# WEDNESDAY, NOVEMBER 16, 2022 

ACADEMIC AFFAIRS AND STUDENT LIFE COMMITTEE MEETING
Jeff M.S. Kaplan, chair
Elizabeth A. Harsh, vice chair
Abigail S. Wexner
Elizabeth P. Kessler
Reginald A. Wilkinson
Michael Kiggin
Taylor A. Schwein
Susan E. Cole
Hiroyuki Fujita (ex officio)

Location: Sanders Grand Lounge, Longaberger Alumni House
Time: 2:30-4:45pm 2200 Olentangy River Rd, Columbus, Ohio 43210

## Public Session

ITEMS FOR DISCUSSION

1. Provost's Report - Dr. Melissa Gilliam

2:30-2:45pm
2. Senior Vice President for Student Life's Report: Building Sound Futures by

2:45-3:00pm Building Financial Capabilities - Dr. Melissa Shivers, Mr. Ben Raines, Mr. Alex Thomas

ITEMS FOR ACTION
3:00-3:10pm
3. Approval of August 2022 Committee Meeting Minutes - Mr. Jeff Kaplan
4. Approval to Establish a Master of Geographic Information Science and Technology Dr. Melissa Gilliam
5. Approval to Establish the Department of Molecular Medicine and Therapeutics Dr. Melissa Gilliam
6. Approval to Revise the College of Optometry's Clinical Faculty Cap - Dr. Melissa Gilliam
7. Approval of the Reports on Low Enrollment and Duplicate Programs - Dr. Melissa Gilliam
8. Amendments to the Rules of the University Faculty - Dr. Melissa Gilliam
9. Faculty Personnel Actions - Dr. Melissa Gilliam

## Provost's Report

November 2022

## Melissa Gilliam

Executive Vice President and Provost

## Academic Plan

Where we will focus to achieve eminence and excellence.


## Health \& Safety Update

## Health and Safety Update

- Ohio State continues to offer public health guidance and resources to the university community
- Shift from large-scale testing operation to a voluntary, supportive program
- Increased in-person teaching and learning this fall.



## Enrollment Update

## Undergraduate enrollment 5 -year trend (Columbus)

|  | AU18 | AU19 | AU20 | AU21 | AU22 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Resident | $\begin{array}{r} 35,286 \\ (75 \%) \end{array}$ | $\begin{array}{r} 35,268 \\ (75 \%) \end{array}$ | $\begin{array}{r} 35,766 \\ (76 \%) \end{array}$ | $\begin{array}{r} 35,706 \\ (76 \%) \end{array}$ | $\begin{array}{r} 34,625 \\ (75 \%) \end{array}$ |
| Non-Resident | $\begin{array}{r} 7,509 \\ (16 \%) \end{array}$ | $\begin{array}{r} 7,634 \\ (16 \%) \end{array}$ | $\begin{array}{r} 8,003 \\ (17 \%) \end{array}$ | $\begin{array}{r} 8,239 \\ (17 \%) \end{array}$ | $\begin{array}{r} 8,298 \\ (18 \%) \end{array}$ |
| International | $\begin{array}{r} 4,025 \\ (9 \%) \end{array}$ | $\begin{array}{r} 3,916 \\ (9 \%) \end{array}$ | $\begin{array}{r} 3,215 \\ (7 \%) \end{array}$ | $\begin{array}{r} 3,161 \\ (7 \%) \end{array}$ | $\begin{array}{r} 3,200 \\ (7 \%) \end{array}$ |
|  | 46,820 | 46,818 | 46,984 | 47,106 | 46,123 |

## Undergraduate enrollment 5 -year trend (Columbus)

- Planned decline following a record number of undergraduate students on the Columbus campus in 2021 following the uncertainty of the pandemic
- Steadily maintained 75\% resident students
- Seeing rebound in international
 students post pandemic


## Demonstrated academic achievement (Columbus)

|  | AU18 | AU19 | AU20 | AU21 | AU22 |
| :--- | ---: | ---: | ---: | ---: | ---: |
| \% in top 10\% of HS class | $64 \%$ | $61 \%$ | $55 \%$ | $64 \%$ | $70 \%$ |
| \% in top 25\% of HS class | $95 \%$ | $94 \%$ | $91 \%$ | $94 \%$ | $98 \%$ |
| ACT Score | 29.3 | 29.5 | 28.8 | 28.6 | 28.9 |

## Scarlet \& Gray Advantage

# Scarlet \& Gray ADVANTAGE ${ }_{\text {тм }}$ 

EARN YOUR OHIO STATE DEGREE, DEBT-FREE

- High-touch, student-centered program
- Empowering students to graduate without loans through enhanced access to scholarships, work/internships, and learning experiences focused on financial and career skills
- Support model features partnerships across the university, including with the Office of Strategic Enrollment Management and the Office of Student Life


# Scarlet \& Gray ADVANTAGE ${ }_{\text {тм }}$ 

EARN YOUR OHIO STATE DEGREE, DEBT-FREE

- Launched pilot program this fall with 125 incoming undergraduate students
- Students from more than half of Ohio's 88 counties
- $60 \%$ are first-generation students
- Students will apply for scholarship and grants each year, pursue jobs/internships, and take part in learning experiences around financial literacy and career development
- Learning community assessment



## Faculty Eminence

## Supporting Scholars and Educators

- Faculty recruitment programs
- Early Career Scholars Program
- Faculty hiring programs
- RAISE initiative
- Fellow to Faculty Program
- Faculty hiring infrastructure
- Office of Faculty Relocation and Dual Careers
- Faculty Networks


On-field recognition for faculty university award recipients, September 2022

## Provost's Early Career Scholars



Chinyere Agbai College of Arts and Sciences


Ashleigh LoVette College of Public Health


Christina Dyar College of Nursing


Parvati Singh
College of Public Health


Hun Lee
Fisher College of Business


Brian Skinner
College of Arts and Sciences


Horacio Lopez-Nicora College of Food, Agricultural, and Environmental Sciences


Lydia Walker
College of Arts and Sciences

## Inclusive Excellence

## Howard Hughes Medical Institute (HHMI) Driving Change

- Improving retention and graduation of underrepresented students in STEM while providing long-term changes in STEM learning environments
- Ohio State one of only six universities to receive $\$ 2.5 \mathrm{M}$ grant from HHMI after competitive process that began in 2019 with 99 institutions
- Program will enable scholars program, pedagogical changes, instructor support, a STEM learning center, and more




## Thank you!




|

## A Shared Academic Vision for Ohio State

At The Ohio State University, people from all backgrounds come together and thrive through scholarship, teaching, learning, clinical care, and creative expression. Our commitment to academic excellence means we explore enduring questions and tackle major challenges.

Our community is moving forward in service to Ohio, the nation, and the world. We are committed to investing in our faculty, empowering our students, supporting our staff, and creating an environment where all can reach their full potential.

President Kristina M. Johnson has laid out an ambitious vision for The Ohio State University. This Academic Plan serves as a framework for how the Office of Academic Affairs (OAA) will accelerate that vision. The plan is the result of many conversations with faculty, staff, students, administrative leaders, and other key partners who shared their insights and aspirations.

OAA oversees Ohio State's academic enterprise-including 15 colleges, four regional campuses, University Libraries, and units that support academic experience, university operations, the arts, and more. The Academic Plan defines six areas: faculty eminence, student academic excellence, external engagement, inclusive excellence, technology and digital innovation, and operational effectiveness. Each area is supported by one of the goals outlined below.

Thank you for your partnership and your commitment to transforming academics at Ohio State.


## Advance <br> Faculty <br> Eminence

$\qquad$
We will be a vibrant academic community whose contributions make the world flourish.

To achieve this goal, we will consider all aspects of academic life, ensuring the academic community thrives both professionally and personally. We will:

- Restructure OAA to better attract, recruit, develop, and retain Ohio State faculty.
- Forge collaborations across the academic enterprise in support of faculty and staff.
- Modernize university policies, programs, and practices to promote academic well-being

These actions will enable Ohio State to:

- Maintain a premier faculty.
- Implement creative, contemporary, and quality faculty recruitment, hiring, and relocation processes.
- Create and maintain a diverse and inclusive academic community on all campuses, while placing value on the multiple ways faculty contribute to the mission of the university.
- Create conditions that enable faculty to innovate, create fielddefining scholarship, and tackle society's most intractable problems.

Ensure educators succeed in the classroom and in other learning environments.

- Focus on the well-being of the academic community and the quality of academic life for all faculty on all campuses.



## Accelerate

 Student SuccessWe will create an unparalleled academic experience, graduating future leaders prepared to serve society.

To achieve this goal, we will deepen our commitment to student academic success. We will:

- Redesign our undergraduate and graduate/professional student administrative structures to meet the needs of prospective and current students and postdoctoral scholars.
- Create a strategic enrollment infrastructure that aligns marketing, admissions, financial aid, the registrar, and data analysis to support enrollment and student success on all campuses.
- Create innovative practices for education and student support services.

These actions will enable Ohio State to:

- Recruit, retain, and graduate a student body across all majors and programs that reflects the rich diversity of our region, state, nation, and world.
- Create pathways for all students to have transformational academic experiences, from pre-college to post-graduation preparing a diverse student body for the modern workforce, graduate and professional programs, and lifelong curiosity.
- Provide learners with an exceptional education that prepares them to be leaders and contributors to a dynamic workforce and a sustainable future.
- Promote and enable interdisciplinary teaching and learning.
- Reimagine our Graduate School so graduate and professional students thrive professionally and personally.
- Attract, recruit, and develop an outstanding complement of postdoctoral scholars.



## GOAL 3

## Enhance Impact Through External Engagement

We will forge strong connections with communities near and far, better serving Columbus, the region, the state, and the world.

To achieve this goal, we will reimagine external engagement. We will:

- Restructure the Office of Outreach and Engagement to include our local, regional, state, and global efforts.
- Increase internal and external collaborations in scholarship, the arts, and teaching and learning.
- Focus on the success and well-being of all Ohio State campuses, identifying opportunities for collaboration, alignment, and resource-sharing across the campuses.


## These actions will enable Ohio State to:

- Create an infrastructure so each of our campuses can strengthen collaborations with external communities.
- Increase the impact of Ohio State's academics, research, service, and care in the state of Ohio.
- Increase the impact of the Office of International Affairs to further our local and global missions.
- Empower our campuses to generate community-engaged scholarship and creative expression of the highest caliber and be fully recognized for these critical contributions.
- Urgently address sustainability through operations, research teaching and learning, and community engagement.
- Make Ohio State and Columbus a destination for arts and culture.
- Ensure the success of each Ohio State campus.


Strengthen Talent, Culture, and Inclusive Excellence

We will create a university environment where all individuals can fully participate in the life of our campuses.

To achieve this goal, we will lead comprehensive work in inclusive excellence, and support health and well-being. We will:

- Champion Ohio State's Shared Values.
- Create alignment and coordination across the university's diversity and inclusion infrastructure
- Collaborate with campus partners around health and well-being

These actions will enable Ohio State to:

- Lead institutional goals around diversity, innovation, inclusion, and equity to recognize each person's potential to contribute new ideas.
- Create a university community skilled in civil discourse, while elevating the importance of citizenship and service.
- Routinely assess our university culture and take positive action in response to findings.
- Create a culture of inclusion and belonging so all can fully participate in the life of the university.
- Promote the well-being of our university community_including physical and mental health



## Improve Technological Innovation

We will become a digitally transformed institution that enhances experiences for teaching, learning, researching, and working at Ohio State.

To achieve this goal, we will integrate technological innovation into our teaching, research, scholarship, and operations. We will:

- Ensure that Ohio State has the full technological infrastructure to support our students, staff, and faculty.
- Identify core technology processes that are shared across the institution and centralize operations when needed
- Create a technology-ready mindset among students, staff, and faculty.

These actions will enable Ohio State to:

- Build a robust data integration, reporting, and analytics ecosystem that is easily accessible and fosters data-informed decisions across the university.
- Focus on equitable access to technology through the availability of device-agnostic software and services.
- Improve the quality, consistency, and experience of technology use for learners, researchers, educators, and staff.
- Increase the security of our technology by implementing systems that are secure by design, decreasing vulnerabilities and increasing preventive behavior among our community.
- Create and implement a transformative, learner-centric vision for online education that includes skill building, flexible degree paths, and a greater variety of courses and curriculum alternatives.


## GOAL 6

## Achieve Operational Excellence

We will develop and continuously improve academic, administrative, and business processes to advance the university's academic priorities.

To achieve this goal, we will enhance the operational effectiveness, transparency, and efficiency of OAA's academic, administrative, and business processes. We will:

- Redesign OAA's organizational structure to align with academic priorities and provide optimal support for advancing the Academic Plan.
- Create an administrative modernization program to update processes, enhance coordination, and deliver efficient and effective results.
- Reestablish the Office of Institutional Research and Planning and promote the use of data, analytics, and information to facilitate insights and improve strategic and evidence-based decision making.

These actions will enable Ohio State to:

- Align the academic, administrative, and business processes of OAA, academic support units, and the colleges and campuses.
- Aid each academic support unit in designing human-centered policies and processes that are aligned with the Academic Plan and promote the success of Ohio State faculty, staff, and students.
- Aid each college in aligning with the Academic Plan, leveraging academic support units, determining resource allocations, and promoting the success of Ohio State faculty, staff, and students.
- Reimagine buildings, classrooms, and shared spaces to facilitate Ohio State's emergence as a learner-centered university.
- Improve systems, remove unnecessary bureaucracy, and reduce administrative burdens.
- Cultivate a culture of high performance and academic excellence within OAA and across the academic enterprise



## NEXT STEPS

The Academic Plan offers a vision that will guide OAA and its partners. Many efforts are already underway, and others will start in the coming months and years. Success will require deep engagement from faculty, staff, and students We will revisit this plan on a regular basis, continue to gain input from the university community, and provide regular updates. With focus and purpose, there is nothing that Ohio State cannot do

The Ohio State University Office of Academic Affairs 203 Bricker Hall 190 North Oval Mall Columbus, OH 43210

## Enrollment Report 2022

Dear colleagues:
I am pleased to present Ohio State's 2022 Enrollment Report. In this report, you will find a summary of university enrollment, key data on our students and a decade's worth of historical statistics on a variety of meaningful measures.

Once again, the numbers tell a great university success story There is much to be proud of this year, including record enrollment for minority students, as well as increases in enrollment of some of Ohio's top students. We are also pleased to share that the average debt students graduated
 with decreased again for the fifth consecutive year.

## Among the highlights:

- Total minority student enrollment at all campuses and all levels increased to a record high 17,067.
- Columbus campus new first-year students who graduated in the top $10 \%$ of their high school class increased from 64\% to 70\%.
- Columbus campus new first-year students who graduated in the top $25 \%$ of their high school class increased from 94\% to 98\%.
- The average ACT for the new first-year students class at Columbus increased to 28.9. That's up from 28.6 in 2021.

Overall, our strong numbers are the result of university-wide efforts to enroll wellprepared students, to focus on student success through targeted programming and to provide our Buckeyes with a tremendous academic experience. Behind those efforts are the dedicated faculty and staff who attract, retain, support, inspire and challenge our students every day.

Thank you for your contribution.
James Earl Orr, Jr., PhD
Vice Provost for Strategic Enrollment Management

STRATEGIC ENROLLMENT
MANAGEMENT

The Ohio State
UNIVERSITY

## Enrollment counts

Total university enrollment, all levels and campuses

| Total | 65,795 |
| :--- | ---: |
| Undergraduate | 51,377 |
| Graduate | 11,199 |
| Professional | 3,219 |

Enrollment by country of citizenship and state, all levels and campuses

Top 14 countries: China, India, Korea (Republic of), Taiwan, Canada, Malaysia, Saudi Arabia, Brazil, Iran (Islamic Republic of), Bangladesh, Turkey, Egypt, Vietnam, and Nigeria

Top 11 states: Ohio, New York, Illinois, Pennsylvania, New Jersey, California, Michigan, Maryland, Florida, Texas, and Virginia

## Undergraduate details, Columbus

Campus-change students (from regional to Columbus)

| Autumn 2022 | 1,261 |
| :--- | :--- |
| Autumn 2021 | 1,286 |
| Autumn 2020 | 1,412 |
| Autumn 2019 | 1,372 |
| Autumn 2018 | 1,422 |
| Autumn 2017 | 1,348 |

Transfer students from 2and 4-year colleges

| Autumn 2022 | 1,857 |
| :--- | :--- |
| Autumn 2021 | 2,070 |
| Autumn 2020 | 2,158 |
| Autumn 2019 | 2,415 |
| Autumn 2018 | 2,388 |
| Autumn 2017 | 2,634 |

Distribution by academic area, Columbus

| Arts and Sciences | 17,076 | $37.0 \%$ |
| :--- | ---: | ---: |
| Business | 7,909 | $17.1 \%$ |
| Dental Hygiene | 148 | $0.3 \%$ |
| Education and Human Ecology | 2,965 | $6.4 \%$ |
| Engineering and Architecture | 8,359 | $18.1 \%$ |
| Exploration | 1,876 | $4.1 \%$ |
| Food, Agricultural and |  |  |
| Environmental Sciences | 2,132 | $4.6 \%$ |
| Health and Rehabilitation Sciences | 2,206 | $4.8 \%$ |
| Medicine | 99 | $0.2 \%$ |
| Nursing | 973 | $2.1 \%$ |
| Pharmacy | 441 | $1.0 \%$ |
| Public Affairs | 271 | $0.6 \%$ |
| Public Heath | 293 | $0.6 \%$ |
| Social Work | 392 | $0.8 \%$ |
| - - - - - - - - - - - | $-\mathbf{-}$ | $-\mathbf{-}$ |
| Continuing education | 508 | $1.1 \%$ |
| Dual enrollment | 475 | $1.0 \%$ |
| Total |  |  |

Minority students, all levels and campuses


Number of international students, all levels


## New first-year students (for the class of 2022)



| Total NFYS applicants | 71,343 |
| :--- | ---: |
| Number admitted | 34,341 |
| Number enrolled | 7,966 |

Academic qualifications

| \% in top 10\% of high school class | 70 |
| :--- | ---: |
| \% in top 25\% of high school class | 98 |
| ACT Composite (middle 50\%) | $27-32$ |
| SAT Combined (middle 50\%) | 1270-1430 |

Demographics

| Male/Female ratio | $47 / 53$ |
| :--- | ---: |
| Minority students | $2,182(27.4 \%)$ |
| First generation | $1,722(21.6 \%)$ |
| Pell-grant recipients | $1,315(16.5 \%)$ |

Residency distribution

| Ohio residents | $5,281(66.3 \%)$ |
| :--- | ---: |
| Domestic out-of-state | $1,793(22.5 \%)$ |
| International students | $892(11.2 \%)$ |

New first-year student enrollment by campus

| CFAES Wooster (ATI) | 217 |
| :--- | ---: |
| Columbus | 7,966 |
| Lima | 273 |
| Mansfield | 298 |
| Marion | 311 |
| Newark | 1,140 |



## First-year retention

Ohio State's first-year retention for the class of 2022 was $93.4 \%$. Underrepresented minority students retained at very high levels: 90.7\% of African American students returned for a second year as did 92.4\% of Latinx students.

## Geographic distribution, Columbus campus

Distribution of new first-year students by state and territory


5,245: Ohio

101-500: California, Illinois, New Jersey, New York, Pennsylvania

51-100: Florida, Maryland, Massachusetts, Michigan, Virginia

26-50: Connecticut, Georgia, Missouri, Tennessee, Texas

1-25: Alabama, Alaska, Arizona, Arkansas, Colorado, Delaware, Hawaii, Idaho, Indiana, lowa, Kansas, Kentucky, Louisiana, Maine, Minnesota, Nebraska, Nevada, New Hampshire, New Mexico, North Carolina, North Dakota, Oklahoma, Oregon, Puerto Rico, Rhode Island,
 South Carolina, Utah, Vermont, Washington, Washington, D.C., West Virginia, Wisconsin

0: Mississippi, Montana, South Dakota, Wyoming

## Graduate and professional information (Columbus)

## Enrollment data

Enrollment composition

| Master's | 5,508 |
| :--- | ---: |
| PhD | 5,096 |
| Non-degree/Certificate | 594 |

Total graduate applications

| Autumn 2022 | 15,819 |
| :--- | :--- |
| Autumn 2021 | 16,255 |
| Autumn 2020 | 16,620 |
| Autumn 2019 | 16,107 |
| Autumn 2018 | 17,022 |
| Autumn 2017 | 17,441 |

Total graduate enrollment

| Autumn 2022 | 11,198 |
| :--- | :--- |
| Autumn 2021 | 11,266 |
| Autumn 2020 | 11,095 |
| Autumn 2019 | 11,285 |
| Autumn 2018 | 11,097 |
| Autumn 2017 | 10,672 |

Total post-baccalaureate professional enrollment

| Autumn 2022 | 3,219 |
| :--- | :--- |
| Autumn 2021 | 3,305 |
| Autumn 2020 | 3,290 |
| Autumn 2019 | 3,288 |
| Autumn 2018 | 3,253 |
| Autumn 2017 | 3,219 |

Distribution by academic area

Graduate

| Arts and Sciences | 2,234 | $20.0 \%$ |
| :--- | ---: | ---: |
| Business | 1,027 | $9.2 \%$ |
| Dentistry | 78 | $0.7 \%$ |
| Education and Human Ecology | 1,046 | $9.3 \%$ |
| Engineering and Architecture | 1,877 | $16.8 \%$ |
| Food, Agricultural and Environmental Sciences | 534 | $4.8 \%$ |
| GRD Interdisciplinary | 835 | $7.5 \%$ |
| Health and Rehabilitation Sciences | 393 | $3.5 \%$ |
| Law | 25 | $0.2 \%$ |
| Medicine | 422 | $3.8 \%$ |
| Nursing | 976 | $8.7 \%$ |
| Optometry | 9 | $<0.1 \%$ |
| Pharmacy | 96 | $0.9 \%$ |
| Public Affairs | 229 | $2.0 \%$ |
| Public Health | 401 | $3.6 \%$ |
| Social Work | 939 | $8.4 \%$ |
| Veterinary Medicine | 77 | $0.7 \%$ |
| Total | $\mathbf{1 1 , 1 9 8}$ | $\mathbf{1 0 0 \%}$ |

Post-baccalaureate professional

| Dentistry | 479 | $14.9 \%$ |
| :--- | ---: | ---: |
| Law | 534 | $16.6 \%$ |
| Medicine | 813 | $25.3 \%$ |
| Optometry | 260 | $8.1 \%$ |
| Pharmacy | 470 | $14.6 \%$ |
| Veterinary Medicine | 663 | $20.6 \%$ |
| Total | $\mathbf{3 , 2 1 9}$ | $\mathbf{1 0 0 \%}$ |

## Degree attainment and graduation

Degrees awarded 2021-22 academic year


Percent of undergraduates graduating within four years of enrolling


Percent of undergraduates graduating within six years of enrolling


## Scarlet \& Gray Advantage

The long-term goal of the Scarlet \& Gray Advantage program is to empower students to graduate without college loans through enhanced access to scholarships, work opportunities and learning experiences focused on financial and career skills. Through their active participation in the program, students will be able to support their education and prepare for life after college.

## PILOT PROGRAM

This academic year, Ohio State launched a pilot program with 125 incoming undergraduate students drawn from across the state of Ohio. The 125 students represent each of Ohio State's campuses, hail from more than half of Ohio's 88 counties, and are pursuing majors in 57 disciplines representing at least 11 colleges. Seventy-five students ( $60 \%$ of the cohort) are first-generation college students.

For students in the debt-free degree program, Ohio State will ensure that the total estimated cost of attendance will be covered through a combination of scholarships, grants, work opportunities, and family contribution. Individual students may use all or some of these components, as determined based on their Federal Application for Federal Student Aid (FAFSA) form.

Of the total cohort, the university provided additional scholarships to 101 students in the pilot group, with an average award of $\$ 8,172$. The other 24 students already had sufficient financial support and expected family contributions to cover the estimated cost of attendance.

Students pursuing debt-free degrees have made commitments as part of the Scarlet \& Gray Advantage program. Each student in the pilot has agreed to:

- Maintain full-time enrollment and satisfactory academic progress.
- Apply for available scholarships and grants each year through the FAFSA and the university's ScholarshipUniverse tool and use financial aid counseling.
- Pursue jobs and/or paid internships and research opportunities that allow them to contribute financially to their education and support their career exploration.
- Take part in learning experiences that focus on financial literacy and career development. For example, the university offered virtual workshops this summer on financial aid and student employment. This autumn, students are enrolled in a Scarlet \& Gray Advantage class.


## LEARNING COMMUNITY ASSESSMENT

The Scarlet \& Gray Advantage pilot program engages students in a learning community. The Student Success Research Lab in the Office of Academic Affairs is leading a mixed-methods research study to examine the impact of the program on student academic success. As part of that, the Office of Student Life's Center for the Study of Student Life (CSSL) engaged in assessment of S\&GA students interest in joining the program. Of the students in the pilot, 83 have consented to participate in this research study. Below is a summary of results from the S\&GA Assessment One survey, which was collected via Qualtrics between August 24 and September 1, 2022.

## Emerging themes

Research participants were asked to share their reasons for participating in the S\&GA Program. Openended responses were coded into nine response themes:

- Debt-free
- Financial need
- Community
- Financial advising
- Team player
- Career advising
- Financial knowledge
- College advising
- Leadership skills

Many students reported the debt-free aspect of the program was a motivator:
"It sounded like a really amazing opportunity for me to be able to get my degree without having a lot of debt. Coming from a family that struggles financially, saving money and making the best financial decisions I can is very important for me..."

Access to financial resources for college:
".... Without the heavy financial aid OSU is granting me, I would not be able to afford going to this school. Seeing that the S\&GA program is supposed to help me learn about more ways I can finance my education and be smart with my money (and opportunities), I felt that it was sort of a no-brainer to join..."

Students joined for a sense of belonging:
"I was really drawn to the idea of a community where I could meet new people who have different backgrounds while working towards a debt-free college degree."

Career opportunities and advice:
"For the internship and career-building opportunities that might be available via the program. I would like to build a resume while still attending undergrad, and the program seemed like a good step towards that."

Some students indicated they wished to be "team players" and contribute to the growth of the program: "...it seemed like a unique experience. I also wanted to be a part of the first group of students so I can help give my input and ideas to make it better."

## COVID-19 Updates

This fall semester, Ohio State's campuses have been energized by increased numbers of students, faculty, staff and visitors. In-person teaching and learning, public events and campus traditions are underway, and the university continues to offer public health guidance and resources to members of its community.

## HOW SECTIONS ARE TAUGHT

Ohio State continues to offer courses in person, online and in blended formats. In autumn 2022, 81\% of all course sections are being taught in person, up from 76\% in autumn 2021.

Autumn 2020


Autumn 2021


Autumn 2022


## HOW STUDENTS ARE LEARNING

Ohio State students continue to schedule courses that include a mix of in-person and online elements. In autumn 2022, $89 \%$ of students have all or most of their courses in person (up from $74 \%$ in autumn 2021).


Online courses are coded as "distance learning." Blended courses are coded as "hybrid" or "distance enhanced." All data represent full-time, degree-seeking students across all ranks and all campuses who are not in fully online programs.

NEW COVID-19 BOOSTER SHOTS
The new COVID-19 bivalent booster is available at Student Health Services and the Wexner Medical Center. Individuals can receive the new COVID-19 booster two months after completing any primary series or any previous COVID-19 booster dose.

TESTING SHIFTS TO VOLUNTARY PROGRAM
Beginning summer 2022, Ohio State shifted to a voluntary testing program that continues to provide support to the university community. Testing for asymptomatic individuals is available on the Columbus campus, and antigen tests are available at various locations on the Columbus campus and regional campuses.

## MASKING

Face masks continue to be optional in most spaces on Ohio State's campuses, including classrooms, general-purpose buildings, and offices. Masks are required in clinical health care settings (including health science college clinical settings), child-care centers, COVID-19 testing locations, and all areas of Wexner Medical Center and Student Health Services clinical buildings.

# Building Sound Futures by Building Financial Capabilities: 

How Scarlet and Gray Financial
Contributes to Student Success and the Scarlet and Gray Advantage Program

The Ohio State University
OFFICE OF STUDENT LIFE


## ACCESS EDUCATION OUTREACH TREATMENT

## Student Financial Capability

|  | NATIONAL <br> DATA | OHIO STATE <br> DATA |
| :--- | :---: | :---: |
| Problems or challenges with finances in the past 12 months* | $47 \%$ | $40 \%$ |
| Among students experiencing financial problems or challenges <br> in past 12 months, percentage reporting their finances cause <br> them moderate or high distress* | $79 \%$ | $76 \%$ |
| Students feel confident they can manage their finances+ | $81 \%$ | $83 \%$ |
| Students answering at least half of financial knowledge <br> questions correctly+ | $68 \%$ | $74 \%$ |

*National College Health Assessment, 2022
+Study on Collegiate Financial Wellness, 2020

## Scarlet and Gray Financial

Financial Wellness Workshops and Presentations
iGrad Online Financial Wellness Platform

One-on-One
Peer Coaching


## Scarlet and Gray Financial: By the Numbers

## Key Numbers

- 2,184 group coaching and 457 1:1 coaching appointments
- 2,821 new iGrad users
- Over $\$ \mathbf{4 4 , 0 0 0}$ in student fees refunded through late fee waiver program (2021-22 academic year)


## Recognition

- Cited as best practice by US Department of Education and by US Financial Literacy and Education Commission
- Awarded the NASPA (National Association of Student Personnel Administrators) Gold Award for health and wellness programming


## Scarlet and Gray Financial: By the Numbers

## Student Outcomes from Scarlet and Gray Financial Coaching



■ Before coaching After coaching
All results statistically significant at $p<.05$ level; analysis based on paired-sample t-test
Center for the Study of Student Life, 2015

## Scarlet and Gray Advantage Comprehensive Model of Support



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## Questions

## SUMMARY OF ACTIONS TAKEN

August 17, 2022 - Academic Affairs and Student Life Committee Meeting

## Members Present:

Jeff M.S. Kaplan
Elizabeth A. Harsh

| Elizabeth P. Kessler | Susan E. Cole |
| :--- | :--- |
| Reginald A. Wilkinson | Hiroyuki Fujita (ex officio) |

## Members Present via Zoom:

Abigail S. Wexner
Michael Kiggin

## Members Absent: <br> N/A

The Academic Affairs and Student Life Committee of The Ohio State University Board of Trustees convened on Wednesday, August 17, 2022, in person at Longaberger Alumni House on the Columbus campus and virtually via Zoom. Committee Chair Jeff Kaplan called the meeting to order at 2:29 p.m.

## PUBLIC SESSION

Mr. Kaplan thanked Mrs. Harsh for agreeing to serve as vice chair of this committee. He also noted that the work of this committee is the heart of what Ohio State is all about, and he thanked everyone around the table for their insights, expertise and hard work.

## Items for Discussion

1. Provost's Report: Provost Melissa Gilliam welcomed Mr. Kaplan and Mrs. Harsh as the new committee leaders. She then kicked off her Provost's Report with an update on the COVID-19 working group. This fall, there will be a mask-optional policy for the majority of campus, with certain exceptions for clinical and health care settings. This fall, the university will also welcome its first cohort of the Scarlet and Gray Advantage Program with students representing 45 of Ohio's 88 counties. In the Office of Academic Affairs, one important focus has been identifying new leaders, and Dr. Gilliam took the opportunity to welcome David Jenkins, Dean of the College of Social Work, and David Horn, Dean of the College of Arts \& Sciences. She then introduced Dr. Charlene Gilbert, Senior Vice Provost for Student Academic Excellence, who introduced members of her team, including Dr. Norman Jones, Vice Provost and Dean for Undergraduate Education; Dr. James Orr, Vice Provost for Strategic Enrollment Management; Dr. Randy Smith, Vice Provost for Academic Programs; and Dr. Mary Stromberger, Vice Provost and Dean for Graduate Education
(See Attachment X for background information, page XX)
2. Senior Vice President for Student Life's Report: During her report, Dr. Melissa Shivers, Senior Vice President for Student Life, provided an overview of upcoming educational and support efforts related to advancing student health and well-being, including a new alcohol, tobacco, and other drugs educational module; an anti-hazing policy, training module and reporting website in response to Collin's Law; and the benefits of the Off-Campus Housing Network for students living off-campus.
(See Attachment X for background information, page XX)

## Items for Action

3. Approval of Minutes: No changes were requested to the May 18, 2022, meeting minutes; therefore, a formal vote was not required, and the minutes were considered approved.
4. Resolution No. 2023-15: Approval to Affirm Establishment of Textbook Auto-Adoption Policy:

Synopsis: Approval to affirm establishment of a textbook auto-adoption policy is proposed.
WHEREAS there is the need to be in compliance with Title I, Section 133 of the Federal Higher Education Opportunity Act of 2008; and

WHEREAS in alignment with the federal law, in June 2021 the Ohio General Assembly enacted uncodified law section 733.20 in HB 110 stating that institutions will disclose required and recommended textbooks not later than the time at which students can first begin to register for a course, and that if not selected by the first day of class registration, then the bookstore will post the materials from the prior offering of the course; and

WHEREAS The Ohio State University has a demonstrated record of commitment to and many actions for student access and affordability, including participating in the Ohio Open Education Collaborative and the Affordable Learning Exchange and posting Affordable Educational Resources on the University Libraries website; and

WHEREAS the University Senate passed a resolution initiated by the Undergraduate Student Government to increase textbook affordability by encouraging timely ordering of textbooks; and

WHEREAS a "textbook auto-adoption policy" would enable faculty to either post information before students register for a course about textbooks and other materials they must purchase, or have textbooks and other required materials from the previous offering of that course reposted automatically, with the proviso that, if faculty choose to change textbooks and/or other materials from those posted at the bookstore after the federally mandated date, they will inform their department, school or college leader; and

WHEREAS this textbook auto-adoption policy will ensure that a decision about textbook and course materials for course use will be identified by the first day of registration for the autumn 2023 term; and

WHEREAS implementation will occur through the bookstore, and the process will be developed and overseen by the Office of Academic Affairs, the University Senate and Office of the University Registrar:

## NOW THEREFORE

BE IT RESOLVED, That the Board of Trustees affirms the establishment of a textbook auto-adoption policy, and charges the Office of Academic Affairs, the University Senate and Office of the University Registrar to develop that policy for implementation in the 2022-2023 academic year.
(See Appendix $X$ for background information, page $X X$ )
5. Resolution No. 2023-16: Adoption of Interim Campus Free Speech Policy and Process:

Synopsis: Adoption of an interim campus free speech policy and process as required under Ohio Revised Code 3345.0215 is proposed.

WHEREAS Ohio Revised Code 3345.0215 codified the public policy of the state of Ohio concerning campus free speech, and requires the Board of Trustees to adopt a policy affirming several principles of campus free speech and a process under which a student, student group, or faculty member may submit a complaint about an alleged violation of the forgoing policy; and

WHEREAS it is the practice of the Board of Trustees to cause the university to operate in compliance with state law:

## NOW THEREFORE

BE IT RESOLVED, That the Board of Trustees hereby adopts the following interim policy on campus free speech:

## Interim Policy

As Buckeyes, we derive great strength from bringing together people from different backgrounds and learning from their experiences. As a land-grant institution, The Ohio State University takes seriously its role in promoting and supporting public discourse. We are steadfastly committed to protecting the First Amendment right to free speech and expression on our campuses. Encouraging individuals to share their varying thoughts and perspectives enriches the university environment and can allow community members to experience new ideas.

## Principles of Campus Free Speech

In accordance with the public policy and the laws of the state of Ohio, the university affirms the following principles:
(1) Students have a fundamental constitutional right to free speech.
(2) The university is committed to giving students broad latitude to speak, write, listen, challenge, learn, and discuss any issue, subject to Ohio Revised Code 3345.0215(E).
(3) The university is committed to maintaining a campus as a marketplace of ideas for all students and all faculty in which the free exchange of ideas is not to be suppressed because the ideas put forth are thought by some or even by most members of the institution's community to be offensive, unwise, immoral, indecent, disagreeable, conservative, liberal, traditional, radical, or wrong-headed.
(4) It is for the university's individual students and faculty to make judgments about ideas for themselves, and to act on those judgments not by seeking to suppress free speech, but by openly and vigorously contesting the ideas that they oppose.
(5) It is not the proper role of the university to attempt to shield individuals from free speech, including ideas and opinions they find offensive, unwise, immoral, indecent, disagreeable, conservative, liberal, traditional, radical, or wrong-headed.
(6) Although the university greatly values civility and mutual respect, concerns about civility and mutual respect shall never be used as a justification for closing off the discussion of ideas, however offensive, unwise, immoral, indecent, disagreeable, conservative, liberal, traditional, radical, or wrong-headed those ideas may be to some students or faculty.
(7) Although all students and all faculty are free to state their own views about and contest the views expressed on campus, and to state their own views about and contest speakers who are invited to express their views on the campus of a state institution of higher education, they may not substantially obstruct or otherwise substantially interfere with the freedom of others to express views they reject or even loathe. To this end, the university has a responsibility to promote a lively and fearless freedom of debate and deliberation and protect that freedom.
(8) The university shall be committed to providing an atmosphere that is most conducive to speculation, experimentation, and creation by all students and all faculty, who shall always remain free to inquire, to study and to evaluate, and to gain new understanding.
(9) The primary responsibility of faculty is to engage an honest, courageous, and persistent effort to search out and communicate the truth that lies in the areas of their competence.

## Complaints

Further, the university is creating a process under which a student, student group, or faculty member may submit a complaint about an alleged violation by an employee of the university for violations of the above interim policy, including any violation which results in a penalty imposed on a student's grade for an assignment or coursework that is unrelated to ordinary academic standards of substance and relevance, including any legitimate pedagogical concerns, and is instead based on the contents of student's free speech.

A complaint can be submitted to the Office of University Compliance and Integrity at: complianceintegrity@osu.edu or anonymously using EthicsPoint.

Under the process, which shall comply with standards to be adopted by the Ohio Chancellor of Higher Education, the university will investigate the alleged violation and conduct a fair and impartial hearing regarding the alleged violation. If the hearing determines the university's interim policy was violated, the university shall determine a resolution to address the violation and prevent any further violation of the interim policy.
6. Resolution No. 2023-17: Faculty Personnel Actions:

BE IT RESOLVED, That the Board of Trustees hereby approves the faculty personnel actions as recorded in the personnel budget records of the university since the May 19, 2022, meeting of the Board, including the following and attached appointments, appointments/reappointments of chairpersons, faculty professional leaves and emeritus titles:

## Appointments

Name: ERIC M. ANDERMAN
Title:
Campus:
Professor (Interim Dean and Director)
July 1, 2022 through May 14, 2023, or until a new dean is appointed

| Name: | ANIKA S. ANTHONY |
| :--- | :--- |
| Title: | Associate Vice Provost and Director, Michael V. Drake Institute for Teaching <br>  <br> and Learning |
| Office: | Academic Affairs |
| Term: | August 15, 2022 through June 30, 2027 |


| Name: | ABRAHAM K. BADU-TAWIAH |
| :---: | :---: |
| Title: | Professor (Robert K. Fox Professorship in Chemistry Fund) |
| College: | Arts and Sciences |
| Term: | August 15, 2022 through August 14, 2027 |
| Name: | KAREN BEARD |
| Title: | Associate Professor (2022 Alumni Award for Distinguished Teaching) |
| College: | Education and Human Ecology |
| Name: | JOSHUA BOMSER |
| Title: | Associate Professor (2022 Alumni Award for Distinguished Teaching) |
| College: | Education and Human Ecology |
| Name: | CARLOS E. CASTRO |
| Title: | Professor (College of Engineering Innovation Scholar) |
| College: | Engineering |
| Term: | July 1, 2022 through June 30, 2027 |
| Name: | DOREEN CLOSE |
| Title: | Senior Lecturer (2022 Provost's Award for Distinguished Teaching by a Lecturer) |
| College: | Engineering |
| Name: | KAREN DANNEMILLER |
| Title: | Associate Professor (College of Engineering Innovation Scholar) |
| College: | Engineering |
| Term: | July 1, 2022 through June 30, 2027 |
| Name: | ETHAN DOETSCH |
| Title: | Senior Lecturer (2022 Provost's Award for Distinguished Teaching by a Lecturer) |
| College: | Arts and Sciences |
| Name: | HANY EMAM |
| Title: | Associate Professor (D.P. Snyder Endowed Professorship in Oral and Maxillofacial Surgery) |
| College: | Dentistry |
| Term: | June 1, 2022 through May 31, 2027 |
| Name: | MARA FRAZIER |
| Title: | Assistant Professor (Endowed Professorship for the Curator of Dance) |
| Unit: | University Libraries |
| Term: | August 15, 2022 through August 14, 2027 |
| Name: | JARED GARDNER |
| Title: | Professor (2022 President and Provost's Award for Distinguished Faculty Service) |
| College: | Arts and Sciences |
| Name: | JOSHUA GOLDBERGER |
| Title: | Professor (Charles H. Kimberly Professorship in Chemistry) |
| College: | Arts and Sciences |
| Term: | August 15, 2022 through August 14, 2027 |


| Name: | SATHYA GOPALAKRISHNAN |
| :---: | :---: |
| Title: | Associate Professor (2022 Alumni Award for Distinguished Teaching) |
| College: | Food, Agricultural, and Environmental Sciences |
| Name: | ANNA A. GROTANS |
| Title: | Associate Professor (2022 Alumni Award for Distinguished Teaching) |
| College: | Arts and Sciences |
| Name: | *ANGE-MARIE HANCOCK ALFARO |
| Title: | Professor and Executive Director, Kirwan Institute for the Study or Race and Ethnicity (ENGIE-Axium Endowed Professorship) |
| Office: | Academic Affairs |
| Term: | January 1, 2023 through December 31, 2027 |
| Name: | WENDY S. HESFORD |
| Title: | Professor (2022 President and Provost's Award for Distinguished Faculty Service) |
| College: | Arts and Sciences |
| Name: | PHU HOANG |
| Title: | Associate Professor (Robert S. Livesey Professorship in Architecture) |
| College: | Engineering |
| Term: | August 15, 2022 through May 31, 2026 |
| Name: | A. DOUGLAS KINGHORN |
| Title: | Professor (2022 Distinguished University Professor) |
| College: | Pharmacy |
| Name: | NICOLE KRAFT |
| Title: | Associate Professor-Clinical (2022 Alumni Award for Distinguished Teaching) |
| College: | Arts and Sciences |
| Name: | *PATRICK LOUCHOUARN |
| Title: | Professor (Senior Vice Provost for Faculty Eminence) |
| Office: | Academic Affairs |
| Term: | August 1, 2022 through June 30, 2027 |
| Name: | ERIC MACGILVRAY |
| Title: | Professor (2022 President and Provost's Award for Distinguished Faculty Service) |
| College: | Arts and Sciences |
| Name: | WILLIAM S. MARRAS |
| Title: | Professor (2022 Distinguished University Professor) |
| College: | Engineering |
| Name: | DAVID NAGIB |
| Title: | Professor (Dr. Harold "Hal" Miller and Betty J. Miller Endowed Professorship in Organic Chemistry and Biochemistry) |
| College: | Arts and Sciences |
| Term: | August 15, 2022 through August 14, 2027 |


| Name: | DAVID M. O'MALLEY |
| :---: | :---: |
| Title: | Professor-Clinical (John G. Boutselis, MD Chair in Gynecology) |
| College: | Medicine |
| Term: | July 1, 2022 through June 30, 2026 |
| Name: | *JAMES ORR |
| Title: | Vice Provost for Strategic Enrollment Management |
| Office: | Academic Affairs |
| Term: | August 1, 2022 |
| Name: | KADRI PARRIS |
| Title: | Senior Lecturer (2022 Provost's Award for Distinguished Teaching by a Lecturer) |
| College: | Engineering |
| Name: | K. LUAN PHAN |
| Title: | Professor and Chair (Jeffrey Schottenstein Endowed Chair in Psychiatry and Resilience) |
| College: | Medicine |
| Term: | October 1, 2022 through June 30, 2026 |
| Name: | T.V. (BABU) RAJANBABU |
| Title: | Professor (Phyllis and Richard Leet Endowed Chair in Chemistry) |
| College: | Arts and Sciences |
| Term: | August 15, 2022 through August 14, 2027 |
| Name: | REBECCA RICCIARDO |
| Title: | Senior Lecturer (2022 Provost's Award for Distinguished Teaching by a Lecturer) |
| College: | Arts and Sciences |
| Name: | JACOB RISINGER |
| Title: | Associate Professor (2022 Alumni Award for Distinguished Teaching) |
| College: | Arts and Sciences |
| Name: | PAUL ROSE |
| Title: | Professor (2022 Alumni Award for Distinguished Teaching) |
| College: | Michael E. Moritz College of Law |
| Name: | ERIC SEIBER |
| Title: | Professor (2022 Alumni Award for Distinguished Teaching) |
| College: | Public Health |
| Name: | BARRY SHANK |
| Title: | Professor (Director of the Humanities Institute/Consortium) |
| College: | Arts and Sciences |
| Term: | July 1, 2022 through June 30, 2025 |
| Name: | MANOJ SRINIVASAN |
| Title: | Associate Professor (2022 Alumni Award for Distinguished Teaching) |
| College: | Engineering |
| Name: | MICHAEL STAMATIKOS |
| Title: | Associate Professor (2022 Alumni Award for Distinguished Teaching) |
| College: | Arts and Sciences |

Name: *CALVIN M. STEWART
Title:
College:
Term:
Associate Professor (College of Engineering Innovation Scholar) Engineering
July 1, 2022 through June 30, 2027
Name:
Title:

College:
Name:
Title:
College:
Term:

Name:
Title:
College:
Name:
Title:
College:
Term:
*New Hire
Reappointments
Name:
Title:
College:
Term:

Name:
Title:
College:
Term:

Name:
Title:
College:
Term:
Name: LARRY J. COPELAND
Title: Professor (William Greenville Pace III and Joann Norris Collins-Pace Chair for Cancer Research)
Medicine
July 1, 2022 through June 30, 2026
Name: MELISSA M. DRUM
Title: Professor (Alfred W. Reader Endowed Professorship in Endodontics)
College:
Term:
October 1, 2022 through September 30, 2027

DENNIS R. HELDMAN

Title:
College:
Term:
Name:
Title:
College:
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Title:
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Name:
Title:
College:
Term:

Professor (Dale A. Seiberling Professorship in Food Engineering)
Food, Agricultural, and Environmental Sciences
September 1, 2022, through May 31, 2027
CHRISTOPHER C. KAEDING
Professor-Clinical (Judson D. Wilson Professorship in Orthopedic Surgery) Medicine
July 1, 2022 through June 30, 2026
CATHANN A. KRESS
Dean and Vice President, Agricultural Administration
Food, Agricultural, and Environmental Sciences
July 1, 2022 through June 30, 2027
MARK B. LANDON
Professor and Chair (Richard L. Meiling Chair of Obstetrics and Gynecology)
Medicine
July 1, 2022 through June 30, 2025
BRADLEY J. NEEDLEMAN
Professor-Clinical (Edwin H. and E. Christopher Ellison Professorship) Medicine
April 5, 2022 through June 30, 2026
JAMES W. ROCCO
Professor and Chair (Mary E. and John W. Alford Research Chair in Head and Neck Cancer)
Medicine
January 1, 2023 through June 30, 2026
VICKI WYSCOKI
Professor (Ohio Eminent Scholar in Protein Engineering)
Arts and Sciences
June 1, 2022 through May 31, 2027

## Extensions

Name:
Title:
College:
Term:
Name:
Title:
College:
Term:

Name:
Title:
College:
Term:

TREVOR L. BROWN
Dean
John Glenn College of Public Affairs
July 1, 2023 through July 30, 2024
RONALD L. HARTER
Professor and Chair (Jay J. Jacoby MD, PhD, Chair in Anesthesiology) Medicine
July 1, 2022 through June 30, 2023

BERNADETTE MELNYK
Dean, Vice President for Health Promotion, and University Chief Wellness Officer Nursing January 1, 2023 through June 30, 2023

Name: CLAIRE F. VERSCHRAEGEN
Title:
College:
Term:
Professor (Diana Nye and Michael Rayden Chair in Innovative Cancer Research)
Medicine
July 1, 2022 through December 31, 2022, or until a new director is named and in place, whichever occurs first
(See Appendix X for background information, page XX )
7. Resolution No. 2023-18: Honorary Degrees:

Synopsis: Approval of the honorary degrees listed below is proposed.
WHEREAS pursuant to paragraph (A)(3) of rule 3335-1-03 of the Administrative Code, the President, after consultation with the Steering Committee of the University Senate, recommends to the Board of Trustees the awarding of the honorary degrees as listed below:

$$
\begin{array}{ll}
\text { Jane Grote Abell } & \text { Honorary Doctor of Business Administration } \\
\text { Thomas R. Cech } & \text { Honorary Doctor of Science } \\
\text { Katie Smith } & \text { Honorary Doctor of Public Service }
\end{array}
$$

WHEREAS the Committee on Honorary Degrees of the University Senate, pursuant to rule 3335-5-48.8 of the Administrative Code, have approved for recommendation to the Board of Trustees the awarding of the honorary degrees as listed below:

| Donna James | Honorary Doctor of Business Administration |
| :--- | :--- |
| Dennis Liotta | Honorary Doctor of Science |
| Arum Majumdar | Honorary Doctor of Engineering |

NOW THEREFORE
BE IT RESOLVED, That the Board of Trustees hereby approves the awarding of the honorary degrees as outlined above.
(See Appendix X for background information, page XX)
8. Resolution No. 2023-19: Degrees and Certificates:

Synopsis: Approval of degrees and certificates for autumn term 2022 is proposed.
WHEREAS pursuant to paragraph (E) of rule 3335-1-06 of the Administrative Code, the Board of Trustees has authority for the issuance of degrees and certificates; and

WHEREAS the faculties of the colleges and schools shall transmit, in accordance with rule 3335-9-29 of the Administrative Code, for approval by the Board of Trustees, the names of persons who have completed degree and certificate requirements:

## NOW THEREFORE

BE IT RESOLVED, That the Board of Trustees hereby approves the degrees and certificates to be conferred on December 18, 2022, to those persons who have completed the requirements for their respective degrees and certificates and are recommended by the colleges and schools.

Action: Upon the motion of Dr. Wilkinson, seconded by Mrs. Harsh, the committee adopted the foregoing resolutions by voice vote with the following members present and voting: Mr. Kaplan, Mrs. Harsh, Ms. Kessler, Dr. Wilkinson, Mr. Kiggin, Dr. Cole and Dr. Fujita. Mrs. Wexner was not present for this vote.

## EXECUTIVE SESSION

It was moved by Mr. Kaplan, and seconded by Ms. Kessler, that the committee recess into executive session to discuss business-sensitive trade secrets required to be kept confidential by federal and state statutes, to consult with legal counsel regarding pending or imminent litigation, and to discuss personnel matters involving the appointment, employment and compensation of public officials, which are required to be kept confidential under Ohio law.

A roll call vote was taken, and the committee voted to go into executive session with the following members present and voting: Mr. Kaplan, Mrs. Harsh, Ms. Kessler, Dr. Wilkinson, Mr. Kiggin, Dr. Cole and Dr. Fujita. Mrs. Wexner was not present for this vote.

The committee entered executive session at 3:25 p.m. and the meeting adjourned at 4:38 p.m.

## APPROVAL TO ESTABLISH A

MASTER OF GEOGRAPHIC INFORMATION SCIENCE AND TECHNOLOGY

## in the college of arts and sciences

Synopsis: Approval to establish a Master of Geographic Information Science and Technology degree program in the College of Arts and Sciences is proposed.

WHEREAS the Department of Geography is a national leader in Geographic Information Science and Technology (GIST) research and education; and

WHEREAS the field of GIST has witnessed increasing demands from professionals in public and private sectors over the past decade, and the proposed professional program aims to train well-rounded GIST professionals with a comprehensive curriculum covering professionalism, cutting-edge technology and applications; and

WHEREAS the primary audiences for the program are current students wanting to pursue this field, current GIST professionals who want to advance their career, and military personnel, and the program would be offered on campus and fully online; and

WHEREAS it is a course-based program with well-defined learning outcomes that will require 33 credit hours of coursework, including four required courses, three intermediate electives, three advanced electives, and a three-credit hour capstone; and

WHEREAS the proposal was reviewed and approved by the Graduate School, and then the Council on Academic Affairs at its meeting on September 7, 2022; and

WHEREAS the University Senate approved this proposal on October 27, 2022:

## NOW THEREFORE

BE IT RESOLVED, That the Board of Trustees hereby approves the proposal to establish a Master of Geographic Information Science and Technology degree program in in the College of Arts and Sciences.

Proposal for a New Degree Program

# "Master of Geographic Information Science and Technology" 

Mode of Delivery: on campus and fully online

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# Proposal for a New Degree Program 

# Master of Geographic Information Science and Technology (MGIST) 

Mode of Delivery: fully online, on campus

## Basic Characteristics of the Educational Program

## 1. Brief description of the disciplinary purpose and significance of proposed degree

The field of geographic information science and technology (GIST) is at the intersection of multiple disciplines that are the cornerstone of today's fast-moving society where data, especially spatial and temporal data, is crucial. These disciplines include, but are not limited to, cartography that studies the art and science of map making, cognitive science that concerns how humans perceive their geographic surroundings, computer science that has a focus on data and data processing, environmental sciences that investigate the processes in and between human and natural systems, geography that focuses on the spatial relationship between humans and their environments, remote sensing and photogrammetry for gathering and interpreting data obtained from remote sensors, and statistics that quests the meaning of data. Being such an interdisciplinary field, GIST has been an active and productive research area and a profession that has continuously witnessed high demands in the last decade.

In a professional setting, GIST is widely used in both public and private sectors. Government agencies, for example, actively seek GIST experts to tackle applications in areas such as transportation, natural resource management, healthcare, city and regional planning, and utility management. Departments of geographic information systems (GIS) are now commonly established at city and county levels across the country. In the private sector, companies and institutes increasingly recruit talents with GIST background to join or lead teams that involve spatial and temporal data sets. GIST is widely used in many industries such as banking, insurance, real estate, retailing, utility management, among many others. A detailed market analysis (discussed below) shows the existence and growing need of such a professional program is evident.

The Department of Geography currently offers an MA in Geography and students who are interested in GIST have been enrolled in this program. However, the MA program, whose curriculum consists of four required courses (Geographic Thought, Research Design, and Fieldwork or Advanced Spatial Data Analysis, and a graduate seminar) and a final exam on either a thesis or research paper, is research oriented and is not designed for students to advance their professional career in GIST.

Different from our current MA, the proposed Master of Geographic Information Science and Technology (MGIST) has a curriculum that includes 15 courses directly related to the GIST profession (see the curriculum outline and a detailed curriculum design below). Students must conduct a required capstone project to demonstrate the knowledge and skillsets they have developed in this program. A minimum of 33 credit hours are needed to complete the MGIST program (instead of 30 as in the MA).

Offering a professional master's degree in GIST, therefore, serves the increasing needs of GIST professionals who are in their early or mid-career and want to advance to the next level in the profession. In the meantime, the proposed degree will also help increase enrollments and streamline our overall GIST curriculums for our undergraduate and graduate programs.

## 2. Definition of the focus of the program

The GIST Body of Knowledge ${ }^{1}$ compiled by the University Consortium of Geographic Information Science (UCGIS) provides a holistic view of the breadth and depth of the theory, methods, and applications in GIST. Specifically, the Body of Knowledge identifies 10 fundamental areas that together encompass the competence of GIST professionals. These 10 areas include fundamental concepts (FC), programming and development (PD), domain application (DA), knowledge economy (KE), data capture (DC), analytics and modeling (AM), GIST and society (GS), computing platform (CP), data management (DM), and cartography and visualization (CV). GIST professionals draw strength from these areas when they analyze geospatial data and make decisions about human and environmental systems.

The goal of the proposed Master of GIST (MGIST) program is to train well-rounded GIST professionals with a comprehensive curriculum that encompasses the scope defined in the UCGIS Body of Knowledge. To achieve this goal, seven program learning outcomes are identified. Specifically, a successful student from this program should be able to

1. Explain fundamental concepts and practices of geographic information systems and advances in geospatial information science.
2. Manage geospatial data and databases.
3. Visualize geospatial data using interactive maps and other effective methods.
4. Develop insights into geospatial problems through data driven analysis and modeling approaches.
5. Implement software components on GIS platforms with computer programming languages.
6. Practice GIS theories and techniques on domain applications.
7. Critically appraise the role and impact of a GIST professional in social, business, and community contexts.

Each learning outcome listed above covers one or more of the ten areas in the UCGIS Body of Knowledge:

| UCGIS GIS\&T Body of Knowledge Area |  | Learning outcomes |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2 | 3 | 4 | 5 | 6 | 7 |
| FC: Fundamental Concepts | x |  |  |  |  |  |  |
| KE: Knowledge Economy |  |  |  |  |  |  | x |
| CP: Computing Platform |  | x |  |  | x |  |  |
| PD: Programming and Development |  |  |  |  | x |  |  |
| DC: Data Capture |  | x |  |  |  |  |  |
| DM: Data Management |  | x |  |  |  |  |  |
| AM: Analytics and Modeling |  |  |  | x |  |  |  |
| CV: Cartography and Visualization |  |  | x |  |  |  |  |
| DA: Domain Applications |  |  |  |  | x | x |  |
| GS: GIS\&T and Society |  |  |  |  |  |  | x |

## 3. Rationale for degree name

We use the term geographic information science and technology (GIST) broadly to refer to a field that has been called different names such as geographic information systems (GIS), geographic information science (GIScience), and geoinformatics. This professional degree program is specifically designed for professionals who wish to enhance their technical skills, to understand the profession, and to start or advance their

[^0]professional careers. To graduate from the program, students must complete a capstone to demonstrate their skills and knowledge by integrating what they have learned during the degree coursework.

## 4. Curriculum outline

This is a brief outline of the program curriculum. More detailed explanation of the curriculum is provided below in the section called "Curriculum and Instructional Design." The curriculum of the proposed program includes 15 courses (all 3 credit hours) that are organized into 4 categories or tiers. This is a course-based program and students need a minimum of 33 credit hours (including a required 3-credit capstone course) to complete the program. The semesters, Autumn (AU) or Spring (SP), when these courses are offered are listed to the right. The capstone project (GEOG 6299) serves as the culminating assessment for the program (see \#3 under Curriculum and Instructional Design for more details).

Required core courses (12 hours):

- GEOG 5101 - GIS Professionalism and Ethics


## AU

- GEOG 5200 - Cartography and Map Design AU
- GEOG 5210 - Fundamentals of GIS AU SP
- GEOG 5225-Geographic Applications of Remote Sensing AU SP

Intermediate elective courses (9 hours, choose 3 courses):

- GEOG 5103 Intermediate Spatial Data Analysis SP
- GEOG 5201 Geovisualization AU SP
- GEOG 5212 Geospatial Databases for GIS AU SP
- GEOG 5222 GIS Algorithms and Programming AU SP
- GEOG 5229 Emerging Topics in GIS AU SP

Advanced elective courses ( 9 hours, choose 3 courses):

- GEOG 6222 GIS Development SP
- GEOG 6223 Web GIS Development AU
- GEOG 6226 Spatial Simulation and Modeling in GIS AU
- GEOG 6286 Geodemography: GIS in Social Science and Business Research SP
- PUBAFRS 7555 Project Management in the Public Sector AU SP

Required Capstone project (3 hours):

- GEOG 6299 GIS Capstone Project AU SP


## 5. Duration of the program

Normally a student admitted into MGIST will complete the program in two years.
a) Students need a minimum of 33 credit hours (semester) to complete the proposed program.
b) The typical length of time for full time students to complete the program is 2 years ( 4 semester). The following table illustrates two scenarios where a student can follow a two-year plan, starting the program in either Autumn (AU) or Spring (SP), to complete the degree with the required 33 credit hours. Courses in the table are marked as required, intermediate, advanced, and capstone.

| Scenarios | AU | SP | AU | SP | AU |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{5 1 0 1}$ | 5212 | $\underline{6223}$ | 5229 |  |
| Start in | $\mathbf{5 2 0 0}$ | 5222 | $\underline{6226}$ | $\mathbf{6 2 2 9}$ |  |
| Autumn | $\mathbf{5 2 1 0}$ | $\mathbf{5 2 2 5}$ | $\underline{\underline{7555}}$ |  |  |
|  |  |  |  |  |  |
|  |  | $\mathbf{5 2 0 0}$ | $\mathbf{5 1 0 1}$ | 5201 | $\underline{\mathbf{7 5 5 5}}$ |
| Start in |  | $\mathbf{5 2 1 0}$ | 5212 | $\underline{6222}$ | $\mathbf{6 2 2 9}$ |
| Spring |  | $\mathbf{5 2 2 5}$ | 5222 | $\underline{6286}$ |  |

## 6. Admission timing

The proposed date for implementation of the program is Autumn 2023. Admissions will be accepted for both Autumn and Spring semesters in each academic year.

## 7. Primary target audience for the program and admission requirements

We expect three groups of applicants:

- Students who are interested in pursuing their career goals in the GIST profession, either in the public sector or in the industry. This group includes students who are currently in various relevant undergraduate programs (e.g., geography, city and regional planning, geoinformatics, and geodetic sciences). Many of our past MA students have stated a professional degree (instead of an MA) will put them in a better position to find a job.
- Current GIST professionals who want to advance their career. The proposed MGIST curriculum is designed to provide comprehensive and in-depth coverage of GIST that will help them extend their knowledge and acquire advanced skills.
- Military personnel. Currently, thanks to the agreement between the Ohio State and the National Geospatial-Intelligent Agency (NGA) through a program called Emerging Scientists, two NGA students are already enrolled in the MA program with a concentration in GIST, and one additional application is pending. In the 2021-2022 academic year, five additional NGA students have enrolled in geography classes as non-degree seeking graduate students who will then formally apply to a master's program. They have clearly indicated that the breadth and depth of our GIST courses fit their career goals. Through conversations with graduate studies chair (Dr. Xiao), they clearly indicated that they would choose a professional degree if available.

Admission requirements. Students with a bachelor's degree with 3.0 or higher cumulative undergraduate GPA can apply for the proposed MGIST. Admission will be based on (1) a statement of purpose, (2) transcript, (3) cumulative GPA of 3.0 or higher, (4) curriculum vitae, and (5) two letters of recommendation from professionals or academia. An internet-based TOEFL score of at least 100 is required for international students. This requirement is higher than the minimum TOEFL score (79) set by the Graduate School, and is as same as our other graduate programs. We intend to hold this standard to ensure that students in MGIST have good language skills to succeed in their graduate studies as well as in their future employment.

## 8. Special efforts to enroll and retain underrepresented groups

Nationally, recruiting and mentoring graduate students from underrepresented minority (URM) groups has been a challenge for many graduate programs. While GIST is an interdisciplinary field, geography is a common "home" to this field, as the proposed program will be compared to the other programs that are typically in geography departments. A report from the American Association of Geographers (AAG), for example, shows that, in 2018, among all surveyed geography graduate students in universities in the United States, only 13 percent were in broadly defined URM groups of Black or African American, Hispanic or Latino, and American Indian or Alaska Native.

Since 2019, the enrollment of graduate students from underrepresented minority groups consists of 17.5 percent of all the graduate students in the department of geography at Ohio State. The following table details the graduate applications in the past three years:

|  | 2019 |  | 2020 |  | 2021 |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | URM | Total | URM | Total | URM |
| Applied | 75 | 3 | 102 | 10 | 86 | 7 |
| Admitted | 30 | 1 | 37 | 8 | 31 | 4 |
| Enrolled | 11 | 1 | 9 | 3 | 20 | 3 |

The Department of Geography is committed to recruit URM students. The department formed a standing AntiRacism Committee in 2020. This committee consists of faculty representatives from each subfield in the department, one staff member, and one graduate student representative. The committee's charge includes promotion of diversity among department students, faculty, and staff, and a focus on equity and inclusion at every level of the department. The committee will help advise recruitment efforts of URM students

We make strategic efforts to recruit students from underrepresented groups. We believe a key to recruit is to reach out to prospective students and part of our plan is to work with various associations. For example, the Addressing Locally-tailored Information Infrastructure \& Geoscience Needs for Enhancing Diversity (ALIGNED) project sponsored by the American Association of Geographers (AAG) is engaged with increasing diversity in the discipline of geography. The more flexible nature of an online program will also allow us to reach a population that we cannot currently service. There are also numerous local or regional organizations through which we can reach out to potential professionals. For example, the Ohio chapter of the Urban and Regional Information Systems Association (URISA) organized annual GIS conference and other educational events that attract statewide professional and student participants. The Ohio URISA also have local user groups across the state. These are overarching venues where our proposed program can reach out to potential applicants.

A key to retaining and graduating students from underrepresented groups is mentoring. The use of individual development plans (IDP) is proven to be effective in helping students stay on track to completing the graduate program on time. Starting Autumn of 2021, graduate students in the department are required to use an IDP as an important component of the mentoring process. This IDP is adopted from the best practices provided by the Michael V. Drake Institute for Teaching and Learning at Ohio State. The IDP covers a wide range of goals and needs for graduate studies, including research, professional development, coursework, job market prospects, communication skills, and funding. Each goal and need require a timeline and a plan about how to achieve it. All students enrolled in this proposed program will work closely with their faculty mentor on an IDP. Many faculty members of the department have participated in mentoring workshops organized by the Drake Institute and we will continue to encourage the faculty to participate in these workshops and share their experiences with the rest of the department. Students from underrepresented groups may face challenges
that otherwise may not be obvious for other students. The use of IDP will allow us to check in with them to make sure their needs are addressed at a timely fashion.

Some living and educational costs may be disproportionally higher to URM students than others. There are multiple sources that can be helpful. The university has a food bank (Buckeye Food Alliance) and participates in the Supplemental Nutrition Assistance Program (SNAP). Faculty members in the department also work closely with the university library to push for open textbook that will significantly lower the cost on textbooks. The department constantly upgrades the hardware for the labs. We maintain site licenses for almost all cuttingedge software for GIST students to use on- and off-campus.

## Institutional Planning For the Program

## 1. Physical facilities, equipment and staff needed to support the program

The department currently has two main laboratories that are used for teaching purposes. Each of the labs has a capacity of 50 seats, and each seat has an update-to-date desktop computer. Multiple printers are connected to the computers. These labs are ideal for the 5000 level courses that are designed for both undergraduate and graduate students. In addition, the department has four classrooms of different sizes for 18 to 45 seats that are used for seminars and other classes. In addition, the department has a graduate computing lab with a capacity of 14 computers open to all graduate students with printers. All these teaching and computing facilities can accommodate the proposed program. Residence students in the proposed program will be able to access the lab and software. Students can also access the software site licenses remotely through OSU's VPN services.

More specifically, for students who will be enrolled in the online program, we will support students in the online program in the following four aspects:

- Technical needs. For students in the online program, we will require them to have their own computers. All the necessary software and database management systems will be provided to them through site licenses managed by the Ohio State University. The Department of Geography has received approval to hire a full-time GIS administrator who will cover the technical needs of the department, including those from our online students.
- Courses. All the courses in the MGIST curriculum can be offered as distance learning (DL). Our teaching team has developed their online teaching skills and capabilities through the last two years.
- Mentoring. As described in a previous section, we will use an individual development plan (IDP) to help students make good progress, which is also a tool for online students to discuss with their advisor about the challenges and potential solutions to those challenges.
- Social environment. The department runs a regular colloquium series (given by invited guest speakers) and a graduate colloquium series (given by current graduate students). All graduate students in the proposed program will participate in these events. We have the technology to make these events accessible to students in the online program. The department also hosts meetups during national conferences (such as the annual meetings of the American Association of Geographers or the AAG) and regional meetings (such as the East Lakes Regional Meeting of the AAG). These are the potential sites where we can personally connect with our online students.


## 2. Market for the new program

The GIST profession has been witnessing a high growth in employment opportunities. Obermeyer et al (2016) report in their research paper that geographic information systems (GIS) knowledge often is a must-have for public administration jobs. ${ }^{2}$ The U.S. Bureau of Labor Statistics ${ }^{3}$ estimates that employment of surveyors, cartographers, photogrammetrists, and surveying and mapping technicians grew 19 percent from 2008 to 2018, faster than the average for all occupations. This trend will continue in the next decade. According to a 2020 report by P\&S Intelligence, ${ }^{4}$ the global market of GIS is projected to reach $\$ 25.6$ billion by 2030 with a 12.1 percent annual growth rate, due to the investment from governments and private companies. The largest share of the growth is in the United States. Geospatial technology is also one of the 14 high growth sectors identified by the U.S. Department of Labor, Employment \& Training Administration in its High Growth Job Training Initiative report. ${ }^{5}$

In a market analysis of graduate programs conducted in May 2019 by OSU's Office of Distance Education and eLearning (ODEE) using the CIP (Classification of Instructional Programs) code Geographic Information Science and Cartography (45.0702), the ratio between unique job postings and hires is $4: 1$ (page 7), indicating a strong employment demand in occupations that require GIST skills and background. The report also shows a strong growth in jobs at the rate of 6.8 percent nationally for 2018-2023 (page 7). From 2013 to 2017, the number of completions in all GIST programs increased 331.8 percent for distance offered programs and 47.9 percent for non-distance offered programs (page 5). Among all the completions, post-baccalaureate certificates consisted of 28.6 percent and master's degree 34.3 percent (page 5). It is also noticeable in the report that the only Ohio institute listed is Columbus State Community College, which does not offer graduate level degrees (note that some programs listed below in the section of Statewide Alternatives are relatively new and were not included in the ODEE search).

Nationally, universities such as Penn State University, University of South California, and Clark University have been running their professional master's degree or graduate certificate programs for at least more than a decade. Penn State's programs in particular operate on a million-dollar revenue stream, according to personal communication with their director Dr. Anthony Robinson. Within Ohio, schools such as Kent State University have started their master of GIS program recently. These successful programs are a clear indication that the GIST profession has a strong demand in graduate level degrees. They also suggest that we do not exist in a zero-sum situation where each school competes on a fixed and limited pool of students. The reality is quite the opposite: more educational opportunities are needed within and beyond the state to accommodate the need for GIST programs.

## 3. Program assessment plan

We will assess the MGIST (Master of Geographic Information Science and Technology) program based on the seven learning outcomes (see Section 2 under Basic Characteristics of the Education Program) and how these outcomes are mapped to the courses (see the curriculum mapping in Section 1 under Curriculum and Instructional Design). We will use assessment results to understand how well our students meet the program learning goals, and to provide evidence-based curriculum design and improvements in the future. These

[^1]assessments will also help us identify the strengths and weaknesses of the program, which in turn will help us improve the program. Both direct and indirect measures will be used for program assessment.

The direct measures are based on two main components. First, reports and presentations from the capstone project course (GEOG 6299) will be reviewed by faculty members to the relevance and rigor of the program. The following is a draft rubric that can be used to evaluate how the program learning outcomes are achieved using these materials. Faculty members may choose to evaluate a subset of the learning outcomes as a capstone project may not cover all outcomes (e.g., not all capstones will have a software development component, which is the focus of outcome 5). For each learning outcome evaluated, the work presented by the students will be evaluated and given one of the following three ratings:

- Exceeds expectations (5): the student shows not only all the traits in the Meets column, but also demonstrates the ability to go above and beyond what is taught in the classes in showing at least one trait listed in the Exceeds column.
- Meets expectations (3): the student shows at least one trait listed in the Meet column and is free of any trait in the "Does not meet" column.
- Does not meet expectations (1): the student shows at least one trait listed in the column.

These ratings are the typical grades that can be assigned based on the traits listed in the rubric, and faculty members can adjust their grade up or down based on the actual case.

| Learning outcomes | Does not meet | Meets | Exceeds |
| :---: | :---: | :---: | :---: |
| 1. Fundamentals | Only demonstrates bare minimal understanding of the concepts. <br> Is unfamiliar with the use of GIS. <br> Has limited knowledge about the field of GIST. | Demonstrates a clear command in both dept and breadth of the fundamental concepts. <br> Shows confident use of GIS. <br> Has a good understanding of the current field of GIST. | Shows all the traits listed in the Meet column. <br> Demonstrates the ability to go beyond what is taught in the classes. |
| 2. Geospatial data | Has minimal knowledge about geospatial data. <br> Does not understand how geospatial data can be managed. | Is knowledgeable about many of the different kinds of spatial data. <br> Can manage different data effectively. | Understands the vast geospatial data used in today's world. <br> Knowledgeable in different technical approaches to managing spatial data. |
| 3. Geovisualization | Makes unprofessional maps. <br> Has limited understanding of how to choose appropriate visualization/mapping techniques for different data. | Makes professional maps. <br> Can develop effective interactive maps. | Makes professional maps that clearly stand out among others. <br> Can develop sophisticated interactive maps. |


| 4. Analysis and modeling | Cannot choose the appropriate method for analysis. <br> Lacks critical understanding of how spatial models work. | Able to choose the right method for analysis. <br> Can conduct analysis effectively using appropriate software tools. <br> Articulates analysis results. <br> Able to run spatial model and articulate the results. | Able to communicate effectively with not only experts but also the general public about analysis and modeling results. <br> Demonstrates novel use of existing methods and models. <br> Can modify existing methods and models. <br> Can develop new methods and models. |
| :---: | :---: | :---: | :---: |
| 5. Development | Cannot write effective computer code for simple problems. <br> Has limited understanding on how GIS development projects work. | Can write computer programs simple to moderate applications. <br> Understands how GIS development projects work. <br> Understands and practices different roles in a project setting. | Can write computer programs for large application involving large data sets. <br> Demonstrates effective management skills in a team GIS development project. |
| 6. Applications | Cannot identify the theories related to real world applications. <br> Cannot identify a GIS solution to real world applications. | Articulates the needs of GIS for real world applications. <br> Able to make connections between spatial theory and applications. <br> Able to design a GIS solution to address real world problems. | Provides rich details about real world GIS applications. <br> Articulates the pros and cons of the theories related to real world applications. <br> Able to communicate with the stakeholders and the general public regarding the use of GIS for real world applications. |
| 7. Professionalism | Cannot recite GIST professional codes. <br> Cannot discriminate between ethical and unethical behaviors in a professional setting. <br> Cannot articulate the impacts of GIST on human societies. | Fully understands GIST professional codes. <br> Recognizes the ethical issues in a professional setting. <br> Practices ethical decision-making procedures. | Has all the traits in the Meets column. <br> Understands the responsibilities as a GIST professional. |

Second, assessments will be conducted in courses that are aligned with the specific outcomes in the curriculum map. Many of our undergraduate courses have already been using classroom assessment methods (e.g., embedded questions specifically related to program outcomes) and it should be relatively straightforward to implement that for 6000 level courses for the MGIST. Each program learning outcome is covered by multiple courses at different levels, which gives us a variety of ways to assess the outcomes. We also have courses (e.g., GEOG 5210) that are offered in all semesters, which gives us a good opportunity to assess some outcomes more frequently to provide a consistent baseline. Below is a timeline for learning outcome assessment in a two-year cycle (assuming the program starts in AU 2023). This timeline is tentative as the actual offering of the specific courses may change. But the principle is to assess the outcomes often and rotate between different courses in order to understand how the courses fulfill the program goals.

| Learning Outcome | AU23 | SP24 | AU24 | SP25 |
| :---: | :---: | :---: | :---: | :---: |
| 1 | $5210 / 5225$ | 5210 | $5210 / 6226$ | 5210 |
| 2 | 5212 | 5103 | 5212 | $\underline{6222}$ |
| 3 | 5200 | 5201 | $\underline{6223}$ | 5229 |
| 4 | 5225 | 5201 | $\underline{6226}$ | 5103 |
| 5 | 5222 | 5222 | $\underline{6226}$ | $\underline{6222}$ |
| 6 | $5225 / 6226$ | 5222 | $522 / 6226$ | 6299 |
| 7 | 5101 | $\underline{6286}$ | 5101 | 6299 |

Key: required, intermediate, advanced, and capstone
In addition to the direct measures, we will survey students, alumni, and employers (using Qualtrics or similar tools) to obtain indirect measures about the program. These surveys will provide information about career outcomes of students, reviews on the curriculum or specific course syllabi, and comparison of our program with other similar programs in the state and nationwide. Within the first five years of the program, we may also consider conducting an external program review. This review will be based on a self-study of the strengths and areas for improvement of the program using the data collected. External reviewers will include local and national GIST industry leaders, experts from other professional graduate programs, and alumni. We will follow OSU Office of Academic Affairs' Guide to Academic Unit Review to facilitate the external review.

## Statewide Alternatives

Presently, at least eight Ohio institutes have different levels of GIST certificate and degree programs. Among them, University of Akron and Columbus State Community College only offer undergraduate certificates. Cleveland State University, University of Cincinnati, Miami University, University of Toledo, and Wright State University offer graduate certificates. These certificate programs only require 15-18 credit hours to finish and do not grant a degree. The only statewide alternative compared to the proposed program is from Kent State University that has a Master of GIS program.

The proposed Master of GIST program and the one from Kent State University both include required courses for fundamental GIS theories and elective courses for different concentrations. Specifically, the proposed program at OSU focuses on GIS programming, web GIS, spatial modeling, and geodemography. On the other hand, the master of GIS curriculum at Kent State University covers a range of topics with 19 elective courses. It is worth noting that 7 of these elective courses focus on the application of GIS in public health and behavioral sciences, which are not focused by our proposed program. Thus, we consider our proposed program and the Kent State's Master of GIS program as complementary.

Central Ohio is one of the fastest growing areas in the country. A professional degree in GIST at the center of the rapid population growth can well serve the professional needs in the local area, as well as regionally.

As discussed above, we do not regard the graduate level GIST education to be a zero-sum situation and there will be opportunities to collaborate with in-state colleagues. For example, the annual OHIO GIS meeting organized by URISA is a perfect venue for the GIST educators to exchange ideas and for our students to share their projects. Collaborating on other annual events such as the GIS Day ${ }^{6}$ will also make all the programs grow stronger. Once approved, we plan to reach out to the statewide colleagues to discuss more collaboration opportunities.

## Growth of the Program

The prediction of program growth is based on three main factors. First, we examined the data from our past applications to the MA program. In the past three years (2017 to 2021), we consistently have more than 10 applicants who are interested in GIST. This provides a baseline for future applications. Second, the agreement between Ohio State and NGA has contributed at least 2 part time students into our MA program and this will continue in the next few years. Third, we plan to increase our outreach efforts to make the proposed program highly visible to both current students, prospective students, and professionals.

Given the above factors, we anticipate a linear growth trend for full-time enrollments, from 5 in the first year to 20 in year four. We also anticipate 2 part-time ( 50 percent) enrollments each year from the NGA students. We aim to achieve a stable enrollment of 20 each year, which will make the program sustainable. The department is in discussion with the college about cost sharing so that a meaningful portion of the program income can be used to support program growth.

## Curriculum and Instructional Design

## 1. Curricular content

The MGIST program consists of 15 courses that are organized into 4 tiers. Students need a minimum of 33 credit hours to complete the program. More explanation of these courses is in the next section.

| COURSE \# | TITLE | CREDIT | Delivery ${ }^{*}$ |
| :---: | :---: | :---: | :---: |
| Required Core Courses (12 hours) |  |  |  |
| GEOG 5101 | GIS Professionalism and Ethics | 3 | DL |
| GEOG 5200 | Cartography and Map Design | 3 | DL |
| GEOG 5210 | Fundamentals of GIS | 3 | DL, DH |
| GEOG 5225 | Geographic Application of Remote Sensing | 3 | DL, DH |
| Intermediate Elective Courses (9 hours, choose 3 courses) |  |  |  |
| GEOG 5103 | Intermediate Spatial Data Analysis | 3 | DL |
| GEOG 5201 | GeoVisualization | 3 | DL, DH |

[^2]| GEOG 5212 | Geospatial Databases for GIS | 3 | DL, DH |
| :--- | :--- | :---: | :---: |
| GEOG 5222 | GIS Algorithms and Programming | 3 | $\mathrm{DL}, \mathrm{DH}$ |
| GEOG 5229 | Emerging Topics in GIS | 3 | DL |
| Advanced Elective Courses (9 hours, choose 3 courses) |  |  | 3 |
| GEOG 6222 | GIS Development | 3 | $\mathrm{DL}, \mathrm{DH}$ |
| GEOG 6223 | Web GIS development | 3 | $\mathrm{DL}, \mathrm{DH}$ |
| GEOG 6226 | Spatial Simulation and Modeling in GIS | 3 | $\mathrm{DL}, \mathrm{DH}$ |
| GEOG 6286 | GIS in Social and Business Research | 3 | DL |
| PUBAFRS 7555 | Project Management in the Public Sector |  |  |
| Required Capstone Project (3 hours) |  |  |  |
| GEOG 6299 | GIS Capstone Project | DL |  |

* Delivery modes include distance learning (DL) and distance enhanced (DH).

Each course will support one or more learning outcomes, as shown in the following curriculum map:

| Courses | Learning outcomes |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Core courses |  |  |  |  |  |  |  |
| 5101 GIS Professionalism and Ethics |  |  |  |  |  |  | x |
| 5200 Cartography and Map Design | x |  | x |  |  |  |  |
| 5210 Fundamentals of GIS | x |  |  |  |  |  |  |
| 5225 Geographic Applications of Remote Sensing | x |  | x | x |  | x |  |
| Intermediate courses |  |  |  |  |  |  |  |
| 5103 Intermediate Spatial Data Analysis |  | X |  | x |  |  |  |
| 5201 Geovisualization |  | x | x | x |  |  |  |
| 5212 Geospatial Databases for GIS | X | X |  |  |  |  |  |
| 5222 GIS Algorithms and Programming |  |  |  |  | x | x |  |
| 5229 Emerging Topics in GIS |  |  | x | x |  |  | x |
| Advanced courses |  |  |  |  |  |  |  |
| 6222 GIS Development |  | x |  |  | x | x |  |
| 6223 Web GIS Development |  |  | x |  | x |  |  |
| 6226 Spatial Simulation and Modeling in GIS | x |  | X | x | x | x |  |
| 6286 Geodemography: GIS in Social Science and Business Research |  |  |  |  |  |  | x |
| PUBAFRS 7555 Project Management in the Public Sector |  |  |  |  |  |  | x |
| Capstone project |  |  |  |  |  |  |  |
| 6299 GIS Capstone Project |  |  |  |  |  | X | x |

## 2. Requirements to complete the program

Courses in the proposed curriculum are organized in four tiers. The four required core courses are must-have for every GIST professional as these courses cover the professionalism and ethics (5101), fundamental understanding of map making (5200), theory and methods of using geographic information systems (5210), and theory, methods, and applications of remotely sensed data (5225).

The intermediate elective courses consist of 5 courses and the students can choose any 3 . The flexibility allows students to concentrate on a specific area if they want. For example, students who are interested in data analytics can choose 5103, 5212, and 5222, and for visualization they can choose 5103, 5201, and 5229. GEOG

5229 (Emerging topics in GIS) is designed to survey new technology and methods, and its recent offerings have covered topics such as advanced geovisualization, mapping census data, public health, and environmental modeling. Students can also start the path to get started with programming and database management by including 5212 and 5222 in their choices.

In the third tier, students, by choosing 3 out of 5 courses, can further develop their skills in a specific area, or choose a wide range of topics to broaden their skill sets. For example, those who choose the spatial data analytics in the intermediate tier can further hone their skills by having 6226 and 6286 in their choices. This tier also sees a strong curriculum in GIS programming, development, and management (6222, 6223, 6287).

Finally, students will work on a capstone project (6299) to complete the program. This project will be supervised by a faculty mentor and the students will identify a problem and design a strategy to address it. The public presentation of the project will be a highlight for the department and the program, as well as for the student's achievement.

## 3. Description of a required culminating, or integrated learning, experience

GIS Capstone Project (GEOG 6299) is designed for students to showcase the knowledge learned and skills developed in the proposed program. Students are required to take this course to complete the program. Permission from the program director is needed for students to enroll in the capstone, a measure to make sure this is the last course taken in the program. During this course, students will intensively engage in the entire process of problem-solving using GIS, from identifying the problem and research method, literature review, collecting and processing data, developing and designing proper methods, analyzing data, to professionally presenting the results and findings. Students will choose a problem that reflects what they may address in a professional setting in industry, government agencies, non-government organizations, or research institutes.

To successfully complete the capstone project, students must contact their academic mentor and the program coordinator at least 2 months prior to the semester they plan to take this course. This leeway will allow students and their mentors to brainstorm the problem suitable for the capstone project and to determine the appropriate steps to take when this course starts. Students will then work individually with the mentor to complete this course. In general, weeks 1-4 will be used to write a project proposal that details the problem and the methodologies to solve the problem. Weeks 5-12 will be used to concentrate on conducting data collection, analysis, and writing of the project report. In the last two weeks of the semester, students will submit a written document that details the project and make a public presentation to the department. The public presentation will be peer-reviewed.

## Institutional Staffing, Faculty, and Student Support

## 1. Faculty

The department now has 4 tenured or tenure-track faculty members and 1 full time lecturer who are teaching GIST courses. We now have received approval from the College to fill two additional GIST positions in 2022: a tenure track assistant professor and a full-time senior lecturer. The curriculum of the proposed program includes 5000 level courses that are currently taught in our undergraduate GIS major. The 6000 levels courses are new (all approved). The two new hires will help us sufficiently cover these new courses.

Once the MGIST program starts, we plan to hire a full-time clinical faculty member in the first year and an additional lecturer in the third year. The clinical faculty member will provide required stability to the program from the beginning. Please see the Growth of the Program section for the rational and the fiscal impact statement for budget details.

## 2. Administration and Support

In the second year of the proposed program, we will create a steering committee to help guide the program's operation. All members of the committee will be from government agencies and the industry that represent the potential employers of GIST professionals. This committee will be extremely valuable to the direction and growth of the program as they understand the dynamics of the GIST profession in the real-world and are in the best position to guide the future direction of the program.

Internally, in the first four years of the program, a subcommittee of the Graduate Studies Committee in the department will handle the administrative tasks such as outreach, admission, and student progress review. One of the full-time instructors or faculty members will serve as the director of the program. We anticipate the program will reach a cohort of 20 enrollments per year by the fourth year. After that we will evaluate the needs of the program going forward and the possibility of hiring a full-time staff member as the program progresses.

## Additional Proposal Sections

## 1. Professional graduate degree programs

a) Special admission criteria

Instead of requiring 3 letters of recommendations from academia as we do in a MA or MS program, applicants to the proposed MGIST program will submit 2 letters from their professional contacts such as their supervisors or peers.
b) Field/clinical experience

This does not apply to the proposed program as our curriculum does not require field/clinical experiences.
c) Faculty qualifications

The faculty members and instructors associated with the proposed program have been trained in the GIST areas and have taught related courses (see the enclosed Faculty Matrix and 2-page CV's).
d) Accreditation

Presently, GIST courses in academic programs around the country are not accredited. In today's GIST profession, there are two major certification paths. The first is through the GIS Certification Institute (GISCI), a not-for-profit organization that accepts individual applications to its GIS Professional (GISP) certification program. ${ }^{7}$ Individuals who pass the exam implemented by the GISCI become certified GISP. GISCI's certification, however, has not been a required credential for individuals to secure a job in the industry or government. And GISCI does not involve in accreditation of academic programs. The second path is through, ESRI, the leading GIS software vendor, that issues its own technical certification (similar to those by software companies like Microsoft and Oracle) for professionals who wish to establish their credentials in using ESRI's software and data products.

We do not anticipate that GIST accreditation will become reality in the near future. We will continue to monitor the dynamics of the GIST communities in terms of profession-wide certification and plan to play an active role in the process.
e) How are theory and practice integrated within the curriculum?

Each course in the curriculum typically contains lectures that discuss the theory in a specific subfield of GIST (such as color theory in a cartography class) and hands-on lab exercises that concentrate on the applications of theory in a lab setting. The curriculum also includes a capstone class in which students will choose to work on a specific topic through a project to showcase the knowledge and skills they have learned in the program.
f) National credit hour norm

There is no national credit hour norm for a GIST degree program. The number of credit hours vary among different institutes. For example, the Master of GIS program at University of Southern California requires 28 credit hours, while the similar program at Penn State requires 35 hours.

The 33 credit hours required to complete the proposed program is consistent with our Master of Arts program as well as the required hours by the graduate school of the Ohio State University.

[^3]g) Required culminating academic experience and student's professional preparation

A GIST professional in private or public sectors often needs to conduct data processing, analysis, and visualization for tasks that are fundamentally interdisciplinary. Our proposed degree program provides a comprehensive curriculum that gives students the opportunity to dive into the theory and methods in the fields while exploring concepts from different disciplines. We design our curriculum based on the GIST Body of Knowledge edited by the University Consortium of Geographic Information Science (UCGIS), which is also used by the GIS Certification Institute to design their certificate programs for GIS Professionals. Please refer to Section 2 under Basic Characteristics of the Educational Program in this proposal for how the learning objectives of the proposed program cover the 10 areas that deemed by the UCGIS for a well-trained GIST professional.

## APPROVAL TO ESTABLISH THE DEPARTMENT OF MOLECULAR MEDICINE AND THERAPEUTICS

## IN THE COLLEGE OF MEDICINE

Synopsis: Approval to establish the Department of Molecular Medicine and Therapeutics in the College of Medicine is proposed.

WHEREAS establishing a new basic science department focused on foundational research in specific areas, including foundational therapeutics, regenerative medicine and molecular medicine is aligned with the goals of the College of Medicine, will have high impact, and will enhance the college's national and international reputation; and

WHEREAS there are no similar departments in Ohio, and the College of Medicine reviewed departments and related centers/institutes at peer institutions for best practices/approaches; and

WHEREAS the proposal specifies academic units within the College of Medicine and across the university with which the department will interact in its research and educational missions, and stresses that it will complement and partner with current high-quality university programs; and

WHEREAS the proposal addresses all components expected in a proposal for the alteration of a unit, including a sound financial base, and the proposal has the support of the Department of Internal Medicine and the College of Medicine; and

WHEREAS the proposal adheres to the guidelines for the establishment of a department and provides details on its administrative structure, emphasis on graduate and postdoctoral research education, and fiscal resources to establish and maintain the department; and

WHEREAS the proposal was developed through a thorough process within and outside the College of Medicine and has support from the Colleges of Arts and Sciences, Engineering, Pharmacy, and Veterinary Medicine; the Comprehensive Cancer Center; and the Davis Heart and Lung Research Institute; and

WHEREAS the proposal was reviewed and approved by the Council on Academic Affairs at its meeting on April 20, 2022; and

WHEREAS the University Senate approved this proposal on September 22, 2022:

## NOW THEREFORE

BE IT RESOLVED, That the Board of Trustees hereby approves the proposal to establish the Department of Molecular Medicine and Therapeutics in the College of Medicine.

March 12, 2022
To: Council on Academic Affairs

From: Tania (Tatiana) Oberyszyn, PhD
Vice Dean for Faculty Affairs
RE: Request for the formation of a Department of Molecular Medicine and Therapeutics (MM)

Attached are documents requesting the formation of a Department of Molecular Medicine and Therapeutics in the College of Medicine. The College of Medicine's College Council unanimously approved the request on February 16, 2022.

Thank you for your consideration of this request.

Sincerely,


Tania (Tatiana) Oberyszyn, PhD
Vice Dean for Faculty Affairs, COM
Professor
Department of Pathology

## Name: Department of Molecular Medicine and Therapeutics

Introduction: To achieve its goal of being a top 20 College of Medicine, research at Ohio State University would be enhanced by a new basic science department focused on foundational research in specific areas of scientific emphasis for future growth. The proposed department is designed to achieve high impact basic science, education, and service in key gap areas in which Ohio State University (OSU) can rapidly expand and develop strong teams for high impact science and expand its national/international reputation.

## 1. Rationale

Mission: To augment research, creative expression, education, and service through new discovery in fundamental biomedical research

Vision: To create and develop a basic science department emphasizing fundamental science that can foster translational research and education through collaboration and synergies within the broader OSU environment.

## Areas of Emphasis

- Foundational Therapeutics: Design, develop, and validate therapies for disease using novel methods and models to improve translational research.
- Regenerative Medicine: Advance programs in stem cell biology and tissue engineering across diseases.
- Molecular Medicine: Advance fundamental biology to whole organ/body models and clinical correlates using preclinical modeling and systems biology approaches.


## Department Goals:

1. Perform high quality transformative research in basic science areas of emphasis in relevant model systems.
2. Recruit basic and translational scientists around key scientific areas. Serve as a nidus for group funding opportunities ( P and U award).
3. Establish a cross-cutting T32 and support graduate programs within the college, including clinical Departments and College/University Centers
4. Emphasize Diversity, Equity, and Inclusion in hiring focused on basic science tenure-track and tenured faculty as part of new COM and University-wide programs such as RAISE and INSPIRES.
5. Open new education opportunities for medical students and practicing physicians in molecular medicine
6. Development and expansion of cross-college collaborations with Engineering, Arts and Sciences, Veterinary Medicine, Pharmacy, and other OSU Colleges emphasizing translational sciences and technology transfer

## 2. Define the purpose of the unit (investigate overlap with other academic units already established at the University and include letters of interest or objection)

The purpose of the MMT will enhance biomedical basic science focusing on key areas of scientific emphasis designed to enhance the College of Medicine's reputation and impact and produce high-impact science. It will play a role in complementing the existing efforts in multiple units in the College of Medicine. It will serve as a nidus for new training opportunities and will provide a basic and early translational scientific environment to support the OSU COM research ecosystem. A new department is required to address key and unaddressed scientific areas including but not limited to broad regenerative medicine, molecular therapeutics, and molecular medicine. It also will serve a role to support diversity, equity, and inclusion in tenure-track basic science faculty and training programs, an area of key focus of the College and the University. It will enable increased medical student and professional education in the molecular aspects of medicine. We have investigated areas of potential overlap for this department with both basic science and clinical department chairs, University leadership, and leaders in the Colleges of Pharmacy, Arts and Sciences, Veterinary Medicine, and Engineering. The areas of emphasis were informed by these discussions and were designed for complementary expertise that would
support and expand scientific growth. For basic science departments, anticipated specific interactions will include: 1) Biochemistry and Pharmacology through expansion of drug design, delivery, and stem cell biology along with systems biology; 2) Cancer Biology and Genetics through growth and expertise in tissue engineering, stem cell biology, and systems biology; 3) Microbial infection and Immunity in systems biology and drug development/design; 4 and 5) Physiology and Cell Biology and Neurosciences in the area of stem cell biology, aging, and drug design; and 6) Bioinformatics, systems biology approaches to link basic and translation efforts would be highly beneficial. For clinical departments, MMT would provide a basic/translational scientific partnerships to enable strategic partnerships supporting research growth. It is anticipated that there would be robust interactions with the Department of Internal medicine including Diabetes and Endocrinology, Cardiovascular disease, medical oncology and hematology, nephrology, pulmonary and rheumatology in the Drug design, in some cases stem cell biology and in systems biology particular with medical genetics and clinical outcome and epidemiology research. The Departments of Surgery, Orthopedic Surgery, ENT/Head and Neck Cancer, Anesthesia and Plastic Surgery would be areas of emphasis for the stem cell biology work, in some cases drug development and with systems biology. Robust interactions are likely in all areas with Neurology, Neurosurgery, Psychiatry, Pathology, and Radiation Oncology. Finally, the department will have strong interactions with multiple centers including the Comprehensive Cancer Center with its current focus areas in immune-oncology, cancer engineering, translational genomics, and drug design (with the College of Pharmacy); the CCTS, Davis Heart and Lung Research Institute through the emphasis on Drug Development and tissue engineering, and neurosciences and aging

It is anticipated that the new department will receive interest for research, recruiting, and education collaborations across the College. Intercollege collaborations also are likely for Department members that will be facilitated by space allocation and through shared resource use across our One University campus. This includes potential interactions with the College of Arts and Sciences with Chemistry and Biological Chemistry, Physics, Mathematics, Molecular Genetics, and others, the College of Engineering with Biomedical Engineering, Computer Sciences and Engineering, and Chemical and Biochemical Engineering, and Mechanical and Aerospace Engineering; the College of Pharmacy with Medicinal Chemistry, and the College of Veterinary Medicine, among others. Our desire is to complement and partner, but not compete with high quality and current programs housed in other Colleges.

Part of the goal of the Department will be to support new strategic new faculty hiring into the areas of emphasis of the Department and support transformational growth in basic science. An additional facet for this department is to support Diversity, Equity, and Inclusion in tenure-track faculty in basic sciences on campus in alignment with the RAISE initiative and programs in the College of Medicine. The College of Medicine has committed that there will be 10-12 new faculty hired over 4-5 years. Details of the planned structure are outlined in later sections of this document.

## 3. Describe the role of the new unit in relationship to the larger administrative unit of which it will be a part

MMT would be a Basic Science Department in the College of Medicine. The Chair will report to the Dean of the College of Medicine.

## 4. Describe similar units at other universities in Ohio, in the Big Ten, and in the United States and their levels of success

While there are no similar Departments in Ohio, there are components of similar programs within Departments in the State (Case Western/CCF and Ohio University). In the Big Ten, there are individual Divisions within Departments serving those Departments at Minnesota and Michigan, as well as education programs around Molecular Medicine at University of Maryland. In the Big Ten only Rutgers School of Medicine has a similarly named Program but this also encompasses the Department of Cell Biology (see below). Nationally, there are a number of highly successful Departments with similar scopes of emphasis with different Department titles. These were reviewed for best practices and approaches as summarized below.

## Department Mission Statements/scientific overview (if available on line quoted from current websites)

Departments:
Mayo Clinic: "The Department of Molecular Medicine at Mayo Clinic is led by a team of experts with a wide range of disciplines to find new treatments by promoting research in virus and gene therapy."

Scripps Research Institute: Department of Molecular Medicine: "Our cells hold the secrets to a healthy lifeand those secrets are molecules. At Scripps Research, we strive to explain how molecules work together to keep us healthy and how they cease to function correctly with age or illness. But we don't stop there. Using what we discover about cellular processes and disease mechanisms at the molecular level, we educate future scientists and pursue development of novel therapies to counter disease. From cancer to diabetes, Alzheimer's to arthritis, we're taking knowledge about molecules and turning it into medicines."

University of California, San Diego: Department of Cellular and Molecular Medicine: "Our mission is to support and promote research and teaching in cell biology and related disciplines at UC San Diego and beyond. Our 32 faculty and over 200 postdoctoral scholars, graduate students, and research staff work at the cutting edge of biology, cutting across fields from basic biochemistry and genetics to genomics, systems biology and stem cell biology"

University of California, Davis. Department of Biochemistry and Molecular Medicine: "Our Mission is to conduct world-class research in biochemistry and molecular medicine. To excel in undergraduate, graduate and medical education, and to serve the university through leadership in forums committed to graduate and professional school admissions and curriculum."

University of Southern California: Biochemistry and Molecular Medicine: "Our work focuses on understanding the underlying mechanisms for studying human disease and leads to high-impact breakthroughs in drug discovery, therapeutics, disease etiology and prevention. Access to a renowned, diverse faculty along with cutting edge equipment and facilities creates a unique, hands-on experience for students and researchers interested in pushing the boundaries of genomic studies, technologies and their applications."

University of Arizona: Department of Cellular and Molecular Medicine: "The mission of the Department of Cellular and Molecular Medicine (CMM) is to provide pre- and post-doctoral, medical and graduate education in an interdisplinary environment through research activities, to advance knowledge of biological structure as related to function and disease from the molecular level to the whole organism."

City of Hope/Beckman Research Institute: Department of Molecular Medicine. "The Department of Molecular Medicine within the Beckman Research Institute of City of Hope advances translational medicine through breakthroughs in basic science using chemical biology and genomic approaches. Our investigators lead cuttingedge research to determine the mechanisms underlying cancer and other serious diseases such as diabetes. The goal of the department is to customize prevention and treatment of such illnesses by developing targeted therapies for an individual's genomic profile. Success produces more effective clinical responses to our treatments and less drug toxicity and resistance."

University of Texas, San Antonio: Department of Molecular Medicine and Institute of Biotechnology: "The Department of Molecular Medicine/the Institute of Biotechnology (IBT) was established in 1994 to administer a program to train graduate students at the interface of basic and clinical sciences with an emphasis on biomedical research focused on discovering the molecular mechanisms underlying human disease and to serve as a platform for the development of novel treatment or prevention approaches. "

University of South Florida: Department of Molecular Medicine: "To Discover, apply and disseminate knowledge of the molecular basis of health and disease. To Translate, this knowledge into innovative tools for the diagnosis, treatment and prevention of disease. To Train, and mentor future scientists and health care professionals. To Provide, a collegial and scholarly environment where students, faculty and staff thrive."

Rutgers University: Department of Cell Biology and Molecular Medicine: "The department is committed to understanding the molecular mechanisms of disease by bridging the gap between physiology and molecular
biology. The research activities of our department include physiology, functional genomics, proteomics, developmental biology, cell biology and cell signaling. Our belief is that the understanding of disease can be achieved optimally by integrating the different aspects of the disease, i.e., from the whole organism to subcellular components, and by the use of complementary techniques to acquire a global view of the problem."

Rush University: Department of Cellular \& Molecular Medicine: "The Department of Cell \& Molecular Medicine is committed to fulfilling our threefold mission of education, research, and service through innovation, collaboration and teaching excellence. CMM is the home department for the Joint Health NIH T32 training grant."

## The following have multidisciplinary centers, institutes or graduate programs centered on Molecular Medicine:

Johns Hopkins, University of Washington, Yale

Departmental Areas of Scientific Emphasis, Education, and full time faculty size (non-emeritus)
estimated based on website, it is not certain all are primary appointments
Mayo Clinic: Viral Delivery and gene therapy for human disease. Regenerative medicine focused on cancer. 6 full time faculty as TIU.

Scripps Research Institute: "Five main areas of focus:1) state of the art chemical biology to decipher cellular signaling and transcriptional processes; 2) multidisciplinary approaches to discover new therapeutic targets and identify drug leads; 3) biology of human cancers; 4) age-related physiology that leads to disease and physical and cognitive decline; and 5) autoimmune and genetic disorders." 54 full-time faculty on CA Campus plus emeritus faculty. Large graduate and postdoctoral research programs.

University of California, San Diego: "Modern cell biology is a multi-disciplinary affair. Our faculty study fundamental cellular processes and pathways using a variety of techniques from classical genetics and fluorescence microscopy to high-throughput genomics, systems biology, and crystallography. While at the cutting edge in many areas, particular strengths of the department include Glycobiology and Stem Cell Biology." 32 faculty. Graduate students are part of existing college wide programs. No specific T32 for postdocs

University of California, Davis. "The research interests of the departmental faculty are focused in the fundamental molecular aspects of cell biology, gene expression, cancer biology, membrane biology, glycobiology, neurobiology, muscle physiology, human genetics, chemical and structural biology, molecular imaging and drug development. In addition to innovative research activities, faculty are involved in the teaching and training of medical and doctoral students." 25 faculty on two campuses (Davis and Sacramento). Participate in graduate and medical education programs. No specific graduate degree program.
University of Southern California: "Research thesis mentors conduct internationally recognized research in the biochemistry, genetics and cell biology of various human diseases including cancer, Mendelian and complex disorders." Department-specific Master's program. PhD students in larger college-wide programs. 15 full time faculty.
University of Arizona: "Scientifically, Cellular Medicine at the University of Arizona is extremely inclusive. The intellectual life of the Department is being increasingly enriched as our faculty actively participate in the development of interdisciplinary centers such as the Arizona Cancer Center, Sarver Heart Center, Arizona Respiratory Center and BIO5. Our Department is recognized internationally for research in deciphering mechanisms underlying the pathogenesis of human complex diseases. The mission of CMM is carried out through its teaching, research and service activities. Our expertises encompass cellular, molecular, and developmental biology, genetics, bioinformatics, toxicology, parisitology, and neurobiology, with a strong emphasis in imaging. Our research faculty are highly collaborative and take multidisciplinary approaches to their research." 32 primary faculty. PhD and Master's program, no specific postdoc program.

City of Hope/Beckman Research Institute: "The department is composed of a carefully crafted team of experts in chemistry, biology, biochemistry and biophysics that identifies new target molecules to treat cancer, creates personalized medicines from natural products, develops bioorganic approaches for cancer therapy, and evaluates genomic markers to predict cancer risk and response to therapy. By collaborating with multidisciplinary groups that include basic, translational and clinical researchers throughout City of Hope, we transform our key findings into novel therapies that improve the quality of life for patients everywhere. The department has a robust pipeline of novel, molecularly targeted therapeutics that includes engineered antibodies and small molecules. To facilitate the translation of these and other clinical candidates, the department is home to the Chemical GMP Synthesis Facility (CGSF), which is a 3000-square-foot, state-of-the-art manufacturing facility where our small and large molecule therapeutics are prepared for phase I and II clinical trials. The CGSF plays a key role in bridging basic science and translational medicine at City of Hope and allows more efficient and cost-effective means to translate our science into clinical practice. To accomplish our mission, the Molecular Medicine team uses approaches and technologies that include: sophisticated organic synthesis and medicinal chemistry; high-tech protein engineering; functional genomics, proteomics, and microarray gene expression profiling; high throughput screens of plant extracts and chemical libraries; advanced NMR spectroscopy and computational modeling; state-of-the-art X-ray crystallography; leading-edge super-resolution microscopy." 10 Faculty no listed graduate or postdoctoral programs are provided.

University of Texas, San Antonio: "Located in the South Texas Research Facility (STRF), we offer a researchoriented, interdisciplinary program of study in the areas of cancer and aging and their prevention. Specific areas of study include cell (and hormone) signaling, systems biology, gene expression, epigenetics, cell cycle and checkpoint controls, DNA damage repair and associated stress responses, and regulated protein turnover. It is the home of a U54 in systems biology and the single cell sequencing core facility. It is home to the Graduate Program in Molecular Medicine that was established in 1994 as a forward-looking academic program designed to train students at the interface of basic and clinical sciences. Its inception marked the first such program in the State of Texas and was rooted in the firm belief that rigorous training of scientists in the genetic and biochemical basis of human disease would provide an effective means to translate rapid advances in basic research into practical health benefits for the 21st-century public." 31 faculty. Graduate school PhD program

University of South Florida: Research focus are disease oriented in neurodegenerative disease, cancer biology, infectious disease and diabetes/metabolic disorders. They are a core area in the Master's and PhD programs in Medical Science that are College-wide. 32 faculty

Rutgers University: "The research activities of our department include physiology, functional genomics, proteomics, developmental biology, cell biology and cell signaling. We have created research institutes to gather together faculty with common research interests but complementary views and technical approaches. For example, the Cardiovascular Research Institute is dedicated to the understanding of molecular mechanisms in adult and congenital cardiovascular disease. The department is currently in an expansion phase with the creation of a division for cancer research and the recruitment of several new faculty members. There is a PhD in the department as part of the Graduate School." 22 full time faculty. Emphasis a cardiovascular disease, signal transduction, and wound healing.

Rush University: "The objective is to identify therapeutic targets and biomarkers which, after appropriate clinical investigation, will improve human health. Thus, projects run the spectrum from fundamental molecular biology and genetics to cell signaling to tissue, organ, and organismal level responses. Studies are conducted using cell culture, model organisms, and human subjects. There are four current areas of emphasis: cancer biology, musculoskeletal tissue injury and regeneration, movement disorders, and medical education research. " Graduate teaching as part of college-wide program. No specific post-doctoral program. 22 faculty with emphasis on cancer biology, bone biology, and education evaluation
The following have multidisciplinary centers, insitutes or graduate programs centered on Molecular Medicine in Colleges of Medicine:

Johns Hopkins, University of Washington, University of Maryland, Yale

## 5. Enumerate Major Proposed programs

a. Research Areas of Emphasis: We have investigated areas of potential overlap and opportunities for growth of this department with department chairs and College leadership and reviewed the areas and names with leaders in Colleges with departments most aligned with the areas of emphasis. The areas of emphasis were informed further by these discussions. Thus, they were designed for complementary expertise that would support and expand scientific growth of basic science with high scientific impact and translational opportunities.

## Areas of Emphasis

- Foundational Therapeutics: Design, develop, and validate therapies for disease using novel methods and models to enable translational research
- Regenerative Medicine: Advance programs in stem cell biology and tissue engineering across diseases.
- Molecular Medicine: Advance fundamental biology to whole organ/body models and clinical correlates using preclinical modeling and systems biology approaches


## b. Administrative Structure

Department Chair focused on molecular medicine from bench to bedside
Vice Chair of Academic Affairs and Diversity, Equity, and Inclusion: This will be full professor who will direct the Promotion and Tenure Committee, lead DEI efforts, and work with the Department Chair as part of the Executive Team of the Division.

Key Committees: Executive Committee: Dept. Chair, Vice Chair, Education Committee, Appointment Promotion and Tenure Committee, Research Committee

Administrative Team: Department Administrator (shared with second basic science department); Assistant to the Chair

Department Structure:
Department of Molecular Medicine and Therapeutics (MMT)

c. Promotion and Tenure: Promotion and Tenure documents that conform with the College of Medicine and University have been developed. Expectations have been developed with the COM Vice Dean for Academic Affairs and University level review. Faculty hires will be tenure-track to start with potential research track hires over time. Emphasis will be placed on team science in addition to individual achievements. Documents will be approved through the College and University as appropriate.

## d. Education Programs and enrollment projections:

It is anticipated that all faculty in the Department will be involved in the teaching mission and that excellence in teaching will be a core component of the promotion and tenure process. There will be an Education Committee to coordinate the teaching efforts. New major or minor programs are not anticipated for the Department. However, the presence of a new department focused on molecular medicine will enable new courses in the medical school as well as professional certificate training opportunities. We anticipated that some faculty members will be engaged with the education mission of collaborating departments and/or existing programs in the COM. There are opportunities for potential involvement in existing undergraduate education programs across the University in collaboration within the existing structures. MMT members will plan for appropriate interdepartment and inter-college agreements if those are pursued.

Faculty Training: All new faculty will attend the College of Medicine FAME program including the series on teaching education methods for graduate and medical students. For those focusing on education as career pathways, additional training will be expected in the OSU Academy of Teaching. All faculty will have required training and continued education regarding Diversity, Equity, and Inclusion.

Postdoctoral Education Program: We anticipate an emphasis on postdoctoral research education. We will plan to develop a formal postdoctoral support program with a curriculum for grant and paper writing and career mentoring with a goal to attain a new T32 program. They also will attend translational lecture series' from the Department as well as through clinical collaborators. There will be emphasis on Diversity, Equity, and Inclusion in the trainees at all levels with emphasis on individual supplements, F31 proposals to NIH and coordination with efforts on campus such as RAISE and INSPIRES. We expect that between this program and individual recruiting $\sim 15-20$ postdoctoral researchers to be in the Department once it is fully recruited. In addition, through interactions with clinical departments, faculty in MMT may also be members of disease-oriented T32 grants and have clinical and translational fellows in their laboratories for 1-2 years.

Graduate Student Education: Faculty are expected to be excellent advisors for graduate students once accepted with P-level appointment in the graduate school. Faculty will be expected to be members of the Biomedical Sciences Graduate Program (BSGP). If appropriate, they also may be members of other graduate programs such as the Ohio State Biochemistry Program (OSBP) or others. It is anticipated they will propose and teach courses in the BSGP program as per program-specific expectations. They also may teach in the medical school curriculum for a course in molecular medicine, or in the basic science component for their organ system of emphasis. We anticipate that faculty will be mentors for $\sim 10-15$ graduate students, including MD, PhD students. We will create Department-specific mentoring programs for Graduate Students and also will work with the appropriate Graduate program to support proposals and teaching in the programs.

Undergraduate Student Education: Undergraduate students interested in biomedical research may express an interest in working with MMT faculty for research experiences. We will work actively with the appropriate colleges and departments in the undergraduate university to be certain students are aware of opportunities in the Department. We will create a "pipeline" research pathway focused on URM, women, and first-in-college students with an expressed interested in MMT for a career pathway.
e. Goals for Enrollees in the Education Programs: The primary Department-specific program is a postdoctoral training program with a goal to obtain a T32. By training with faculty in MMT, leaners will have the opportunity to be in an environment of innovative basic/early translational discovery that will expose them to the excitement of performing cutting-edge research with clinical implications. They will have received specific mentoring and teaching for grant writing, manuscript writing, and oral presentations that will serve them will in the future. They will receive training for future careers in academic clinical medicine, pharmaceutical companies, academic
research, and other opportunities in biomedical sciences and related fields. Undergraduate and graduate students will have received outstanding mentorship in a supportive and inclusive environment. For graduate students, they will be very well positioned for their careers having gained experience working with physicianscientists and basic scientists as well as clinical faculty to enable careers in translational medicine.
f. Impact on existing educational programs: It is not anticipated that the programs above will have a negative impact on existing education programs; but rather will allow for new education focused on molecular medicine knowledge of medical students, and create new opportunities to attract postdoctoral trainees with translational interests from basic science or clinical backgrounds. There is not a plan for new undergraduate or graduate programs in MMT. For undergraduate and graduate students, the new faculty will be involved in existing programs and will increase options for research advisors and mentoring not currently available. The new postdoctoral program will be expected to increase the number of highly qualified applicants to OSU and provide a potential pathway for new faculty recruitment. This is particularly important with the planned emphasis on women and URM applicants.

## 6. State opportunities provided for study or application of the subject beyond the structure of the classroom

Most education for postdoctoral researchers and graduate students occurs outside of the classroom. In addition to individual teaching between mentors and mentees, along with required lectures and seminars for Graduate students, the Department will provide opportunities for trainees to present journal clubs, research in progress seminars and formal presentations within the Department structure. In addition, for postdoctoral fellows, the curriculum will include annual presentations to the faculty and more frequent meetings with mentoring committees comprised of faculty members to critique research as well as presentation styles. It is anticipated that students and postdoctoral trainees will present at internal research days and fora, in addition to presenting original data at national and international meetings.

## 7. Estimate the potential to develop national or international recognition as an academic discipline

This innovative department will raise the profile of the OSU College of Medicine and OSU in several manners. First, by recruiting a strong faculty with growth in key areas of research, the reputation of OSU in areas such as drug design, stem cell biology and regenerative medicine and disease-oriented systems biology translation will be notable since there are no similar coordinated departments within Ohio or the Big Ten footprint. Thus, the creation of this Department will give strong recognition of the excellence of OSU in basic science in these key areas. Second, it is anticipated that the MMT department will raise the profile of the collaborating departments by creating a powerful research environment for top translational researchers with links to clinically-focused departments. Finally, the creation of this department will enable additional focus on Diversity, Equity, and Inclusion the tenure-track scientific faculty, a key benchmark and measure for success for OSU. It is anticipated that the outstanding faculty recruited into MMT will serve on NIH panels, be editors of journals, and be visible members of professional societies. Mid-career faculty will be mentored in this manner with an organized program to nominate faculty to key societies, a critical factor in raising the institutional profile.

## Additional Programs:

Clinical Programs: As a basic science program we do not anticipate having our own clinical practice.
Faculty Mentoring Programs: A formal faculty mentoring program will be an intrinsic component of the MMT Department. All new non-tenured faculty will not only attend the FAME program but also will have a formal committee organized by the Vice Chair for Academic Affairs, Diversity, Equity, and Inclusion. Mentoring is a process that includes not only professional mentoring, but also personal mentoring and leadership training. This holistic approach will be the approach including benchmarks to achieve promotion and tenure, mentoring new faculty about laboratory management and personnel decisions and supervision, faculty well-being and work-life balance, as well as specific mentoring for URM and women faculty with involvement of resources beyond the Department when appropriate. All faculty will be expected to be trained by University teams in recognizing their own implicit biases and on how to manage microaggressions or other workplace issues should they arise.

Finally, mentoring also will continue for those mid-career faculty involved in team science and also interested in leadership opportunities through the OSU GRO program and CTSA-sponsored programs.

Faculty Well-being: This is a critical issue for faculty at all levels. Work-life balance is at the forefront to avoid faculty fatigue and burnout. This has been particularly evident during COVID-19. We will plan to have a faculty wellness strategies. We will plan for twice a year faculty and family get togethers and also teach strategies for faculty to ensure "down time" from work. It is critical for the Department to be a family-friendly environment that is supportive of the needs of faculty and trainees.

Diversity Equity and Inclusion: The MMT Department will have an emphasis on Diversity, Equity, and Inclusion in its faculty, students, staff, and in its welcoming environment for individuals of all races, ethnicities, and sexual orientation. One of the benchmarks for the Department will be recruiting an academically outstanding diverse faculty that can serve as a nidus for sustaining transformation of faculty diversity. The goal will be to attain diversity at all academic levels and within the leadership structure. We will work with College and University leadership and programs to recruit faculty interested in supporting College and University-wide programs in this key area of emphasis for the University.

Pilot Funding Program: Many highly productive faculty will have high risk/high reward research that requires preliminary data for funding agencies. The Department would like to fund one proposal annually that must have a PI in the MCM Department but can be multi-PI with another department (basic or clinical) within the COM.

Bridge Funding: It is likely that faculty may run into gaps in funding. To enable continued support for preliminary data and successful funding long-term, such funding is provided by the College of Medicine through formal programs.

Equipment funds: two expenses often not included or allowed in proposals include service contracts and large equipment purchases. A funding strategy (created through fundraising and outreach) will be developed within the Department to support service contracts and maintenance costs for the department

## 8. Describe previous submittals of the same or similar unit proposals (indicate reasons for withdrawal or disapproval)

Not applicable.
Demand

1. Give evidence of sufficient demand by students, faculty, general public, and/or business
2. Estimate the duration of demand (long/short term)
3. State the reasons that other units are not able to meet the demand

As the College of Medicine continues to grow its basic science departments to achieve its goal to reach the top 20 ranked institutions, it is clear that there are some key areas of strength required across specialties and to maximize innovation and impact for the future. Moreover, the current number of basic science departments in the College of Medicine is smaller than peers and with the recent growth of faculty, the existing Departments are large. Thus, for growth, there is a need for a new basic science Department in the COM. The areas of emphasis are aligned with current and future scientific growth in the biomedical research and enable will serve as a basis for excellence in research across organ and disease sites. This new Department will immediately place Ohio State as the leader of this approach within our Ohio and Big Ten footprint. The impact of strong departments of molecular medicine can be seen at some of the institutions described above such as UCSD and Scripps where Nobel laureates have made key discoveries advancing biomedical research, or in institutions such as City of Hope where they enable more rapid drug design and technology transfer and UT San Antonio where it has been a nidus for U54 awards and training programs. There is demand for these types of integrated programs by students and faculty, as well as by the general public as the ability to respond quickly to medical emergencies has been so apparent in response to the COVID-19 pandemic.

This will be long-standing as the need for innovative basic science is crucial to improve health. Importantly, the work that leads to these advances requires seamless integration between basic scientists, physician scientists, and clinicians. By having a department dedicated basic science with translational intent, the pace of discovery, and the flexibility to support multiple disease entities based on the scientific mission areas of the department is broadened. Similarly, working with the College of Pharmacy and the Drug Development Institute, a chemistrybased Drug design platform team can work with the Department of Biochemistry and Pharmacology and Medicinal Chemistry to create disease-related models informed using systems biology approaches and clinicians to identify drug targets and develop inhibitors for drug development for multiple diseases. Finally, the emphasis in systems biology linking basic science to clinical data, genomic, radiomic, and pathology data with clinical scientists enables reconstruction of the basic science in a clinically directed manner. This will include three dimensional tissue scaffolds and other technologies developing as part of the organoid program growing out of the Center for Cancer Engineering. Thus, MMT will enhance translational discovery will align innovative basic and translational science with clinical applications across diseases in focused areas of emphasis. Finally, it will enable a unique training environment for postdoctoral researchers, and a strong environment for students desiring a broad variety of careers in biomedical translational research.

## Cost

1. Describe anticipated internal funding and external funding potential

The future department has secured commitments between the College of Medicine, the Cancer Center and the Davis Heart and Lung Research Institute to establish the Department in terms of administrative support and future faculty and staff. There are MOUs with commitments to support start-up costs for selected candidates provided by the Comprehensive Cancer Center ( $n=6$ ); Davis Heart and Lung Research Institute ( $n=4$ ). While Centers and Institutes will fund start-up support, the College of Medicine will provide on going faculty and staff costs. These costs will be offset by future return of costs through faculty teaching, research, and service activities.

General categories of Funding needs will include the following:
Salary and benefits for new faculty and staff positions partly offset by funding with an expectation of $50 \%$ salary coverage (see below)
Recruitment costs and relocation expenses
Faculty start up and equipment needs commensurate with their level of recruitment and scientific needs with commitments to offset these costs.

All faculty will be recruited in conjunction with the College of Medicine with expectations for extramural funding at the time of hiring for established faculty. In addition, long term and continued external funding potential is very high. It is anticipated that a few faculty will move to the department to begin the program. This will be made-up of independently funded investigators. Faculty (10-12) will be recruited from outside institutions or from our own training programs (in addition to Dr Ringel). Senior faculty hires will be expected to have R01 level grants or components or PI of team award such as U or P series award from NIH or their equivalents from other institutions. Junior faculty will be expected to be highly well trained and, in general, be recipients of K awards, K99/R00 awards, or first R01 awards (although extramural funding will not be required of highly qualified junior recruits).

1 Department Chair: Matthew D. Ringel, Professor of Medicine who will continue with NIH funding, maintain partial salary support through his current endowed chair and will continue a $10 \%$ clinical practice in the Department of Internal Medicine.
10-12 total recruits (below may vary based on recruitment pool).
Year 1: One vice chair (professor) and one early career recruit
Year 2: One senior and two assistant professors
Year 3: One senior and two assistant professors
Year 4: two-three assistant professors
Year 5: two additional faculty recruits per business plans or additional business plans.
2. Compare cost of proposed unit with that of like institutions with similar academic units

There are few directly comparable departments in institutions as noted above. This budget proposal is similar to existing basic science departments in the College of Medicine.
3. Evaluate cost of additional faculty that may be needed

Faculty Need
All faculty will be appointed to 12-month faculty appointments that conform with COM policies and guidelines.
Estimated cost: Salaries will be commensurate with the AAMC basic science salaries as per Basic science departments in the College of Medicine. Salaries will be partially covered by extramural funds.

Recruitment and relocation costs including start-up funds, large equipment if needed, laboratory relocation, and family relocation

## 4. State adequacy and availability of facilities as well as faculty

The department will adhere to established COM and OSU space metrics, the use of core labs and equipment, and will make group decisions regarding core equipment needs. The Department will require administrative staff in addition thus office space for each faculty, office space for administrative staff, and conferencing space for staff and students will be required.

PI space profile:
~10-12 faculty
1 Department Chair: Full Professor with space based on funding and one Department Chair office with space for individual meetings.
2 Full Professors: Space per faculty member depending on funding and each with one office;
1-2 Associate Professors: Space per faculty member depending on funding and each with one office;
7-8 Assistant Professors: Space per faculty member depending on funding and each with one office;

Additional shared space is also needed so that all Department personnel have adequate access to cold rooms, sterile/glass washing stations, lounge space, and meeting areas.

Other:

1. Computers and printers for all faculty, a large color printer and services for the department. IT support. Updates to computers. Paper and other consumables.
2. Office and laboratory furniture with updates as needed
3. Meeting space to include large computer screen for conferencing in the division and for outside speakers
4. Funds for monthly grand rounds, food for internal monthly faculty meetings and grand rounds, strategic planning and an annual retreat along with two wellness
5. Office space for Administrative assistant to the Department Chair near Chair office
6. Office space for Department Administrator

Include information regarding the use of consultants or advisory committees in the development of the proposal, with copies of reports from such consultants or advisory committees

This was developed as a new basic science department in conjunction with the College of Medicine Dean and the Vice Deans for Research and Academic Affairs. There were initial presentations and discussions with the Basic Science Chairs and Clinical Department Chairs in the College of Medicine. Individual meetings were held with all Basic Science Chairs and most of the Clinical Chairs to obtain feedback and inform the final model. Individual discussions also occurred with Dr. Mohler, Raphael Pollock, Director of OSUCCC, and Thomas Hund, Interim Director of DHLRI to ensure agreement on scientific areas and alignment with the model. Dr. Ringel also met with the ADRs of the Colleges of Engineering, Pharmacy, and Veterinary Medicine, and with the Dean of the Natural Science Colleges of the College of Arts and Sciences to identify any potential concerns or areas of synergy with their Colleges. All agreed that MMT was not conflicting or overlapping in scope, science, or name and that the Department offered opportunity for synergies and growth. Finally, on 2/16/2022 the Department was presented formally to College Council and approved unanimously.

## APPROVAL TO RAISE THE CAP ON CLINICAL FACULTY IN THE

 COLLEGE OF OPTOMETRYSynopsis: Approval to allow the College of Optometry to adjust its cap on clinical faculty appointment types to $48 \%$ is proposed.

WHEREAS Faculty Rule 3335-7 establishes that colleges may establish a clinical/teaching/practice faculty appointment type for non-tenure track teacher/practitioners; and

WHEREAS a proposal for an exception to Faculty Rule 3335-7 is required to revise the requirement that the percentage of clinical/teaching/practice faculty cannot be more than $40 \%$ of the total tenure track, clinical/teaching/practice, and research faculty in each of the health sciences colleges; and

WHEREAS the College of Optometry proposes that its cap be raised to $48 \%$ to enable the college to carry out its educational and clinical missions more effectively without relying excessively on associated faculty appointments; and

WHEREAS the Colleges of Medicine, Nursing and Dentistry have previously had caps on clinical/teaching/practice faculty raised above 40\%; and

WHEREAS appointments will be made following established search processes as described in the college's Appointment, Promotion and Tenure document; and

WHEREAS the proposal has the support of the dean and the College Faculty Advisory Committee, as well as the unanimous support of the faculty; and

WHEREAS the proposal was reviewed and approved by the Council on Academic Affairs at its meeting on September 7, 2022; and

WHEREAS the University Senate approved the proposal on October 27, 2022:

## NOW THEREFORE

BE IT RESOLVED, That the Board of Trustees hereby approves adjusting the cap on clinical faculty appointment types in the College of Optometry to 48\%.

TO: Dr. W. Randy Smith
Dr. Rebecca Andridge
FROM: Karla Zadnik, Dean College of Optometry


RE: $\quad$ Proposal to raise the cap on clinical faculty in the College of Optometry

Attached is a proposal from the College of Optometry to raise the cap on clinical faculty, per University Rule 3335-7-04: Proposals and approval process for a proposed amendment to the Clinical Faculty Appointment cap. The College of Optometry requests an increase ithe proportion of clinical faculty from the present cap of 40 percent of the total number of tenure, clinical, and research faculty because of the number of faculty needed to attend in the college's clinics.

The proposal explains the College of Optometry's organization and the numbers and types of faculty and their responsibilities and provides the rationale for increasing the cap on the percent of clinical faculty. These new clinical faculty will be hired using customary search processes as described in the College of Optometry's Appointment, Promotion, and Tenure document. They will be important contributors to the college's educational, research, and service missions.

We foresee no problems with the proposed increase in the cap on the percent of clinical faculty. An important consequence of approval of this proposal will be the conversion of as many as six current associated faculty, who were hired in the associated category because of the current $40 \%$ clinical faculty cap, to clinical faculty. This will improve their career development trajectory and morale and will enable them to teach didactic classes as needed.

The College of Optometry requests a 48\% clinical faculty cap, which is less than the previously approved clinical faculty caps for the Colleges of Nursing (75\%), Dentistry (75\%), and Medicine (no cap). This increase will be enough for planned future educational and clinical responsibilities and for unforeseen circumstances.

This proposal was provided in advance to the College of Optometry's Faculty Advisory Committee, which comprises the tenure-track, clinical, and research faculty prior to a convened meeting on July 11, 2022 where the proposal was presented and discussed. The faculty vote on the proposal was 34-0 in favor.

Thank you in advance for your thoughtful review and careful consideration of this proposal. Please contact me if you need any additional information.

## Proposal to Raise the Cap on Clinical Faculty in the College of Optometry

## Summary of Proposal

The purpose of this proposal is to request an amendment to the present university cap on the percentage of clinical faculty in the College of Optometry, which is specified in Faculty Rule 3335-7 on clinical faculty appointment, reappointment and nonreappointment, and promotion. Section 3335-07-03 3335-7-03 (Appointment cap) states, "Unless an exception is approved by the university senate and the board of trustees, clinical/teaching/practice faculty may comprise no more than forty percent of the total tenure-track, clinical/teaching/practice and research faculty (as defined in rule 3335-5-19 of the Administrative Code) in each of the colleges of the health sciences."

Rule 3335-7 was successfully petitioned in February 2003 by the College of Medicine, which now has no cap on the number or proportion of clinical faculty appointments. In 2016, the College of Nursing successfully petitioned to have the clinical faculty cap raised to $75 \%$, and the College of Dentistry followed suit in 2018.

The College of Optometry requests that the clinical faculty cap be raised to not more than $48 \%$ of the total number of tenure-track, clinical, and research faculty. This increase in the proportion of clinical faculty will enable the College of Optometry to carry out its educational and clinical missions more effectively without relying excessively on associated faculty appointments as a way to operationally circumvent the current $40 \%$ cap on clinical faculty.

Supporting information is included in this proposal to explain the College of Optometry's mission and goals, organizational structure, educational programs, types of faculty and their responsibilities with specific attention to clinical faculty, and the need for additional clinical faculty to operate the College of Optometry.

## Background for the College of Optometry

The mission of the College of Optometry is:

- To educate excellent optometrists who reflect our diverse communities through our professional, residency, and continuing education programs.
- To conduct excellent research in vision science, through our graduate education and research programs.
- To provide excellent optometric care to the community, through our teaching clinics, externship sites, and residency programs.

An additional mission and goal shared with the Graduate School of The Ohio State University is:

- To educate and train ophthalmic and vision scientists for the advancement of those teaching, research, and service missions above.

The organizational charts for the College of Optometry and its clinical services are appended to this proposal. The college functions as a single academic unit without departments or divisions. The tenure-track, clinical, and research faculty report to the dean, while the associated faculty report to the associate dean for academic affairs. Other decanal titles are the associate dean for clinical services, the associate dean for research, and the assistant dean for administration and finance.

The Accreditation Council for Optometric Education conducts a site visit every seven years to determine if the College of Optometry should be accredited
(https://www.aoa.org/education/accreditation-council-on-optometric-education?sso=y). Ohio State Optometry's last accreditation site visit was in 2018, and the college is fully accredited.

## Education - Degrees Offered

The College of Optometry offers one degree in its professional program, the Doctor of Optometry (OD) degree. The OD program, which follows four years of undergraduate education typically, includes a comprehensive curriculum in basic science, optometric science, and patient care that includes summers between the second and third years of the program. Upon satisfactory completion of the academic and clinical requirements, an optometry student graduates with a Doctor of Optometry (OD) degree (professional doctorate). Optometrists are licensed in the United States on a state-by-state basis, and most states require a passing score on Parts I, II, and III of the National Board of Examiners in Optometry (NBEO) examination. Each state has additional requirements that must be fulfilled prior to licensure.

In addition, the college's Graduate Program in Vision Science offers master's and PhD degrees in Vision Science. One program that culminates in the master's degree is the Advanced Practice Fellowship program with areas of specialty in Binocular Vision and Pediatrics, Community Eye Care, Cornea and Contact Lenses, and Low Vision Rehabilitation. People with the OD degree can complete a master's via an Advanced Practice Fellowship, as a free-standing master's, or in the combined OD/MS program during the four years of optometry school.

Additional post-OD education can also occur in non-mandatory residencies. There are 27 residency training slots affiliated with the College of Optometry at 13 institutions/practices with two more residencies at new institutions in the works. The college also offers continuing education for optometrists.

An academic doctoral degree (PhD) is offered through the Graduate Program in Vision Science. Completion of this program involves advanced scientific coursework, written and oral qualifying examinations, and a dissertation approved by the Graduate School on a comprehensive research project, and typically takes four years following undergraduate or optometric training.

## Information about College of Optometry Faculty Types of Faculty

The College of Optometry has four types of faculty: tenure-track, clinical, research, and associated. All tenure-track and clinical faculty are full-time (100\% FTE, with rare, pre-approved exception). As of July 1, 2022, the current numbers for the different types of full-time faculty are:

Tenure-track 21
Clinical 14
Research 1
Associated 8
Currently, the clinical faculty comprise 39\% of the tenure-track, clinical, and research faculty combined.

New full-time faculty are typically hired at the assistant professor level, unless higher rank is warranted based on background and experience. Appointment/reappointment, promotion, and tenure processes for faculty are presented in detail in the Appointments, Promotion and Tenure document for the College of Optometry (attached), which has been approved by the Office of Academic Affairs.

Tenure-track faculty typically have teaching assignments that include one course in the professional OD program and one to two courses in the graduate program. The rest of their time is devoted to research and/or service. Clinical faculty have an average of $70 \%$ FTE assigned to didactic and/or clinical teaching with the rest of their time devoted to scholarly activity and/or service. Evidence of scholarly activity is required for promotion of clinical faculty, and promotion to the associate clinical professor level is required after 10 years at the assistant clinical professor level. Research faculty are generally supported completely by extramural funding with occasional college subsidy between periods of funding.

Most faculty in the College of Optometry trained as an optometrist and have an OD degree; currently four tenured faculty members have a master's or PhD degree only.

The College of Optometry has 261 associated faculty, with FTEs ranging from 0\% (non-salaried externship preceptors) to $100 \%$. This number includes one resident and four PhD students who are appointed as associated faculty. Excluding the resident and PhD students, there are eight full-time and 15 part-time associated faculty.

The part-time associated faculty provide educational support as attendings in the College of Optometry's clinical services. Students see patients beginning in spring semester of the second year and continue until graduation; some of their clinical attendings are part-time associated faculty.

The non-salaried associated faculty serve as extern preceptors for the entire fourth-year optometry class. Throughout their fourth year, two-thirds of the optometry students are on external, 17 -week rotations at Veterans Administration Medical Centers, private optometric and ophthalmological practices, and health maintenance organizations. They spend one fourth-year, 17-week rotation in-house in subspecialty services: Binocular Vision and Pediatrics, Contact Lens, and Low Vision Rehabilitation. The in-house attendings include part-time and full-time associated, clinical, and tenure-track faculty.

The College of Optometry has utilized the associated faculty track to hire new full-time faculty who would normally be hired as clinical faculty in the absence of a clinical faculty cap. If this petition to modify the clinical appointment cap is approved, five or six full-time associated faculty, exclusive of the resident and PhD students, will be invited to apply to transfer to the clinical track, following a targeted search process as specified in the Appointment, Promotions and Tenure document.

## Future Plans for the College of Optometry and the Proposed New Cap for Clinical Faculty

 The College of Optometry moved its main campus clinical services to 1664 Neil Avenue (The Optometry Clinic, southeast corner of Neil and 11 th Avenues) in December 2020. The demolition of the previous clinics in the Fry Bridge and the A wing of Starling Loving Hall occurred in summer 2021, and the new Interdisciplinary Health Sciences Learning Center will replace them. The College of Optometry will occupy two classrooms and three teaching laboratories at the west end of the basement and first floors of the Interdisciplinary Health Sciences Learning Center in late 2023 or early 2024.Although the class size for OD cohorts is relatively fixed at 68 students, semester conversion plus the new facilities have increased the patient census, a trend that is expected to continue. In addition, the College of Optometry now has satellite clinics at the Wilce Student Health Center on campus, two federally-qualified health centers (Faith Mission and Lower Lights Christian Health Center), in Upper Arlington in conjunction with the Wexner Medical Center's ambulatory
care center, and in a Wexner Medical Center ambulatory care center in Pickerington. These offcampus clinics offer communities access to the unique expertise of College of Optometry faculty, in a comprehensive care delivery model, while enhancing the educational experiences of the optometry students. Highly qualified clinical faculty will need to be recruited and retained for these clinic sites and others to come. In the future, these new clinical faculty, selected after a careful search process, will be highly qualified optometric educators who also provide strong support to the College of Optometry teaching mission.

Planned Number of Full-Time Faculty in the College of Optometry as of January 1, 2023 Provided this proposal is approved, the faculty in the College of Optometry on July 1, 2023 will comprise:

Tenure-track 23*
Clinical 20
Research 1
*Including one fellow-to-faculty
If all goes as planned, as of July 1, 2023, the clinical faculty in the College of Optometry will comprise $45.5 \%$ of the tenure-track, clinical, and research faculty combined.

## THE OHIO STATE UNIVERSITY COLLEGE OF OPTOMETRY

## Organizational Chart



The Ohio State University
COLLEGE OF OPTOMETRY

## Organizational Chart



The Ohio State University
COLLEGE OF OPTOMETRY

## APPROVAL OF THE REPORTS ON

 LOW ENROLLMENT AND DUPLICATE PROGRAMSSynopsis: Approval of The Ohio State University's Reports on Low Enrollment and Duplicate Programs for submission to the Ohio Department of Higher Education is proposed.

WHEREAS Ohio Revised Code 3345.35 requires the governing boards of each state institution of higher education to evaluate courses and programs based on enrollments and duplication with other state institutions of higher education within a geographic region; and

WHEREAS the university currently adopts a minimum class size of 18 students and is engaged in ongoing efforts to ensure smaller class sizes in undergraduate courses for an enhanced educational experience; and

WHEREAS considerable attention is given to course offerings on a regular basis, with course enrollment levels monitored at the academic unit and institutional levels within a variety of contexts; and

WHEREAS the Office of Academic Affairs worked with the university's 15 academic colleges and four regional campuses to examine three-year trend data for each of the approximately 15,000 courses offered by the university; and

WHEREAS each college/campus will review the status of its low enrollment courses as part of its enrollment planning process and take appropriate action during the 2022-2023 academic year; and

WHEREAS the university's Columbus campus has no duplicative programs with other institutions in the Central Ohio region:

## NOW THEREFORE

BE IT RESOLVED, That the Board of Trustees hereby approves the Reports on Low Enrollment and Duplicate Programs for submission to the Ohio Department of Higher Education.

# Course Enrollments <br> The Ohio State University 

October 2022
In response to a request from the Ohio Department of Higher Education for a report on course enrollments, and following a similar request in 2017, The Ohio State University, through the Office of Academic Affairs (OAA), submits the following report.

## Course Thresholds

Course thresholds are specified and monitored through Faculty Rule 3335-8-16. This longestablished Rule was last reviewed and retained during the university's calendar conversion from quarters to semesters from 2009-2012.

## 3335-8-16 Cancellation of Courses

(A) The chair of a department or director of an instructional unit, in consultation with the dean of the college and with timely notification, may cancel any course that has not enrolled sufficient numbers of students to warrant its offering. The number of students should usually be less than fifteen, but courses enrolling fewer than fifteen may be offered if sufficient resources and programmatic justifications exist. When such a course is cancelled, the dean or director shall notify the office of the university registrar who shall promptly inform all enrolled students and insert notice of its cancellation in the master schedule.
(B) The university registrar will monitor the frequency of course offerings, identify those that have not been offered for three consecutive years, and inform the dean of the appropriate college. The dean and the chair or director of the relevant instructional unit will decide whether to remove that course from the course bulletin prior to the next academic year.

At the state level, the Chancellor permits a $20 \%$ variation above the institutional definition and thus the university currently adopts a minimum class size of $\mathbf{1 8}$ students.

## Context

Considerable attention is given to course offerings on a regular basis. Course enrollment levels are monitored and interpreted at the academic unit (department/school and college/campus) and institutional levels - within the following contexts:

- Course and program offerings are driven by the university's mission. The Ohio State University is a public, land grant, Research I, Carnegie "engaged," urban university, with teaching and learning as a core goal of its mission. Thus, the number, enrollment size, and variety of courses and programs offered - the university's academic
comprehensiveness - is directly related to that mission, making it distinctive within the state. Similarly, the university needs, and works to provide, a range of effective postsecondary educational experiences/settings, for its very large student population 65,000 students. Currently there are 15,090 active courses in the course catalog.
- The four regional campuses (Lima, Mansfield, Marion and Newark) have always had a distinctive mission - originally designed to serve place-bound and first-generation students, now including a small set of majors that can be completed there. Class sizes are smaller and designed for a distinctive, personalized instruction to enhance student access and success. Similarly, courses at The Agricultural Technical Institute (ATI) in Wooster reflect the distinctive nature of its two-year associate degrees and is now aligned more directly with our College of Food, Agricultural, and Environmental Sciences.
- Since 2005, the university has operated under a responsibility-centered management budget model - the colleges and campuses are the budget centers, and both course, and by extension program, enrollments at the department and school levels are monitored closely by the college/campus, at the dean level. Budgets are influenced by the credit hours delivered by colleges and campuses. Thus, enrollment planning is an integral component of overall planning, including faculty assignments, for each College/campus. Low-enrolled courses and programs are given considerable and rigorous attention on a continuing basis. Adoption of that budget model over time, has led to the elimination, or changed frequency of offering, of small enrollment, niche courses.
- To support those efforts, the Office of Academic Affairs, working with the Office of the University Registrar, reviews course enrollments annually and withdraws courses that have not been offered in three years. This is an issue of course offering transparency for students.
- For the 2017 submission, the university established exceptions to the minimum class size policy and maintained them for this review. Given the mission of the university with its wide range of courses and programs, distinctive instructional settings exist that affect class size. Such courses and sections will not necessarily have 18 students at any or all times. They are:
i) Graduate-level classes, notably but not exclusively, those with a strong research orientation
ii) Laboratories with space/equipment limits
iii) Studios with individual or small group interactions
iv) Special programmatic offerings - service learning, undergraduate research, study abroad, honors, clinical courses
v) Sequenced courses
vi) Internships
vii) Cross-listed courses where only a portion of the total enrollment is assigned to one unit
viii) Individual/group studies courses
ix) New courses in their early stages of offering
x) Courses offered by faculty in the course's early stage of development
i) Courses offered by faculty on overload to fill student demand
ii) Regional campus courses, reflecting their distinctive teaching environment

In addition, academic units will offer smaller classes to ensure that some students are not delayed in academic progress.

Importantly, the university is currently engaged in ongoing efforts to ensure smaller class size - fewer than 20 students - in as many undergraduate courses/classes as feasible for an enhanced educational experience.

## Analysis of Course Enrollments

During Autumn 2022, the Office of Academic Affairs (OAA), working directly with the university's 15 academic colleges in Columbus, and the leadership of the campuses in Lima, Mansfield, Marion, Newark, and Wooster, addressed the issue that college and campus specific enrollment policies are aligned with university policy by examining three-year trend data for every one of our approximately 15,000 courses offered by the university.

- OAA provided each college with its three-year course data.
- Colleges removed those courses that could be justified based on the "exceptions" categories identified above.
- Colleges then identified those courses that had fewer than 18 students at least twice during the time frame.
- Colleges identified those that remained and specified a rationale for that enrollment and the extent to which action might be taken on it.


## Recommended Actions

Based on this analysis, along with routine enrollment monitoring efforts:
i) Action to be taken - 420 courses across 12 colleges

| Recommendation | Rationale | Number of <br> Courses |
| :--- | :--- | :--- |
| No action | Pedagogically appropriate, <br> Course in early development, or <br> COVID-related offering | 286 |
| Course elimination, alternate <br> offerings, or phase out | Follows enrollment monitoring <br> at the college level | 64 |
| Reduction of sections | Follows ongoing college <br> discussion | 5 |
| Change in delivery mode | Ongoing college discussions | 65 |

During Academic Year (AY) 2022-23, each college/campus will review the status of its low enrollment courses as part of its enrollment planning process and take appropriate action(s). Considerable attention will be given to section size.
ii) Each college/campus will inform the Office of Academic Affairs of the actions taken by the end of AY22-23.
iii) This process will now become an annual activity.

## Collaborations

Course collaborations currently occur primarily at two levels. Within the university academic units cross-list courses, and given growing interdisciplinary research activity, there are ongoing discussions of cross-college teaching.

Externally, the university has participated in a course-share with peer institutions in the Big Ten Academic Alliance (BTAA).

Potential regional collaborations could occur, notably but not exclusively, with online offerings in language instruction, given the diverse set of languages taught at the university that may not be able to be taught at other two- or four-year institutions in Ohio. The university's role in collaboration going forward could extend within the region to two-year public and four-year private institutions, and beyond the region to the state level.

Program Duplication<br>The Ohio State University<br>October 2022

The Ohio Department of Higher Education, following a similar process in 2017, provided each post-secondary educational institution with recent temporal data on all of its degree program enrollments, showing the extent to which there appears to be program duplication within the region of Ohio to which the institution had been assigned. The Ohio State University was placed in the Central Region - both the Columbus Campus and its Regional Campuses.

The data reveal that The Ohio State University, Columbus Campus, has no duplicative programs, at any level, with other institutions in the Central Ohio region. There are no other universities in the region. Two Regional Campuses - in Lima and Mansfield - show duplication in a General Studies associate degree program. Each serves a different purpose the university's program as a step toward a bachelor's degree, the co-located institution as a stand-alone degree. Enrollments reveal they do not compete for students - they have different audiences.

## Ongoing Activity

The Office of Academic Affairs, working directly with the 15 colleges and four regional campuses, is using this process to reinforce its own regular monitoring of three-year trend data for all undergraduate, graduate and professional degree programs.

Program enrollments at the university are nuanced by many factors, and each college/campus narrative needs to be clearly understood both within and outside the university. Included among the factors:

- Since 2005 , the university has operated under a responsibility-centered management budget model - the colleges and campuses are the budget centers and both course, and by extension program, enrollments at the department/school levels are monitored closely by the college/campus at the dean level. College/campus budgets are influenced by credit hours, thus enrollment planning is an integral component of overall planning. Low enrolled courses and programs are given considerable attention on a continuing basis.
- Academic units are reviewed, on an approximately seven-year basis, through a rigorous data- driven, analytic, issues-oriented program review process that includes an external review team of peers. Such reviews are an accreditation expectation of the Higher Learning Commission. Our reviews include attention to details of academic programs, including size, at all levels, and at the end of each review, a "plan of action" is developed with the provost. Program changes emerge from these reviews, including
eliminating/merging programs, or redefining them based on current directions of the field, or through market analysis.
- Many academic units have specialized accreditation standards that address limits on class size. Included are virtually all of the health sciences colleges.

With those factors in mind, based on internal decision-making alone, the university, over the past five years, has approved eliminating/phasing out 12 programs and revises, each year, with enrollment considerations included, dozens of others.

## Going Forward

As it relates to program size and duplication, going forward, the university:

- During AY22-23, led by a new vice provost for strategic enrollment management, is developing a new five-year strategic enrollment plan that will better align broad university goals for enrollment with college/campus-level program needs. College-level reviews of program size will need to be included. This academic year, the Office of Academic Affairs, working with the colleges/campuses, needs to determine if clearer protocols/guidelines related to program size are needed and what they might be.
- Currently is implementing, without program duplication, a new Bachelor of Science in Engineering Technology degree program offered only at the regional campuses, addressing local workforce needs and with, in Mansfield for example, input from the co-located two-year campus.

That initiative supplements degree completion programs, from five colleges, developed over the past three decades, already in place at the Regional Campuses that serve the local region and do not duplicate programming at the co-located campuses or more broadly within the region. Included, with variability in offering among the campuses, are: Biology, Business Management, Child and Youth Studies, Criminology, Early Childhood Education, English, History, Middle Childhood Education, Nursing (RN to BSN), Psychology, Social Work, Sociology, Theatre, Zoology.

- Is now deeply involved in program alignment with two-year colleges in Ohio, in part through the statewide Ohio Guaranteed Transfer Pathways initiative, but more specifically with Columbus State Community College (CSCC) where new pathways, notably related to workforce development, are being initiated. In addition, there is a movement toward offering stackable certificate and micro-credential programming that will supplement/complement - not duplicate - programming at CSCC and potentially other public institution partners.

All of this work will be facilitated and monitored by the Office of Academic Affairs and the University Senate's Council on Academic Affairs. An annual status report will be prepared at the end of each academic year.

Synopsis: Approval of the following amendments to the Rules of the University Faculty is proposed.
WHEREAS the University Senate, pursuant to rule 3335-1-09 of the Administrative Code, is authorized to recommend through the President to the Board of Trustees the adoption of amendments to the Rules of the University Faculty as approved by the University Senate; and

WHEREAS Faculty Rule 3335-13-07 provides faculty, staff and students the opportunity to hold personal financial interests in University Technology Commercialization Companies (UTCC) while protecting the integrity of the university's teaching, research and creative expression; and

WHEREAS the proposed amendments better align university practices with state law and other Ohio universities' rules regarding faculty, staff and student participation in the commercialization of university technology; and

WHEREAS the proposed changes to rule 3335-13-07 were approved by the University Senate on October 27, 2022:

## NOW THEREFORE

BE IT RESOLVED, That the Board of Trustees hereby approves that the attached amendments to the Rules of the University Faculty be adopted as recommended by the University Senate.

3335-13-07 Rules governing faculty, staffemployee, and student participation in companies commercializing intellectual property in which the university or a university affiliate has an interestuniversity research.
(A) ObjectivesGeneral Information.
(1) In order to translate innovations into useful products and services, universities must engage with various outside entities in the commercialization process. Pursuant to section-Ohio Revised Code 3345.14-of the Revised Code, the university board of trustees has determined that the interests of the university will be served if employees - including faculty and eategories of staff _ and students defined in paragraph (B)(3) of this rule-are afforded the opportunity to hold personal financial interests in university technology commercialization companies. This rule enables the university to realize the benefits of entrepreneurial activities while protecting the integrity of its research, edueational, and service mission and to comply with university policies regarding actual and potential conflicts and applicable federal and state laws.
(2) This rule enables employees and students to realize the benefits of commercialization activities while protecting the integrity of the university's teaching, research, and creative expression.(2) A university technology commercialization company is a private commercial entity that is owned in whole or in part by a university employee and that has as one of its purposes the development and/or commercialization of:
(a) University-owned technology, or
(b) University affiliate-owned-technology if any university employee holds a five percent or greater equity interest in the company and the company receives or anticipates receiving eonsideration from the university as part of a business transaction with the university.
(3) Faculty and defined categories of staffEmployees and students are encouraged to make or create intellectual propertydevelop diseoveries and inventions with commercial potential; however, they shall do so with due regard to the broader teaching, research, and service missioncreative expression of the university and in compliance with applicable university policies and state and federal laws.
(4) Companies owned in whole or in part by a university employee that has as one of its purposes the development and commercialization of university-affiliate-owned-technology and any university employee holds less than five percent equity interest in the company and/or the eompany receives or anticipates receiving consideration from the university as part of a business transaction with the university may seek to, but are not obligated to, obtain approval pursuant to paragraph (D) of this rule. If such approval is received, the company shall thereafter be accorded status as a university technology commercialization company for the purposes of this rule.
(B) Applicability and Definitionsfurisdiction.
(1) The university's ownership ofinterest in intellectual property made or created by its faculty and defined categories of staffemployees and students is determined in accordance with
section-O.R.C. 3345.14 of the Revised Code, federal law, and the university policy on intellectual property, patents, and copyrightsIntellectual Property policy.
(2) This rule shall apply to all employees and students who have a financial or fiduciary interest in or with an entity to which faculty who create intellectual property owned by the university or a university affiliate has or intends to assignee, license, transfer, or sell its interest in intellectual property. and who hold an ownership interest in a university technology eommercialization company.
(3) A university technology commercialization company (UTCC) is an entity: (i) in which a university employee or student has a financial interest or a fiduciary role, and (ii) that has received or is expected to receive an assignment, license, or transfer of an interest in intellectual property of the university or a university affiliate.
(4) Financial interest includes any stock, bond, warrant, option, loan, or any other equity or debt interest in a UTCC, or promise of the same, as well as any paid consulting or employment with a UTCC. Amounts due to employees or students as proceeds distributable to creators pursuant to the university's Intellectual Property policy are excluded from the definition of financial interest for the purposes of this rule.
(5) Fiduciary role includes serving as an officer or board member of the entity or in any other decision-making role or other position of trust or authority with the entity.
(6) Participate in/participating in/participation in means having a financial interest in or fiduciary role with a UTCC.
(7) Employee refers to all faculty, staff, student employees, graduate associates, post-doctoral researchers.
(3) This rule shall apply to staff members holding unclassified appointments, graduate associates, and student employees who:
(a) Are specifically assigned to engage in research and development activities;
(b) Create intellectual property owned by the university or a university affiliate; and
(c) Hold an ownership interest in a university technology commercialization company.
(C)Administration Scope and Relation to the Ohio Ethics Law.
(1) This rule creates an exception to chapter 102.03 and 102.04 and sections 2921.42 and 2921.43 of the Revised Code (collectively, the "Ohio ethics laws"). Among other things, these laws prohibit public officials from having an interest in the profits or benefits of a public contract entered into by or for the use of the governmental unit with which the employee is connected, or from soliciting or accepting anything of value that is of such character as to manifest a substantial and improper influence upon the employee with respect to the performance of the employee's duties.
(2) Compliance with this rule will provide an employee or student who acquires a financial interest in or a fiduciary role with a UTCC with an exemption from these and other potentially applicable provisions of the Ohio ethics laws.
(3) A failure to comply with this rule could result in a violation of the Ohio ethics laws, which may involve criminal penalties.
(4) Employees and students whose financial and fiduciary interest in an organization is limited to owning less than 5\% equity in the company, may, but are not required to seek TTOC approval.
(1) Faculty, staff, and students participating in university technology commercialization companies shall follow all applicable university policies.
(2) Participation in university technology commercialization companies must be approved by the university, including but not limited to the supervisor, tenure initiating unit head, or unit leader; the conflicts of interest administrator; the technology commercialization office; and the effice of legal affairs. Such participation shall comport with:
(a) Formal consulting and conflict of interest management plans signed by the employee;
(b) All applicable policies including but not limited to: faculty professional leave; faculty eonflict of commitment; conflict of interest and work outside the university; faculty financial eonflict of interest; faculty paid external consulting; and intellectual property, patents, and eopyrights; and
(c) Any formal agreement with the university technology commercialization company.
(3) The board of trustees has authorized the technology transfer oversight committee as the university body responsible for the approval and oversight of university technology commercialization companies.
(4) The university shall designate a conflicts of interest administrator who is the university official responsible for assisting faculty and other employees in identifying, managing, reducing, or eliminating actual or potential conflicts of interest, and in particular for facilitating the development of conflict of interest management plans for faculty, staff, and students participating in university technology commercialization companies.
(5) Faculty and defined categories of staff and students shall adhere to applicable conflict of interest policies and shall diselose to the appropriate supervisor, tenure initiating unit head, or unit leader any financial interests held in a firm, corporation, or other association.
(6) Supervisors, tenure initiating unit heads, and unit leaders are responsible for ensuring that faculty and defined categories of staff and students who participate in university technology eommercialization companies comply with all applicable university policies.

## (D) Approval process for university technology commercialization companiesAdministration.

(1) Employees and students participating in UTCCs shall follow all applicable university policies.
(2) Employee and student participation in UTCCs must be approved by the Technology Transfer Oversight Committee (TTOC) ) in order for this Rule to apply.
(a) Approval of participation in a UTCC will require, at minimum:
(i) Documented pre-approval and disclosure of the employee's or student's outside work or relationship with the UTCC;
(ii) A conflict management plan addressing the employee's or student's proposed participation in the UTCC.
(b) Each agreement between the university and the UTCC, excluding any agreement between a university affiliate and the UTCC whereby its interest in intellectual property is assigned, licensed, transferred, or sold, requires written TTOC approval. At the discretion of the TTOC, institutional agreements that contemplate numerous university purchases may not require approval for each purchase under the agreement.
(3) Supervisors, tenure initiating unit heads, and unit leaders are responsible for monitoring employees' and students' compliance with all applicable university policies and conflict management plans.
(4) Employees and students who wish to participate in a UTCC shall not be involved with any negotiations between the company and the university or a university affiliate.
(5) Supervisors, tenure initiating unit heads, or unit leaders must be actively involved in the development of the conflict management plan(s) relating to a UTCC.
(6) If a supervisor, tenure initiating unit head, or unit leader has a financial interest or is otherwise participating in the UTCC, another administrator more senior to the conflicted individual must be appointed to perform the responsibilities of the supervisor, tenure initiating unit head, or unit leader.
(7) If the TTOC determines that a transaction involving a UTCC is not in the best interest of the university, the transaction shall not be approved.
(8) Employees and students may choose to not seek TTOC approval for their participation in a UTCC; however, the exception provided in (C) 1 and 2 of this Rule will not apply without TTOC approval and their participation will be subject to applicable laws and university policies.
(1) Faculty and defined categories of staff and students who wish to participate in a university technology commercialization company must first obtain approval from the appropriate supervisor(s) as described in paragraph (C)(2) of this rule. The technology commercialization effice will be responsible for establishing the business terms of the transaction between the company and the university or a university affiliate, and the conflicts of interest administrator will facilitate the development of a conflict of interest management plan.
(2) The technology transfer oversight committee will review the sufficiency of business terms and conflict of interest management plans relating to university technology commercialization companies. Written approval from the technology transfer oversight committee must be obtained before any business agreements relating to a university technology eommercialization company are finalized.
(3) Faculty and defined categories of staff and students who wish to participate in a university technology commercialization company shall not participate in the ongoing negotiation of eption and licensing terms between the company and the university or a university affiliate.
(4) The faculty, staff, or student's supervisor, tenure initiating unit head, or unit leader must be active participants in the development of the conflict of interest management plan relating to a university technology commercialization company.
(5) If a supervisor, tenure initiating unit head, or unit leader has a financial interest or is a coparticipant with faculty, staff, or students in a university technology commercialization company, another administrator must be appointed to perform the responsibilities of the supervisor, tenure initiating unit head, or unit leader.
(6) If the technology transfer oversight committee determines that, for any reason, it is not possible for the supervisor, tenure initiating unit head, unit leader, or another administrator to provide effective oversight of a transaction involving a university technology commercialization company, the transaction shall not be approved.

## (E) Responsibilities to the university.

(1) Faculty should not allow their financial interests in a university technology commercialization companyUTCC to adversely to influence their teaching, or to interfere with their relationships with other faculty. In particular, research assignments for students should be based on the students' interests and academic development. While faculty are permitted by the university policy on faculty paid external consulting and this rule to engage in authorized private business activities relating to their university positions, they continue to be responsible for the performance of all of their university teaching, research, and service obligations.
(2) Staff may engage in activities relating to a university technolegy commercialization eompanyUTCC during regularly assigned working hours only if they take approved leave or document flexible schedule arrangements with their supervisor. Staff may pursue only those research projects that will advance the missions of the university and the employing unit, without regard to the financial interests of individual employees, and that are authorized by their supervisor, tenure initiating unit head, or unit leader.
(3) Student employees may not engage in activities relating to a university technology commercialization companyUTCC during regularly assigned working hours.
(4) Faculty, staff, and students participating in a UTCC are to at all times clearly represent whether they are acting in their university or UTCC role when conducting professional activities.

## (F) Conflict of interest management standards.

(1) University facilities, equipment and other resources may be used for research benefiting a university technology commercialization companythe benefit of a UTCC pursuant only to a sponsored research agreement, facilities use agreement, or other appropriate contractual arrangement.
(2) The conflict management plan may describe the employee's contemplated initial equity interest, debt participation, and/or fiduciary role in the UTCC and provide enforceable milestones for reduction of that interest, participation, and/or role. Faculty and defined eategories of staff and students should not hold permanent management positions in university technology commercialization companies. To ensure the application of this principle, agreements between the university or a university affiliate and a university technology commercialization company should contain enforceable milestones for the reduction of any management responsibilities.
(3) Faculty shall not allow their activities with university technology commercialization companiesUTCCs to consume a disproportionate amount of their professional attention. Faculty engaged in authorized private businessapproved outside activities who are unable to perform all of their university responsibilities must reduce those business-outside activities or request a reduction of appointment or other approved leave in accordance with university policies. Faculty professional leave should be authorized in accordance with other university policies (e.g. Faculty Professional Leave)authorized under section 3345.28 of the Revised Code shall not be used for private business purposes.
(4) Staff who are unable to perform all of their university duties because of activities in connection with university technology commercialization companiesUTCCs must reduce those business-outside activities or request a reduction of appointment or other approved leave in accordance with university policies.
(5) Research benefiting a UTCCAs stipulated in the graduate school handbook, research benefiting a university technology commercialization company may not be used to satisfy the criteria for a thesis or dissertation if the material is restricted from publication. Faculty must inform the student in writing of this-any such publication restriction prior to the start of the student's research.
(6) A student may not be employed by or hold equity interestparticipate in a university technology commercialization companyUTCC in which a faculty member has an ownership interestparticipates if the faculty member has a university supervisory, teaching, evaluation, advising, coaching, or counseling relationship with the student.
(7) Students may be employed by a university technology commercialization companyUTCC, subject to the limitation set forth in paragraph $(\mathrm{F})(6 \underline{5})$ of this rule. Student employment by a university technology commercialization company requires a sponsored research agreement or other formal internship agreement through the university in which the student's rights and obligations are diselosed.
(8) The university may not enter into any agreements with university technology commercialization companies for the purchase, sale, or rental of equipment, supplies or services other than those explicitly authorized by the technology transfer oversight committee.
(9) Faculty and staff who are not directly involved with research and development of technology licensed to a university technology commercialization company or the development of that company may hold equity interests in that company, barring the presence of undue influences (e.g., supervisory, teaching, evaluation, advising, coaching, or counseling relationships) and subject to university policies and section 2921.42 of the Revised Code.
(108) University regulatory review boards including, for example, the institutional review board and the institutional animal care and use committee, may be used for research benefiting a university technology commercialization companyUTCC pursuant only to a sponsored research agreement or another arrangement approved by the TTOC, and any other university policies.
(112) Faculty or staffEmployees may not be the principal investigator in sponsored research projects funded by university technology commercialization companiesUTCCs in which they have an interestparticipate if the projects involve approval by the institutional review board or if they arethe projects include veterinary clinical trials involving the use of animals unless provided for by other university policies. For sponsored research not requiring institutional review board or institutional animal care and use committee oversight, faculty or staff may assume the role of principal investigator if a formal research integrityconflict management plan approved by the teehnology transfer oversight committeeTTOC, the conflicts of interest administrator, and the effice of legal affairsConflicts Approval Committee is in place.
(1210) Agreements for sponsored research projects funded by university teehnology eommercialization companiesUTCCs must include, at a minimum, a requirement for full university publication rights and fully negotiatedfull cost recoveriesrecovery, unless otherwise approved in writing by the Vice President for Research. The office of research must approve exceptions to these conditions.
(1311) Faculty and staffEmployees participating in university technology commercialization companiesUTCCs approved pursuant to this rule continue to be bound by the university's Intellectual Property policy on intellectual property, patents and copyrights-and all other applicable university policies.
(1412) New intellectual property made or created by faculty or staff who have received TTOC approval for their participation in a UTCC will be owned by the university or university affiliate, unless the TTOC determines otherwise in view of O.R.C. 3345.14, federal law, and the university's Intellectual Property policy. New intellectual property made or created by faculty or staff who choose to not seek TTOC approval for their participation in a UTCC will be governed by state and federal law and the university's Intellectual Property Policy and not this Rule. New inventions and/or discoveries made as a result of a faculty or staff member's research efforts for a licensee of university owned technology or a licensee of a university affiliate-owned technology, where the faculty or staff member holds in whole or in part an ownership interest in the licensee, including those made under formal consulting agreements, will be owned by the university, and the licensee will be offered an exclusive option to the
technology. New inventions and/or discoveries developed by the faculty, staff member or student for the company must be disclosed to the technology commercialization office as required by the university's Intellectual Property policy-on intellectual property, patents, and eopyrights.
(Board approval dates: 4/6/2001, 6/29/2001, 6/3/2016, 11/17/2022)

## 3335-13-07 Rules governing employee and student participation in companies

 commercializing intellectual property in which the university or a university affiliate has an interest.(A) General Information.
(1) In order to translate innovations into useful products and services, universities must engage with various outside entities in the commercialization process. Pursuant to Ohio Revised Code 3345.14, the university board of trustees has determined that the interests of the university will be served if employees - including faculty and staff - and students are afforded the opportunity to hold personal financial interests in university technology commercialization companies.
(2) This rule enables employees and students to realize the benefits of commercialization activities while protecting the integrity of the university's teaching, research, and creative expression.
(3) Employees and students are encouraged to make or create intellectual property with commercial potential; however, they shall do so with due regard to the broader teaching, research, and creative expression of the university and in compliance with applicable university policies and state and federal laws.
(B) Applicability and Definitions.
(1) The university's interest in intellectual property made or created by its employees and students is determined in accordance with O.R.C. 3345.14, federal law, and the university Intellectual Property policy.
(2) This rule shall apply to all employees and students who have a financial or fiduciary interest in or with an entity to which the university or a university affiliate has or intends to assignee, license, transfer, or sell its interest in intellectual property.
(3) A university technology commercialization company (UTCC) is an entity: (i) in which a university employee or student has a financial interest or a fiduciary role, and (ii) that has received or is expected to receive an assignment, license, or transfer of an interest in intellectual property of the university or a university affiliate.
(4) Financial interest includes any stock, bond, warrant, option, loan, or any other equity or debt interest in a UTCC, or promise of the same, as well as any paid consulting or employment with a UTCC. Amounts due to employees or students as proceeds distributable to creators pursuant to the university's Intellectual Property policy are excluded from the definition of financial interest for the purposes of this rule.
(5) Fiduciary role includes serving as an officer or board member of the entity or in any other decision-making role or other position of trust or authority with the entity.
(6) Participate in/participating in/participation in means having a financial interest in or fiduciary role with a UTCC.
(7) Employee refers to all faculty, staff, student employees, graduate associates, and postdoctoral researchers.
(C) Scope and Relation to the Ohio Ethics Law.
(1) This rule creates an exception to chapter 102.03 and 102.04 and sections 2921.42 and 2921.43 of the Revised Code (collectively, the "Ohio ethics laws"). Among other things, these laws prohibit public officials from having an interest in the profits or benefits of a public contract entered into by or for the use of the governmental unit with which the employee is connected, or from soliciting or accepting anything of value that is of such character as to manifest a substantial and improper influence upon the employee with respect to the performance of the employee's duties.
(2) Compliance with this rule will provide an employee or student who acquires a financial interest in or a fiduciary role with a UTCC with an exemption from these and other potentially applicable provisions of the Ohio ethics laws.
(3) A failure to comply with this rule could result in a violation of the Ohio ethics laws, which may involve criminal penalties.
(4) Employees and students whose financial and fiduciary interest in an organization is limited to owning less than $5 \%$ equity in the company, may, but are not required to seek TTOC approval.
(D) Administration.
(1) Employees and students participating in UTCCs shall follow all applicable university policies.
(2) Employee and student participation in UTCCs must be approved by the Technology Transfer Oversight Committee (TTOC) in order for this Rule to apply.
(a) Approval of participation in a UTCC will require, at minimum:
(i) Documented pre-approval and disclosure of the employee's or student's outside work or relationship with the UTCC;
(ii) A conflict management plan addressing the employee's or student's proposed participation in the UTCC.
(b) Each agreement between the university and the UTCC, excluding any agreement between a university affiliate and the UTCC whereby its interest in intellectual property is assigned, licensed, transferred, or sold, requires written TTOC approval. At the discretion of the TTOC, institutional agreements that contemplate numerous university purchases may not require approval for each purchase under the agreement.
(3) Supervisors, tenure initiating unit heads, and unit leaders are responsible for monitoring employees' and students' compliance with all applicable university policies and conflict management plans.
(4) Employees and students who wish to participate in a UTCC shall not be involved with any negotiations between the company and the university or a university affiliate.
(5) Supervisors, tenure initiating unit heads, or unit leaders must be actively involved in the development of the conflict management plan(s) relating to a UTCC.
(6) If a supervisor, tenure initiating unit head, or unit leader has a financial interest or is otherwise participating in the UTCC, another administrator more senior to the conflicted individual must be appointed to perform the responsibilities of the supervisor, tenure initiating unit head, or unit leader.
(7) If the TTOC determines that a transaction involving a UTCC is not in the best interest of the university, the transaction shall not be approved.
(8) Employees and students may choose to not seek TTOC approval for their participation in a UTCC; however, the exception provided in (C) 1 and 2 of this Rule will not apply without TTOC approval and their participation will be subject to applicable laws and university policies.
(E) Responsibilities to the university.
(1) Faculty should not allow their financial interests in a UTCC to adversely influence their teaching, or to interfere with their relationships with other faculty. In particular, research assignments for students should be based on the students' interests and academic development. While faculty are permitted by university policy and this rule to engage in authorized private business activities relating to their university positions, they continue to be responsible for the performance of all of their university teaching, research, and service obligations.
(2) Staff may engage in activities relating to a UTCC during regularly assigned working hours only if they take approved leave or document flexible schedule arrangements with their supervisor. Staff may pursue only those research projects that will advance the missions of the university and the employing unit, without regard to the financial interests of individual employees, and that are authorized by their supervisor, tenure initiating unit head, or unit leader.
(3) Student employees may not engage in activities relating to a UTCC during regularly assigned working hours.
(4) Faculty, staff, and students participating in a UTCC are to at all times clearly represent whether they are acting in their university or UTCC role when conducting professional activities.
(F) Conflict of interest management standards.
(1) University facilities, equipment and other resources may be used for the benefit of a UTCC pursuant only to a sponsored research agreement, facilities use agreement, or other appropriate contractual arrangement.
(2) The conflict management plan may describe the employee's contemplated initial equity interest, debt participation, and/or fiduciary role in the UTCC and provide enforceable milestones for reduction of that interest, participation, and/or role.
(3) Faculty shall not allow their activities with UTCCs to consume a disproportionate amount of their professional attention. Faculty engaged in approved outside activities who are unable to perform all of their university responsibilities must reduce those outside activities or request a reduction of appointment or other approved leave in accordance with university policies. Faculty professional leave should be authorized in accordance with other university policies (e.g. Faculty Professional Leave).
(4) Staff who are unable to perform all of their university duties because of activities in connection with UTCCs must reduce those outside activities or request a reduction of appointment or other approved leave in accordance with university policies.
(5) Research benefiting a UTCC may not be used to satisfy the criteria for a thesis or dissertation if the material is restricted from publication. Faculty must inform the student in writing of any such publication restriction prior to the start of the student's research.
(6) A student may not be employed by or participate in a UTCC in which a faculty member participates if the faculty member has a university supervisory, teaching, evaluation, advising, coaching, or counseling relationship with the student.
(7) Students may be employed by a UTCC, subject to the limitation set forth in paragraph (F)(5) of this rule.
(8) University regulatory review boards including, for example, the institutional review board and the institutional animal care and use committee, may be used for research benefiting a UTCC pursuant to a sponsored research agreement or another arrangement approved by the TTOC, and any other university policies.
(9) Employees may not be the principal investigator in sponsored research projects funded by UTCCs in which they participate if the projects involve approval by the institutional review board or if the projects include veterinary clinical trials involving the use of animals unless provided for by other university policies. For sponsored research not requiring institutional review board or institutional animal care and use committee oversight, faculty or staff may assume the role of principal investigator if a formal conflict management plan approved by the TTOC and the Conflicts Approval Committee is in place.
(10) Agreements for sponsored research projects funded by UTCCs must include, at a minimum, a requirement for full university publication rights and full cost recovery, unless otherwise approved in writing by the Vice President for Research.
(11) Employees participating in UTCCs approved pursuant to this rule continue to be bound by the university's Intellectual Property policy and all other applicable university policies.
(12) New intellectual property made or created by faculty or staff who have received TTOC approval for their participation in a UTCC will be owned by the university or university affiliate, unless the TTOC determines otherwise in view of O.R.C. 3345.14, federal law, and the university's Intellectual Property policy. New intellectual property made or created by faculty or staff who choose to not seek TTOC approval for their participation in a UTCC will be governed by state and federal law and the university's Intellectual Property Policy and not this Rule. New inventions and/or discoveries developed by the faculty, staff member or student for the company must be disclosed to the technology commercialization office as required by the university's Intellectual Property policy.
(Board approval dates: 4/6/2001, 6/29/2001, 6/3/2016, 11/17/2022)

FACULTY PERSONNEL ACTIONS

BE IT RESOLVED, That the Board of Trustees hereby approves the faculty personnel actions as recorded in the personnel budget records of the university since the August 18, 2022, meeting of the board, including the following appointments, appointments/reappointments of chairpersons, faculty professional leaves and emeritus titles:

## Appointments

Name: DANIEL ADDISON
Title: $\quad$ Associate Professor (James Hay and Ruth Jansson Wilson Professorship in Cardiology Fund)
College: Medicine
Term: $\quad$ November 1, 2022, through June 30, 2026
Name: CRAIG BRYAN
Title: $\quad$ Professor (Trott Gebhardt Philips Endowed Professorship)
College: Medicine
Term: December 1, 2022, through June 30, 2026
Name: LISA BURRIS
Title: $\quad$ Assistant Professor (Distinguished Assistant Professor of Engineering Inclusive Excellence)
College: Engineering
Term: July 1, 2022, through June 30, 2027
Name: TERRIENNS
Title: Professor-Clinical (James W. Shocknessy Professorship of Law)
College: Michael E. Moritz College of Law
Term: $\quad$ November 18, 2022, through November 18, 2027
Name: LISA FLORMAN
Title: $\quad$ Professor (Vice Provost for the Arts)
Unit: Office of Academic Affairs
Term: September 15, 2022, through June 30, 2027
Name: RICHARD GUMINA
Title: $\quad$ Associate Professor (James W. Overstreet Chair in Cardiology)
College: Medicine
Term: $\quad$ November 1, 2022, through June 30, 2026
Name: IAN HOWAT
Title: Professor (ENGIE-Axium Endowed Professorship)
Unit: Office of Academic Affairs
Term: September 1, 2022, while serving as Director of the Byrd Polar and Climate Research Center

Name: HASAN KWAME JEFFRIES
Title: $\quad$ Associate Professor (College of Arts and Sciences Alumni Professorship 3)
College: $\quad$ Arts and Sciences
Term: $\quad$ August 15, 2022, through August 14, 2027

FACULTY PERSONNEL ACTIONS (CONT)

|  | FACULTY PERSONNEL ACTIONS (CONT) |
| :---: | :---: |
|  | NG LIN |
| Title: | Professor (Distinguished Professor of Engineering) |
| College: | Engineering |
| Term: | July 1, 2022, through June 30, 2027 |
| Name: | BRIAN MITTENDORF |
| Title: | Professor (H.P. Wolfe Chair in Accounting) |
| College: | Max M. Fisher College of Business |
| Term: | August 15, 2023, through August 14, 2028 |
| Name: | EDUARDO REATEGUI PIZARRO |
| Title: | Assistant Professor (Distinguished Assistant Professor of Engineering Inclusive Excellence) |
| College: | Engineering |
| Term: | July 1, 2022, through June 30, 2027 |
| Name: | JASON REECE |
| Title: | Associate Professor (Vice Provost for Urban Research and Community Engagement) |
| Unit: | Office of Academic Affairs |
| Term: | January 1, 2023, through December 30, 2027 |
| Name: | PAUL ROSE |
| Title: | Professor (J. Gilbert Reese Chair in Contract Law) |
| College: | Michael E. Moritz College of Law |
| Term: | November 18, 2022, through November 18, 2027 |
| Name: | ABHAY SATOSKAR |
| Title: | Professor (Research Endowed Chair in Pathology) |
| College: | Medicine |
| Term: | October 1, 2022, through June 30, 2026 |
| Name: | RYAN SCHMIESING |
| Title: | Associate Professor (Senior Vice Provost for External Engagement) |
| Unit: | Office of Academic Affairs |
| Term: | August 15, 2022, through June 30, 2027 |
| Name: | ARWA SHANA'AH |
| Title: | Associate Professor-Clinical (Diversity, Equity, and Inclusion Professorship in the College of Medicine) |
| College: | Medicine |
| Term: | December 1, 2022, through June 30, 2026 |
| Name: | NATASHA SLESNICK |
| Title: | Professor (EHE Distinguished Professor) |
| College: | Education and Human Ecology |
| Term: | August 15, 2022, through August 14, 2027 |
| Name: | MARY STROMBERGER |
| Title: | Professor, Vice Provost and Dean for Graduate Education (ENGIE-Axium Endowed Dean's Chair) |
| Unit: | Office of Academic Affairs |
| Term: | August 1, 2022, through June 30, 2027 |

## FACULTY PERSONNEL ACTIONS (CONT)

Name:
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Name: YOLANDA ZEPEDA
Title: $\quad$ Interim Vice Provost for the Office of Diversity and Inclusion
Unit:
Term:
Name:
Title:
College:
Term:
YU SU
Assistant Professor (Distinguished Assistant Professor of Engineering Inclusive Excellence)
Engineering
July 1, 2022, through June 30, 2027
MATTHEW SULLIVAN
Professor (College of Arts and Sciences Alumni Professorship 2)
Arts and Sciences
August 15, 2022, through August 14, 2027
TODD THOMPSON
Professor (Allan H. Markowitz Endowed Chair in Astronomy)
Arts and Sciences
September 1, 2022, through August 31, 2027
RICHARD URMAN*
Professor and Chair (Jay J. Jacoby M.D., Ph.D., Chair in Anesthesiology) Medicine
October 1, 2022, through June 30, 2026
HENRY WANG
Professor (The Ohio State University Emergency Medicine Endowed Research Chair)
Medicine
November 1, 2022, through June 30, 2026
JESSICA WINTER
Professor (Distinguished Professor of Engineering)
Engineering
July 1, 2022, through June 30, 2027
SHANG-TIAN (S.T.) YANG
Professor (David H. George Endowed Chair in Chemical Engineering)
Engineering
July 1, 2022, through June 30, 2027

Office of Academic Affairs
August 1, 2022, through June 30, 2023, or until a new Vice Provost is named
HUA ZHU
Professor (Karl P. Klassen Chair of Thoracic Surgery)
Medicine
August 1, 2022, through June 30, 2026
*New Hire

FACULTY PERSONNEL ACTIONS (CONT)

## Reappointments

Name: DAVID BRAKKE
Title: $\quad$ Professor (Joe R. Engle Chair in the History of Christianity)
College: Arts and Sciences
Term: August 15, 2022, through August 14, 2027

Name: BRAD BUSHMAN
Title: Professor (Margaret Hall and Robert Randall Rinehart Chair)
College: Arts and Sciences
Term
September 1, 2022, through June 30, 2023

Name: SARA BUTLER
Title;
College: Arts and Sciences
Term: August 15, 2021, through August 14, 2026

Name: BRUNO CABANES
Title: $\quad$ Professor (Donald G. and Mary A. Dunn Chair in Modern Miliary History)
College: Arts and Sciences
Term: August 15, 2022, through August 14, 2027

Name: MATTHEW GOLDISH
Title: Professor (Samuel and Esther Melton Chair of Jewish History and Studies)
College: Arts and Sciences
Term: August 15, 2022, through August 14, 2027

Name: PELAGIA-IRENE GOUMA
Title: Professor (Edward Orton, Jr., Chair in Ceramic Engineering)
College: Engineering
Term: June 1, 2022, through June 30, 2027

Name: ROBERT HOLUB
Title: $\quad$ Professor and Chair (Ohio Eminent Scholar in German)
College: Arts and Sciences
Term: August 15, 2022, through August 14, 2027

Name: BRIAN JOSEPH
Title: Professor (Kenneth E. Naylor Professorship)
College: Arts and Sciences
Term: October 1, 2022, through September 20, 2027

FACULTY PERSONNEL ACTIONS (CONT)

Name: CHRISTOPHER KOCHANEK
Title:
College:
Professor (Ohio Eminent Scholar in Cosmology)

Term: $\quad$ August 15, 2022, through August 14, 2027
Name: $\quad$ PHILLIP POPOVICH
Title: Professor and Chair (Ray W. Poppleton Research Designated Chair)
College: Medicine
Term: June 1, 2022, through June 30, 2026

Name: ABDOLLAH SHAFIEEZADEH
Title: Associate Professor (Abba G. Lichtenstein Professorship in Civil Engineering)
College: Engineering
Term: June 1, 2022, through June 30, 2027

Name: JAMI SHAH
Title: $\quad$ Professor (Honda Designated Professor in Engineering)
College: Engineering
Term: July 1, 2022, through June 30, 2025
Name: ALEXANDER SPARREBOOM
Title: $\quad$ Professor (The Lucius A. Wing Chair of Cancer Research and Therapy)
College: Medicine
Term: December 1, 2022, through June 30, 2026

## Appointments/Reappointments of Chairpersons

LISA ABRAMS, Acting Chair, Department of Engineering Education, August 22, 2022, through January 8, 2023

ARYA ANIL, Chair, Department of Accounting and Management Information Systems, August 15, 2022, through May 31, 2025

ERIC BIELEFELD, Chair, Department of Speech and Hearing Science, July 1, 2023, through June 30, 2027

MATHEW COLEMAN, Interim Chair, Department of Geography, August 13, 2022, through June 30, 2023

THOMAS HUND, Director, Dorothy M. Davis Heart and Lung Research Institute, July 1, 2022, through June 30, 2027

RUCHIKA PRAKASH, Director, Center for Cognitive and Behavioral Brain Imaging, July 1, 2023, through June 30, 2027

ANDREW SHELTON, Interim Chair, Department of Arts Administration, Education and Policy, October 17, 2022, through December 31, 2022
*GAËTANE VERNA, Executive Director, Wexner Center for the Arts, effective November 15, 2022
*New Hire

## Faculty Professional Leaves

TRACI WILGUS, Associate Professor, Department of Pathology, FPL for October 1, 2022, through August 14, 2023

## Faculty Professional Leave Changes/Cancellations

SARAH COLE, Professor, Michael E. Moritz College of Law, Change of FPL from Fall 2022 and Spring 2023 to Fall 2022

MARGARET FLINN, Associate Professor, Department of French and Italian, Change of FPL from Fall 2022 and Spring 2023 to Spring 2023

SHANNON JARROTT, Professor, College of Social Work, Change of FPL from Fall 2022 and Spring 2023 to Spring 2023

TZU-JUNG LIN, Associate Professor, Department of Educational Studies, Cancellation of FPL for Spring 2023

JAMI SHAH, Professor, Department of Mechanical and Aerospace Engineering, Cancellation of FPL for Fall 2022 and Spring 2023

JARED THORNE, Associate Professor, Department of Art, Change of FPL from Fall 2022 and Spring 2023 to Fall 2022

## Emeritus Titles

RICHARD BEDNARSKI, Department of Veterinary Clinical Sciences, with the title of ProfessorEmeritus, effective November 1, 2022

STAVROS CONSTANTINOU, Department of Geography, with the title of Associate ProfessorEmeritus, effective January 1, 2023

MICHAEL DAVIS, Department of Animal Sciences, with the title of Professor-Emeritus, effective September 1, 2022

KEVIN EVANS, School of Health and Rehabilitation Sciences, with the title of ProfessorEmeritus, effective February 1, 2023

MARGARET GRAHAM, College of Nursing, with the title of Associate Professor-Emeritus, effective January 1, 2023

JANICE KIECOLT-GLASER, Department of Psychiatry and Behavioral Health, with the title of Professor-Emeritus, effective January 1, 2023

JEFFERY MCNEAL, Department of Mathematics, with the title of Professor-Emeritus, effective August 15, 2022

RANDOLPH MOSES, Department of Electrical and Computer Engineering, with the title of Professor-Emeritus, effective September 1, 2022

SHELLEY QUINN, Department of East Asian Languages and Literatures, with the title of Associate Professor-Emeritus, effective January 1, 2023

YONGMIN SUN, Department of Sociology, with the title of Professor-Emeritus, effective August 15, 2022

FABIAN TAN, Department of Civil, Environmental and Geodetic Engineering, with the title of Professor-Emeritus, effective June 1, 2022

MEADE van PUTTEN JR., College of Dentistry, with the title of Associate Professor-Emeritus, effective November 1, 2022

CELIA WILLS, College of Nursing, with the title of Associate Professor-Emeritus, effective July 1, 2023

ANDREA WOLFE, Department of Evolution, Ecology, and Organismal Biology, with the title of Professor-Emeritus, effective January 1, 2023

## Promotion, Tenure, and Reappointments

# COLLEGE OF THE ARTS AND SCIENCES 

 DIVISION OF ARTS AND HUMANITIESTENURE ONLY [AT THE RANK OF PROFESSOR]
Smithies, Declan, Philosophy, August 1, 2022

## DIVISION OF NATURAL AND MATHEMATICAL SCIENCES

PROMOTION TO PROFESSOR WITH TENURE
Louchouarn, Patrick, School of Earth Sciences, August 1, 2022

## DIVISION OF SOCIAL AND BEHAVIORAL SCIENCES

TENURE ONLY [AT THE RANK OF PROFESSOR]
De Boeck, Paul, Psychology, November 1, 2022

# COLLEGE OF EDUCATION AND HUMAN ECOLOGY CLINICAL 

REAPPOINTMENT
Barnes, Amy, Educational Studies, September 1, 2023
Fast, Danene, Teaching and Learning, September 1, 2023
Patrick, Lisa, Teaching and Learning, September 1, 2023

## COLLEGE OF ENGINEERING

PROMOTION TO PROFESSOR WITH TENURE
Balasubramaniam, Shanker, Electrical and Computer Engineering, August 1, 2022

## COLLEGE OF FOOD, AGRICULTURAL AND ENVIRONMENTAL SCIENCES

PROMOTION TO PROFESSOR
Cai, Yongyang, Agricultural, Environmental and Development Economics, May 18, 2022
(CORRECTION OF SPELLING OF LAST NAME)
PROMOTION TO PROFESSOR WITH TENURE
Stromberger, Mary, School of Environment and Natural Resources, August 1, 2022

## COLLEGE OF MEDICINE

## PROMOTION TO ASSOCIATE PROFESSOR WITH TENURE

Xie, Ruili, Otolaryngology Head and Neck Surgery, November 16, 2022

## REAPPOINTMENT

Chung, Sangwoon, Internal Medicine, September 1, 2022
Karpurapu, Manjula, Internal Medicine, September 1, 2022

## COLLEGE OF SOCIAL WORK

PROMOTION TO PROFESSOR WITH TENURE
Jenkins, David, July 1, 2022


[^0]:    ${ }^{1}$ https://gistbok.ucgis.org/

[^1]:    ${ }^{2}$ Obermeyer, N.J., Ramasubramanian, L. and Warnecke, L., 2016. GIS education in US public administration programs: Preparing the next generation of public servants. Journal of Public Affairs Education, 22(2): 249-266.
    ${ }^{3}$ https://www.bls.gov/
    ${ }^{4}$ https://www.psmarketresearch.com/press-release/global-geographic-information-system-market
    ${ }^{5}$ https://wdr.doleta.gov/research/FullText Documents/2008-10\%20HGJTI\%20Implementation\%20Report\%20FINAL.pdf

[^2]:    ${ }^{6}$ https://www.gisday.com/en-us/overview

[^3]:    ${ }^{7}$ https://www.gisci.org/

