

**APPROVED
DECEMBER 10,
2013**

Item #IV-11
December 10, 2013

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

Submitted for: Action.

Summary: This item requests approval of two degree programs, one department and one school at two public universities.

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

Northern Illinois University

- Department of Public Administration in the Fox Valley Region
- School of Public and Global Affairs in the Fox Valley Region

University of Illinois at Urbana-Champaign

- Master of Engineering in Materials Engineering in the Prairie Region
- Master of Engineering in Engineering with a concentration in Energy Systems 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, address 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.

Northern Illinois University

Proposed Program Title in Region of Authorization: Department of Public Administration in the Fox Valley Region

Proposed Program Title in Region of Authorization: School of Public and Global Affairs in the Fox Valley Region

Projected Enrollments and Degrees: These proposals are for two administrative units, a school and an academic department, not a degree program. As such, projections of student enrollment and degrees awarded are not directly relevant to the proposals.

Background

Northern Illinois University (NIU or the University) requests authority to establish the School of Public and Global Affairs within the College of Liberal Arts and Sciences, and to establish the Department of Public Administration in the Fox Valley Region. This summary is for the two proposals because they are closely related with overlapping mission and goals, and the Department will be among the academic units the School will oversee.

The School of Public and Global Affairs' mission and goals are to address the interdisciplinary nature of governance problems and issues with an emphasis on public, private, and nonprofit collaborative relationships that seek to improve communities and individuals in northern Illinois, the state, and the nation. The School will oversee the Center for Non-Governmental Organization Leadership and Development, Department of Political Science, and the Division of Public Administration. If the School is approved, it will replace the Division of Public Administration. Program elements of the School may include, among others, civic engagement, civil society, global studies, leadership and development of nongovernmental

organizations, political science, public administration, and other related areas of scholarly inquiry.

The Division of Public Administration is currently a component of the Department of Political Science within the College of Liberal Arts and Sciences. Its approval by the Illinois Board of Higher Education (IBHE) will make it independent of the Department of Political Science where it has been semi-autonomous since 1979. The Division will continue to collaborate with the Department of Political Science in a number of undergraduate curricula mutually beneficial to both entities. The primary mission of the proposed Department of Public Administration is to advance excellence in professional public management of the degree program in public administration through scholarship in teaching, research, and service. In addition, the Department will play a key role in the current plan to develop an interdisciplinary Ph.D. in Public Affairs.

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 need and justifications for establishing the proposed School of Public and Global Studies include:

- The interdisciplinary mission of the School which will serve as an umbrella for several innovative programs and services and will leverage existing programs in new ways to provide increased value to northern Illinois and the state and their communities.
- Administering public affairs and related programs such as nonprofit programs by a school of public affairs is a best practice in 2013, and it has been a dominant practice in public affairs/public administration for more than a decade. For example, a school of public affairs/administration is operated by the following institutions: the University of Central Florida, Baruch College, the University of Florida, Syracuse University, Northwestern University, the University of Minnesota, and at seven other Midwestern universities. Similarly, the University of Illinois at Springfield has a College of Public Affairs and Administration, and the University of Illinois at Chicago has a College of Urban Planning and Public Affairs.
- If approved, the School will oversee the existing Center for Non-Governmental Organization Leadership and Development, the B.A. and B.S. in Community Leadership and Civic Engagement, the B.A., B.S., M.A. and Ph.D. in Political Science, and the Master of Public Administration.

Among the rationale the University presented for establishing the proposed Department: the Division's offerings in city management and urban policy ranked number five, and its public budgeting and finance was ranked number 12 nationally in 2012, according to *U.S. News & World Report*. The employment placement rates of graduates in the Public Administration program ranged from 96 to 100 percent in 2007 through 2009. The proposed Department and its faculty will complete a proposal for the development of a new interdisciplinary Ph.D. in Public Affairs in the near future. Approval of the proposed Department will make it function more effectively and efficiently than the current structure permits.

The Illinois Public Agenda for College and Career Success

NIU's proposed School of Public and Global Affairs and the Department of Public Administration will address Goals 3 and 4 of *The Illinois Public Agenda*. Goal 3 is to "increase the number of high-quality postsecondary credentials to meet the demands of the economy and an increasingly global society." This will be addressed by the School by overseeing its academic departments' (Department of Public Administration, the Department of Political Science, and the Center for Non-Governmental Organizational Leadership and Development) responsibilities for the recruitment, education, and graduation of students with high quality credentials to meet the state and nation's needs for bachelor's and graduate degrees.

Goal 4 is to "better integrate Illinois' educational, research, and innovation assets to meet economic needs of the state and its regions." This will be addressed by the School through the research and service outcomes of its graduate degree programs and the outcomes of the Center for Non-Governmental Organizational Leadership and Development. The Center works with over 150 non-governmental organizations in the University's region and the Chicago metropolitan area.

Comparable Institutes and Centers in Illinois

Currently, there are only three schools or colleges of public affairs/administration in Illinois. They are at the University of Illinois at Chicago, the University of Illinois at Springfield, and Northwestern University.

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 mission of the School of Public and Global Affairs is to foster and support collaboration through its programmatic and administrative units to address public affairs challenges with interdisciplinary curricula, scholarship and research, training, and public service for local, state, and national constituencies. The mission and objectives of the School are consistent with the mission and priorities of NIU. Specific objectives of the School include: developing and managing interdisciplinary undergraduate and graduate curricula, research and public service related to the degree programs offered by the College; promoting engaged learning of its students in public and global affairs, including community engagement opportunities, internships, study abroad, and semester away experiences; and developing, managing, and sponsoring interdisciplinary working groups of faculty, staff, and students to work with NIU communities.

The proposed Department of Public Administration has four primary objectives that are consonant with the University's strategic plan. Examples of the objectives are:

- To preserve and strengthen the national reputation of NIU by maintaining the Master of Public Administration national ranking and market visibility and enabling it to attract more and higher quality graduate students.
- To enhance the interdisciplinary academic program and activities in the proposed School of Public and Global Affairs by supporting multidisciplinary research that complements individual scholarly and artistic achievements.

- To work with departmental faculty to complete developing and submitting to IBHE a new proposal for a Ph.D. in Public Affairs in the near future.

Curricula and Assessment

The Department of Public Administration will administer the Master of Public Administration and it will strive to complete and submit to IBHE a proposal for a new Doctor of Philosophy in Public Affairs. The Department will be involved in interdisciplinary curricular offerings with other academic units, including the Department of Political Science at NIU.

The School of Public and Global Affairs will oversee degree programs administered by the proposed Department and the Department of Political Science and the Center for Non-Governmental Organization Leadership and Development. The School will work with the proposed Department to complete development and submission of a proposal for a new Ph.D. in Public Affairs.

Assessment of the Center Outcomes

The proposed School of Public and Global Affairs and the Department of Public Administration will participate in the University's eight-year program review process for their degree programs and centers with the leadership of the School's Directorate consisting of representatives from its constituent units and periodic reviews of administrative units. For example, the M.P.A. has recently completed its regular program review and submitted evidence of the program meeting review goals such as maintaining quality of faculty, staff, and reward system. It submitted an annual report on student learning outcomes. The School and each of its academic departments will be subject to NIU's annual assessment process which includes specific performance measures relevant to each unit and demonstration of student learning outcomes, among others.

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.

Current departmental and school facilities and equipment – including classrooms, faculty and staff offices as well as their teaching, research, and service mission supplemented with the resources of the College of Liberal Arts and Sciences and the University – are sufficient to continue to meet the needs of the two departments, the Center and the proposed School. No new state resources are needed to implement the proposed Department and School.

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 proposed Department of Public Administration will have a total of eight and one-half faculty members. All of them hold graduate faculty status, and all of them have tenure and tenure track-faculty appointments. These faculty members will be responsible for the M.P.A. program and related certificate programs. At the same time, the proposed School of Public and Global Affairs has a total of 37 faculty members, including 36 graduate faculty members; and all of them are on tenure or hold tenure-track faculty appointments. According to NIU, these faculty members are sufficient in number and qualifications to support the proposed Department and the School, including degree programs currently offered in the proposed Department and the School. Should there be a need for additional faculty members, the Department, the School, or the College of Liberal Arts and Sciences will address the need.

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.

No new state resources are needed to establish the proposed Department of Public Administration and the School of Public and Global Affairs. Additional funds will be needed to compensate a new Program Coordinator in the Department who will be responsible for outreach programs. It is expected these monies will be reallocated from existing resources within the Department. The budget of the Department is projected to total approximately \$936,000 each year from the first year to the fifth year.

The budget of each academic unit in the School is separate and independent from the budget of the School. NIU estimates that when the School is established, its budget will increase by approximately \$36,000 in the first year and then grow to \$61,000 in the fourth and fifth years of operation to meet the cost of other personnel expenditures. The additional funds to pay for an anticipated new position will come from reallocated resources in the School or the College of Liberal Arts and Sciences.

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.

NIU's master degree in Public Administration is currently accredited by the National Association of Schools of Public Affairs and Administration. No specialized accreditation is required for other degree programs currently offered in the proposed School, including bachelor's and graduate programs in political science. The University is accredited by the Higher Learning Commission (HLC) of the North Central Association of Schools and Colleges. HLC accreditation covers all degree programs offered by the University. The state does not currently require any certification in degree programs in public administration or political science.

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 NIU's proposed Department of Public Administration and the School of Public and Global Affairs, including summary descriptions of the mission and objectives, structure and leadership, and assessment activities, will be published on the University's website, www.niu.edu. Comparable information about the Department and School will be published in the University's catalogs and similar information about them will be available from the College of Liberal Arts and Sciences upon request.

Staff Conclusion. The staff concludes that the Department of Public Administration and the School of Public and Global Affairs proposed by Northern Illinois University meet 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 Region of Authorization: Master of Engineering in Materials Engineering in the Prairie Region

Proposed Program Title in Region of Authorization: Master of Engineering in Engineering with a concentration in Energy Systems in the Prairie Region

Projected Enrollments and Degrees: The University of Illinois at Urbana-Champaign has projected that enrollment in the proposed Master of Engineering in Engineering with a concentration in Energy Systems will grow from 25 students in the first year to 40 students in the fifth year. Enrollment in the Master of Engineering in Materials Engineering is projected to grow from 25 students in the first year to 40 students in the fifth year.

Background

The University of Illinois at Urbana-Champaign (the University) requests authority to offer a disciplinary Master of Engineering in Materials Engineering (MEME) and an interdisciplinary Master of Engineering with a concentration in Energy Systems (MEES) in the Prairie Region. The Master of Engineering in Materials Engineering will be administered by the

Department of Materials Science and Engineering while the Master of Engineering in Engineering with a concentration in Energy Systems will be administered by the Department of Nuclear, Plasma, and Radiological Engineering in the College of Engineering. Both degree programs are “professional” terminal, non-thesis degrees designed for practicing engineers. As such, they do not lead to doctoral study. Because the two programs have similarities in areas such as equipment and facility, library resources, admission requirements, and they are from the College of Engineering, the applications are summarized together.

The proposed Master of Engineering in Materials Engineering is designed to provide students with the opportunity to broaden their materials knowledge base, improve communication skills, obtain a foundation in business, technology management, and entrepreneurship, and gain practical engineering experience. The major in Engineering with a concentration in Energy Systems is designed to provide students a solid grounding in the fundamentals of one or more energy-related technical areas as well as broaden their exposure to the related economic, social, or political context in which energy systems operate.

Over the years, the University has invested extensively in engineering by offering 15 bachelor’s, 14 master’s, and 14 doctoral degree programs. It has made significant involvement in high level research activities supported largely by external funds from federal foundations and other sources. The University offers programs closely related to the proposed programs, including a Bachelor, Master of Science, and Ph.D. in Materials Science and Engineering, as well as a Bachelor, Master of Science, and a Ph.D. in Nuclear, Plasma, and Radiological Engineering. In 2011, the College of Engineering enrolled 6,188 at the bachelor’s level, 943 at the master’s, and 1,106 at the doctoral levels. The College of Engineering is one of the premier colleges of engineering in the U.S. The proposed programs will benefit from the resources and successes of the degree programs currently offered in the two departments and across the College.

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 College of Engineering has established a long history of academic rigor in science and engineering curricula, and it has produced some of the most innovative and accomplished technical leaders in research in the relevant disciplines. Although the College currently offers several degree programs, new demands continue to emerge in the discipline and the College would like to develop a few selective degree programs that prepare professional engineers beyond the baccalaureate level, such as the two proposed programs to meet documented student and occupational need.

For several years the engineering accrediting bodies have been considering expansion of professional engineering beyond the bachelor’s degree. Similarly, industry employers are looking for engineers who have strong technical backgrounds as well as professional skills in communications, teamwork, and a “big-picture” understanding of project management. If this trend continues, a master’s degree in engineering may soon be a requirement for obtaining a professional engineering status, and students have begun to realize the value and necessity of a professional master’s degree. For these reasons and others, the Council of Graduate Schools, with funding from the Alfred Sloan Foundation, the National Science Foundation, and other foundations, has advocated for and facilitated the establishment of many professional science

master's programs in fields related to science, technology, engineering, and mathematics (STEM) disciplines to address unmet need in the nation.

Employment projections of the Illinois Department of Employment Security indicate that employment for materials engineers and nuclear engineers will remain about the same between 2010 and 2020. However, employment projections of the U.S. Bureau of Labor Statistics for the same period indicate that there will be about 22,300 in 2010 to 24,200 jobs in 2020 or nine percent for materials engineers while projections for nuclear engineers are from 19,100 to 21,100 jobs or ten percent in the same period. The modest growth in employment in the two occupations is one of the reasons for a relatively low number of projected enrollments in the two programs. A comparable, well established program in Engineering in Energy Systems at the University of Illinois at Chicago awards between 20 and 25 degrees per year. However, in general, employment outlook for occupations related to STEM fields tends to be higher than the average for all state and national occupations because of the growing importance of STEM fields in economic development and national security.

The Illinois Public Agenda for College and Career Success

The University's proposed MEME and MEES degrees will address Goal 3 of *The Illinois Public Agenda*. Goal 3 is "to increase the number of high-quality postsecondary credentials to meet the demands of the economy and an increasingly global society." The goal will be addressed by educating and graduating students in the two engineering disciplines and contribute to increasing high quality higher education credentials to meet the workforce and economic development needs of graduates in STEM disciplines.

Comparable Programs in Illinois

Only four degree programs similar to these proposed programs are currently offered in Illinois; none are identical to the proposed programs. The University of Illinois at Chicago (UIC) offers an online Master of Engineering with seven areas of specializations, including bio-informatics, Chemical Engineering, Disaster Management, Electromagnetics, and Energy Resources. UIC has recently started a Master of Energy Engineering for evening students. In addition, the Illinois Institute of Technology offers two programs: the Master of Engineering with specializations for professional engineers, and the Master of Engineering in Materials Science and Engineering with specializations in Mechanical and Aerospace Engineering, and Manufacturing.

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 two proposed majors in engineering are grounded in the following learning objectives. Upon completion of their respective programs, students will have:

- A comprehensive understanding and ability to apply knowledge of the mathematics, sciences, and engineering principles related to materials engineering or energy systems and the means to employ them in advanced engineering practice.
- The ability to design and implement engineering solutions and to assess and evaluate their design and implementation according to specific project goals and objectives.

- An in-depth understanding of professional and ethical responsibility of engineers.
- A knowledge of contemporary issues in the context of designing or implementing solutions to engineering problems and a thorough understanding of the impact of an engineering solution in global, economic, environmental, and societal contexts.
- An understanding of the need for and ability to engage in life-long learning.

In addition, the Master of Engineering in Materials Engineering will provide students with the opportunity to broaden their materials knowledge base, improve communication skills, obtain a foundation in business, technology management, and entrepreneurship, and gain practical engineering practice through internship. The Master of Engineering in Engineering with a concentration in Energy Systems will provide an interdisciplinary curriculum in engineering that meets the need for expertise in emerging technical areas which require multi-department collaboration to address each student's selected area of concentration in energy systems or another specialty in engineering.

The goals and objectives of each program are consistent with the University and the College of Engineering mission and priorities.

Curriculum and Assessment

1050.30(b)(1): A) The caliber and content of the curriculum must assure that the objectives of the unit of instruction will be achieved. B) The breadth and depth of the curriculum must be consistent with what the title of the unit of instruction implies. C) The admission and graduation requirements for the unit of instruction must be consistent with the stated objectives of the unit of instruction. D) Institutions must show the capacity to develop, deliver and support academic programs. Procedures and policies that will assure the effective design, conduct and evaluation of the degree program under the academic control of the institution must be developed. Assessment plans must demonstrate that the institution has identified clear and appropriate program and student learning goals and has defined appropriate outcomes. Appropriate data must be collected and may be requested by the Board to show the level of student learning that has occurred as a result of participation in the institution's programs of study. E) Degree programs must meet [appropriate] requirements.

Admission Requirements

An applicant to the Master of Engineering in Engineering with a concentration in Energy Systems must hold a bachelor's or master's degree in engineering with a grade point average of 3.00 on a scale of 4.00 in the last two years of undergraduate or graduate study. An applicant for the Master of Engineering in Materials Engineering must have earned a B.S. in Materials Science and Engineering or a closely related field and have had an appropriate internship prior to enrollment in the program. A student whose native language is not English must submit a TOEFL score that meets the College's requirements for the exam or its functional equivalent.

Curricula

Although some aspects of these non-thesis programs are the same or similar, the curricula of the two programs differ.

The curriculum of the MEME consists of 32 to 36 semester hours including two required core courses in Materials Colloquium and Materials Engineering Practicum comprising of four to six credit hours. Elective courses constituting at least ten credits should be courses in the College

of Engineering covering areas such as business, management, technology, and entrepreneurship from an approved list of courses. This program will be administered by the Department of Materials Science and Engineering with assistance from the Director of Graduate Studies and two co-directors, as well as the Graduate Admission Officer.

The curriculum of the MEES consists of 32 to 36 semester hours including four required core courses comprising 12 credit hours. The required core courses are: Seminar: Energy & Sustainable Energy, Theory: Energy and Sustainable Energy Systems Practicum, and Energy Systems Project. Elective courses to be taken for this program will be approved by the student's advisor. At least 12 hours for the degree should come from courses at the 500 level. It is expected that additional concentrations will be added to the program over time as needed and supported by adequate resources, including faculty members. This program will be administered by the Department of Nuclear, Plasma, and Radiological Engineering with assistance from the Program Director and a subset of the Executive Committee for Energy and Sustainability Engineering.

A student in each degree program must complete an approved internship with a company, laboratory, or agency with a subsequent archivable report; a design project; or a set of business-oriented or leadership courses. A graduate faculty member assigned to each student will ensure that the internship meets the standards for University graduate credits. In addition, all students are expected to produce written and archivable reports toward the end of their study. The reports should contain scholarly content of the related theory and practice in the discipline or the area of emphasis. The quality of the reports should be comparable to that of a master's thesis, and will be approved by a graduate faculty member.

Assessment of Student Learning Outcomes

Assessment of student learning outcomes in the proposed degree programs will focus on the programs' student learning objectives and use tests, exams, evaluation of project reports and/or class participation for qualified students to achieve and maintain an overall minimum grade point average of 3.0. Evaluation reports from site supervisors of student internships will be a part of the assessment of student learning outcomes. Graduate faculty will expect students to complete and submit reports at the quality expected of graduate student work and proportional to the number of credits in the courses completed. In addition, the assessment results of student learning outcomes will be reviewed in the University's annual program reviews which are required of all master degree programs in engineering in the College. Student progress to degree completion and placement data will be included in the program review of each degree program.

Program Assessment

Consistent with the Illinois Board of Higher Education (IBHE) staff requirements, the University will submit progress reports on the Master of Engineering in Engineering with a concentration in Energy Systems and the Master of Engineering in Materials Engineering at the end of the third year of operation. The reports will summarize key areas of accomplishments by the faculty and any remaining challenges and how each challenge will be addressed. In addition, the program faculty and the staff of the Dean and the Provost will participate in the University's eight-year program review process to assess each program using multiple measures including evaluation of faculty teaching in the program by students; the level of faculty research, scholarship and public service, awards and honors; retention and graduation rate of students in the program; and the level of alumni and employer satisfaction with the program. The faculty will use measures such as the percent of graduates of each program employed in occupations closely

related to the discipline. A summary of the program review for each program, including the program's strengths and weaknesses, as well as steps to be taken to improve the program, will be submitted by the University to the IBHE with summaries of other programs reviewed in the same cycle.

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.

Currently, the University offers bachelor's, master's, and doctoral programs in both Materials Engineering and Nuclear, Plasma, and Radiological Engineering, and in nearly a dozen other engineering fields. As such, sufficient facilities; equipment; instructional technology; and library resources, including textbooks, journals and databases, and other resources, are available to support the proposed programs. The Department of Nuclear, Plasma, and Radiological Engineering and the Department of Materials Science and Engineering or the College of Engineering will be prepared to address any future needs of each program over time with the assistance of the College of Engineering Executive Committee, the faculty governance committee for the College.

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 Department of Nuclear, Plasma, and Radiological Engineering and the Department of Materials Science and Engineering, and other collaborating departments in the College of Engineering will have a significant number of qualified graduate faculty members to support the proposed new degree programs because the departments currently offer bachelor's, master's, and doctoral programs in the same fields as the proposed programs. However, to be sure there will be sufficient faculty support, the University anticipates assigning three current FTE faculty to the programs in the first year of operation. Another faculty member may be hired in the fifth year if enrollments warrant additional support, for a total estimated cost for faculty salaries of \$342,000 to \$393,000. Existing faculty members who will be responsible for the two degree programs include distinguished faculty members such as a Fellow of the American Vacuum Society, a recipient of the Distinguished Faculty Award for International Achievement, a recipient of the Xerox Award for Faculty Research and a National Science Foundation Career Award, and an MIT Ragon Fellow.

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 are needed to establish the two master's programs because most resources, including, facilities, equipment, and library resources that will support the proposed programs, are already in place and the two departments currently offer baccalaureate through doctoral degree programs closely related to the proposed programs. Should enrollment demand increase sufficiently, one of the departments may increase by one FTE from the current three FTE faculty to four in the fifth year of operation. The budget for the two programs is projected to grow from about \$351,000 in the first year to \$404,000 in the fifth year. Most of these funds will pay for the current faculty members and other personnel that will be designated to the two programs and any new faculty to be hired subsequently.

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 College of Engineering is accredited by the Accreditation Board for Engineering and Technology and the University is accredited by the Higher Learning Commission (HLC) of the North Central Association of Schools and Colleges. HLC accreditation covers all degree programs offered by the institutions it accredits. The state does not currently require any certification in degree programs in engineering.

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 University's MEME and the MEES programs, including a detailed description of the curriculum, admission requirements, tuition, fees and other cost information of each program, as well as university and graduate school policies, will be published on the University's website, www.illinois.edu. Comparable information about the programs will be published in the University's Graduate Catalog, and similar information may be available from the College of Engineering upon request.

Staff Conclusion. The staff concludes that the Master of Engineering in Engineering with a concentration in Energy Systems and the Master of Engineering in Materials Engineering programs proposed by the University of Illinois at Urbana-Champaign meet 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.

The staff recommends adoption of the following resolutions:

The Illinois Board of Higher Education hereby grants to Northern Illinois University authorization to establish the Department of Public Administration and the School of Public and Global Affairs in the Fox Valley Region subject to the institution's implementation and maintenance of the conditions that were presented in its applications and that form the basis upon which these authorizations are granted.

The Illinois Board of Higher Education hereby grants to the University of Illinois at Urbana-Champaign authorization to establish the Master of Engineering in Materials Engineering and the Master of Engineering in Engineering with a concentration in Energy Systems in the Prairie Region subject to the institution's implementation and maintenance of the conditions that were presented in its applications and that form the basis upon which these authorizations are granted.

