journal publications
- Scholarly books
- Book chapters
- Invited research seminar presentations
- Roles in academic organizations
- Textbooks requiring integration and synthesis of research within the discipline

Instructional Practitioner (IP)

According to the AACSB standards, this classification is appropriate for a faculty member who has a master's degree in a relevant field (from an AACSB or similarly accredited institution) and significant professional experience. This classification also requires that currency be maintained through engagement with practice. Such engagement could include consulting, executive education, managing student consulting projects, professional development activities, or maintaining professional certification. Professional experience should be significant and current at the time of hiring. The level of experience required may vary with the nature of the course being taught, with five years relevant experience required for introductory courses. For more advanced courses, eight years of experience is required along with significant organizational responsibility and decision-making authority. In select cases, extraordinary experience both in duration and significance may serve as a substitute for a master's degree. There may also be instances where specialized training or certification beyond the master's degree may be considered when determining whether the amount of professional experience is sufficient to merit the IP designation and meet requirements for introductory and advanced courses.

IP status is maintained by demonstrating engagement in professional activities that show currency relevant to teaching content. Part-time instructors who continue with employment in their practitioner role would demonstrate maintenance of IP status. For instructors who have left their prior "practitioner" role, the level of professional engagement required will increase as the time since their prior employment increases. For a faculty member who has been out of his/her prior "practitioner" role for five years or more, maintaining the IP classification requires at least five activities over the last five years (using the Professional Engagement list shown below). In instances where the faculty engages in board membership or roles in professional organizations over multiple years, each year of service would count as a separate activity.

Professional Engagement

- Consulting or expert witness work requiring at least three days of time (with three days counting as an activity)
- Faculty led student consulting or field projects requiring at least three days of corporate or project engagement (with each three day allotment counting as an activity)
- Faculty-led short-term study abroad projects requiring significant corporate engagement
- Executive education program design and delivery (with 3 days counting as an activity)
- Active roles in business or applied professional associations
- Maintenance of recognized professional designations. Where maintenance of a professional designation requires meaningful engagement in continuing education and/or other activities on an annual basis, each year of activity focused on maintenance will count as an activity
- Maintenance of full-time or significant part-time employment related to teaching responsibility (with each year of employment counting as three activities)
- Board membership and similar forms of organizational engagement, including for relevant non-profit organizations
- Significant and documented engagement with the business and/or civic community in developing course materials or conducting classes or co-curricular activities with experiential learning components.
- Ownership interest in new entrepreneurial ventures

- Publication of trade books, cases, book reviews, or articles in applied outlets, including those with a public policy focus
- Technical guides or manuals that demonstrate content expertise
- Presentations at conferences with an applied, practitioner, or public policy focus
- Organizing and facilitating Bloch Advisory Board sessions focused on industry developments or organizing and facilitating workshops for industry practitioners
- Service on an Industry Committee/Task Force/Working Group (for government, non-profit and for-profit sectors)
- Grant funding for applied research
- Publications in applied outlets

Scholarly Practitioners (SP)

According to the AACSB standards, this classification is appropriate for a faculty member who has a master's degree in a relevant field (from an AACSB or similarly accredited institution) and significant professional experience. This classification also requires currency be maintained through engagement with practice and scholarly activity. Professional experience should be significant and current at the time of hiring. The level of experience required may vary with the nature of the course being taught, with five years relevant experience required for introductory courses. For more advanced courses, eight years of experience is required along with significant organizational responsibility and decision-making authority. There may also be instances where specialized training or certification beyond the master's degree may be considered when determining whether the amount of professional experience is sufficient to merit the SP designation and meet requirements for introductory and advanced courses.

SP status is maintained, in part, by demonstrating engagement in professional activities that show currency relevant to teaching content. Part-time instructors who continue with their fulltime practitioner role would demonstrate this engagement and would then need at least two activities from the Intellectual Contributions list below. For instructors who have left their prior "practitioner" role, the level of professional engagement required will increase as the time since their prior employment increases. For a faculty member who has been out of his/her prior "practitioner" role for five years or more, maintaining the SP classification requires at least five activities over the last five years with at least two activities from the Professional Engagement list and two activities from the Intellectual Contributions list. Both forthcoming and in-print publications are considered.

Professional Engagement

- Consulting or expert witness work requiring at least three days of time (with three days counting as an activity)
- Faculty led student consulting or field projects requiring at least three days of corporate or project engagement (with each three day allotment counting as an activity)
- Faculty-led short-term study abroad projects requiring significant corporate engagement
- Executive education program design and delivery (with 3 days counting as an activity)
- Active roles in business or applied professional associations
- Maintenance of recognized professional designations. Where maintenance of a professional designation requires meaningful engagement in continuing education and/or

other activities on an annual basis, each year of activity focused on maintenance will count as an activity

- Maintenance of full-time or significant part-time employment related to teaching responsibility (with each year of employment counting as three activities)
- Board membership and similar forms of organizational engagement, including for relevant non-profit organizations
- Significant and documented engagement with the business and/or civic community in developing course materials or conducting classes or co-curricular activities with experiential learning components
- Ownership interest in new entrepreneurial ventures
- Publication of trade books, cases, book reviews, or articles in applied outlets, including those with a public policy focus
- Technical guides or manuals that demonstrate content expertise
- Presentations at conferences with an applied, practitioner, or public policy focus
- Organizing and facilitating Bloch Advisory Board sessions focused on industry developments or organizing and facilitating workshops for industry practitioners
- Service on an Industry Committee/Task Force/Working Group (for government, non-profit and for-profit sectors)
- Grant funding for applied research
- Publications in applied outlets

Intellectual Contributions

- Papers presented at an academic conference
- Published book reviews in an academic or professional outlet
- Regular and on-going service as a reviewer for academic meetings and journals
- Refereed journal publications
- Scholarly books
- Book chapters
- Invited research seminar presentations
- Roles in academic organizations
- Textbooks requiring integration and synthesis of research within the discipline

b. Please name the person(s) currently responsible for review and approval for each level of teaching (UG, GRAD, PROF) in your school. If your school has separate criteria at the discipline, department, or division level, list each sub-unit below and the person responsible in that unit for the review of faculty credentials for each level of teaching in the unit.

The Dean is responsible for reviewing and approving credential for all levels. The relevant Department Chair and then the Academic Unit Teaching Credential Coordinator review each case prior to the Dean's review.

II. Review of Faculty Based on Tested Experience

- c. If candidates do not meet the HLC assumed practice, section B.2, the unit may evaluate the candidate's qualifications based on 'tested experience' (e.g., *A faculty member teaching undergraduate courses in human resources may not have a relevant degree at the appropriate level but can provide evidence of effective work as a practicing labor relations attorney*). Describe the process used for development and approval of the tested experience criteria used by the unit. If your school has separate tested experience criteria at the discipline, department, or division level, but each uses the same process for development and approval of criteria, please describe that process below (e.g., the faculty of each unit develop and recommend the test experience criteria for the unit, then seek approval of the unit chair, if applicable, and the unit Dean). If different sub-units use different processes for development and approval of tested-experience criteria, list each sub-unit with their process below.
- a. Describe the process for reviewing instructor qualifications based on 'tested experience' if a candidate does not meet the HLC assumed practice, section B.2. If your school has separate tested experience criteria at the discipline, department, or division level, but all use the same process for reviewing individual instructor qualifications, describe that process below (e.g., chair reviews tested experience of candidate against unit criteria at time of hire to ensure the candidate is appropriately qualified for the planned teaching assignment). If different sub-units use different processes, list each sub-unit with their process below.

In cases where candidates combine a masters in a relevant area combined with significant and relevant industry experience, we will use to the Bloch School AACSB Faculty Qualifications guidelines to assess qualifications for teaching undergraduate and graduate courses. In these guidelines, different experience requirements are specified for undergraduate and graduate teaching and attention is given to both the nature and level of industry experience and certification in specialized area.

Qualifications are assessed at the time of hire. Per AACSB guidelines, faculty need to engage in activities designed to ensure currency and, as such, faculty are assessed annually relative to the AACSB guidelines for maintaining faculty qualifications. Similarly, AACSB guidelines relating to the nature and level of industry experience (and certification in specialized areas) are also relevant in assessing qualifications when assessing situations where, for example, an attorney with significant contract negotiation experience is being considered for courses focused on negotiation and conflict.

- b. Please upload the signed version of this form and a blank copy of your unit's current Tested Experience Form into the BOX folder "2023 Instructor Credentialing". If your school has separate criteria/rubrics at the discipline, department, or division level, please upload a separate tested experience form for each sub-unit. Please use the naming convention below for the files you upload:

School.Discipline/Dept/Div.year_Unit Process Summary Form

Example with department name: SHSS.English.2023_Unit Process Summary Form
Example without department name: LAW.2023_Unit Process Summary Form

School.Discipline/Dept/Div.year_Testing Experience Form

Example with department name: SHSS.English.2023_Testing Experience Form
Example without department name: LAW.2023_Testing Experience Form

Provide below a list of the files uploaded:

- BSM.2023_Unit Process Summary Form
- BSM.2023_Testing Experience Form (part of Faculty Credential Evaluation Form)

Unit Name (Dept/Division if applicable and School): Henry W. Bloch School of Management

Credentialing Coordinator Name(s) and Title(s): Arif Ahmed, Associate Dean

Commitment:

I have reviewed the faculty teaching credential policies provided above and the unit processes described in this Unit Summary Form. I commit to fulfilling my responsibilities in evaluating faculty teaching credentials for my unit to ensure compliance with the HLC assumed practice.

Arif Ahmed 06/27/24
Academic Coordinator Signature & Date

N/A
Staff Asst Coordinator Signature & Date

N/A
Dept/Div Chair Signature & Date
(if applicable)

I have reviewed and approved the information above and attached tested experience form(s).

Brian S. Klean 06/27/24
Dean Signature & Date

Rating Agency Update

Both Moody's and Standard and Poor's (S&P) maintain a stable outlook for higher education. The industry updates trail by a year, as they are issued in the summer following the previous annual business cycle. Rating agencies expect inflation and constrained revenue growth to place pressure on operations in FY2024. Managing expense growth within available resources remains vital for operating stability in the sector.

Key trends highlighted by Moody's include:

- Revenue growth returned to historical levels as pandemic relief ended, half of public universities reported revenue growth below the higher education inflation rate of 4%.
- Margins returned to pre-pandemic levels. Increased state support and student revenues offset continuing inflationary pressures.
- Debt remained flat with a slowdown in issuance, reflective of an elevated interest rate environment.
- Comprehensive public universities that hold 90% of the sector's total cash and investments. Comprehensive universities are those that have over 25,000 FTEs or greater and significant research and healthcare operations. Comprehensive universities continue to outperform the rest of the sector.

S&P has bifurcated the industry outlook for the public higher education industry. S&P maintains a negative outlook for less selective, more regional institutions without financial flexibility and a stable outlook for selective institutions with strong balance sheets, supportive state legislatures, and significant fundraising capabilities. The University is classified as a selective institution and has maintained a stable outlook with S&P. Key trends highlighted by S&P include:

- Enrollment trends remain bifurcated with large flagship and land-grant institutions better positioned through wide brand recognition and broader reach. Smaller regional institutions are expected to see a larger impact by changes in demographics in their regional areas.
- Capital investments increased as institutions try to remain attractive amid increase competition and leverage favorable state funding.

Healthcare Industry Update

Moody's notes that universities with academic medical centers (AMCs) are facing increasing credit risk due to the slow recovery of hospital financial performance post-pandemic. Healthcare revenue growth has outpaced other university revenue streams for over a decade, increasing exposure to hospital performance. Despite this, AMCs are expected to outperform the sector due to their scale and high-end service lines, which enhance their essentiality and negotiating power with payers. However, there will be pockets of strain where recovery lags, leading to difficult decisions for universities.

November 20, 2024

Rising reliance on and the size of patient revenues exposes universities with AMCs to additional risk post-pandemic. Operating margins from the sector have contracted and it is uncertain if the margins will return to the pre-COVID levels. The healthcare sector tends to be capital intensive and without robust margins, AMCs will face difficult decisions between investment in capital and the amount of financial support provided to medical schools. With the aforementioned credit risk from AMCs during periods of strain, many AMCs are still beneficial to a university's mission and reputation, which can lead to an attraction and competitive advantage in the market for students and research funding.

Consolidated Performance Narrowed but Remains Positive

The University maintained a positive operating in FY2024 of 1.8%. The annual performance was below budget of 2.7%. Performance improved in the fourth quarter with a pickup in growth in auxiliary revenues over expectations. For the year, rising costs outpaced revenue growth and thereby narrowing operating margin. The average consolidated operating margin of 3.5% over the past five years exceeds the target of 2.5%. Due to the University's long business cycle, operating performance should be averaged over multiple years. Focus remains on managing costs within available revenue sources.

Figure 1: Operating Margin Adjusted for one-time impacts in FY2023

	FY2023 Operating Margin (%)	FY2023 Operating Margin (\$)	FY2024 Operating Margin (%)	FY2024 Operating Margin (\$)
Actual	3.9%	\$162 million	2.0%	\$92 million
Capital Region Medical Center	(1.2%)	(\$43) million	(0.2%)	(\$8) million
Adjusted	2.7%	\$119 million	1.8%	\$84 million
Target	2.5%		2.5%	

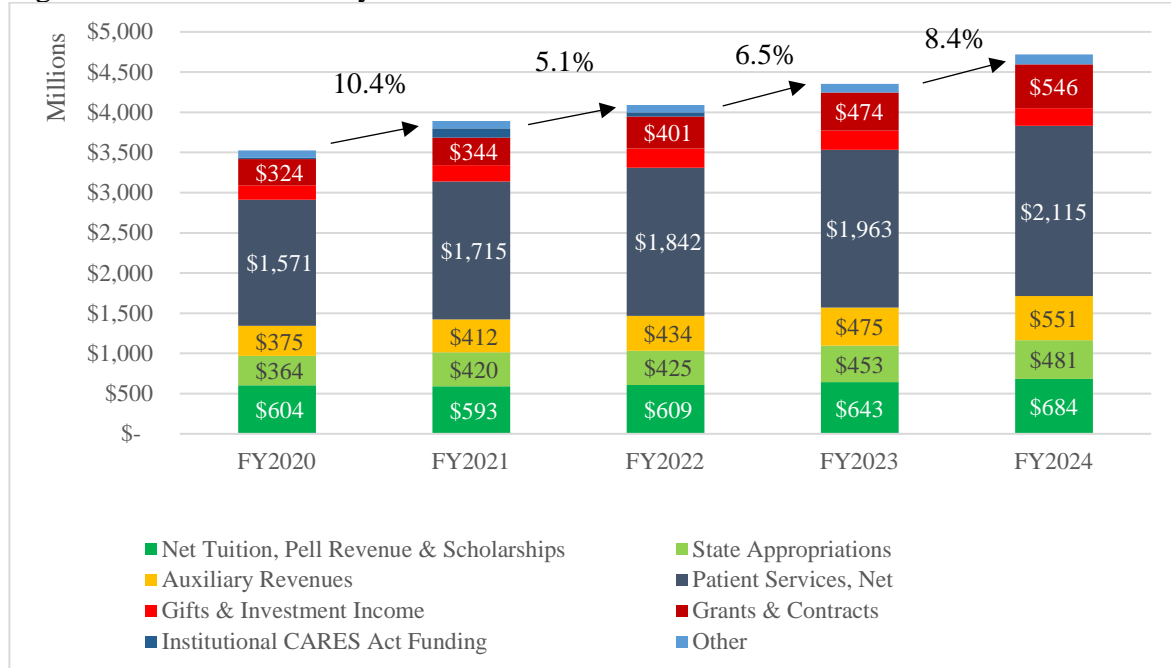
Note: FY2023 figures were adjusted for the integration of Capital Region Medical Center as compared to previously reported amounts.

Figure 1 above demonstrates the impact of adding in the performance of Capital Region Medical Center (CRMC) within the consolidated income statement for comparison between fiscal years. Since the acquisition was not complete until July 2023, CRMC was excluded from the FY2023 financial status report. CRMC has been adjusted into the FY2023 information for comparability. MUHC showed progress in improving financial performance over prior year at CRMC in FY2024 and has improved performance in Columbia operations to start FY2025.

Revenue grew by 8% driven by growth in grants and healthcare.

The relative diversity of operations and revenues provides a key strength for the University, as strength in one portion of the enterprise offsets weakness in another. Operating revenues grew by 8.4% from FY2023 to FY2024.

Figure 2: Total Revenues by Source



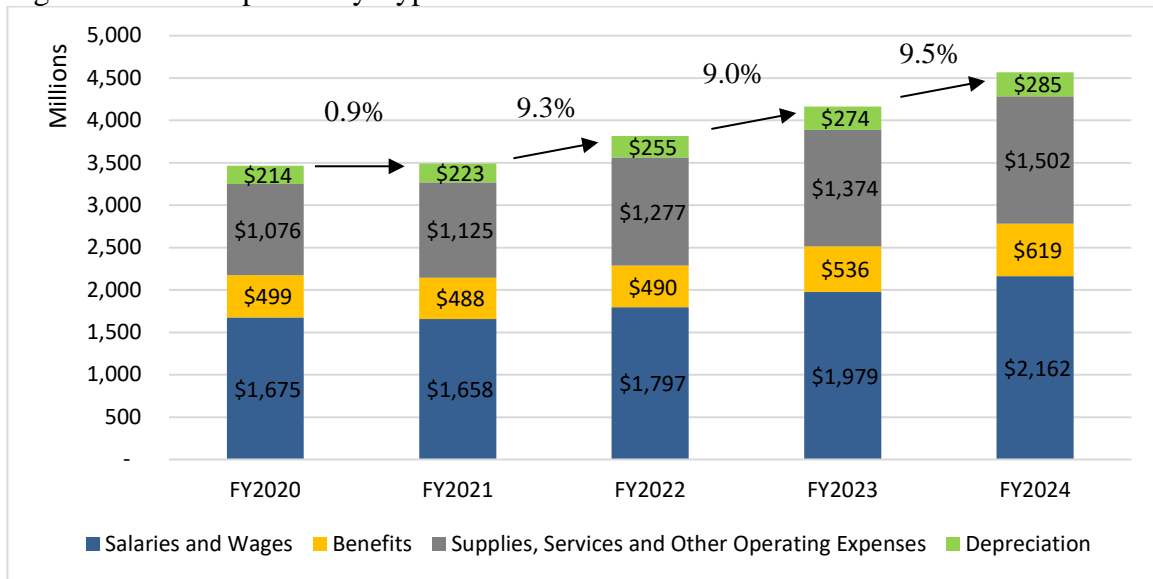
Note: Prior year figures were adjusted for the integration of Capital Region Medical Center as compared to previously reported amounts.

Figure 2 demonstrates revenues by source over the past five years. The Consolidated enterprise has experienced four years of solid growth with state support exceeding pre-pandemic levels, auxiliary revenues growing with enrollment growth, and continued growth of the healthcare enterprise. The University’s focus on research growth led to a growth of 68% in grants and contracts over the five-year period and 15% in FY2024 over FY2023. In FY2024, the University also saw strong growth in auxiliary revenues and patient services, which increased by 16% and 8%, respectively.

Growing expenses impede operating margin growth.

Expense management remains a key factor for financial sustainability. In FY2024, operating expenses grew by 9% while operating revenues grew by 8%, placing downward pressure on operating margin. MU and MU Healthcare are drivers of the cost pressures with each seeing 8% or greater increase in FY2024.

Figure 3: Total Expenses by Type



FY2024 marked the third consecutive year of expense growth of 9% or greater, which has exceeded revenue growth in each of those years. Operating Margin peaked in FY2021 and has returned to historical lower levels in FY2024. Compensation (salaries, wages, and benefits) remains the largest component of university expenses, comprising over 60% of all operating expenses. The largest driver of compensation growth was compensation on grants and contracts, which grew by 14% and is attached to external funding streams. Additional factors contributing to compensation growth include a 2-3% market and merit pool across the different business units and an increase in benefits from medical cost inflation.

Expenses for supplies, services and other increased by 9.3%. The primary driver of this growth is spending on grants and contracts, which grew by 16% year over year. Research growth has corresponding revenues, as grants operate on a cost reimbursement basis. The largest line-item expense growth included drugs, medical supplies, and insurance.

Balance Sheet Remains Strong

While the income statement demonstrates performance over a period, the balance sheet provides a snapshot of the institution's financial condition at any moment in time. The balance sheet is a key indicator of the financial condition, and the quantitative portion of the University's credit rating depends upon scale and balance sheet strength. As a university's business cycle stretches across multiple years, significant assets are necessary to provide an appropriate operational buffer for universities.

Cash and Investment balances grow for two consecutive years

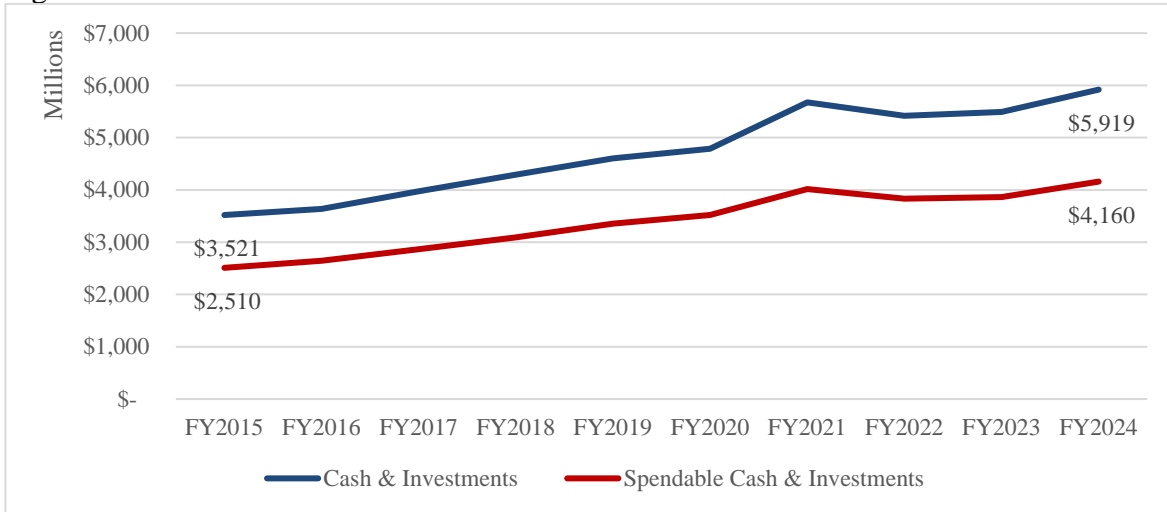
The key asset for any university is its liquid assets in the form of cash and investments, specifically those held outside of restricted endowments, referred to as spendable cash and investments. The University's spendable cash and investments increased by 8% or \$298 million from FY2023. This increase is attributed to positive operating and investment performance as of June 30th.

Figure 4: Annual Investment Returns for the General and Endowment Pool

	FY2020	FY2021	FY2022	FY2023	FY2024
General Pool	0.2%	7.7%	-2.8%	3.7%	7.5%
Endowment Pool	1.2%	29.5%	-0.8%	3.8%	11.3%

Figure 4 presents the annual returns for the University's investment pools. The General Pool is the primary driver of the institution's spendable cash and investments, and the Endowment Pool represents permanently restricted funds. The investment performance from FY2021 was the best performance in the last decade. For FY2024, General Pool performance nearly exceeded the FY2021 high mark. Representing the University's working capital, the General Pool needs to maintain sufficient liquidity to support the University through an economic downturn. Both the General Pool and Endowment Pool had positive returns in FY2024 which helped expand the University's cash and investment balance.

Figure 5: Trend in Cash and Investments



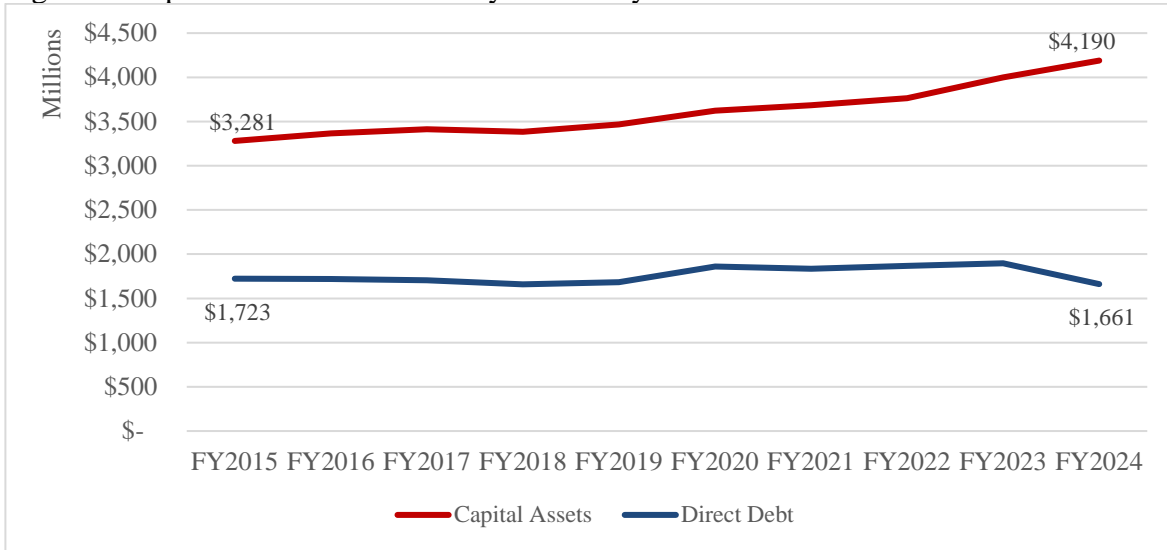
Note: Prior year figures were adjusted for the integration of Capital Region Medical Center as compared to previously reported amounts.

Figure 5 demonstrates the trend in both total cash and investments and spendable cash and investments. Permanently endowed gifts represent the difference between total cash and investments and spendable cash and investments. Positive investment performance continued in FY2024 with returns of \$481 million on the endowment and general pool combined, leading to an increase in wealth levels. To ensure planning stability amid volatile investment returns, the University uses various smoothing mechanisms for spending investment income in operating budgets for both the endowment and general pools. These spending mechanisms are how the University deploys the investment income into investment in the institution’s mission and is represented as “Spendable Investment Income” (line 14) on the income statement included.

Capital Asset growth continues in FY2024

The other key asset on the balance sheet is capital assets and the related debt that funds those assets. Capital assets represent the long-term infrastructure of the institution and are recorded at historical cost and depreciated over their expected useful lives.

Figure 6: Capital Assets and Debt 10-year History



Note: Prior year figures were adjusted for the integration of Capital Region Medical Center as compared to previously reported amounts.

Figure 6 demonstrates capital assets continue to grow with an uptick in FY2023 and FY2024 on increasing capital spend. Capital spend is anticipated to remain high as the four universities continue construction on projects funded by state and federal sources. Capital investment beyond the identified governmental support and philanthropy will need to be funded by operating performance.

The largest liabilities for the University are benefit liabilities and externally issued debt. The University primarily issues debt to construct capital assets. Figure 6 demonstrates the University’s debt growth over the past decade, which has moderated after a decade of significant growth. Capital asset growth has been funded by a combination of operating performance, state capital appropriations, and federal grants rather than increasing debt. The University continues to monitor debt needs as a \$100 million bullet maturity was paid in FY2024. In early FY2025, an additional \$200 million in new project funds were issued to permanently finance the Children’s Hospital Facility. Future debt issuances will depend on the capital investments outlined in each University’s financial plan and available debt service streams. Sound financial planning requires that any new debt issuance be supported by a funding plan tied to a specific revenue stream.

Update on Key Capital Projects & State Funding

Over the past three years, the State of Missouri has provided a historic level of capital investment for the four Universities in the System. Many of the projects funded by the appropriations have completed design and have begun construction. Significant construction work will continue through FY2025, and the amount of funding drawn from the state will increase throughout the year as activity continues to ramp up. Table 1 provides an update on the appropriated funding and key progress:

Table 1: State Appropriated ARPA Projects >\$10M

Name	Total Appropriated	Total Drawn	Key Activities
MU-NextGen Radiopharmaceuticals and Animal Science	\$209M	\$156.75M	Completed Roy Blunt NextGen Precision Health Building. Design work continues on CEI. Utility infrastructure work completed for research commons and reactor.
MU-Thompson Center	\$31.5M	\$5.7M	Design work complete. Project broke ground in 2024.
UMKC- Health Sciences District	\$80M	\$433k	Design work complete. Project broke ground in 2024 with activity increasing.
S&T – Protoplex	\$41.2M	\$5.4M	Separate appropriation funded the design work. Construction underway with expected opening in Fall 2025.
S&T – Advancing STEM	\$50M	\$2.6M	Projects finishing design and in construction. Both Schrenk Hall and Applied Research Center funded by this appropriation.
UMSL – Campus of the Future	\$80M	\$19.3M	Construction continues across 8 separate projects to combine the North Campus. In 2024, construction started on the Library Renovation, Welcome Center, Arts & Administration Building, and the Demolition of the Social Sciences Tower.

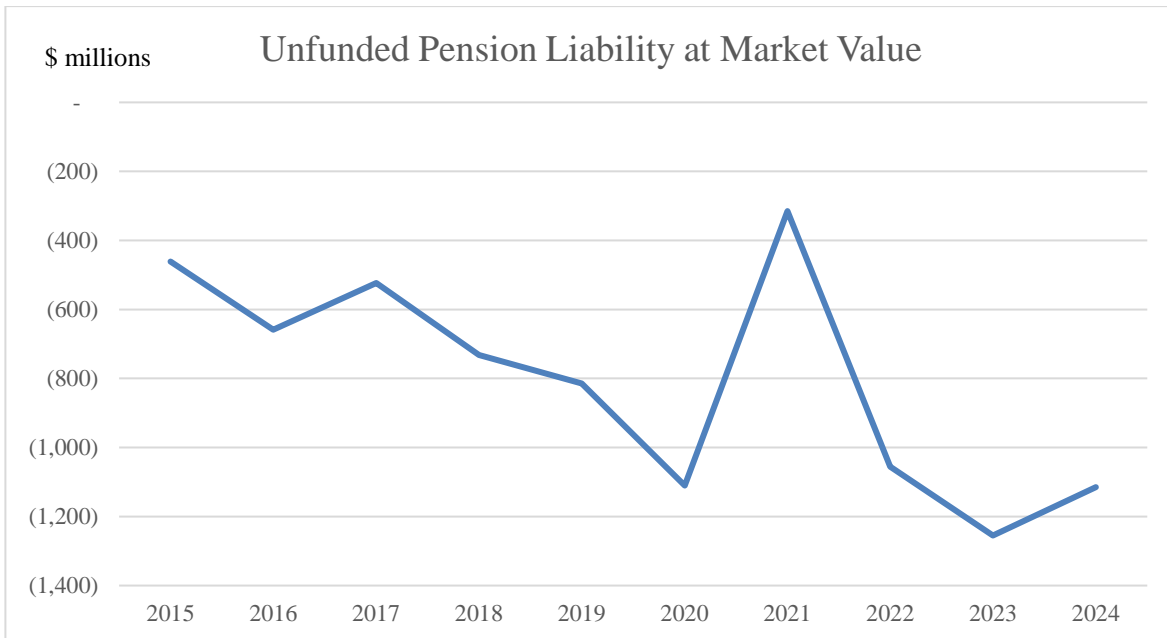
The large projects above plus federal grants have supported a significant expansion in capital spend for the University.

Benefit liabilities remain large and volatile; dropping in FY2024

The University’s liabilities related to employee benefits are the second largest liability on the balance sheet. The two benefit liabilities are the University’s Pension Plan and the University’s Post-Employment Benefits Plan (OPEB). Liabilities on the University’s balance sheet are presented net of related assets in the plan, with the Pension maintaining a significant asset base to make future plan payments. Figure 7 below presents the total benefit liability along with the fiduciary assets.

Figure 7: Benefit-related Liabilities and Assets, \$’s in millions

	Total Liability	Market Value Fiduciary Net Position	Net Liability (on balance sheet)	Funding Percentage
OPEB				
FY2021	\$253	\$39	\$214	16%
FY2022	\$200	\$40	\$160	20%
FY2023	\$191	\$42	\$149	22%
FY2024	\$181	\$46	\$135	25%
Pension				
FY2021	\$4,872	\$4,557	\$315	94%
FY2022	\$5,342	\$4,286	\$1,056	80%
FY2023	\$5,532	\$4,277	\$1,255	77%
FY2024	\$5,650	\$4,535	\$1,115	80%



The decrease in the net OPEB liability is a permanent reduction due to continued changes in retiree benefits. For FY2023, the University realized further savings by continuing to shift pre-65 retirees to the private market. For the pre-65 retire population, marketplace rates and subsidies provide higher quality insurance at a cheaper price than the University can offer internally. These retirees continue to shift onto the private marketplace and away from the University's plan, offloading risk to the market. Furthermore, the University has continued to manage this liability by removing active members subsidization of retiree benefit costs and adopting medical plan designs that limit cost increases for the University.

After a decline in the University's Net Pension Liability (assets in the pension trust minus the total pension liability) in FY2021, the Net Pension Liability was back above \$1 billion in FY2022 and further increased in FY2023. For FY2024, investment income exceeded the 7.0% discount rate and the gain from the Vested Termination Buy-Out Program lowered the overall net liability to \$1.1 billion. Despite the pension plan being closed, its \$5.65 billion liability remains a long-term risk that can grow in unexpected ways.

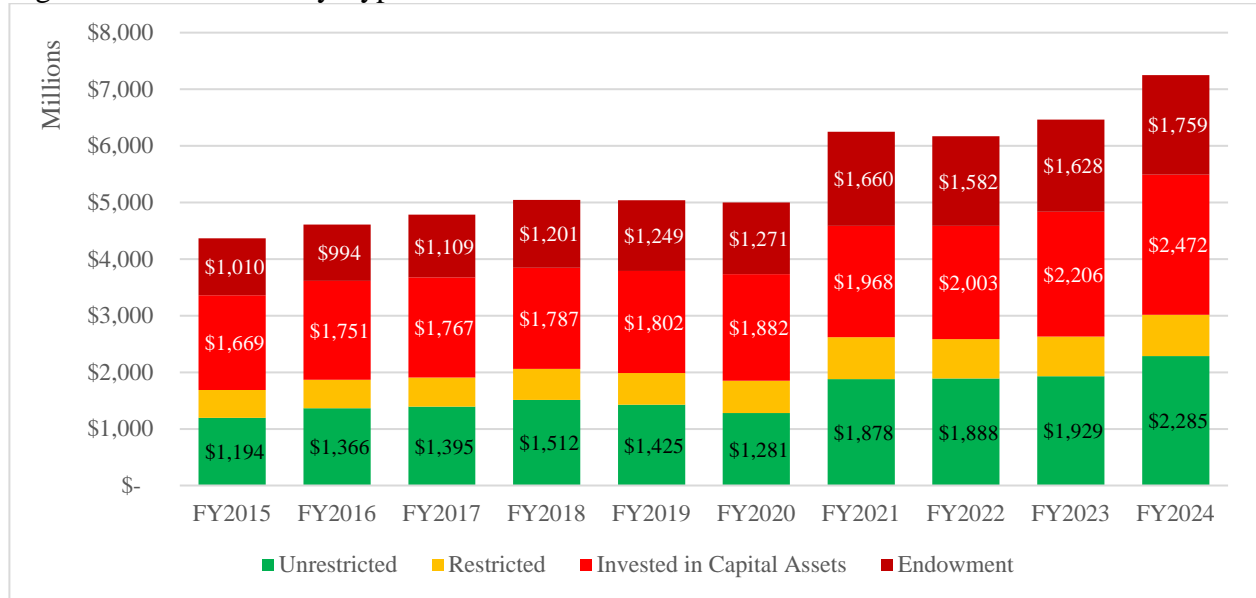
To reduce the Pension liability growth, the University ran an optional Vested Terminated Buy-out Program in FY2024. The Program was a one-time offer for employees who terminated their employment to cash out their pension benefit as an enhanced lump-sum, providing them with the opportunity to gain control of their benefit and related investment returns. The Pension plan paid out \$62 million to those who took advantage of the enhanced benefit, and the plan realized a \$10 million gain on the unfunded liability. The University's benefit liabilities remain large on a relative basis when compared to peers in the same credit rating band. The University continues to follow the principles outlined in Collected Rule 560.010 to manage the risk within the pension plan. Progress against the policy will be reported to the Board as a part of the annual benefits update in the spring.

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Net position (equity) increases in all categories.

Governmental accounting standards require the University to show net position by restriction type. This provides additional information to financial statement users on the ability of the institution to direct the net resources available after debts are paid.

Figure 8: Net Position by Type



Note: Prior year figures were adjusted for the integration of Capital Region Medical Center as compared to previously reported amounts.

Figure 8 outlines the University’s net position (equity) by restriction type. The categories demonstrate a significant portion of the University’s net position is inaccessible for operating purposes with \$1.76 billion in the endowment and \$2.47 billion invested in capital assets. The following factors attributed to the increase in the University’s Net Position.

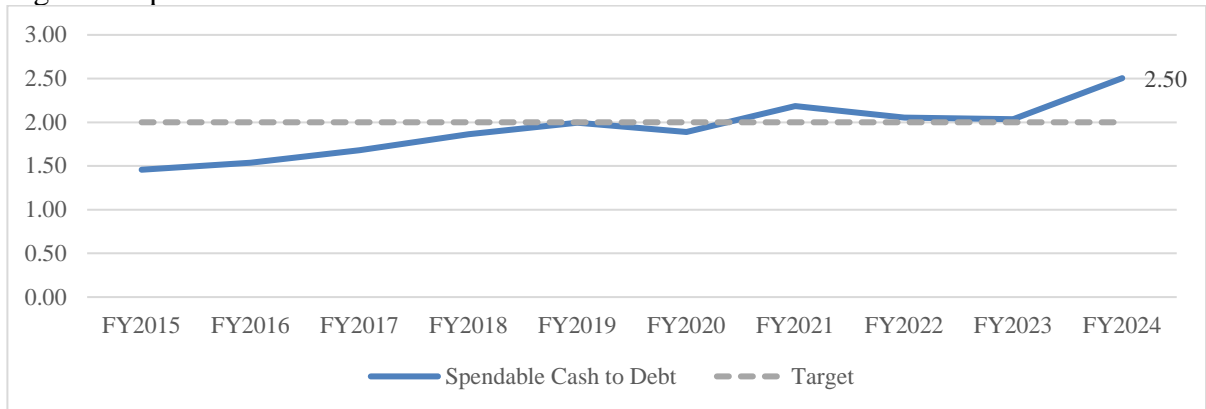
- Unrestricted – Increased by \$356 million largely attributed to one-time impacts from a drop in the pension liability and performance in the general pool. Longer-term, the primary driver of unrestricted net position is operating performance. If expenses continue to outpace revenues, there will be pressure on growth in unrestricted net position.
- Restricted Expendable– Increased by \$32 million largely due to investment income on donor restricted accounts. This category of net position represents equity that is restricted for type of use, but not in an endowment or invested in a capital asset.
- Invested in Capital Assets – Increased by \$266 million related to a decrease in debt from bullet maturities paid in FY2024 coupled with increased capital spending. This measure of equity represents the amount of equity tied up in capital assets, net of related debt obligations.
- Endowment – Increased by \$131 million due to an increase in investment income. This measure of net position is the current value of endowment corpus accounts, the portion of the endowment which is permanently restricted and cannot be spent.

Performance Remains Balanced to Targets

Spendable Cash and Investments to Debt moves above target

Spendable Cash and Investments to Debt shows the relative size of liquid assets compared to the outstanding debt of the organization, measuring debt capacity. This metric moves over a longer time horizon, declining when debt is issued and rebuilding as cash grows with positive operating performance. The university has debt capacity when looking at available wealth to outstanding debt. The constraint for many debt projects at the University is the available funding streams to repay the incremental debt service from a new project.

Figure 9: Spendable Cash and Investments to Debt Trend



Note: Prior year figures were adjusted for the integration of Capital Region Medical Center as compared to previously reported amounts.

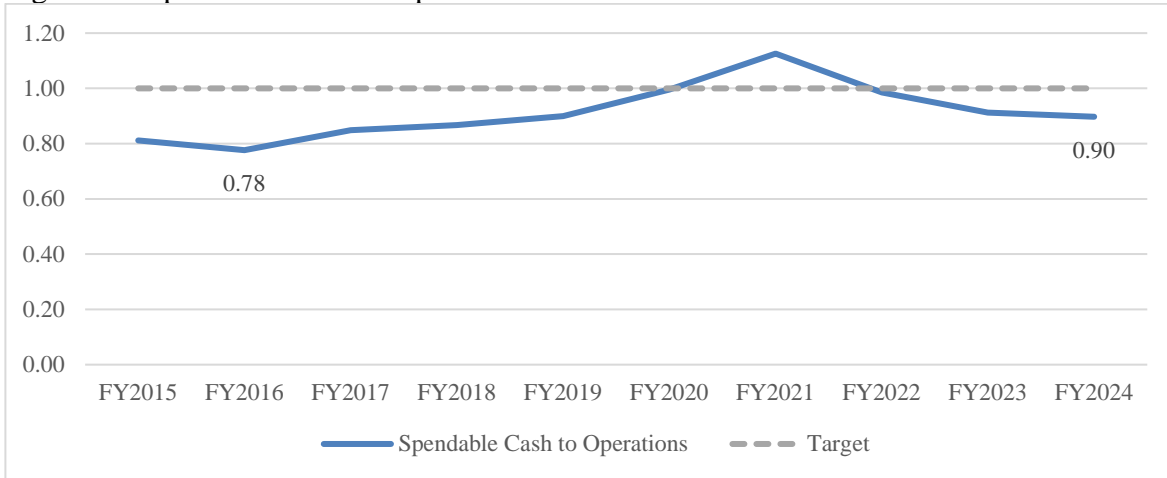
Spendable cash to debt increased over prior year from 2.04 to 2.50 due to a decrease in debt related to bullet maturities on bonds paid during FY2024 as well an increase in cash. Spendable cash to debt of 2.50 is above the target of 2.0 and the average over the past eight years. The University's debt will increase in FY2025 due to a new bond issuance in September 2024 of \$362.6 million, which refunded two bond series in addition to providing \$200 million in proceeds for the costs of the MUHC Children's Hospital. Spendable cash to debt should be viewed together with spendable cash to operations. Over the past few years, the University of Missouri and other institutions in the Aa1 credit band have deleveraged, improving their debt capacity metric while their wealth to operations metric eroded.

Spendable Cash to Operations remains below target for a second year

Spendable Cash to Operations shows the relative size of cash balances to the operating expenses of the organization. This metric shows the organization's capacity to adapt to unexpected changes in revenue streams or unexpected increases in cost. The cash to operations measure declined in FY2023 due to a 9% increase in the expenditure base, while spendable cash grew at 7.7%. In FY2024, the University repaid a bullet maturity which limited cash growth but improved the cash to debt metric.

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Figure 10: Spendable Cash to Operations Trend



Note: Prior year figures were adjusted for the integration of Capital Region Medical Center as compared to previously reported amounts.

Spendable cash (reserves outside the endowment) provides the University with time to implement adapt to changes within its business cycle. This is also a key measure of wealth for the institution and should be viewed together with the spendable cash to debt metric. If the University was perfectly at target for the spendable cash to debt metric (2.0), the spendable cash to operations metric would be 1.08 and above target. The underperformance against this target is partially due to the pay down of debt, and the University remains well-positioned. The balance between spendable cash to operations and spendable cash to debt will be reviewed through the course of this year’s financial planning exercise, and the targets will be recalibrated to reflect the University’s current leverage and reserve plans.

Performance to Targets

The University establishes its financial performance targets based on the Moody’s Higher Education Framework, ensuring alignment with the quantitative elements of its credit rating. Outlined below are the results of FY2024 for each metric.

Figure 11: FY2024 Key Financial Metrics to Target

	FY2024 Results	Target
Operating Margin	1.8%	2.5%
Cash to Debt	2.50	2.00
Cash to Operations	0.90	1.00
Debt to Cash Flow	3.69	<4.0

The performance to target results for FY2024 differed among the various measures, with a summary of each provided below.

- Operating Margin: demonstrates management’s ability to adjust expenditures within revenues received in an annual period. In FY2024, operating performance was below

the 2.5% target as rising cost outpaced revenue growth, leading to reduced operating margin. The primary driver of the decrease was the healthcare operation, which reflects national trends in performance amongst academic medical centers. Even with the underperformance in FY2024, the average consolidated operating margin over the past five years is 3.5%, exceeding the 2.5% target. Considering the University’s long business cycle, it is recommended to average operating performance over several years.

- **Spendable Cash to Debt:** spendable cash to debt measures the relative size of debt burden against available cash to repay the debt. Spendable cash to debt increased in FY2024 to 2.50 as debt declined from bullet maturities paid on bonds during the year as well an increase in cash. Overall, this metric has remained above target on average for the past eight years as the University has deleveraged.
- **Spendable Cash to Operations:** demonstrates the amount of cash available to weather unexpected disruptions in revenues or expenses. In FY2024, spendable cash to operations declined to 0.90 and remained below the 1.00 target. A key driver of the drop in spendable cash was the repayment of bullet maturities on debt. If the University achieved target on the spendable cash to debt metric, the spendable cash to operations would increase to 1.08 and be above target.
- **Debt to Cash Flow:** measures the University’s ability to repay its debt using cash generated from operations. A lower ratio indicates the institution generates more cash relative to its outstanding debt. In FY2024, this metric was below target, reflecting a stronger financial position due to repayment of debt from both payments of bullet maturities and CRMC’s bonds.

The University Remains well positioned in the Composite Financial Index (CFI)

The Composite Financial Index (CFI) is a single measure of financial strength on a scale of 1 to 10 and incorporates both balance sheet and income statement performance. Institutions should strive to achieve a CFI above 3, and it is a common measure utilized by accreditation entities to measure the financial health of an institution. A higher score indicates a higher financial health.

Table 2: History of University’s CFI

	FY2020	FY2021	FY2022	FY2023	FY2024
CFI 3 yr Average	2.72	3.64	3.63	3.61	4.30

The CFI measure is shown as a three-year average, as the measure is subject to investment volatility. The University’s CFI improved to 4.30, reflective of solid operating results with a continued strong balance sheet. The annual value for FY2024 was 4.65, which is above the three-year average and shows continued strong results.

Next Step: Long Range Plans

The University is currently completing the long-range financial planning process for each business unit. The long-range plan ties strategic plans to financial and capital resources. The university's leadership team will utilize the financial planning process to quantify necessary investments to both improve academic excellence and revenue growth and balance those investments against available resources. The long-range financial plan will serve as the basis for the FY2026 budget and capital planning process.

As a part of the planning process, the University will evaluate whether adjustments to financial performance targets for any unit need to reflect environmental changes or strategic needs. Enterprise level targets will be approved by the Board with appropriate competitive market context as the University works to reset long-range financial plans, as codified in Collected Rule 140.025. The financial plan presented to the Board in February will align with the capital plan and will incorporate the units' key strategies with related funding.



November 20, 2024

APPENDIX

FINANCIAL PERFORMANCE BY UNIT

The financial performance metrics in this section represent the key metrics the University utilizes to monitor financial performance amongst the different universities and MUHC. These metrics are used by Moody's to determine the University's credit rating and are presented to the Board as a part of the long-range financial plan. Each unit contributes to the University's consolidated financial performance.

The University and rating agencies evaluate financial performance with a focus on the longer-term. The University's financial performance targets do not represent the floor but rather where an institution should be over a longer time horizon. Due to University's long business cycle, operating margin should be evaluated over several years looking at trends rather than just looking at a single year.

Operating margin falls below target for FY2024

Operating margin demonstrates management's ability to adjust expenditures within revenues received in an annual period. Operating margin generally shows management's ability to control financial performance within the annual planning cycle. A positive operating margin provides the University with resources to support operations and invest in future mission-based activities and capital.

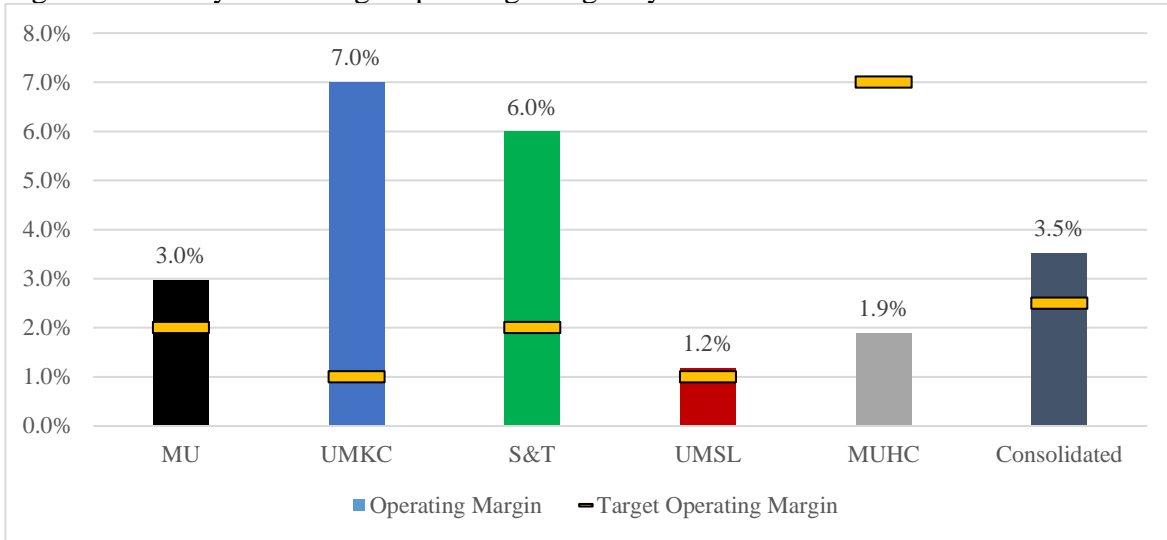
Figure 12: FY2024 Operating Margin by Unit

	MU	UMKC	S&T	UMSL	MUHC	Consolidated
FY2024 Actual	2.7%	2.1%	3.6%	-1.1%	1.0%	1.8%
5-Year Average	3.0%	7.0%	6.0%	1.2%	1.9%	3.5%
Target	2.0%	1.0%	2.0%	1.0%	7.0%	2.5%

Note: Prior year figures were adjusted for the integration of Capital Region Medical Center as compared to previously reported amounts.

The overall operating margin for the University fell below the target for FY2024. Additionally, both UMSL and MUHC fell below their targets for a second year. Operating margins are set to fund each institution's growth, capital investment plans, and debt service. Operating margin targets can move downward if expected growth is lowered or if capital investment is lighter.

Figure 13: Five-year Average Operating Margin by Business Unit



Note: Prior year figures were adjusted for the integration of Capital Region Medical Center as compared to previously reported amounts.

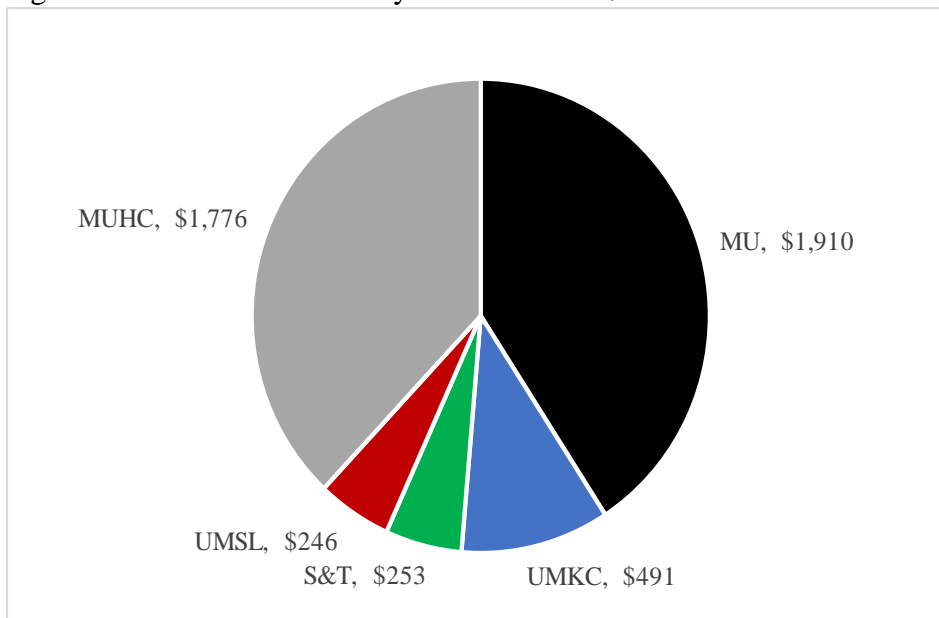
Figure 13 shows each unit’s operating margin five-year average performance as compared to their target. A five-year average is used to demonstrate performance over roughly one business cycle for the University, as students take multiple years to complete their degrees. Taken together, MU and MUHC represent approximately three quarters of the total revenues for the University of Missouri System and drive the consolidated operating performance for the University System.

Highlights on operating margin from each business unit include:

- **MU** operating margin for FY2024 is 2.7%. MU’s margin grew marginally over the prior year due as revenues increased; the largest growth of which was at the MU Research Reactor. MU continued to grow revenues in other areas as well, including net tuition and fees and grants and contracts. MU continues to manage recurring expenditures within available revenues.
- **MUHC** operating margin in FY2023 was 3.3% without CRMC. After factoring in the prior year performance of CRMC, the MUHC collective operating margin in FY2023 was 0.2% and climbed to 1.0% in FY2024. MUHC’s margin remained below target for another year and the five-year average of operating margin of 2.5% and furthered widened the gap to the 7% target necessary to fund MUHC’s capital plan. Operating underperformance coupled with significant capital investments resulted in MUHC’s cash position falling relative to its operating expense. MUHC’s financial plan will reflect improved performance and MUHC has seen more positive results through first quarter of FY2025. MUHC has recalibrated performance targets and capital plans to replenish their balance sheet.

- **UMKC** operating margin for FY2024 is 2.1%, falling from 8.3% margin in the prior year. The drop was largely related to a decline in private gifts after a large single gift in FY2023. Expenses outpaced revenue growth throughout UMKC’s operations and further eroding the margin in FY2024 with revenues growing by 3% and expenses increasing 10%. UMKC’s budget planned for the increase and the margin in FY2024 exceeded budget.
- **Missouri S&T** operating margin of 3.6% remained above S&T’s target of 2.0%. Operating margin exceeded both target and budget in FY2024, however margin declined from the prior year due to expenses growing at a higher rate than revenue growth during the year. Revenue increases in auxiliary enterprises and grants and contracts attributed to an overall operating revenue growth of 8%, however, expenses grew by 12%.
- **UMSL** operating margin improved from (1.5%) to (1.1%). UMSL managed recurring expenditures within available revenues during FY2024, keeping the growth of revenues and expenses close to equal. The five-year operating margin of 1.2% remained above target. UMSL continues to face enrollment challenges and teaching revenues, placing pressure on its expenditure base and operating losses will need to move to a minimum of breakeven to improve UMSL’s position for the future.

Figure 14: FY2024 Revenue by Business Unit \$’s in millions

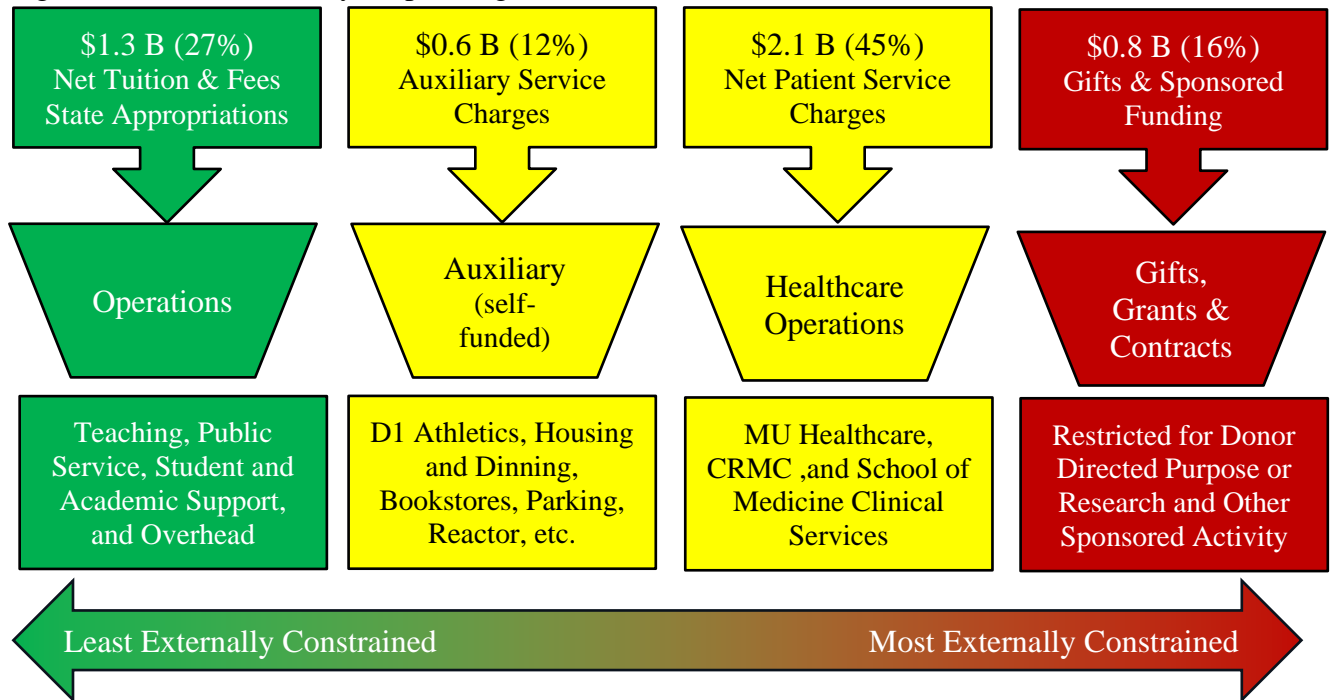


NOTE: Operating revenue growth has been adjusted for smoothing of investment income for the consolidated level, similar to the operating margin.

MU and MUHC generate over \$3.6 billion in revenues while the other three operating units combined generate less than \$1 billion. This scale on Figure 14 demonstrates MU and MUHC are the primary drivers of the University’s consolidated financial performance, with small movements in their relative performance impacting the institution on a greater scale.

The University benefits from a diverse revenue stream. The “Colors of Money” illustration in Figure 15, presents the different types of revenue sources that support the University’s mission. This graphic depicts the different types of funding sources for the University, color coded like a spotlight to represent the level of spending restriction on the funding source. This is a useful way to segment the University’s operation and move a layer beneath the consolidated performance.

Figure 15: Color of Money - Operating Revenue



The operations fund, shown in green on the chart, is where the bulk of the University’s teaching, academic creative works, public service, and supporting service activities occur. Its primary funding sources are tuition and fees and state appropriations, although it does receive some support from unrestricted auxiliary operations in the form of overhead payments for services provided by the operations fund (such as accounting, procurement, legal, grant management, facilities, etc.).

Auxiliary funds are shown in shades of yellow on the chart. The primary source of funding for this group is fees for services provided. These operations are treated as separate enterprises and are expected to set fees for their services to cover their current operating costs plus depreciation, which is set aside for future capital and equipment replacement.

Third parties, primarily donors and granting agencies, restrict the remainder of the current funds between Gifts and Grants & Contracts. These funds are shown in red on the chart because there is very little flexibility in how the funds are spent. Gift funds must be spent within donor stipulations. Grants and Contracts require delivery on a set scope of work.

Figure 16: Operating Margin by Fund Type

	Operations ¹ \$1.3B	Auxiliaries \$0.6B	Healthcare & MU Clinical Operations \$2.2B	Gifts & Grants \$0.8B	Operating Cash Flow Margin	Depreciation & Interest Expense	Operating Margin
MU	14.2%	16.6%	-4.7%	5.5%	9.8%	-7.1%	2.7%
UMKC	8.4%	11.3%		8.9%	8.7%	-6.5%	2.1%
S&T	14.7%	39.8%		5.5%	15.3%	-11.7%	3.6%
UMSL	9.3%	5.1%		5.7%	8.2%	-9.4%	-1.1%
MUHC			7.8%		7.8%	-6.8%	1.0%
Consolidated Margin	15.1%	16.9%	0.6%	5.0%	7.7%	-5.9%	1.8%

1: Non-capital maintenance and repairs funded by plant reserves and service operations are included in operations.

Figure 16 demonstrates the University’s operating budget by “color of money”. Overall, the academic enterprise (which is primarily composed of the green and red buckets) maintains higher margins in operations paying for the lower cash flow margins in gifts and grants. The margins in the operating fund and gifts and grants are in line with historical averages and financial plans. The key departure from longer-term history and targets is the performance of the clinical enterprise at MU and MU Healthcare. Figure 16 also demonstrates the relationship between operating cash flow margin and operating margin, and the impact of depreciation (capital) and interest (debt) on performance (higher cash flow margin supports more capital and more debt).

FY2024 Performance - Key Financial Metrics

	Consolidated	MU	S&T	UMKC	UMSL	MU Healthcare
Operating Margin - Total Operating Revenues less Total Operating Expenses divided by Total Operating Revenues Demonstrates management's ability to manage expenditures within revenues.	↓ 1.8% ●	↑ 2.7% ●	↓ 3.6% ●	↓ 2.1% ●	↑ -1.1% ●	↓ 1.0% ●
Target	2.5%	2.0%	2.0%	1.0%	1.0%	7.0%
Operating Revenue Growth - Change in Total Operating Revenues from prior year divided by Total Operating Revenues from prior year Demonstrates growth of operation. Core of long-term financial health.	↑ 8.4%	↑ 10.3%	↑ 8.4%	↓ 3.2%	↑ 8.9%	↓ 8.8%
Cash to Debt - Total Spendable Cash divided by Total Debt Outstanding Shows the relative size of debt burden against available liquid sources to fund debt.	↑ 2.50 ●	↑ 2.22 ●	↑ 2.03 ●	↑ 2.59 ●	↑ 1.73 ●	↓ 1.04 ●
Target	2.00	1.60	1.60	1.00	1.00	1.50
Cash to Operations - Total Spendable Cash divided by Operating Expenses Shows the amount of cash available to weather unexpected disruptions in revenue or expense.	↓ 0.90 ●	↑ 0.82 ●	↓ 0.92 ●	↑ 0.89 ●	↓ 0.70 ●	↓ 120 ●
Target	1.00	0.80	0.80	0.55	0.55	200 DCOH
Debt Service Coverage - Total Operating Cash Flows divided by Total Debt Service Payments Due Shows the ability to generate cash flows to pay debt service when it becomes due on bonds and notes payable.		↑ 2.89 ●	↓ 3.73 ●	↓ 3.18 ●	↑ 1.96 ●	↓ 3.92 ●
Target		3.00	3.00	2.50	2.50	4.50

Arrows indicate trend over prior year performance, higher is better on all ratios. Dots indicate if projected metric is over /at target (green) or under target (red). All ratios from Moody's Higher Education Scorecard.

Summary of Current Ratings

Rating Agency	Rating	UM Outlook	Industry Outlook
Moody's	Aa1	Stable	Stable
Standard & Poor's	AA+	Stable	Stable

University of Missouri System - UNAUDITED
Statement of Net Position
For the Year Ended June 30, 2024 and June 30, 2023 (in thousands)

Line No.		FY 2023	FY 2024
	Assets		
	Current Assets		
1	Cash and Cash Equivalents	\$ 706,657	\$ 673,256
2	Short-Term Investments	512,254	131,929
3	Investment of Cash Collateral	787	-
4	Accounts Receivable, Net	478,720	556,839
5	Pledges Receivable, Net	45,521	39,084
6	Investment Settlements Receivable	10,600	61,659
7	Notes Receivable, Net	6,062	5,634
8	Lease Receivable, Net	2,124	1,828
9	Due (To) From Component Unit	(6,733)	(4,755)
10	Inventories	51,786	51,044
11	Prepaid Expenses and Other Current Assets	38,679	37,560
12	Total Current Assets	1,846,457	1,554,078
	Noncurrent Assets		
13	Pledges Receivable, Net	32,771	45,378
14	Notes Receivable, Net	31,774	30,804
15	Lease Receivable, Net	12,307	11,674
16	Other Assets	16,552	68
15	Long-Term Investments	4,271,226	5,114,057
17	Capital Assets, Net	3,998,692	4,189,542
18	Total Noncurrent Assets	8,363,322	9,391,523
19	Deferred Outflow of Resources	426,771	252,006
20	Total Assets and Deferred Outflow of Resources	\$ 10,636,550	\$ 11,197,607
	Liabilities		
	Current Liabilities		
25	Accounts Payable	170,726	182,381
26	Accrued Liabilities	229,417	221,148
27	Deferred Revenue Current	111,010	133,063
28	Investment Settlements Payable	14,907	131,838
30	Collateral Held for Securities Lending	787	-
31	Commercial Paper and Current Portion of Long-Term Debt	201,355	71,998
32	Long-Term Debt Subject to Remarketing Agreements	66,485	59,245
33	Total Current Liabilities	794,687	799,673

University of Missouri System - UNAUDITED
Statement of Net Position
For the Year Ended June 30, 2024 and June 30, 2023 (in thousands)

Line No.		FY 2023	FY 2024
	Liabilities, Continued		
	Noncurrent Liabilities		
34	Long-Term Debt	1,629,283	1,590,315
35	Deferred Revenue	13,471	11,789
36	Asset Retirement Obligation	62,433	62,433
37	Derivative Instrument Liability	8,454	2,639
38	Other Postemployment Benefits Liability	148,746	134,837
39	Net Pension Liability	1,254,814	1,115,200
40	Other Noncurrent Liabilities	99,094	90,165
41	Total Noncurrent Liabilities	3,216,295	3,007,378
41	Deferred Inflow of Resources	160,420	140,989
42	Total Liabilities and Deferred Inflow of Resources	\$ 4,171,402	\$ 3,948,040
	Net Position		
43	Net Investment in Capital Assets	2,206,407	2,472,307
	Restricted		
	Nonexpendable -		
44	Endowment	1,628,024	1,759,432
	Expendable -		
45	Scholarship, Research, Instruction and Other	574,519	596,197
46	Loans	70,579	72,706
47	Capital Projects	56,165	64,074
48	Unrestricted	1,929,454	2,284,851
49	Total Net Position	6,465,148	7,249,567
50	Total Liabilities, Deferred Inflow of Resources and Net Position	\$ 10,636,550	\$ 11,197,607

University of Missouri System - UNAUDITED

Simplified View Statement of Revenues, Expenses, and Changes in Net Position - non-GAAP

For the Year Ending June 30, 2024 Compared to Year Ended June 30, 2023 (in thousands)

Line No.		Actuals FY 2023	Original Budget FY 2024	Actuals FY 2024
Operating Revenues				
1	Tuition and Fees	\$ 985,283	\$ 1,028,764	\$ 1,059,136
2	Less Scholarship Allowances	432,143	451,418	471,325
3	Net Tuition and Fees	553,140	577,346	587,811
4	Federal Pell Grants	55,221	55,126	60,867
5	Government Scholarship Funding	34,703	32,763	35,098
6	Federal Stimulus Funding	-	-	-
7	Grants and Contracts	473,576	463,138	545,677
8	Auxiliary Enterprises	475,267	470,706	551,044
9	Patient Medical Services Net	1,963,005	1,811,353	2,114,788
10	Other Operating Revenues	79,304	72,640	93,455
11	State Appropriations	453,422	500,871	480,977
12	Federal Appropriations	29,273	28,697	28,953
13	Private Gifts	121,806	101,244	97,534
14	Spendable Investment Income	115,211	119,599	123,225
15	Total Operating Revenues	4,353,928	4,233,483	4,719,430
Operating Expenses				
16	Salaries and Wages	1,978,702	1,968,548	2,161,883
17	Benefits	535,627	597,087	619,290
18	Supplies, Services and Other Operating Expenses	1,373,929	1,238,953	1,502,034
19	Depreciation	274,366	245,347	284,512
20	Interest Expense	72,424	69,266	67,631
21	Total Operating Expenses	4,235,048	4,119,201	4,635,350
22	Net Operating Income	118,880	114,282	84,080
23	Net Operating Margin	2.7%	2.7%	1.8%
Nonoperating Revenues (Expenses)				
24	Investment Income (Losses), Net of Fees	196,806	241,988	481,166
25	Spendable Investment Income	(115,211)	(119,599)	(123,225)
26	Other Nonoperating Revenues (Expenses)	33,288	(1,673)	(9,862)
27	Capital Appropriations and Grants	30,239	92,049	252,527
28	Capital Gifts	61,187	128,081	79,948
29	Private Gifts for Endowment Purposes	38,045	37,970	30,670
30	Pension and OPEB Impact on Income Statement	(68,390)	(61,411)	1,049
31	Mandatory Transfers	-	-	-
32	Non-Mandatory Transfers	-	-	-
33	Net Nonoperating Revenues (Expenses)	175,964	317,405	712,273
34	Increase in Net Position	294,844	431,687	796,353
35	Net Position, Beginning of Year	6,170,285	6,465,148	6,465,148
36	Cumulative Effect of Change in Accounting Principle	19	-	(11,934)
37	Net Position, Beginning of Year, Adjusted	6,170,304	6,465,148	6,453,214
38	Net Position, End of Period	\$ 6,465,148	\$ 6,896,835	\$ 7,249,567

University of Missouri System - Columbia - UNAUDITED

Simplified View Statement of Revenues, Expenses, and Changes in Net Position - non-GAAP

For the Year Ending June 30, 2024 Compared to Year Ended June 30, 2023 (in thousands)

Line No.		Actuals FY 2023	Original Budget FY 2024	Actuals FY 2024
	Operating Revenues			
1	Tuition and Fees	\$ 528,876	\$ 543,834	\$ 585,270
2	Less Scholarship Allowances	236,975	244,534	263,160
3	Net Tuition and Fees	291,901	299,300	322,110
4	Federal Pell Grants	24,574	25,650	26,286
5	Government Scholarship Funding	19,828	19,000	19,250
6	Grants and Contracts	299,810	308,382	343,073
7	Auxiliary Enterprises	347,804	343,677	411,568
8	Patient Medical Services Net	317,322	336,248	334,494
9	Other Operating Revenues	33,700	39,714	51,435
10	State Appropriations	242,650	275,815	255,921
11	Federal Appropriations	19,464	18,808	19,566
12	Private Gifts	54,294	44,808	41,274
13	Spendable Investment Income	80,357	83,172	84,789
14	Total Operating Revenues	1,731,704	1,794,574	1,909,766
	Operating Expenses			
15	Salaries and Wages	940,050	996,663	1,043,945
16	Benefits	260,707	284,916	289,531
17	Supplies, Services and Other Operating Expenses	348,082	348,429	381,863
18	Depreciation	109,132	101,943	110,723
19	Interest Expense	32,692	30,864	31,271
20	Total Operating Expenses	1,690,663	1,762,815	1,857,334
21	Net Operating Income	41,041	31,759	52,433
22	Net Operating Margin	2.4%	1.8%	2.7%
	Nonoperating Revenues (Expenses)			
23	Investment Income (Losses), Net of Fees	74,354	119,165	174,156
24	Spendable Investment Income	(80,357)	(83,172)	(84,789)
25	Other Nonoperating Revenues (Expenses)	7,080	515	3,058
26	Capital Appropriations and Grants	24,801	36,000	207,940
27	Capital Gifts	11,007	69,723	37,428
28	Private Gifts for Endowment Purposes	30,302	32,298	22,670
29	Mandatory Transfers	158	-	233
30	Non-Mandatory Transfers	55,157	21,876	45,724
31	Net Nonoperating Revenues (Expenses)	122,502	196,405	406,419
32	Increase in Net Position	163,543	228,164	458,852
33	Net Position, Beginning of Year	3,516,046	3,679,479	3,679,479
34	Cumulative Effect of Change in Accounting Principle	(110)	-	(11,716)
35	Net Position, Beginning of Year, Adjusted	3,515,936	3,679,479	3,667,763
36	Net Position, End of Period	\$ 3,679,479	\$ 3,907,643	\$ 4,126,615

University of Missouri System - Hospital - UNAUDITED

Simplified View Statement of Revenues, Expenses, and Changes in Net Position - non-GAAP

For the Year Ending June 30, 2024 Compared to Year Ended June 30, 2023 (in thousands)

Line No.		Actuals FY 2023	Original Budget FY 2024	Actuals FY 2024
Operating Revenues				
1	Tuition and Fees	\$ -	\$ -	\$ -
2	Less Scholarship Allowances	-	-	-
3	Net Tuition and Fees	-	-	-
4	Federal Pell Grants		-	-
5	Government Scholarship Funding		-	-
6	CARES Act Funding		-	-
7	Grants and Contracts	90	16	112
8	Auxiliary Enterprises	23,531	22,161	31,563
9	Patient Medical Services Net	1,386,260	1,433,936	1,474,334
10	Other Operating Revenues	764	442	1,867
11	State Appropriations	-	-	-
12	Federal Appropriations	-	-	-
13	Private Gifts	1,384	6,008	1,301
14	Spendable Investment Income	-	-	-
15	Total Operating Revenues	1,412,029	1,462,563	1,509,177
Operating Expenses				
16	Salaries and Wages	468,230	475,447	497,418
17	Benefits	127,272	145,674	147,042
18	Supplies, Services and Other Operating Expenses	674,623	676,552	737,161
19	Depreciation	79,635	74,065	82,148
20	Interest Expense	15,984	18,474	21,160
21	Total Operating Expenses	1,365,744	1,390,212	1,484,929
22	Net Operating Income	46,285	72,351	24,248
23	Net Operating Margin	3.3%	4.9%	1.6%
Nonoperating Revenues (Expenses)				
24	Investment Income (Losses), Net of Fees	6,358	3,764	18,442
25	Spendable Investment Income	-	-	-
26	Other Nonoperating Revenues (Expenses)	4,641	(2,266)	(4,815)
27	Capital Appropriations and Grants	-	-	-
28	Capital Gifts	587	164	931
29	Private Gifts for Endowment Purposes	-	-	18
30	Mandatory Transfers	-	-	-
31	Non-Mandatory Transfers	(35,131)	(27,533)	(32,311)
32	Net Nonoperating Revenues (Expenses)	(23,545)	(25,871)	(17,735)
33	Increase in Net Position	22,740	46,480	6,513
34	Net Position, Beginning of Year	\$ 1,000,351	\$ 1,023,169	1,023,169
35	Cumulative Effect of Change in Accounting Principle	78	-	9,820
36	Net Position, Beginning of Year, Adjusted	1,000,429	1,023,169	1,032,989
37	Net Position, End of Period	\$ 1,023,169	\$ 1,069,649	\$ 1,039,502

Note: Income Statement presentation is based on the current Moody's Higher Education methodology which includes interest expense as part of operating expenses. Numbers presented to Health Affairs show interest expense as non-operating.

University of Missouri System - CRMC - UNAUDITED

Simplified View Statement of Revenues, Expenses, and Changes in Net Position - non-GAAP

For the Year Ending June 30, 2024 Compared to Year Ended June 30, 2023 (in thousands)

Line No.		Actuals FY 2023	Original Budget FY 2024	Actuals FY 2024
Operating Revenues				
1	Tuition and Fees	\$ -	\$ -	\$ -
2	Less Scholarship Allowances			
3	Net Tuition and Fees	-	-	-
4	Federal Pell Grants	-	-	-
5	Government Scholarship Funding	-	-	-
6	Federal Stimulus Funding	-	-	-
7	Grants and Contracts	-	-	-
8	Auxiliary Enterprises	-	11,221	-
9	Patient Medical Services Net	219,665	248,078	266,367
10	Other Operating Revenues	-	-	4
11	State Appropriations	-	-	-
12	Federal Appropriations	-	-	-
13	Private Gifts	606	-	55
14	Spendable Investment Income	-	-	-
15	Total Operating Revenues	220,271	259,299	266,426
Operating Expenses				
16	Salaries and Wages	102,853	107,895	113,199
17	Benefits	17,569	19,914	26,081
18	Supplies, Services and Other Operating Expenses	130,129	130,460	117,065
19	Depreciation	12,105	15,933	15,688
20	Interest Expense	1,188	1,679	1,989
21	Total Operating Expenses	263,844	275,881	274,022
22	Net Operating Income	(43,573)	(16,582)	(7,596)
23	Net Operating Margin	-19.8%	-6.4%	-2.9%
Nonoperating Revenues (Expenses)				
24	Investment Income (Losses), Net of Fees	2,101	1,151	1,319
25	Spendable Investment Income	-	-	-
26	Other Nonoperating Revenues (Expenses)	15,356	250	(2,832)
27	Capital Appropriations and Grants	-	-	-
28	Capital Gifts	-	-	-
29	Private Gifts for Endowment Purposes	-	-	-
30	Mandatory Transfers	-	-	-
31	Non-Mandatory Transfers	-	-	1,468
32	Net Nonoperating Revenues (Expenses)	17,457	1,401	(45)
33	Increase in Net Position	(26,116)	(15,181)	(7,641)
34	Net Position, Beginning of Year	\$ 122,952	\$ 96,836	96,836
35	Cumulative Effect of Change in Accounting Principle		-	(8,808)
36	Net Position, Beginning of Year, Adjusted	122,952	96,836	88,028
37	Net Position, End of Period	\$ 96,836	\$ 81,655	\$ 80,387

Note: Income Statement presentation is based on the current Moody's Higher Education methodology which includes interest expense as part of operating expenses. Numbers presented to Health Affairs show interest expense as non-operating.

University of Missouri System - Kansas City - UNAUDITED

Simplified View Statement of Revenues, Expenses, and Changes in Net Position - non-GAAP

For the Year Ending June 30, 2024 Compared to Year Ended June 30, 2023 (in thousands)

Line No.		Actuals FY 2023	Original Budget FY 2024	Actuals FY 2024
	Operating Revenues			
1	Tuition and Fees	\$ 220,984	\$ 233,779	\$ 224,700
2	Less Scholarship Allowances	82,596	85,000	85,490
3	Net Tuition and Fees	138,388	148,779	139,210
4	Federal Pell Grants	13,528	12,600	15,633
5	Government Scholarship Funding	5,231	5,000	5,771
6	Grants and Contracts	82,446	70,000	92,875
7	Auxiliary Enterprises	42,754	46,846	43,903
8	Patient Medical Services Net	39,738	41,145	39,565
9	Other Operating Revenues	21,192	20,000	25,159
10	State Appropriations	82,301	88,463	88,463
11	Federal Appropriations	-	-	-
12	Private Gifts	33,303	17,500	22,742
13	Spendable Investment Income	16,544	15,714	17,249
14	Total Operating Revenues	475,425	466,047	490,572
	Operating Expenses			
15	Salaries and Wages	216,977	229,492	239,490
16	Benefits	63,717	71,921	70,321
17	Supplies, Services and Other Operating Expenses	122,667	125,104	136,675
18	Depreciation	25,390	24,220	26,729
19	Interest Expense	7,184	6,730	6,882
20	Total Operating Expenses	435,935	457,467	480,097
21	Net Operating Income	39,490	8,580	10,474
22	Net Operating Margin	8.3%	1.8%	2.1%
	Nonoperating Revenues (Expenses)			
23	Investment Income (Losses), Net of Fees	16,860	24,266	31,962
24	Spendable Investment Income	(16,544)	(15,714)	(17,249)
25	Other Nonoperating Revenues (Expenses)	6,716	-	9,094
26	Capital Appropriations and Grants	1,394	11,500	6,595
27	Capital Gifts	14,155	18,500	18,570
28	Private Gifts for Endowment Purposes	287	900	438
29	Mandatory Transfers	26	-	27
30	Non-Mandatory Transfers	3,940	187	6,797
31	Net Nonoperating Revenues (Expenses)	26,834	39,639	56,236
32	Increase in Net Position	66,324	48,219	66,710
33	Net Position, Beginning of Year	673,178	739,502	739,502
34	Cumulative Effect of Change in Accounting Principle	-	-	-
35	Net Position, Beginning of Year, Adjusted	673,178	739,502	739,502
36	Net Position, End of Period	\$ 739,502	\$ 787,721	\$ 806,212

University of Missouri System - Missouri S&T - UNAUDITED

Simplified View Statement of Revenues, Expenses, and Changes in Net Position - non-GAAP

For the Year Ending June 30, 2024 Compared to Year Ended June 30, 2023 (in thousands)

Line No.		Actuals FY 2023	Original Budget FY 2024	Actuals FY 2024
Operating Revenues				
1	Tuition and Fees	\$ 126,007	\$ 131,330	\$ 134,618
2	Less Scholarship Allowances	70,802	72,821	76,766
3	Net Tuition and Fees	55,205	58,509	57,852
4	Federal Pell Grants	5,580	5,400	6,654
5	Government Scholarship Funding	5,946	5,000	6,038
6	Grants and Contracts	45,749	43,775	55,123
7	Auxiliary Enterprises	24,474	24,264	28,112
8	Patient Medical Services Net	-	-	-
9	Other Operating Revenues	4,705	2,860	4,339
10	State Appropriations	55,942	60,121	60,121
11	Federal Appropriations	-	-	-
12	Private Gifts	21,099	20,269	19,629
13	Spendable Investment Income	14,269	14,348	14,639
14	Total Operating Revenues	232,969	234,546	252,504
Operating Expenses				
15	Salaries and Wages	105,699	112,935	115,694
16	Benefits	31,976	37,099	35,132
17	Supplies, Services and Other Operating Expenses	51,944	48,670	62,389
18	Depreciation	23,588	24,918	25,387
19	Interest Expense	5,077	4,847	4,847
20	Total Operating Expenses	218,284	228,469	243,449
21	Net Operating Income	14,685	6,077	9,056
22	Net Operating Margin	6.3%	2.6%	3.6%
Nonoperating Revenues (Expenses)				
23	Investment Income (Losses), Net of Fees	12,859	13,053	29,734
24	Spendable Investment Income	(14,269)	(14,348)	(14,639)
25	Other Nonoperating Revenues (Expenses)	(68)	50	(1,349)
26	Capital Appropriations and Grants	-	20,762	15,792
27	Capital Gifts	30,332	34,694	21,401
28	Private Gifts for Endowment Purposes	3,859	2,250	5,700
29	Mandatory Transfers	5	-	6
30	Non-Mandatory Transfers	4,023	82	258
31	Net Nonoperating Revenues (Expenses)	36,741	56,543	56,903
32	Increase in Net Position	51,426	62,620	65,959
33	Net Position, Beginning of Year	662,982	714,408	714,408
34	Cumulative Effect of Change in Accounting Principle	-	-	(1,230)
35	Net Position, Beginning of Year, Adjusted	662,982	714,408	713,178
36	Net Position, End of Period	\$ 714,408	\$ 777,028	\$ 779,137

University of Missouri System - St. Louis - UNAUDITED
Simplified View Statement of Revenues, Expenses, and Changes in Net Position non-GAAP
For the Year Ending June 30, 2024 Compared to Year Ended June 30, 2023 (in thousands)

Line No.		Actuals FY 2023	Original Budget FY 2024	Actuals FY 2024
Operating Revenues				
1	Tuition and Fees	\$ 109,416	\$ 119,821	\$ 114,548
2	Less Scholarship Allowances	41,728	49,030	45,812
3	Net Tuition and Fees	67,688	70,791	68,737
4	Federal Pell Grants	11,539	11,476	12,294
5	Government Scholarship Funding	3,698	3,763	4,039
6	CARES Act Funding	-	-	-
7	Grants and Contracts	43,975	40,965	54,447
8	Auxiliary Enterprises	14,243	12,321	13,603
9	Patient Medical Services Net	20	24	27
10	Other Operating Revenues	1,803	1,983	2,321
11	State Appropriations	63,062	68,654	68,654
12	Federal Appropriations	-	-	-
13	Private Gifts	10,992	12,531	12,417
14	Spendable Investment Income	8,740	9,087	9,306
15	Total Operating Revenues	225,760	231,595	245,846
Operating Expenses				
16	Salaries and Wages	103,137	106,212	107,158
17	Benefits	32,848	35,050	34,390
18	Supplies, Services and Other Operating Expenses	69,654	67,136	83,842
19	Depreciation	18,327	17,824	18,332
20	Interest Expense	5,118	4,860	4,857
21	Total Operating Expenses	229,084	231,082	248,579
22	Net Operating Income	(3,324)	513	(2,733)
23	Net Operating Margin	-1.5%	0.2%	-1.1%
Nonoperating Revenues (Expenses)				
24	Investment Income (Losses), Net of Fees	8,059	10,701	17,086
25	Spendable Investment Income	(8,740)	(9,087)	(9,306)
26	Other Nonoperating Revenues (Expenses)	(110)	25	(54)
27	Capital Appropriations and Grants	4,044	23,787	22,200
28	Capital Gifts	5,106	5,000	1,617
29	Private Gifts for Endowment Purposes	3,589	2,521	1,841
30	Mandatory Transfers	36	-	20
31	Non-Mandatory Transfers	3,281	1,166	1,574
32	Net Nonoperating Revenues (Expenses)	15,265	34,113	34,977
33	Increase in Net Position	11,941	34,626	32,243
34	Net Position, Beginning of Year	413,249	425,191	425,191
35	Cumulative Effect of Change in Accounting Principle	-	-	-
36	Net Position, Beginning of Year, Adjusted	413,249	425,191	425,191
37	Net Position, End of Period	\$ 425,191	\$ 459,817	\$ 457,434

University of Missouri System - System Administration - UNAUDITED
Simplified View Statement of Revenues, Expenses, and Changes in Net Position - non-GAAP
For the Year Ending June 30, 2024 Compared to Year Ended June 30, 2023 (in thousands)

Line No.		Actuals FY 2023	Original Budget FY 2024	Actuals FY 2024
Operating Revenues				
1	Tuition and Fees	\$ -	\$ -	\$ -
2	Less Scholarship Allowances	23	-	84
3	Net Tuition and Fees	(23)	-	(84)
4	Federal Pell Grants	-	-	-
5	Government Scholarship Funding	-	-	-
6	Grants and Contracts	1,506	-	46
7	Auxiliary Enterprises	22,461	21,437	22,296
8	Patient Medical Services Net	-	-	-
9	Other Operating Revenues	13,993	7,769	5,365
10	State Appropriations	-	-	-
11	Federal Appropriations	-	-	-
12	Private Gifts	126	126	115
13	Spendable Investment Income	4,768	5,096	5,060
14	Total Operating Revenues	42,831	34,428	32,798
Operating Expenses				
15	Salaries and Wages	41,407	47,799	44,781
16	Benefits	14,059	17,072	15,882
17	Supplies, Services and Other Operating Expenses	(31,751)	(29,574)	(39,423)
18	Depreciation	6,189	2,377	5,505
19	Interest Expense	363	-	249
20	Total Operating Expenses	30,267	37,674	26,994
21	Net Operating Income	12,564	(3,246)	5,804
22	Net Operating Margin	29.3%	-9.4%	17.7%
Nonoperating Revenues (Expenses)				
23	Investment Income (Losses), Net of Fees	7,086	7,729	8,380
24	Spendable Investment Income	(4,768)	(5,096)	(5,060)
25	Other Nonoperating Revenues (Expenses)	(56)	3	(1,345)
26	Capital Appropriations and Grants	-	-	-
27	Capital Gifts	-	-	-
28	Private Gifts for Endowment Purposes	6	-	2
29	Mandatory Transfers	-	-	-
30	Non-Mandatory Transfers	(19,427)	4,033	(29,498)
31	Net Nonoperating Revenues (Expenses)	(17,159)	6,669	(27,521)
32	Increase in Net Position	(4,595)	3,423	(21,718)
33	Net Position, Beginning of Year	223,347	218,803	218,803
34	Cumulative Effect of Change in Accounting Principle	51	-	-
35	Net Position, Beginning of Year, Adjusted	223,398	218,803	218,803
36	Net Position, End of Period	\$ 218,803	\$ 222,226	\$ 197,085

University of Missouri University-wide - UNAUDITED
Simplified View Statement of Revenues, Expenses, and Changes in Net Position - non-GAAP
For the Year Ending June 30, 2024 Compared to Year Ended June 30, 2023 (in thousands)

Line No.		Actuals FY 2023	Original Budget FY 2024	Actuals FY 2024
	Operating Revenues			
1	Tuition and Fees	\$ -	\$ -	\$ -
2	Less Scholarship Allowances	19	33	14
3	Net Tuition and Fees	(19)	(33)	(14)
4	Federal Pell Grants	-	-	-
5	Government Scholarship Funding	-	-	-
6	Institutional CARES Act Funding	-	-	-
7	Grants and Contracts	-	-	-
8	Auxiliary Enterprises	-	-	-
9	Patient Medical Services Net	-	-	-
10	Other Operating Revenues	3,147	(128)	2,964
11	State Appropriations	9,467	7,818	7,818
12	Federal Appropriations	9,809	9,889	9,388
13	Private Gifts	2	2	2
14	Spendable Investment Income	(9,467)	(7,818)	(7,818)
15	Total Operating Revenues	12,939	9,730	12,340
	Operating Expenses			
16	Salaries and Wages	349	-	197
17	Benefits	(12,521)	5,355	910
18	Supplies, Services and Other Operating Expenses	8,598	2,636	24,001
19	Depreciation	-	-	-
20	Interest Expense	4,818	3,491	(3,624)
21	Total Operating Expenses	1,244	11,482	21,484
22	Net Operating Income	11,695	(1,752)	(9,144)
23	Net Operating Margin	90.4%	-18.0%	-74.1%
	Nonoperating Revenues (Expenses)			
24	Investment Income (Losses), Net of Fees	69,129	63,310	200,086
25	Spendable Investment Income	9,467	7,818	7,818
26	Other Nonoperating Revenues (Expenses)	(271)	-	(11,619)
27	Capital Appropriations and Grants	-	-	-
28	Capital Gifts	-	-	-
29	Private Gifts for Endowment Purposes	2	1	1
30	Pension and OPEB Impact on Income Statement	(68,390)	(61,411)	1,049
31	Mandatory Transfers	(240)	-	(315)
32	Non-Mandatory Transfers	(11,811)	189	7,558
33	Net Nonoperating Revenues (Expenses)	(2,114)	9,907	204,579
34	Increase in Net Position	9,581	8,155	195,434
35	Net Position, Beginning of Year	(441,820)	(432,239)	(432,239)
36	Cumulative Effect of Change in Accounting Principle	-	-	-
37	Net Position, Beginning of Year, Adjusted	(441,820)	(432,239)	(432,239)
38	Net Position, End of Period	\$ (432,239)	\$ (424,084)	\$ (236,805)

APPENDIX

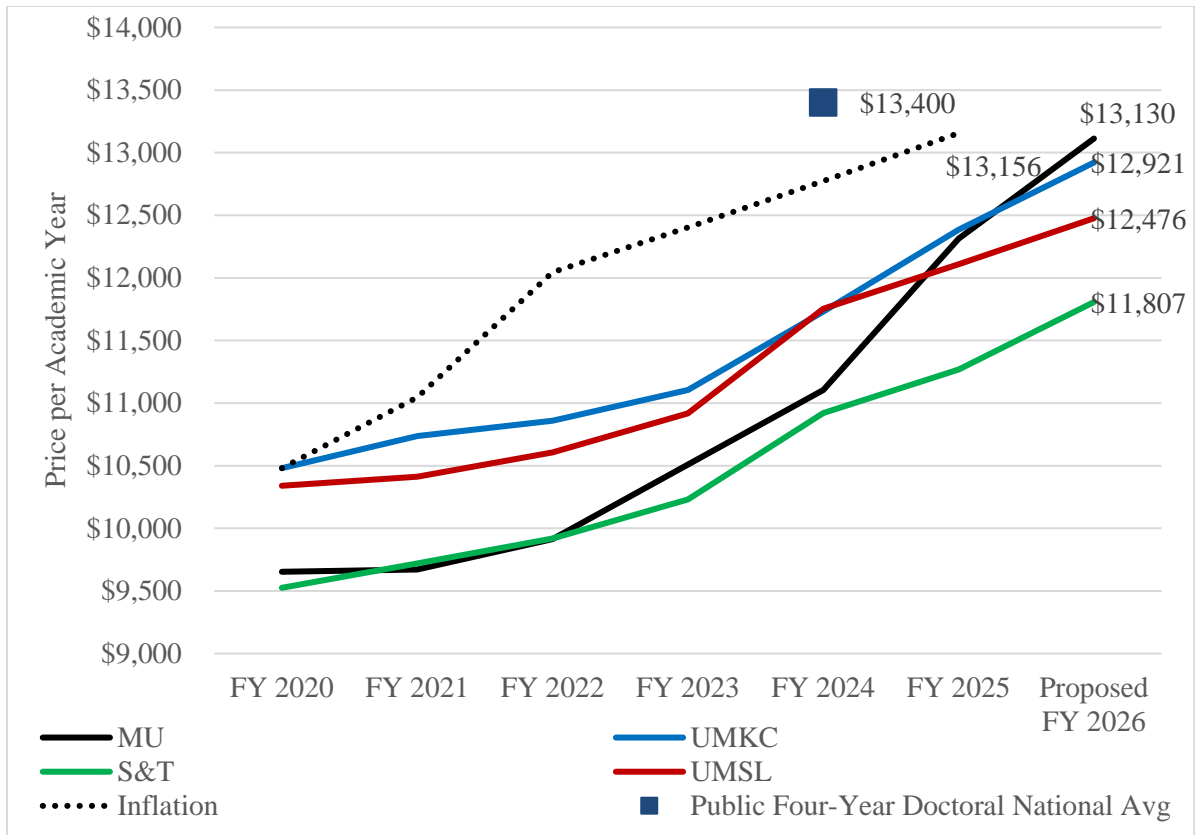
Fiscal Year 2026 Student Housing and Dining Rates UM

Pages 9-13 provide the detailed rate recommendations for residence halls (housing and dining) and family student housing for FY2026. The rates become effective Summer Session 2025. These recommendations are being presented for approval.

Rate adjustments consider factors to unique to each university's competitive market for student housing and dining. The student housing and dining auxiliaries require significant financial and capital resources to ensure that living and dining facilities remain competitive. The University's housing operations account for a quarter of its total outstanding debt, the largest share of any single business line. Rates charged to students are the only means of servicing this debt. Variations in rates among universities reflect the relative value of the living and dining choices offered to students.

Figure 1 illustrates the predominant room and board rates from FY2020 to the proposed rates for FY2026. In FY2019, MU reduced rates and maintained them at a constant level until FY2022. This strategy aimed to boost enrollment by offering lower housing costs than other public doctoral universities. As enrollment and occupancy reached more sustainable levels, MU adjusted pricing to align with the financial requirements of the housing auxiliary. MU's room and board proposed rates are comparable to other SEC schools. Even with the proposed increases for FY2026, the University's rates remain below the national average rates for FY2024 for public doctoral universities.

Figure 1: Predominant Room and Board Rates by University



Housing and Dining Financial Statements

The rates for room and board are set to support daily operations, fund annual debt service, and meet maintenance needs as residential facilities age. A key component of setting rates for each university is ensuring housing and dining operations generate adequate revenue to cover costs. Housing and dining auxiliaries are essential to each campus, contributing to the university’s overall financial health. Any shortfall in the housing auxiliary would need to be offset by other unrestricted funding sources.

Table 1: FY2026 Projected Financial Indicators

Projected FY2025	MU	UMKC	Missouri S&T	UMSL	Total
Total Operating Revenues	\$94 million	\$13 million	\$25 million	\$5 million	\$137 million
Total Debt Outstanding	\$226 million	\$40 million	\$53 million	\$12 million	\$331 million
% of Total University Debt	37%	32%	56%	13%	25%
Debt Service Coverage	1.34	1.23	1.48	1.17	

The housing auxiliaries should maintain sufficient margins to fund debt service (absolute minimum of 1.0). The housing auxiliary must also generate sufficient revenues to fund maintenance needs. Capital investment and maintenance is imperative to preserve the value and attractiveness of the residential buildings throughout their expected lives.

To provide flexibility, housing operations have leased additional space as needed to address temporary excess demand. By leveraging a space lease model for flexible areas of demand, institutions can preserve capital and debt for other uses. MU has established lease agreements with nearby properties to provide extra capacity as class sizes have expanded. If demand continues to rise in FY2026 and MU cannot meet it with existing housing stock, MU will seek to extend and/or establish contracts with external housing providers. A rate request for off-campus apartments has been included in the FY2026 proposal to prepare for the possibility of engaging the private market to accommodate higher enrollment. The rate will only be utilized if additional housing stock is necessary due to occupancy of owned stock.

University of Missouri (MU)

The recommended predominant room and board plan will cost \$13,130 per academic year for FY2026 and consists of \$8,618 for the traditional double room and \$4,512 for the 12 meals a week dining plan which offers dining anywhere on campus.

Housing rates for FY2026 in university owned housing range from a high of \$13,500 per academic year for a single suite open over breaks to a low of \$7,415 for a traditional triple room. In setting rates, MU segmented housing inventory into three different groups by demand profile: best value, moderate, and premium housing and structured pricing accordingly. Location and housing age are the primary drivers of the room demand profile.

per academic year	FY2025 Rate	FY2026 Rate	Increase \$	Increase %
Best value traditional room	Low: \$6,995 High: \$9,575	Low: \$7,415 High: \$10,250	\$420 - \$675	6.0% - 7.0%
Moderate traditional room	\$8,100	\$8,670	\$570	7.0%
Premium traditional room	Low: \$8,555 High: \$11,245	Low: \$9,200 High: \$12,145	\$645 - \$900	7.5% - 8.0%
Suite style rooms	Low: \$8,555 High: \$12,495	Low: \$9,200 High: \$13,500	\$645 - \$1,005	7.5% - 8.0%
Predominant Room – weighted average cost	\$8,038	\$8,601	\$563	7.0%

MU proposes a 6% to 8% increase in housing rates to bring rates in line with market and address deferred maintenance needs. The increases are necessary to fund the ongoing maintenance of university-owned buildings and ensure the housing quality meets student expectations, maintaining competitiveness. The university has benchmarked these rates against nearby off-campus housing options.

With enrollment increases, MU’s occupancy rate exceeded 95%. To provide flexibility and lessen the draw on capital resources, MU has entered into agreements with off-campus apartments to meet additional demand. For FY2025, approximately 270 beds have been leased at two properties adjacent to campus. The proposed rates include an off-campus apartment rate to allow for price adjustments in line with various off-campus locations if demand supports expansion. The rate will only be utilized if needed to meet demand as the Fall 2025 class need becomes more certain.

MU continues to adapt dining operations to match student expectations. Over the past year, Campus Dining Services has reviewed internal dining metrics including financial performance, transactions, wait times, and workforce data to improve dining operations. Conversations with students and student organizations, along with peer comparisons were used to determine food and dietary preferences. Feedback consistently highlighted the need for greater access to fresh fruits and vegetables, expanded grab-and-go options, access to local and national brands, and the necessity to accommodate a growing number of students with food allergies.

In response to student preferences, MU converted an existing space into a Top 9 allergen-free location, added more fresh fruits and vegetables across campus, and expanded grab-and-go offerings. To improve the number of brand options available to students, Campus Dining Services partnered with third-party vendors to invest in and operate food venues. Early indicators show a 40% increase in average daily transactions compared to the previous fall.

MU is restructuring meal plan offerings to better match the preferences of students, providing more options for accessing quality dining. The new plans are designed to meet market demand and student needs. Instead of the current three meal plan options, MU will now offer five different options. The additional plans provide greater access to higher demand, brand name restaurants. The new options ranging in cost from \$1,800 to \$7,000 per academic year (versus a range of \$1,960 to \$4,040 in 2025). The dining plan expected to be most popular among students next year will be \$4,512 per academic year, with an underlying cost per meal increase of 5.5%.

MU's current room and board plans range from \$8,955 to \$16,535 per academic year. In comparison, the average room and board plans at other SEC universities range from \$7,852 to \$23,670 per academic year before any increases for FY2026. With the recommended increases, MU's room and board plans would range from \$9,295 to \$20,500 per academic year. The primary driver of the increase on the top end is the higher end dining plan with more access to name brand restaurants.

University of Missouri Kansas City (UMKC)

The predominant room and board plan at UMKC for FY2026 will cost \$12,921 per year, an increase of \$537 or 4.3%. The major components of the predominant room and board include a traditional double room, and a dining plan which offers 224 meals per semester with \$125 in flex dollars that can be used at any campus dining location as well as 20 meal exchanges that can be used at the national branded dining concepts (Chick-fil-A, Starbucks and Einstein Brothers). UMKC students have four University-owned housing options available to them: Oak Street Hall, Johnson Hall, Hospital Hill Apartments and Rockhill Apartments.

UMKC is proposing a 4.5% housing rate increase. The rate increases fund inflationary cost pressures in the housing auxiliary. UMKC's housing rates remain competitive with the market. UMKC occupancy rates are trending positive; residence halls continue to maintain steady occupancy of 89%. Apartment occupancy improved from 83% in Fall 2023 to 95% in Fall 2024. Overall occupancy is at 90% this fall compared to 88% in the previous fall.

Campus dining operations are being relocated to the Student Union beginning in the spring 2025, which will coincide with the introduction of the Foodiverse concept. This concept blends the resident dining plans with retail dining options. To accommodate the new concept, UMKC is redesigning dining plan options: a 19 meal per week with \$50 in flex dollars; a 224 meal per semester plan, with \$125 in flex dollars and 20 meal exchanges; and a 160 meal per semester with \$175 in flex dollars and 20 meal exchanges per semester. While the plans are different, the cost per meal to the students aligns with the inflationary increase for food away from home from August to August.

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University of Missouri Science & Technology (Missouri S&T)

The predominant room and board plan at Missouri S&T for FY2026 will cost \$11,807 per academic year and consists of a double room and declining balance meal plan per semester. The increase in the predominant room and board plan at Missouri S&T is 4.8% or \$538 for the academic year.

The recommended housing rates are a balance between meeting the financial needs of the housing auxiliary and affordability for students. The rates were set with the objective of making minimal increases to rooms with the least demand and greater increases for rooms in more desirable halls. Room rates range from a high of \$11,280 per academic year for a single bedroom/apartment style room in University Commons, which is the newest facility, to \$6,525 per academic year for a triple room in Thomas Jefferson South.

The recommended rate increases are intended to support maintenance and improvement of the existing housing stock to remain competitive. Missouri S&T plans to build plant reserves to use for future renovations of the residence halls. For instance, major renovations will be needed for Thomas Jefferson Hall by 2029. The cost of these renovations must be funded over multiple years to afford the major project.

Missouri S&T has five different meal plans available ranging from a high of \$4,387 for all access in Thomas Jefferson plus \$150 declining balance per year to a low of a \$2,722 for 18 dining hall meals plus \$2,470 declining balance. The increases in plan costs are necessary to fund the increased cost of food and labor for dining operations.

University of Missouri St. Louis (UMSL)

The predominant room and board plan at UMSL for FY2026 will cost \$12,476 per academic year. The predominant plan consists of a single room in Oak Hall and an Oak Hall dining plan. The increase in the predominant room and board plan at UMSL is 3.0% or \$368 for the academic year. UMSL is committed to maintaining affordability for its students, with 49% of the current residential population being Pell-eligible and reliant on accessible education, campus experiences, and housing.

To ensure housing remains affordable, UMSL has proposed a 3% increase in housing rates. Projected occupancy in Oak Hall for FY 2025 was 94.7% or 392 beds. Current occupancy to date is 404 beds or 98.1% occupancy. Occupancy in Oak Hall has improved over prior academic year with the closure of Mansion Hill. Subsequent growth within the residential community will be dependent on enrollment.

UMSL's meal plan proposal includes a redesign of offerings contracted with a third-party food service provider. The goal of this redesign is to enable students to maximize their meal plan usage by eliminating meal blocks and transitioning to a declining balance system. The overall rate impact on students is structured to increase 3% year over year. The options feature declining balances ranging from \$3,290 to \$5,100, per academic year.

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The table on the next page summarizes the room and board predominant plan for each campus as well as the range of plan options. Campus specific tables detailing contract rates for housing and dining options follow.

Summary of Housing Contracts, Effective Beginning with the 2025 Summer Session

Room and Board Plans Academic Year - 2 Semesters		MU			
		FY2025	FY2026	Increase/ Decrease	Percent Change
Room and Board - Predominant Plan		\$12,313	\$13,130	\$817	6.6%
Traditional double room (average)		8,038	8,618	580	7.2%
Predominate Meal Plan		4,275	4,512	237	5.5%
Range of Plan Options					
Housing Options	High	\$12,495	\$13,500	Single/Double suite open over breaks	
Housing Options	Low	6,995	7,415	Triple Community Style	
Meal Plan Options	High	4,040	7,000	19 Meals/ Week	
Meal Plan Options	Low	1,960	1,880	5 Meals/ Week	

Room and Board Plans Academic Year - 2 Semesters		UMKC			
		FY2025	FY2026	Increase/ Decrease	Percent Change
Room and Board - Predominant Plan		\$12,384	\$12,921	\$537	4.3%
Traditional Double A/C		8,137	8,503	366	4.5%
224 Block Meals/\$125 flex; 20 meal exchanges		4,247	4,418	171	4.0%
Range of Plan Options					
Housing Options	High	\$13,599	\$14,211	Single room apartment	
Housing Options	Low	8,137	8,503	Double A/C	
Meal Plan Options	High	4,466	4,644	19 meals/week w/\$50 flex; 2 meal exchanges/week	
Meal Plan Options	Low	4,224	4,418	224 Block Meals/\$125 flex; 20 meal exchanges /semester	

Room and Board Rates Academic Year - 2 Semesters		S&T			
		FY2025	FY2026	Increase/ Decrease	Percent Change
Room and Board - Predominant Plan		\$11,269	\$11,807	\$538	4.8%
Renovated Double		7,835	8,150	315	4.0%
Silver 150 Meals plus \$330 DBD		3,434	3,657	223	6.5%
Range of Plan Options (1)					
Housing Options	High	\$10,900	\$11,280	Single University Commons	
Housing Options	Low	6,335	6,525	Triple Room	
Meal Plan Options	High	4,100	4,387	Platinum	
Meal Plan Options	Low	2,520	2,722	Emerald (upperclassmen only)	

Room and Board Plans Academic Year - 2 Semesters		UMSL			
		FY2025	FY2026	Increase/ Decrease	Percent Change
Room and Board - Predominant Plan		\$12,108	\$12,476	\$368	3.0%
Single Room		7,782	8,016	234	3.0%
Oak Hall Plan		4,326	4,460	134	3.1%
Range of Plan Options					
Housing Options	High	\$7,782	\$8,016	Oak Hall Single	
Housing Options	Low	5,618	5,786	Double Room Dept and Student Leader	
Meal Plan Options	High	5,356	5,100	Oak Hall Plus	
Meal Plan Options	Low	3,193	3,290	Oak Hall Mini	

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**University of Missouri - Columbia, Proposed Changes in Housing & Dining Contract Rates for FY2026
Effective Beginning with the 2025 Summer Session**

Room and Board Plans				
Academic Year - 2 Semesters	FY2025	FY2026	Increase/ Decrease	Percent Change
Predominant Plan				
Room and Board	\$ 12,313	\$ 13,130	\$ 817	6.6%
Traditional double room (average)	8,038	8,618	580	7.2%
Predominate Meal Plan ¹	4,275	4,512	237	5.5%
Note 1: Increase calculated based on cost per meal increase				
Meal Plans Options				
Regular Academic Year (Two Semesters)				
The FY2026 meal plans reflect a new structure as such comparable rates are not available. FY2025 meal plans ranged from \$1,960 to \$4,040. The overall average per meal increase is 5.5%.				
5 Meals/Week	N/A	\$ 1,880	N/A	N/A
9 Meals/Week	N/A	3,384	N/A	N/A
12 Meals/Week (predominate plan)	N/A	4,512	N/A	N/A
19 Meals/Week	N/A	7,000	N/A	N/A
21+ Meals/Week (dining hall only plan)	N/A	5,200	N/A	N/A
Summer Session Rate	\$ 980	\$ 940	\$ (40)	-4.1%
Housing Options				
Regular Academic Year (Two Semesters)				
Community Style				
Single Premium	\$ 11,245	\$ 12,145	\$ 900	8.0%
Double Premium	8,810	9,475	665	7.5%
Triple Premium	8,555	9,200	645	7.5%
Double Mid	8,100	8,670	570	7.0%
Single Low	9,575	10,250	675	7.0%
Double Low	7,205	7,710	505	7.0%
Triple Low	6,995	7,415	420	6.0%
Suite Style				
Suite Single	\$ 12,495	\$ 13,500	\$ 1,005	8.0%
Suite Double	10,365	11,144	779	7.5%
Suite Double With Living Room	12,105	13,015	910	7.5%
Suite Triple	8,555	9,200	645	7.5%
3rd party owned and operated apartments				
	FY2025		FY2026	
	low	premium	low	premium
	\$ 5,000	\$ 12,995	\$ 12,105	\$ 15,495
Summer Session				
	FY2025	FY2026	Increase/ Decrease	Percent Change
Single	\$ 2,100	\$ 2,250	\$ 150	7.1%
Double	1,477	1,580	103	7.0%
Suite Single	-	2,925	N/A	N/A
Suite Double	-	2,060	N/A	N/A
Family Student Housing (Annual Cost)				
	FY2025		FY2026	
	low	premium	low	premium
Tara Apartments (Range)	\$ 8,040	\$ 11,940	\$ 11,000	\$ 12,830

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University of Missouri - Kansas City, Proposed Changes in Housing & Dining Contract Rates for FY2026
Effective Beginning with the 2025 Summer Session

Room and Board Plans				
Academic Year - 2 Semesters	FY2025	FY2026	Increase/ Decrease	Percent Change
Predominant Plan				
Room and Board	\$ 12,384	\$ 12,921	\$ 537	4.3%
Double	8,137	8,503	366	4.5%
Predominant Meal Plan	4,247	4,418	171	4.0%
Meal Plans Defined				
The FY2026 meal plans reflect a new structure as such comparable rates are not available. FY2025 meal plans ranged from \$4,224 to \$4,466. The overall average per meal increase is 4.0%.				
19 meals/week w/\$50 flex; 2 meal exchanges/week	N/A	\$ 4,644	N/A	N/A
224 Block Meals/\$125 flex; 20 meal exchanges /semester	N/A	4,418	N/A	N/A
160 Block Mealsw/\$175 flex; 20 meal exchanges/smester	N/A	4,418	N/A	N/A
Housing Options - Regular Academic Year (Two Semesters)				
Johnson Hall				
Double	\$ 8,137	\$ 8,503	\$ 366	4.5%
Single Private Bath A/C	10,288	10,751	463	4.5%
Single Shared Bath A/C	10,061	10,514	453	4.5%
Oak Street				
Double	\$ 8,137	\$ 8,503	\$ 366	4.5%
Single Private Bath A/C	10,288	10,751	463	4.5%
Single Shared Bath A/C	10,061	10,514	453	4.5%
Triple & Single W/Common	10,525	10,999	474	4.5%
Hospital Hill Apts				
Quad Apts	\$ 10,806	\$ 11,292	\$ 486	4.5%
Double Apt	12,316	12,870	554	4.5%
Single Apt	13,599	14,211	612	4.5%
UMKC Homes Rockhill				
Double Apt	\$ 11,798	\$ 12,329	\$ 531	4.5%
Summer Session (1)				
Johnson Hall - Room Only				
Double	\$ 2,945	\$ 3,078	\$ 133	4.5%
Single Private Bath	3,723	3,891	168	4.5%
Single Shared Bath	3,642	3,806	164	4.5%
Oak Street East - Room Only				
Double	\$ 2,945	\$ 3,078	\$ 133	4.5%
Single Private Bath A/C	3,723	3,891	168	4.5%
Single Shared Bath A/C	3,642	3,806	164	4.5%
Triple & Single W/Common	3,809	3,980	171	4.5%
Hospital Hill Apts				
Quad Apt	\$ 3,911	\$ 4,087	\$ 176	4.5%
Double Apt	4,458	4,659	201	4.5%
Single Apt	4,922	5,143	221	4.5%
UMKC Homes Rockhill				
Double Apt	\$ 4,270	\$ 4,462	\$ 192	4.5%

(1) Summer Rate is for Full Summer (134 days) and based on the daily rate for Spring/Fall.

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Missouri S&T, Proposed Changes in Housing & Dining Contract Rates for FY2026
Effective Beginning with the 2025 Summer Session

Room and Board Rates				Increase/	Percent
Academic Year - 2 Semesters		FY2025	FY2026	Decrease	Change
Predominant Plan¹					
Room and Board		\$ 11,269	\$ 11,807	\$ 538	4.8%
Thomas Jefferson North Renovated Double		7,835	8,150	315	4.0%
Silver	150 Meals plus \$330 DBD	3,434	3,657	223	6.5%
Meal Plans Defined²					
Platinum	Unlimited Meals + \$150 DBD	\$ 4,100	\$ 4,387	\$ 287	7.0%
Gold	400 Meal + \$200 DBD	3,978	4,217	239	6.0%
Silver	300 Meals + \$330 DBD	3,434	3,657	223	6.5%
Bronze	34 Meals + \$3590 DBD	3,750	3,994	244	6.5%
Emerald	18 Meals + \$2470 DBD	2,520	2,722	202	8.0%
Housing Options - Regular Academic Year (Two Semesters)					
Residential College Suites					
Double Suite		\$ 9,010	\$ 9,390	\$ 380	4.2%
Double Deluxe Suite		9,320	9,720	400	4.3%
Single Deluxe Suite		10,490	10,910	420	4.0%
Single Bed in Triple Room		10,160	10,570	410	4.0%
Thomas Jefferson North					
Double Room		\$ 7,835	\$ 8,150	\$ 315	4.0%
Single Room		9,070	9,435	365	4.0%
Thomas Jefferson South					
Double Room		\$ 7,940	\$ 8,260	\$ 320	4.0%
Single Room		9,070	9,435	365	4.0%
Triple Room		6,335	6,525	190	3.0%
Miner Village Apartments					
4 Bedroom Apartments		\$ 9,460	\$ 9,840	\$ 380	4.0%
2 Bedroom Apartments		10,140	10,550	410	4.0%
University Commons					
Double		\$ 9,200	\$ 9,590	\$ 390	4.2%
Single		10,900	11,280	380	3.5%
Rolla Suites					
Single Efficiency		\$ 9,520	\$ 9,900	\$ 380	4.0%
708 W. 13th Street					
Double		\$9,200	\$9,610	\$410	4.5%
Single		\$10,900	\$11,340	\$440	4.0%
Summer Session					
Combined Room and Board Rates		FY2025	FY2026	Increase/	Percent
				Decrease	Change
University Commons--rate includes 100 Miner Bucks					
Single		\$ 1,185	\$ 1,230	\$ 45	3.8%
Double		875	910	35	4.0%

November 20, 2024

**UMSL, Proposed Changes in Housing & Dining Contract Rates for FY2026
Effective Beginning with the 2025 Summer Session**

Room and Board Plans			Increase/ Decrease	Percent Change
Academic Year - 2 Semesters	FY2025	FY2026		
Predominant Plan				
Room and Board	\$ 12,108	\$ 12,476	\$ 368	3.0%
Oak Single Room	7,782	8,016	234	3.0%
Oak Hall Plan	4,326	4,460	134	3.1%

Meal Plans Defined

The FY2026 meal plans reflect a new structure as such comparable rates are not available. FY2025 meal plans ranged from \$3,193 to \$5,356. The average rate increase to students is estimated to be flat.

Oak Hall Plan	N/A	\$ 4,460	N/A	N/A
Oak Hall Plus	N/A	5,100	N/A	N/A
Oak Hall Basic	N/A	4,000	N/A	N/A
Oak Hall Mini	N/A	3,290	N/A	N/A

Housing Options - Regular Academic Year (Two Semesters)

Oak Hall				
Double Room Dept and Student Leader	\$ 5,618	\$ 5,786	\$ 168	3.0%
Single Room	7,782	8,016	234	3.0%
Single Room Dept and Student Leader	7,004	7,214	210	3.0%

Summer Session - Room Only	FY2025	FY2026	Increase/ Decrease	Percent Change
Oak Hall Double Room - LL	\$ 1,396	\$ 1,438	\$ 42	3.0%
Oak Hall Single Room	1,748	1,748	-	0.0%