



Board of Governors Programs & Planning Committee Meeting

Robert W. Plaster Student Union, Ballroom East

Thursday, 12/16/2021

10:30 - 11:45 AM CT

I. Roll Call Presented By: Governor Lynn Parman

II. Approval of Minutes of the Programs and Planning Committee Meeting of October 15, 2021

Presented By: Governor Lynn Parman

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III. College of Natural and Applied Sciences: Embracing the Entrepreneurial Spirit Presented By: Dr. Frank Einhellig, Provost, and Dr. Tammy Jahnke, Dean of the College of Natural and Applied Sciences

III. CNAS Summary - Page 4

IV. Resolution Authorizing Closed Meeting, Pursuant to Sections 610.021(1), (2), (3), (6), (9), (11), (12), (13), (14) and/or (17) of the Revised Statutes of Missouri

IV. Closed Meeting Resolution - PPC - Page 6

V. Adjournment Presented By: Governor Lynn Parman

**MINUTES OF THE
BOARD OF GOVERNORS PROGRAMS AND PLANNING COMMITTEE
MISSOURI STATE UNIVERSITY
FRIDAY, OCTOBER 15, 2021**

Governor Lynn Parman, Chair of the Programs and Planning Committee, called the meeting to order at 10:24 a.m. in the Robert W. Plaster Student Union, Ballroom East on the Missouri State University campus in Springfield, Missouri.

Roll Call

Present – Lynn Parman, Committee Chair
Amelia “Amy” Counts, Committee Member
Briar Douglas, Committee Member
Craig Frazier, Committee Member
Gabriel Gore, Committee Member
Beverly Miller Keltner, Committee Member
Carol Silvey, Committee Member
Carrie Tergin, Committee Member
Jay Wasson, Committee Member
Chris Waters, Committee Member

Also present – Clif Smart, President
Jeff Coiner, Chief Information Officer
Rachael Dockery, General Counsel and Chief Compliance Officer
Frank Einhellig, Provost
Steve Foucart, Chief Financial Officer
Dennis Lancaster, Interim Chancellor of the West Plains Campus
Natalie McNish, Interim Director of Internal Audit and Risk Management
Matt Morris, Vice President for Administrative Services
Wes Pratt, Chief Diversity Officer and Assistant to the President
Suzanne Shaw, Vice President for Marketing and Communications
Dee Siscoe, Vice President for Student Affairs
Rowena Stone, Secretary to the Board of Governors
Shawn Wahl, Dean of the Reynolds College of Arts and Letters

Approval of Minutes

Governor Parman called for a motion to approve the minutes of the June 18, 2021, Programs and Planning Committee meeting. Governor Carol Silvey provided a motion, receiving a second from Governor Chris Waters.

Motion passed 9-0.

Citizen Scholars Update

Governor Parman provided an update on the Citizen Scholars subcommittee’s process in selecting this year’s recipients of the Citizen Scholars award. A total of 15 nominations were submitted. The subcommittee met earlier this month and selected six students to receive the award. The Board will vote on a resolution recognizing those six students at the December meeting. A dinner will be held on December 16 to honor the selected students.

Graduate Education at MSU: History, Roles, and Value

Dr. Frank Einhellig, Provost, and Dr. Julie Masterson, Associate Provost and Dean of the Graduate College, provided a presentation about graduate education at Missouri State University. Highlights of their presentation included a history of graduate education at the university, degrees offered and enrollment by decade, number of degree programs by college, certificate programs, graduate awards conferred, benefits of graduate degrees, student demographics and distribution, delivery modalities, accelerated degrees, professional doctorates, partnerships, admissions practices, and marketing efforts. The university currently offers 66 graduate degree programs and 92 graduate certificates with 4,183 students enrolled this fall. They concluded their report by sharing that the university is on the cutting-edge of graduate education and is on track to be a leader in the state on professional doctorate programs.

Adjournment

With no additional information needing to be discussed, Governor Parman called for a motion to adjourn the meeting. Governor Gabriel Gore provided a motion, receiving a second from Governor Waters.

Motion passed 9-0.

Meeting adjourned at 11:46 a.m.

Lynn Parman
Committee Chair

Passed at the meeting of
December 16, 2021

Rowena Stone
Secretary to the Board

College of Natural and Applied Sciences – CNAS: Embracing the Entrepreneurial Spirit Frank Einhellig, Provost and Tammy Jahnke, Dean

Mission: The College of Natural and Applied Sciences develops global citizen scholars who are prepared to increase understanding of the natural world and applied sciences within society and to be productive and successful in their careers.

Vision: The College of Natural and Applied Sciences at Missouri State University seeks excellence in teaching, scholarly productivity, and professional and community service.

We value: our students and their success; active learning, academic rigor, and critical thinking; excellence in teaching, research, and service; inclusiveness, fairness, and justice; faculty, staff and administrators; personal and academic integrity; safe learning environments; collaborations and partnerships; and continuous improvement.

Context: CNAS includes seven academic departments and the cooperative engineering program, two self-funded centers/institutes (Ozarks Environmental and Water Resources Institute - OEWRI and Center for Resource Planning and Management - CRPM), one observatory and one field station. CNAS academic programs include 9 masters degrees (6 discipline specific, MNAS, MEd and MAT), 9 graduate certificate programs, 3 BA degrees, 14 BS degrees with 22 options, 1 BAS degree and 20 undergraduate certificate programs. Currently CNAS has 166 employees: 32 staff - nine of whom are funded by grants/contracts and 134 faculty – 13 instructors, 11 senior instructors, 25 assistant professors, 21 associate professors, 45 professors, 13 distinguished professors and six Missouri S&T faculty at various ranks.

Over the last 50 years, MSU's enrollment in science, technology, engineering and mathematics (STEM) fields has grown from 1,000 to 2,400. MSU's graduate enrollment in STEM has doubled in the last 25 years. MSU's STEM faculty publish more than 120 peer-reviewed publications each year and have been awarded nearly \$20 million in federal funds for research and education over the last ten years.

Planning: Despite enrollment and research growth, the university's STEM facilities have remained mostly unaltered for decades. These facilities no longer meet modern scientific and technological needs for workforce training, education and research. MSU hired a firm in 2018 to conduct a planning study for the college. The purpose was to look at the state of facilities focusing on Temple Hall, Kings Street Annex, Kemper Hall; Cheek Hall and Plaster Stadium. (Pummill Hall was recently renovated for Hospitality Leadership and the Plaster Center downtown has newly renovated space for the cooperative engineering program.) In addition the planning study included a SWOT assessment and an analysis of space needs for each department along with the types of spaces needed.

The SWOT assessment identified the following strengths: research, excellence in teaching, external funding, instrumentation and facilities, and outstanding students; weaknesses: dated math & science teaching facilities, lack of research space, recruitment of students is challenging; opportunities: interest at Federal and State level in STEM graduates, external funding opportunities, strategic uses of online education, and potential growth in graduate programs; threats: lack of space for growth, lack of recurring funding, decrease in federal grants, lack of outstanding facilities for recruitment of students and declining enrollments.

Focusing on STEM spaces in Kemper, Cheek, Kings Street Annex, Temple Hall and Plaster Stadium indicates that we have just over 153,000 of existing net sq feet while the college needs 240,000 of future net sq feet to meet current and future needs. Temple Hall is the largest CNAS building and the main hub for the college. It was built in 1971 and has not been substantially remodeled since it was constructed. The planning study focused on a three phase plan – 1) 66,500 sq ft addition to Temple Hall; 2) complete renovation of 126,000 sq ft of Temple Hall current space; and 3) addition and renovation to Cheek Hall.

Temple Hall Addition/Renovation: Architects (BNIM) have been hired to plan for the addition/renovation. We have been meeting with them regularly since the first of November. This facility will house biology, chemistry, geography, geology and planning in their entirety, mitigating the need to house parts of these departments elsewhere on campus. Large lectures in other STEM areas – such as astronomy and physics – will also occur in this facility. The facility will facilitate research by faculty and students and allow for greater collaboration. Approximately 1100 students each year major in the academic departments housed in Temple Hall. More than 9000 students take classes and labs in Temple Hall each year as part of the general education program and pre-health programs as well as STEM majors.

Examples of ongoing research and related lab work that will occur in the facility include:

- Evaluation of how changes in the force of blood flow cause congenital heart and vascular defects during embryonic or fetal development
- Testing the effects of chemotherapeutic agents and engineered nanoparticles on cancer cells
- Study of pulsating stars, in particular subdwarf B stars, which are stars that get brighter and fainter with given periods
- Characterization of extrasolar planets and study of the formation and evolution of planetary systems over time
- Orbital dynamics of planetary and satellite systems and its impact on climate and surfaces
- Research on the immune system response to particular respiratory infections
- Research on the medical-biological applications of both cyanoxime ligands and the bivalent Pd and Pt compounds and new light-insensitive Ag(I) cyanoxime compounds and their antimicrobial properties
- Study of physico-chemical properties of energy-related (nanophase and bulk) materials under extremes of pressure, temperature, radiation and hydrothermal environments.
- Crystal engineering and coordination chemistry
- Photoluminescence and electrogenerated chemiluminescence
- Lab work directed at solving an array of challenging problems in the areas of bioanalytical chemistry, protein and peptide science, biomaterials, and separation technology
- High temperature solid state synthesis of new materials; including intermetallic compounds and thermoelectric materials
- Pattern recognition and machine learning
- Image analysis and statistical learning theory

CNAS Student/Faculty News – <http://blogs.missouristate.edu/cnas-newswatch/>

CNAS Newsletter – <https://blogs.missouristate.edu/cnas/discoveries/>

CNAS EXTERNAL FUNDING – FY 2020 \$3,098,455; FY 2019 \$2,541,887; FY 2018 \$2,597,668

CNAS SCHOLARLY ACTIVITY (PEER REVIEWED PUBLICATIONS) AS A PERCENTAGE OF MSU's TOTAL – 121/410 (29%) in 2020; 120/472 (25%) in 2019; 133/417 (31%) in 2018

CNAS	CREDIT HOUR PRODUCTION			MAJORS	GRADUATES
	CY2018	CY2019	CY2020	Grad/Undergrad	Grad/Undergrad
	CY2018	CY2019	CY2020	FA 2021	FY 2020
Biology	18,868	18,883	18,159	47/573	30/134
Chemistry	18,152	17,284	15,894	19/152	7/34
Computer Science	5,025	5,157	5,326	145/337	10/91
Geography, Geology & Planning	14,104	12,742	11,374	44/93	28/63
Hospitality Leadership	4,051	3,435	3,471	4/154	5/86
Mathematics	21,918	19,565	16,607	16/99	9/22
Cooperative Engineering	NA	NA	NA	NA/277	NA/32
Physics, Astronomy & Materials Science	8,325	8,361	9,052	16/54	11/10

IV.

RECOMMENDED ACTION - Resolution authorizing closed meeting

The following resolution was moved by _____ and seconded
by _____:

BE IT RESOLVED by the Board of Governors for the Missouri State University that a closed meeting, with closed records and closed vote, be held during a recess of the Programs and Planning Committee meeting of the Board of Governors to consider items pursuant to...

- A. R.S.Mo. 610.021(1). "Legal actions, causes of action, or litigation involving a public governmental body..."
- B. R.S.Mo. 610.021(2). "Leasing, purchase or sale of real estate by a public governmental body..."
- C. R.S.Mo. 610.021(3). "Hiring, firing, disciplining or promoting of particular employees by a public governmental body..."
- D. R.S.Mo. 610.021(6). "Scholastic probation, expulsion, or graduation of identifiable individuals..."
- E. R.S.Mo. 610.021(9). "Preparation, including any discussions or work product, on behalf of a public governmental body or its representatives for negotiations with employee groups;"
- F. R.S. Mo. 610.021(11) and (12). "Specifications for competitive bidding...;" and "Sealed bids and related documents...;"
- G. R.S.Mo. 610.021(13). "Individually identifiable personnel records, performance ratings or records pertaining to employees or applicants for employment...;"
- H. R.S.Mo. 610.021(14). "Records which are protected from disclosure by law;" and
- I. R.S.Mo. 610.021(17). "Confidential or privileged communications between a public governmental body and its auditor,..."

VOTE:___AYE

___NAY