

APPROVED
April 7, 2015

SEE NOTATION ON PAGE 20

Item #IV-10
April 7, 2015

**NEW UNITS OF INSTRUCTION, PUBLIC SERVICE,
AND RESEARCH AT PUBLIC UNIVERSITIES**

Submitted for: Action.

Summary: This item requests approval of two degree programs and one administrative unit at three public universities.

Action Requested: That the Illinois Board of Higher Education approve the following:

Eastern Illinois University

- Master of Science in Health Promotion and Leadership in the Prairie Region

Southern Illinois University Carbondale

- Neuroscience Institute in the Central Region

University of Illinois at Urbana-Champaign

- Master of Engineering in Mechanical Engineering in the Prairie Region

STATE OF ILLINOIS
BOARD OF HIGHER EDUCATION

**NEW UNITS OF INSTRUCTION, PUBLIC SERVICE,
AND RESEARCH AT PUBLIC UNIVERSITIES**

By statute, the Illinois Board of Higher Education is responsible for approving new on-campus and off-campus units of instruction, organized research, and public service, and units of administration proposed by public university governing boards. The Board's approval criteria, defined in rules adopted for administering the statute, addresses university mission, academic control, faculty and staff, support services, financial resources, student demand, curriculum, statewide need, and congruence with Board policies and priorities. In addition to the approval criteria in rules, each new program was reviewed for its contributions to the goals of *The Illinois Public Agenda for College and Career Success*, which sets forth new priorities to guide Illinois higher education. Staff recommendations are based on analyses of application materials and responses to staff questions, and, for advanced degree programs, recommendations of external consultants.

Executive Summary – Public Institutions

Eastern Illinois University

- Master of Science in Health Promotion and Leadership

Eastern Illinois University requests authority to offer a Master of Science (MS) in Health Promotion and Leadership. The proposed program is designed to develop the competencies and skills students need to be productive health professionals, including the ability to perform research, evaluate programs, and provide leadership to encourage collaboration across communities. The curriculum for the proposed MS in Health Promotion and Leadership requires a minimum of 33 credit hours and is built upon the University's undergraduate program in Health Studies, one of only 21 programs recognized by the Society of Public Health and American Association for Health Education Baccalaureate Program Approval Committee (SABPAC). Specialized program accreditation is conducted by the National Commission for Health Education Credentialing (NCHEC). EIU plans to seek this accreditation after the completion of the first two cohorts. There are policies in place to ensure faculty members possess the training, credentials, and qualifications to provide instruction in the proposed program. The University has sufficient library, technology, staff, and financial resources in place to support the proposed program.

Approval request summary, including staff conclusion, follows in Attachment A.

Southern Illinois University Carbondale

- Neuroscience Institute

Southern Illinois University Carbondale requests authority to establish the Neuroscience Institute (NSI) within the Southern Illinois University School of Medicine. The NSI will coordinate the patient care services of the School's existing Department of Neurology, Department of Psychiatry/Division of Adult Psychiatry, and Department of Surgery/Division of Neurosurgery with Memorial Medical Center's

neuroscience-related outpatient and inpatient services and facilities. The Institute's physicians, health care staff, and other professionals will provide advanced, coordinated treatment to patients throughout central and southern Illinois who suffer from complex, debilitating neurological or mental disorders. While the Institute's focus is primarily patient care oriented, the NSI will provide opportunities and resources for neuroscience-related research, medical and community education, and community outreach. As an institute based in an academic medical center, the NSI will advance the translation of new and emerging basic research and the application of new medical products and technologies into improved patient care. Policies are in place to ensure faculty members possess the requisite training, credentials, and qualifications. No new State or University funds are requested in this proposal. Operating costs of the Neuroscience Institute will be funded from patient revenue, hospital academic support, and continuance of existing departmental budgets.

Approval request summary, including staff conclusion, follows in Attachment B.

University of Illinois at Urbana-Champaign

- Master of Engineering in Mechanical Engineering

The University of Illinois at Urbana-Champaign requests authority to offer a Master of Engineering (MEngME) in Mechanical Engineering. The proposed program is designed to offer students an accelerated, industry-oriented graduate degree, requiring 32 credit hours. The MEngME provides more in-depth technical knowledge than a traditional Master of Science in Mechanical Engineering in a format that can be completed in one year. The curriculum allows students to focus their coursework in areas that are most relevant to their professional career interests. Students will choose courses in mechanical engineering, theoretical and applied mechanics, applied mathematics, and computational science. In addition to coursework, students must also complete a professional development component as the capstone for the program. There are policies in place to ensure faculty members possess the training, credentials, and qualifications to provide instruction in the proposed program. The University has sufficient library, technology, staff, and financial resources in place to support the proposed program.

Approval request summary, including staff conclusion, follows in Attachment C.

The staff recommends adoption of the following resolutions:

The Illinois Board of Higher Education hereby grants to Eastern Illinois University authorization to establish the Master of Science in Health Promotion and Leadership in the ~~Chicago~~ Region, subject to the institution's implementation and maintenance of the conditions that were presented in its application and that form the basis upon which this authorization is granted. **PRAIRIE Region -**

SEE TECHNICAL CORRECTION, ITEM V-16, JUNE 2, 2015

The Illinois Board of Higher Education hereby grants to Southern Illinois University Carbondale authorization to establish the Neuroscience Institute in the Central Region, subject to the institution's implementation and maintenance of the conditions that were presented in its application and that form the basis upon which this authorization is granted.

The Illinois Board of Higher Education hereby grants to University of Illinois at Urbana-Champaign authorization to establish the Master of Engineering in Mechanical Engineering in the Prairie Region, subject to the institution's implementation and maintenance of the conditions that were presented in its application and that form the basis upon which this authorization is granted.

Eastern Illinois University

Proposed Program Title in the Region of Authorization: Master of Science in Health Promotion and Leadership in the Prairie Region.

Projected Enrollment: Eastern Illinois University has projected enrollment will grow from ten to 15 students in the first year to 20 students in the fifth year.

Background

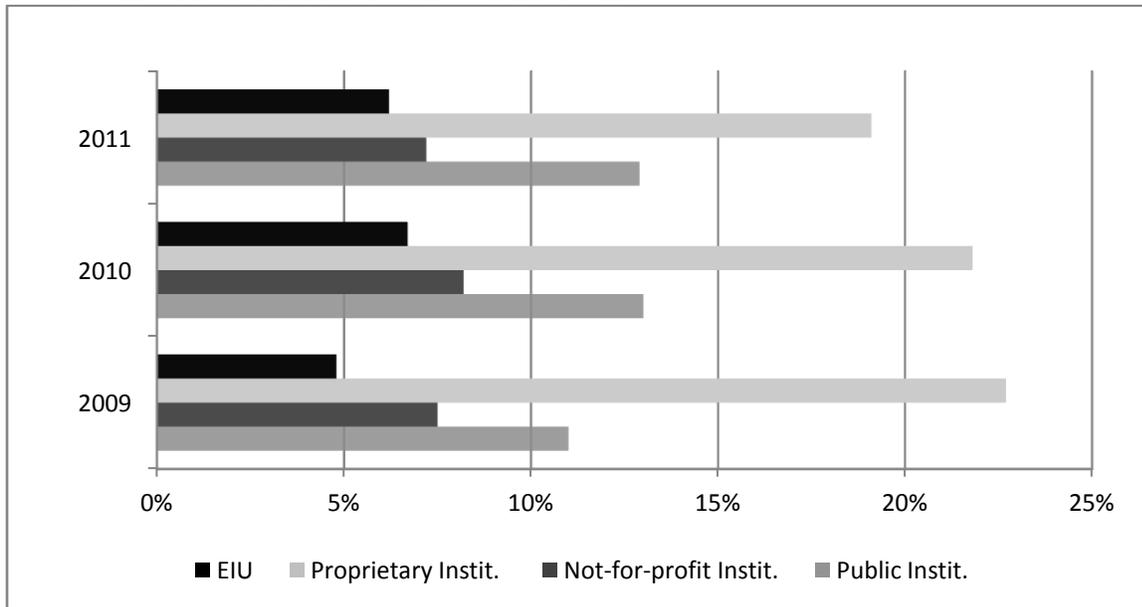
Eastern Illinois University (the University or EIU) requests authority to offer a Master of Science (MS) in Health Promotion and Leadership. The proposed program was designed to develop the competencies and skills students need to be productive health professionals, including the ability to perform research, evaluate programs, and provide leadership to encourage collaboration across communities. The MS in Health Promotion and Leadership will build upon the University's undergraduate program in Health Studies, one of only 21 programs recognized by the Society of Public Health and American Association for Health Education Baccalaureate Program Approval Committee (SABPAC).

Institutional Data

1050.30(b)(1)(G) provides that success in student progression and graduation, and success rates in programs preparing students for certification and licensure, shall be consistent with expectations in higher education and the appropriate related field of study. At a minimum, the Board shall consider the following factors, based on results for similar institutions: (i) Graduation rates, degree completion rates, retention rates, and pass rates for licensure and certification. (ii) Success rate, which shall be, at a minimum, higher than that of the lowest quartile of these measures for similar Illinois institutions defined as open versus competitive enrollment institutions and primarily associate versus primarily baccalaureate granting institutions. Exceptions may be made to the lowest quartile if an institution is above the national average for these measures using the same comparison categories of institutions.

This section includes information about institutional and student success measures for each institution seeking program approval. The institution's rates will be compared to Illinois institutions from within a select comparison group and against the national standards or averages. For a proposed undergraduate program, this section will include undergraduate graduation rates, first to second year retention rates, student loan default rates, and any applicable licensure passage rates. For a proposed graduate program, this section will primarily focus on student loan default data since this measure also includes graduate students in the calculation.

Three Year Cohort Student Loan Default Rate



Source: National Center for Education Statistics (NCES), US Department of Education

Note: Eastern Illinois University is a Public Institution.

A lower number is a positive indicator.

The three-year student loan default rate for EIU was 6.2 percent in 2011, 6.7 percent in 2010, and 4.8 percent in 2009. The 3-year cohort student loan default rate is the percentage of a school’s borrowers who enter repayment on the Federal Family Education Loan (FFEL) Program or William D. Ford Federal Direct Loan (Direct Loan) Program loans during a particular federal fiscal year, October 1 to September 30, and default or meet other specified conditions prior to the end of the second following fiscal year. The US Department of Education stated that the Fiscal Year 2011 three-year national cohort default rate was 13.7 percent. The Fiscal Year 2011 three-year national cohort average default rate breakdown by institutional sector is: 12.9 percent for public institutions; 7.2 percent for private non-profit institutions; and 19.1 percent for for-profit institutions.

Undergraduate-related data fields are not provided because the University proposes to offer a new graduate program.

Need

1050.30(a)(6): A) The unit of instruction, research or public service is educationally and economically justified based on the educational priorities and needs of the citizens of Illinois; B) The unit of instruction, research or public service meets a need that is not currently met by existing institutions and units of instruction, research or public service.

Health educators and community health workers serve hospitals, non-profit organizations, government, doctor’s offices, businesses, and colleges. According to the Bureau of Labor Statistics, their employment is expected to grow by 21 percent from 2012 to 2022, faster than the average for all occupations. Growth will be driven by regional, state, and national efforts to reduce healthcare costs by teaching people about healthy habits and behaviors. The Affordable Care Act (ACA) is a prime source of these new jobs, having provided \$11 billion for the “operation, expansion, and construction of health centers” (<http://bphc.hrsa.gov/about/healthcenterfactsheet.pdf>). According to the Bureau of Labor Statistics, the healthcare industry as a whole has gained 982,300 jobs since the ACA was signed into law.

Thus, sizable projected growth in the demand for health promotion specialists supports the need for this program.

The Illinois Public Agenda for College and Career Success

The University indicates the proposed program supports Goals 2 and 3 of *The Illinois Public Agenda for College and Career Success*. The program will support Goal 2, College Affordability, by providing a master's degree that can be completed in a hybrid format, reducing commuting expenses. To aid in completion efforts, the program is also designed to give the student the opportunity to complete the degree in two years. In addition, this program will support Goal 3, which is to *increase the number of high-quality post-secondary credentials to meet the demands of the economy and an increasingly global society*. The ACA has created an expanded need for more jobs within the healthcare industry. This program was designed to meet this demand and to provide skilled health care educators and community health workers for not-for-profits, health management organizations, and local, county, and state health agencies.

Comparable Programs in Illinois

The University identified two institutions in the state with similar graduate programs; the University of Illinois at Urbana-Champaign and Southern Illinois University Carbondale both have programs in Community Health and Community Health Education. Since EIU's program will be delivered through three modalities of instruction (face-to-face, hybrid, and online), the University believes the program will appeal to nontraditional students not currently served by these existing programs. EIU also offers an undergraduate program in Health Studies with an emphasis in community health and health administration which accounts for 82 percent of the department's undergraduate enrollment. The proposed masters program will provide an additional route for those interested in health studies beyond the undergraduate degree.

Mission and Objectives

1050.30(a)(1): A) The objectives of the unit of instruction, research or public service are consistent with the mission of the college or university; B) The objectives of the unit of instruction, research or public service are consistent with what the unit title implies.

The proposed MS is in alignment with the overall mission of the University and is to prepare leaders in the field of health practice by providing competencies and skills needed to be productive professionals who serve the health promotion and leadership needs of diverse local, regional, national, and international populations. These competencies and skills include the ability to perform research, the ability to conduct program evaluation, and leadership capacity to encourage collaboration across communities. The proposed program is consistent with the purpose, goals, objectives, and mission of the University. The requested degree title reflects the degree program objectives and curriculum.

Curriculum and Assessment

1050.30(b)(1) [applicable only to units of instruction]: A) The caliber and content to the curriculum assure that the objectives of the unit of instruction will be achieved; B) The breadth and depth of the curriculum are consistent with what the title of the unit of instruction implies; C) The admission and graduation requirements for the unit of instruction are consistent with the stated objectives of the unit of instruction; D) Provision is made for guidance and counseling of students, evaluations of student performance, continuous monitoring of progress of students toward their degree objectives and appropriate academic record keeping.

1050.30(a)(2): The design, conduct, and evaluation of the unit of instruction, research or public service are under the direct and continuous control of the sponsoring institution's established processes for academic planning and quality maintenance.

Admission Requirements

Students will be expected to meet all requirements for admission to the Graduate School. Specifically, applicants must have obtained a baccalaureate degree from an accredited institution approved by EIU and achieved a minimum undergraduate cumulative GPA of 2.75 on a 4.0 scale or a 2.75 GPA in the last 60 hours of graded academic coursework. Additional requirements include three letters of recommendation, a resume, and a statement of purpose. Admission is competitive, and meeting GPA requirements does not guarantee admission.

Curriculum

The curriculum for the proposed program requires a minimum of 33 credit hours. Students will take 21 required hours of core courses and a group of focused electives in a specific subject proposed by the student and approved by a faculty advisor. In addition to coursework, students must also complete either a thesis or graduate project. For the graduate project option, students must complete a comprehensive project that includes an extensive critical review of the literature on a specific topic and the submission of a written manuscript to a journal approved by a project committee. The program is built upon the Seven Areas of Responsibility for the Advanced-level Health Education Specialist endorsed by the National Commission for Health Education Credentialing (NCHEC).

Assessment of Student Learning

All program assessment activities will be embedded in course assignments. Student success in the program will be measured by the stated learning objectives. Student performance and course efficacy will be regularly evaluated by individual instructors using diagnostic, formative, and summative assessments, along with projects, portfolios, and a final thesis or graduate project. The components of each course will be aligned to the program's learning objectives.

Program Assessment

The assessment plan will be aligned with the University's current student learning assessment, administrative assessment, and program review processes. The program's faculty and department chair will generate an annual assessment report with results related to the program's learning objectives and the University's graduate learning goals; this report will be submitted to the University's assessment director and the dean of the Graduate School for review and feedback about the types of assessment measures used by the graduate program (papers, oral presentations, labs, surveys, etc.), primary trait level ratings for each section of the assessment report, and the number of graduate learning goals adopted.

Additionally, the department will submit required program review reports to the Office of the Provost and Vice President for Academic Affairs, the University's Council on Graduate Studies, and IBHE. The program will be evaluated on the established student learning objectives, student and employer satisfaction, program costs, number of majors, degree completion rates, and time to degree. After three years, the program coordinator will conduct an abbreviated program review; in eight years, a full review will be conducted. The program's accountability also will be reviewed annually through the Major Assessment Profile process, which requires all departments to provide both qualitative and quantitative measures of success (e.g., evidence that the program supports institutional goals such as

integrative learning and school/community partnerships, program costs, class size, workload, credit hour production, etc.).

Facilities (space, equipment, instructional materials)

1050.30(a)(4): A) Facilities, equipment and instructional resources (e.g., laboratory supplies and equipment, instructional materials, computational equipment) necessary to support the high quality academic work in the unit of instruction, research or public service are available and maintained; B) Clinical sites necessary to meet the objectives of the unit of instruction, research or public service; C) Library holdings and acquisitions, owned or contracted for by the institution, that are necessary to support high quality instruction and scholarship in the unit of instruction, research and public service, are conveniently available and accessible, and can be maintained.

The program will be housed in the EIU department of Health Studies' facilities, which are sufficient for implementing the proposed Master of Science in Health Promotion and Leadership. Classroom space and computer resources are sufficient for the program's needs, and technical support is available 24/7 for students and faculty. The University library will provide support for this program, both from its general collection and in materials specific to education and training. The library maintains an extensive collection of books, journals, electronic materials, subscriptions, and shared online resources. Upon approval of this program, the host department and college will consult with the library to analyze current resources specific to the program and to develop a plan to utilize the library's requisition process to develop a significant traditional and electronic resource collection specific to the program's needs.

Faculty and Staff

1050.30(a)(3): A) The academic preparation and experience of faculty and staff ensure that the objectives of the unit of instruction, research or public service are met; B) The academic preparation and experience of faculty and staff, as evidenced by level of degrees held, professional experience in the field of study and demonstrated knowledge of the field, ensure that they are able to fulfill their academic responsibilities; C) The involvement of faculty in the unit of instruction, research or public service is sufficient to cover the various fields of knowledge encompassed by the unit, to sustain scholarship appropriate to the unit, and to assure curricular continuity and consistency in student evaluation; D) Support personnel, including but not limited to counselors, administrators, clinical supervisors, and technical staff, which are directly assigned to the unit of instruction, research or public service, have the educational background and experience necessary to carry out their assigned responsibilities.

Eight professors are listed as faculty for the proposed program. As the program grows, the department will hire a new faculty member as well as a half-time graduate coordinator. The University has identified institutional policies that ensure academic professionals hired possess the training, credentials, and other related qualifications in order to provide instruction at the institution. Faculty teaching in the proposed program will have the appropriate qualifications. A formal faculty evaluation process is in place.

Fiscal and Personnel Resources

1050.30(a)(5): A) The financial commitments to support the unit of instruction, research or public service are sufficient to ensure that the faculty and staff and support services necessary to offer the unit of instruction, research or public service can be acquired and maintained; B) Projections of revenues necessary to support the unit of instruction, research or public service are based on supportable estimates of state appropriations, local tax support, student tuition and fees, private gifts, and/or governmental grants and contracts.

No new State resources will be needed to establish the MS in Health Promotion and Leadership. Existing University resources will be sufficient for running the program.

Accreditation and Licensure

1050.30(b)(3) [applicable only to units of instruction]: Appropriate steps have been taken to assure that professional accreditation needed for licensure or entry into a profession as specified in the objectives of the unit of instruction is maintained or will be granted in a reasonable period of time. Reporting Requirement (Board Policy, April 2002): Programs in which state licensure requires specialized accreditation for students to obtain professional licensure, but which have not yet achieved accreditation, will undergo full review and report to IBHE every three years until accreditation is achieved.

EIU plans to seek programmatic accreditation NCHEC after the graduation of the first two cohorts.

Program Information

1050.30(b)(2) [applicable only to units of instruction]: The information which the institution provides for students and the public accurately describes the unit of instruction, including its objectives, length, residency requirements if any, schedule of tuition, fees, and all other charges and expenses necessary for completion of the unit of instruction, cancellation and refund policies, student rights and responsibilities, and such other material facts concerning the institution and the unit of instruction as are likely to affect the decision of the student to enroll. Such information shall be available to prospective students prior to enrollment.

Information about Eastern Illinois University's Master of Science in Health Promotion and Leadership, including a detailed description of the curriculum, admission requirements, tuition, fees and other cost information as well as University policies will be published in the University's catalog.

Staff Conclusion

The staff concludes that the Master of Science in Health Promotion and Leadership proposed by Eastern Illinois University meets the criteria to implement the Board of Higher Education Act (110 ILCS 205/et.seq.) as set forth in 23 Illinois Administrative Code, Ch. II, Section 1050.30, and the Illinois Board of Higher Education policies pertaining to assessment and accreditation or licensure.

Southern Illinois University Carbondale

Proposed Center Title in Region of Authorization: Neuroscience Institute in the Central Region

Projected Enrollments: This proposal is for the new approval of a public service center to provide advanced multispecialty clinical care for patients with neurological disorders or mental health conditions. The Neuroscience Institute (NSI) will be developed as a collaboration of Southern Illinois University (SIU) School of Medicine's physician practice organization, SIU HealthCare (SIUHC), and Memorial Medical Center (MMC), a principal affiliated teaching hospital of the medical school in Springfield.

Background

Southern Illinois University Carbondale (SIUC or the University) requests approval to establish the Neuroscience Institute within the SIU School of Medicine (SIUSOM). The NSI will coordinate the patient care services of the School's existing Department of Neurology, Department of Psychiatry/Division of Adult Psychiatry, and Department of Surgery/Division of Neurosurgery with MMC's neuroscience-related outpatient and inpatient services and facilities. The Institute's physicians, health care staff, and other professionals will provide advanced, coordinated treatment to patients throughout central and southern Illinois who suffer from complex and debilitating neurological or mental disorders. While the Institute's focus is primarily patient care oriented, the NSI will provide opportunities and resources for neuroscience-related research, medical and community education, and community outreach. As an institute based in an academic medical center, the NSI will advance the translation of new and emerging basic research and the application of new medical products and technologies into improved patient care.

Need

1050.30(a)(6): A) The unit of instruction, research or public service is educationally and economically justified based on the educational priorities and needs of the citizens of Illinois; B) The unit of instruction, research or public service meets a need that is not currently met by existing institutions and units of instruction, research or public service.

The Neuroscience Institute meets important regional needs for a high-quality, academic medical center-based neurosciences patient care program. Patients, families, and society face significant challenges associated with neurological and mental health disorders. The proposed Institute will address these complex challenges through direct patient care, research, teaching, and community outreach.

Neurological disorders are prevalent in the United States and in Illinois and are increasing as the population ages. These disorders tend to be chronic, life-long illnesses which are often debilitating, a fact that contributes to their adverse impact on patients and others. For example, projected cases of Alzheimer's disease in Illinois numbered 210,000 in 2010; this number is expected to increase to 240,000 by 2015. In 2011, over 1.3 million Illinoisans suffered from mental illness and nearly 300,000 reported serious functional impairment related to mental disorders. Mental disorders account for one-quarter of the years of life lost to disability and premature mortality in the United States. Mental health is highly correlated with physical health; mental illnesses impact the individual's ability to maintain good physical health and poor physical condition exacerbates mental disorders. Mental disorders are among the most expensive of all health problems when both the costs of treatment and lost productivity due to these diseases are considered.

The burdens presented by neurological and mental health disorders have prompted investments in neuroscience-related research, innovations in patient care, and increasing reliance on physician specialists trained in the neurosciences. These investments have resulted in technological advances that support new discoveries about ways to manage and possibly cure these devastating conditions. These conditions also necessitate the leadership of physician specialists in the clinical service of patients with neurological or mental health issues as these specialists provide the best quality of care for these patients leading to better prognoses, lower mortality, and lower care costs. By organizing neuroscience physician specialists in an academic medical center, as is proposed in the Neuroscience Institute, the advantages to patient care arising from academic medicine are amplified. Physicians who practice in academic medical centers provide the most specialized services for complex diseases and injuries, offering unique care not available elsewhere in the region. These specialists also consult with community physicians in treatment of their patients, thus improving patient care beyond their own patient practice. Specialists teach the next generations of physicians through undergraduate and graduate medical education programs, educate practicing physicians through continuing medical education, and inform patients and others in the community through community education programs. They quickly adopt and apply new understandings to patient care from research and new medical technologies arising from research and development. Academic medical centers bring together physician specialists, nurses and other patient care professionals, research faculty, and other experts in the provision of advanced patient care. The complex, chronic, and debilitating aspects of most neurological and mental health illnesses argues for academically based, multispecialty neuroscience physician practices where possible.

The Illinois Public Agenda for College and Career Success

The NSI advances the *Illinois Public Agenda* goals for economic growth and workforce development. Economic growth is supported through this program's ability to address patient needs related to neurological and mental health disorders in the region. This provides an important professional service, one that is in demand in the local area. The Institute will also provide learning opportunities for medical students, physician assistant students, graduate science students, and clinical residents and fellows as pertains to the neurosciences. This improves the State's workforce of these important professionals while enhancing the relevance of the medical school's educational programs.

Comparable Institutes and Centers in Illinois

The Neuroscience Institute would be the first institute serving Sangamon, Christian, Macon, and Macoupin counties in central Illinois. Other neuroscience centers in Illinois include patient care centers in Peoria, Elk Grove Village, Elgin, and the greater Chicago area, all of which represent a non-integrated model. Other centers with academic affiliations focus only on research. The proposed Neuroscience Institute combines an integrated approach to both patient care and research.

Mission and Objectives

1050.30(a)(1): A) The objectives of the unit of instruction, research or public service are consistent with the mission of the college or university; B) The objectives of the unit of instruction, research or public service are consistent with what the unit title implies.

The Neuroscience Institute supports priorities of the University, the School of Medicine, and the State of Illinois. SIU Carbondale's focus statement notes that the university "strives to meet the health care needs of central and southern Illinois through appropriate health-related programs (and) services... and develops partnerships with communities (and) businesses." The NSI addresses both of these focus elements by providing community-based patient care services in the region. Each department comprising the NSI is engaged in research funded through a variety of entities including pharmaceutical companies,

non-profit organizations, and the National Institutes of Health. The research agenda will continue to be a focus of the NSI. In addition, the NSI will continue significant community outreach work already underway in the region. Examples include the Center for Alzheimer's Disease and Related Disorders (CADRD), which provides an annual conference for the general public, as well as over 400 educational events designed to support patients, caregivers, and families in dealing with memory loss, Parkinson's disease, and dementia; regional consultation through televideo to support urgent care and transfer of patients from community hospitals in central and southern Illinois; and the Community Support Network psychosocial rehabilitation program to assist individuals with severe mental illness in regaining independence and quality of life in the community.

Assessment of Institute Outcomes

As with other SIUSOM programs, the Neuroscience Institute will be reviewed in the University's formal program review process. The NSI will complete a progress report focusing on its successes and challenges at the end of its third year of operation. Later, as with other centers and institutes, the NSI will receive a full program review no less frequently than every eight years. Full program reviews begin with a detailed program self-study prepared by the program's faculty and chair. This self-study includes information on and assessments of the relevance of the program's mission, goals, and objectives in support of the priorities of the University and the State as well as of the program's effectiveness and resource use. The self-study includes reports of the program's performance since the last review; activity on education, research, and patient care services; future planning statements; and other information. Internal and external review teams will consider the institute's self-study and conduct interviews with faculty, staff, administrators, and other stakeholders. The review teams will assess the NSI's strengths and weaknesses as well as recommend improvements. The Institute director and faculty will consider the review team reports and identify the most promising improvement ideas. The medical school dean and provost will review all recommendations and improvement ideas, and approve them before they are implemented. The recommendations will be implemented in the School's planning, budgeting, and management processes; progress will be monitored.

The NSI's program will also be continuously assessed in both the School of Medicine's strategic management processes and in the operational and oversight processes established by the medical school and the affiliated hospital. The medical school's strategic plan calls for creation of the NSI; tasks for establishing the institute are part of the plan and progress in achieving them will be monitored. As a collaborative program of SIU HealthCare and Memorial Medical Center, these organizations will establish oversight and operations committees to set directions, review results, and manage operations. These are standard practices of the School of Medicine and its affiliated teaching hospitals.

Facilities (space, equipment, instructional materials)

1050.30(a)(4): A) Facilities, equipment and instructional resources (e.g., laboratory supplies and equipment, instructional materials, computational equipment) necessary to support high quality academic work in the unit of instruction, research or public service are available and maintained; B) Clinical sites necessary to meet the objectives of the unit of instruction, research or public service; C) Library holdings and acquisitions, owned or contracted for by the institution, that are necessary to support high quality instruction and scholarship in the unit of instruction, research and public service, are conveniently available and accessible, and can be maintained.

The Neuroscience Institute will be housed entirely within the SIU School of Medicine, managed and staffed by SIUSOM employees and faculty, and operated by SIU HealthCare in affiliation with Memorial Medical Center.

Faculty and Staff

1050.30(a)(3): A) The academic preparation and experience of faculty and staff ensure that the objectives of the unit of instruction, research or public service are met.

The Neuroscience Institute will be led by the Dean and Provost of the SIU School of Medicine and the Executive Associate Dean/Chief Executive Officer of SIU HealthCare. The Institute is an extension of the public service mission of the three existing medical school departments (Neurology, Psychiatry, and Surgery). Faculty members will be cross-appointed in their academic department and in the NSI. These faculty members will teach in their department's educational programs, including those for undergraduate medical students and clinical residents and fellows. The faculty members will continue their research and scholarship activities with colleagues in their departments. Once the NSI is established, the faculty physicians and other health care providers will begin serving patients through the new institute. Faculty counts are estimated at 23.4 full-time equivalents (FTE) in the base year (Year One); this is projected to increase to 35.8 FTE in Year Four.

Fiscal and Personnel Resources

1050.30(a)(5): A) The financial commitments to support the unit of instruction, research or public service are sufficient to ensure that the faculty and staff and support services necessary to offer the unit of instruction, research or public service can be acquired and maintained; B) Projections of revenues necessary to support the unit of instruction, research or public service are based upon supportable estimates of state appropriations, local tax support, student tuition and fees, private gifts, and/or governmental grants and contracts.

Funding, staffing, space, and equipment for the NSI will come from SIU School of Medicine, SIU HealthCare, and Memorial Medical Center. No new State or University funds are requested in this proposal. Operating costs of the Neuroscience Institute will be funded from patient revenue, hospital academic support, and continuance of existing departmental budgets. Capital investment for additional space and equipment will be funded by a combination of growth in clinical and hospital revenue.

Accreditation and Licensure

1050.30(b)(3): Appropriate steps shall be taken to assure that professional accreditation needed for licensure or entry into a profession as specified in the objectives of the unit of instruction is maintained or will be granted in a reasonable period of time.

1050.50(a)(1) : Three years after approval of a new program, the institution shall provide a program progress report to the Board as part of the institution's annual report. The third year progress report shall describe the institution's performance in meeting program objectives and show where any improvements are necessary. The placement of a program in voluntary temporary suspension will not negate the requirement of submitting a third year progress report.

1050.50(a)(2)(C): Requirement for Programs in which State Licensure is Required for Employment in the Field: In the case of a program in which State licensure is required for employment in the field, a program can be found to be in good standing if the institution is able to provide evidence that program graduates are eligible to take the appropriate licensure examination and pass rates are maintained as specified in the objectives of the unit of instruction. If there is no such evidence, the institution shall report the program as flagged for review.

The University is accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools. The SIU School of Medicine is accredited by the Liaison Committee on Medical Education. The Neurology Department operates a residency program in neurology accredited by the Accreditation Council for Graduate Medical Education (ACGME). The Department of Psychiatry supports an ACGME-accredited residency in psychiatry with 12 general psychiatry and nine medical/psychiatry positions as well as an ACGME-accredited fellowship in child psychiatry with four child psychiatry fellows. The Neurosurgery division began an ACGME-accredited residency in neurosurgery in July 2014. MMC has a Primary Stroke Center accredited by the Joint Committee on the Accreditation of Healthcare Organizations (JCAHO).

Program Information

1050.30(b)(2)(A): The information the institution provides for students and the public...(B) The information listed in subsection (b)(2)(A) shall be available to prospective students prior to enrollment and shall be included in the institution's catalog of programs.

Information about the Neuroscience Institute including a description of the mission and objectives, structure and leadership, and patient care, research, and community outreach activities, will be available on the SIUSOM website.

Staff Conclusion. The staff concludes that the Neuroscience Institute proposed by Southern Illinois University Carbondale meets the criteria to implement the Board of Higher Education Act (110 ILCS 205/et.seq.) as set forth in the Board of Higher Education administrative rules (23 Ill. Adm. Code 1050.30), and the Illinois Board of Higher Education policies pertaining to assessment and accreditation for licensure.

University of Illinois at Urbana-Champaign

Proposed Program Title in the Region of Authorization: Master of Engineering in Mechanical Engineering in the Prairie Region.

Projected Enrollment: The University of Illinois at Urbana-Champaign projects that the proposed program will be capped at an annual enrollment of 30 students per cohort.

Background

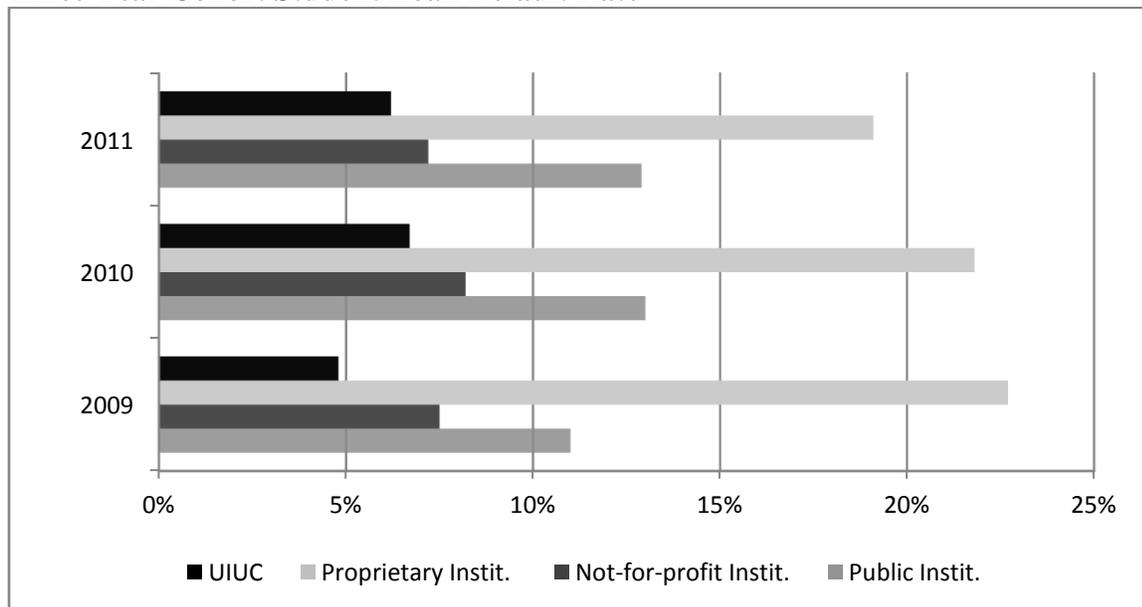
The University of Illinois at Urbana-Champaign (the University) requests authority to offer a Master of Engineering in Mechanical Engineering (MEngME). The MEngME program is designed to offer students an accelerated, industry-oriented graduate degree. The MEngME provides more in-depth technical knowledge than a traditional Master of Science in Mechanical Engineering in a format that can be completed in one year. The curriculum will allow students to focus their coursework in areas that are most relevant to their professional career interests.

Institutional Data

1050.30(b)(1)(G) provides that success in student progression and graduation, and success rates in programs preparing students for certification and licensure, shall be consistent with expectations in higher education and the appropriate related field of study. At a minimum, the Board shall consider the following factors, based on results for similar institutions: (i) Graduation rates, degree completion rates, retention rates, and pass rates for licensure and certification. (ii) Success rate, which shall be, at a minimum, higher than that of the lowest quartile of these measures for similar Illinois institutions defined as open versus competitive enrollment institutions and primarily associate versus primarily baccalaureate granting institutions. Exceptions may be made to the lowest quartile if an institution is above the national average for these measures using the same comparison categories of institutions.

This section includes information about institutional and student success measures for each institution seeking program approval. The institution's rates will be compared to Illinois institutions from within a select comparison group and against the national standards or averages. For a proposed undergraduate program, this section will include undergraduate graduation rates, first to second year retention rates, student loan default rates, and any applicable licensure passage rates. For a proposed graduate program, this section will primarily focus on student loan default data since this measure also includes graduate students in the calculation.

Three Year Cohort Student Loan Default Rate



Source: National Center for Education Statistics (NCES), US Department of Education
Note: University of Illinois Urbana-Champaign is a Public Institution.
A lower number is a positive indicator.

The three-year student loan default rate for the University of Illinois at Urbana-Champaign was 6.2 percent in 2011, 6.7 percent in 2010 and 4.8 percent in 2009. The 3-year cohort student loan default rate is the percentage of a school’s borrowers who enter repayment on the Federal Family Education Loan (FFEL) Program or William D. Ford Federal Direct Loan (Direct Loan) Program loans during a particular federal fiscal year, October 1 to September 30, and default or meet other specified conditions prior to the end of the second following fiscal year. The US Department of Education stated that the Fiscal Year 2011 three-year national cohort default rate was 13.7 percent. The Fiscal Year 2011 three-year national cohort average default rate breakdown by institutional sector is: 12.9 percent for public institutions; 7.2 percent for not-for-profit institutions; and 19.1 percent for for-profit institutions.

Undergraduate-related data fields are not provided because the University proposes to offer a new graduate program.

Need

1050.30(a)(6): A) The unit of instruction, research or public service is educationally and economically justified based on the educational priorities and needs of the citizens of Illinois; B) The unit of instruction, research or public service meets a need that is not currently met by existing institutions and units of instruction, research or public service.

The University cited four national peer institutions with similar programs: Massachusetts Institute of Technology (MIT), Stanford University, Georgia Institute of Technology (Georgia Tech), and Cornell University. The MEngME is intended to appeal to industry-bound students who will benefit from the advanced technical training but do not plan to launch a research-focused career. The professional development component of the proposed MEngME program is designed to provide this additional technical breadth to its graduates. According to the Bureau of Labor Statistics (BLS), employment in engineering and digital manufacturing is expected to grow by 7.3 percent from 2012 to 2022. By adding

the MEngME degree, another option will also be available to students for a professionally-oriented degree that does not require a research project or thesis.

The Illinois Public Agenda for College and Career Success

The University indicates that the proposed program will support Goals 1 and 3 of *The Illinois Public Agenda for College and Career Success*. Goal 1 is to *increase educational attainment to match the best performing states*. According to the application, the MEngME will offer a similar degree to the peer competition, including MIT, Cornell University, Georgia Tech, and Stanford University, thus providing an educational attainment matching the best-performing states. The program also supports Goal 3, which is to *increase the number of high-quality post-secondary credentials to meet the demands of the economy and an increasing global society*. The program will provide a new degree option that will appeal to a broader segment of prospective students, those who seek industry employment. This program will increase the number of high-quality postsecondary credentials to meet the demand.

Comparable Programs in Illinois

There are currently no similar programs offered by Illinois public institutions. The University identified one private Illinois institution, the Illinois Institute of Technology (IIT), with a similar program. The IIT program differs significantly as it focuses heavily on the integration of aerospace and mechanical engineering.

Mission and Objectives

1050.30(a)(1): A) The objectives of the unit of instruction, research or public service are consistent with the mission of the college or university; B) The objectives of the unit of instruction, research or public service are consistent with what the unit title implies.

The proposed Masters of Engineering (MEng) in Mechanical Engineering is in alignment with the overall mission of the University. The proposed program is consistent with the purpose, goals, objectives, and mission of the University. The requested degree title reflects the degree program objectives and curriculum.

Curriculum and Assessment

1050.30(b)(1) [applicable only to units of instruction]: A) The caliber and content to the curriculum assure that the objectives of the unit of instruction will be achieved; B) The breadth and depth of the curriculum are consistent with what the title of the unit of instruction implies; C) The admission and graduation requirements for the unit of instruction are consistent with the stated objectives of the unit of instruction; D) Provision is made for guidance and counseling of students, evaluations of student performance, continuous monitoring of progress of students toward their degree objectives and appropriate academic record keeping.

1050.30(a)(2): The design, conduct, and evaluation of the unit of instruction, research or public service are under the direct and continuous control of the sponsoring institution's established processes for academic planning and quality maintenance.

Admission Requirements

Applicants for admission to the Department of Mechanical Science and Engineering must: be a graduate of an institution awarding a baccalaureate degree equivalent to that granted by the University of

Illinois at Urbana-Champaign; be adequately prepared for advanced study as demonstrated by their previous program of study and scholastic record; and be recommended for admission by the Department of Mechanical Science and Engineering. A minimum GPA of 3.25 for the last two years of undergraduate study is required and a 3.50 for any previous graduate work completed. Scores on the Graduate Record Examination (GRE) are required of all applicants. Based upon the previous preparation of the student, prerequisite courses may be specified by the advisor, but the credit may not be applied toward a degree.

Curriculum

The curriculum for the proposed MEng in Mechanical Engineering requires a minimum of 32 credit hours. Students will take coursework 12-20 hours in Mechanical Engineering and Theoretical and Applied Mechanics to strengthen their advanced technical knowledge. Students will also select three to four hours in applied mathematics or computational science requirements and four to eight hours of focused electives with approval by a faculty advisor. In addition to coursework, students must also complete a professional development requirement as the capstone for the program. The professional development component allows a student to choose from several options to allow for the opportunity to focus on one's interest while applying learned principles and cornerstone concepts for a particular industry (e.g., financial, marketing, technological, consulting, etc.).

Assessment of Student Learning

The University has a standard process for assessing student learning outcomes in all its degree programs. Student success in the program will be measured by the stated learning objectives. Student performance and course efficacy will be regularly evaluated by individual instructors and is based on class participation, quizzes, exams, comprehensive performance on project work, and student course evaluations.

Program Assessment

The College of Engineering Dean will review the MEngME degree program annually for the first three years. If major changes are indicated, the Dean will request a formal review by the College of Engineering Executive Committee (the faculty governance committee). The evaluation will include student enrollment, course availability, student placement, shifts in student/faculty ratio, student and faculty assessments, and student degree progress and completion. After the initial implementation period, similar assessments will be made every three years.

Facilities (space, equipment, instructional materials)

1050.30(a)(4): A) Facilities, equipment and instructional resources (e.g., laboratory supplies and equipment, instructional materials, computational equipment) necessary to support the high quality academic work in the unit of instruction, research or public service are available and maintained; B) Clinical sites necessary to meet the objectives of the unit of instruction, research or public service; C) Library holdings and acquisitions, owned or contracted for by the institution, that are necessary to support high quality instruction and scholarship in the unit of instruction, research and public service, are conveniently available and accessible, and can be maintained.

Facilities at the University are sufficient for implementing the proposed Master of Engineering in Mechanical Engineering. The Department of Mechanical Science and Engineering has state-of-the-art facilities and a significant number of faculty members with expertise matched only by a few peer institutions around the world. The main University library is the one of the largest in the country.

Relevant resources include: *The Journal of Heat Transfer, Journal of Dynamic Systems, Measurement and Control*, and *Journal of Biomechanics*. Since the program is built off existing Department of Mechanical Science and Engineering course offerings, the library already effectively supports this department.

Faculty and Staff

1050.30(a)(3): A) The academic preparation and experience of faculty and staff ensure that the objectives of the unit of instruction, research or public service are met; B) The academic preparation and experience of faculty and staff, as evidenced by level of degrees held, professional experience in the field of study and demonstrated knowledge of the field, ensure that they are able to fulfill their academic responsibilities; C) The involvement of faculty in the unit of instruction, research or public service is sufficient to cover the various fields of knowledge encompassed by the unit, to sustain scholarship appropriate to the unit, and to assure curricular continuity and consistency in student evaluation; D) Support personnel, including but not limited to counselors, administrators, clinical supervisors, and technical staff, which are directly assigned to the unit of instruction, research or public service, have the educational background and experience necessary to carry out their assigned responsibilities.

The University lists 14 professors for the proposed program and provided evidence of their scholarly achievements. The University will hire one additional full-time faculty member and a part-time faculty member to support the teaching demands due to the increased enrollments of the mechanical engineering students. The University has identified institutional policies that ensure academic professionals hired possess the training, credentials, and other related qualifications in order to provide instruction at the institution. Faculty teaching in the proposed program will have the appropriate qualifications. A formal faculty evaluation process is in place.

Fiscal and Personnel Resources

1050.30(a)(5): A) The financial commitments to support the unit of instruction, research or public service are sufficient to ensure that the faculty and staff and support services necessary to offer the unit of instruction, research or public service can be acquired and maintained; B) Projections of revenues necessary to support the unit of instruction, research or public service are based on supportable estimates of state appropriations, local tax support, student tuition and fees, private gifts, and/or governmental grants and contracts.

No new State resources will be needed to establish the Master of Engineering in Mechanical Engineering. Program costs will be offset by tuition revenues. Existing faculty, facilities, and financial resources will be sufficient for running the program.

Accreditation and Licensure

1050.30(b)(3) [applicable only to units of instruction]: Appropriate steps have been taken to assure that professional accreditation needed for licensure or entry into a profession as specified in the objectives of the unit of instruction is maintained or will be granted in a reasonable period of time. Reporting Requirement (Board Policy, April 2002): Programs in which state licensure requires specialized accreditation for students to obtain professional licensure, but which have not yet achieved accreditation, will undergo full review and report to IBHE every three years until accreditation is achieved.

The proposed program does not require specialized accreditation or licensure.

Program Information

1050.30(b)(2) [applicable only to units of instruction]: The information which the institution provides for students and the public accurately describes the unit of instruction, including its objectives, length, residency requirements if any, schedule of tuition, fees, and all other charges and expenses necessary for completion of the unit of instruction, cancellation and refund policies, student rights and responsibilities, and such other material facts concerning the institution and the unit of instruction as are likely to affect the decision of the student to enroll. Such information shall be available to prospective students prior to enrollment.

Information about the University of Illinois at Urbana-Champaign's Master of Engineering in Mechanical Engineering, including a detailed description of the curriculum, admission requirements, tuition, fees, and other cost information, as well as University policies, will be published on the University's website. Comparable information about the program will be published in the University's catalog.

Staff Conclusion

The staff concludes that the Master of Engineering in Mechanical Engineering program proposed by the University of Illinois at Urbana-Champaign meets the criteria to implement the Board of Higher Education Act (110 ILCS 205/et.seq.) as set forth in 23 Illinois Administrative Code, Ch. II, Section 1050.30, and the Illinois Board of Higher Education policies pertaining to assessment and accreditation or licensure.