

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

**Submitted for:** Action.

**Summary:** This item requests approval of one degree program and two centers at three public universities.

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

Eastern Illinois University

- Center for Clean Energy Research and Education in the Prairie Region

University of Illinois at Chicago

- Center for Cardiovascular Research in the Chicago Region

University of Illinois at Urbana-Champaign

- Master of Arts in Religion 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.

**Eastern Illinois University**

**Proposed Center Title:** Center for Clean Energy Research and Education in the Prairie Region

*Projected Enrollments:* The enrollment criterion is not applicable to this proposal because this is a proposal for a center, not a degree program. However, if approved, the Center for Clean Energy Research and Education will engage faculty and students to work on its research projects and other activities that are germane to their degree programs and academic units.

**Background**

Eastern Illinois University (the University) requests authority to establish the Center for Clean Energy Research and Education (the Center) to be housed within the existing Renewable Energy Center facility. The mission of the Center is to provide a cost-effective and an efficient means of ensuring that the University will be supplied with a continuous supply of renewable clean energy. In addition, the Center will provide opportunities for faculty and students to excel in scholarship, particularly faculty-mentored research. Research and development of the Center are expected to be crucial to the operation of the University in the future by maintaining a healthy spectrum of renewable biomass supplies to sustain its operation. The proposed Center's first project will be the development of a research-scale biomass gasification reactor in which corn stover and other agricultural by-products will be tested as alternatives or additives to the wood chips that initially will be used to power the campus.

According to the Union of Concerned Scientists, "Most scientists believe there is a wide range of biomass sources that can be produced sustainably and with minimal harm, while reducing the overall impacts and risks of our current energy system." If successfully implemented, the University would be among the first universities to operate a research biomass

gasifier. Also, in his 2008 *Next Step Biofuels: The Next Step for Energy is Biomass*, Russ Zeeck indicated that, “Corn stover – all leaves, cobs, and stalks leftover after the corn is harvested – is America’s most abundant source of sustainable biomass.” The Illinois Environmental Protection Agency supports the University’s initiative and its figures indicate that when fully operational, the Center will reduce the University’s electricity consumption by 6.2 million kilowatt hours and will remove about 20,000 metric tons of carbon dioxide emissions each year. To avoid any disruption of service, a small-scale study will be necessary before pilot testing can be conducted at the Center.

By studying the fuel characteristics of biomass sources such as switch grass, tree debris, and corn stover, students will gain a more integrated understanding of physics, chemistry, engineering, and technology. Additionally, it is expected that their examination of clean energy from cultural, economic, geographic, and social perspectives will enhance their growth as responsible citizens of Illinois and the nation. The Center will not offer courses or degree programs. However, it will serve as a demonstration site or laboratory for the University’s students to study in the planned interdisciplinary minor in Sustainability Studies and/or the concentration in Alternative Energies and Sustainability for majors in Applied Engineering and Technology.

## **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.*

In addition to championing the University’s institution-wide integrative learning initiative and its efforts to reduce costs and use energy responsibly, the Center for Clean Energy Research and Education will support economic development in East Central Illinois by engaging faculty and students in research that may provide area farmers with new markets for agricultural products and by-products, such as corn stover. If successful, the Center’s impact may be felt well beyond Charleston, which is located in Coles County, Illinois. Its research and development agenda will address directly the well documented, national priority for cost-effective, renewable, and clean energy sources integral to the support of human life on the planet. The Center’s work not only will ensure that the University has an economical, uninterrupted supply of energy; but as the National Renewable Energy Laboratory’s *Biomass Research 2010* notes, such research can lead to a cleaner environment, better preservation of natural resources, and more economic opportunities for the communities that produce and use renewable energy.

The significance of the Center and the need for it is supported by the Charleston Area Charitable Foundation, which donated \$56,500 to the University to support the Center. Also, donations in equipment are expected to come from the University’s community partners and manufacturers.

According to Alternative Energy Technology Ltd., in 2002 to 2007, the cost of electricity increased by 70 percent, while the price of gas grew by more than 100 percent, and the cost of heating oil increased by 60 percent. The cost of energy produced through biomass is comparatively much lower than, for example, the cost of oil and coal. Moreover, the sources of biomass are renewable locally and grow in a short time, and energy from biomass contributes little to the global warming problem. To encourage the development of biomass to energy systems, the Illinois Department of Commerce and Economic Opportunity (IDCEO) has a grant program.

The Union of Concerned Scientists has stated that, among other resources, beneficial biomass includes: energy crops that do not compete with food crops for land, portions of crop residues such as wheat straw or corn stover, sustainably-harvested wood and forest residues, and clean municipal and industrial wastes.

### Accomplishments

The Center is not yet established, and so it has no accomplishments at this time. However, it has a lot of promise and potential, such as: the grant to support it awarded by the Charleston Area Charitable Foundation, some of the needed equipment donated by area businesses, and the very long educational and research achievements of the Center's prospective Director, Dr. Peter Ping Liu, who has earned a Bachelor's and a Master's degree in Engineering and a Ph.D. in Mechanical Engineering (Materials/Manufacturing). Included among Dr. Liu's numerous accomplishments are the following: over 40 grant awards from sources such as the National Science Foundation (NSF), the Illinois Department of Energy and Natural Resources (IDENR), the United States Department of Commerce, and the National Oceanic and Atmospheric Administration (NOAA); over 100 published research papers; three published textbooks; and seven patents.

### ***The Illinois Public Agenda for College and Career Success***

The Center for Clean Energy Research and Education will address Goal 1 of *The Illinois Public Agenda for College and Career Success* by increasing quality of educational attainment of students who engage in the Center's faculty-mentored research projects. Also, the Center will address Goal 4 by producing research results that will lead to meeting the workforce and economic needs of the state. The long term goal of the Center is to produce cheaper and renewable clean energy for the University. If successful, it is expected that local communities of the University and others will use the biomass technology to produce their renewable energy.

### **Comparable Institutes and Centers**

Currently, there are three centers related to energy resources, bioenergy, and renewable energy at three public universities: the Energy Resource Center at the University of Illinois at Chicago, the Center for Renewable Energy at Illinois State University, and the Center for Advanced Biotechnology Research at the University of Illinois at Urbana-Champaign. The Illinois Board of Higher Education (IBHE) staff does not currently maintain an inventory of research centers and institutes at Illinois independent institutions.

## **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 Center for Clean Energy Research and Education is designed to provide the University's faculty and students with a research facility that will enable them to conduct hands-on investigations of various plant-based biomass sources that may be suitable as alternatives or additives to the wood chips planned for use by the University.

Specific goals of the Center are to:

- Support faculty research on clean renewable energy;
- Engage students in the study of clean energy as a means to be educated in environmental protection, natural resource preservation, and social responsibility;
- Support the energy needs of the University by identifying biomass sources that will ensure the sustainable operation of the University's Renewable Energy Center; and
- Become a leader in clean energy research and education in the state and nation.

Operationally, the goals of the Center are to build a research-scale biomass gasification reactor, conduct biomass energy demonstrations, explore various biomass sources as potential energy alternatives, establish analytical/testing capability to support research development and quality assurance in the renewable energy Center, systematically develop alternative biomass sources for the Center, and study other clean energy sources.

The mission of the Center is supportive and consistent with the mission of the University.

## **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.*

Assessment of the curriculum is not applicable because this is not a proposal for a degree program. However, the Center will support degree programs and academic units related to energy and renewable energy research and applied research for the benefit of students engaged in faculty-mentored research.

## Assessment of Center Outcomes

Assessment of the outcomes of the Center will be accomplished by:

- Participating in the University's annual progress "maps" that document all units' efforts to support University goals and priorities. The report is reviewed by academic deans and the Provost, and the results are used to inform staffing and budgeting decisions;
- Using the Center's Advisory Board to regularly evaluate the Center's plans and achievements and suggest needed improvements;
- Reviewing the quality of the faculty-mentored research and related publications or presentations at academic/professional meetings and conferences;
- Evaluating the Center's success at securing external grants and contracts to support its research and outreach mission. The type and level of external funding will be one measure of the Center's success in achieving its goals; and
- Preparing and submitting to the IBHE a mandated progress report at the end of the third year of operation and also participating in the University's eight-year program review process.

As is a common practice with the University's new degree programs, the Center will submit a progress report to the IBHE staff at the end of the third year of operation. The report will include a summary of key areas of accomplishments and remaining challenges to be addressed. Additionally, the Center will participate in the University's eight-year program review process using multiple measures to determine its strengths and weaknesses. Key factors that will be used in the assessment will include evaluation of the outcomes of the Center's primary objectives and priorities, including research productivity, publication and related outcomes, and public service in collaboration with existing and new partners. A summary of the review, including the Center's strengths and weaknesses, as well as steps to be taken to improve the Center, 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.*

At this time, Eastern Illinois University, through the Office of the Provost, is responsible for the proposal to establish the proposed Center. When the Center is approved by the IBHE, it will be led by a Director and assisted by the University's Director of Research and Sponsored Programs. The Director will report to the Provost. When the Center is approved, its primary source of funds will be the \$56,500 donated by the Charleston Area Charitable Foundation. There is no need for a new facility to house the Center because the gasifier system will be constructed within the University's existing Renewable Energy Center. University resources, such as the library and laboratories, will support the Center. In addition, the University will seek additional support for funding from federal agencies such as the Department of Energy,

Environmental Protection Agency (EPA), and the NSF, as well as the IDCEO, and private foundations such as John Deere. Already, partnerships are being sought by the University with equipment manufacturers, alternative fuel suppliers, and agricultural processors who may be interested in donating equipment and or providing financial support. These resources indicate that when established, the Center will be adequately supported by the existing resources and the additional resources that will be available in the future.

## **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.*

As indicated above, the Center is to be led by a Director and an Assistant Director and supported by an Advisory Board consisting of qualified faculty and administrators from participating colleges and departments, staff from the Facilities Planning and Management, and industry experts. At this time, more than a dozen faculty members from departments, which include Biological Sciences, Chemistry, Economics, Geology-Geography, Physics, and Technology, have identified research projects focused on the study and uses of biomass. Other academic units may join the Center after it is established.

Once demonstrations of the research-scale gasification reactor begin, with the assistance of the faculty affiliated with the Center, at least 100 students each semester will have the opportunity to learn the fundamentals of the gasification process. Out of these, about ten students will begin conducting research on their own or collaborating with their research mentors. Also, plans are underway to provide demonstrations of the gasifier to students in neighboring schools and community colleges, not only to enable them to understand the nature and benefits of clean energy, but also to ignite their interest in science and technology.

## **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 Center because the Center will be funded by a combination of the donated \$56,500 and reallocated funds from the University's budgetary units. The University has estimated that the Center's total resources will vary from \$47,198 to \$103,000 per year during the first four years, while expenditures will vary from \$47,198 to \$65,000 per year. In addition to these funds, the University expects to get more



external support after the Center is approved, including research grants and contracts from a number of sources such as federal agencies, *e.g.*, the Department of Energy, EPA, and the NSF. Other examples of prospective sources of funding are the IDCEO and private support from businesses in cash or donated equipment from manufacturers. As more funds become available in the future, the budget of the Center will increase accordingly. The IBHE staff will know more about the Center's progress when the University submits a progress report on the Center at the end of the third year and when the program review result on the Center is submitted to the IBHE staff approximately eight years after the Center is approved.

### **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.*

Accreditation and licensure are applicable only to degree programs and certificates, not to centers and institutes.

### **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 Center for Clean Energy Research and Education, including a summary of the objectives, research, and public service activities will be published on the University's website, [www.eiu.edu](http://www.eiu.edu). Information about the Center may be obtained from the Office of the Provost.

**Staff Conclusion.** The staff concludes that the Center for Clean Energy Research and Education proposed by Eastern Illinois University meets the criteria to implement the Board of Higher Education Act (110 ILCS 205) 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.

## **University of Illinois at Chicago**

### **Proposed Center Title:** Center for Cardiovascular Research in the Chicago Region

*Projected Enrollments:* The enrollment criterion is not applicable to this proposal because this is a proposal for a center, not a degree program. However, the Center for Cardiovascular Research will engage faculty and students to work on its research projects and other activities that are germane to their degree programs and academic departments.

## **Background**

The University of Illinois at Chicago (the University) requests authority to establish the Center for Cardiovascular Research (the Center). The Center serves to promote collaborative, multidisciplinary, and state-of-the-art research at the University and affiliated institutions, and in so doing, realizes the application of new discoveries for clinical utility and provides world-class training for the coming generations of basic and clinician scientists. The primary goals of the Center include the following: creating new knowledge that will transform the understanding of cardiovascular science for application to the diagnosis, prevention, and treatment of diseases of the heart and blood vessels; providing basic and clinical science trainees with advanced educational experiences ranging from molecular to clinical levels; impacting the health and quality of life of residents of Chicago and Northern Illinois by enhancing the training of healthcare professionals in cardiovascular disease and in educational programs in conjunction with national efforts such as with the American Heart Association and the Heart Failure Society of America; and providing a point of interaction between the University and its industrial partners.

The Center was initially granted a five-year temporary approval by the Illinois Board of Higher Education's (IBHE) Academic Affairs staff to give the Center an opportunity to explore the feasibility of undertaking research in the cardiovascular and related fields and with the expectation of establishing the Center on a permanent basis. The temporary Center has been very successful. The accomplishments of its researchers include receiving significant external research grants and contracts, authoring numerous peer-reviewed publications, as well as earning notable awards and honors.

The Center is currently under the leadership of a Director who, in this capacity, reports directly to the Dean of the College of Medicine. An internal committee of Program Directors advises the Center Director, who also receives advice from an External Advisory Board of internationally recognized experts in cardiovascular sciences and research. Program Directors head specific areas of excellence, as defined by breadth of study and multiple, extra-murally funded research projects.

## **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.*

Prior to the creation of the temporary Center, there was no concerted effort to coordinate research, education, and clinical care delivery in fields related to cardiovascular research carried out by the many programs and units at the University. The Center has met this need through a team of scientists, educators, and clinicians providing new direction in research and by offering the best healthcare for the population in the region with cardiovascular disease.

A large body of the Center's research, programs, and activities address heart failure, which is mentioned in one out of eight death reports in the United States. The alarming and vital statistics and the tremendous burden on Illinois include the following:

- Cardiovascular disease is the leading cause of death in Illinois, with over 42,000 deaths from the disease;
- Total healthcare costs for heart disease and stroke approach \$4 billion annually; and
- More than 3.6 million adults in the state are categorized as obese, which is one of the leading causes of cardiovascular disease. (American Heart Association, U.S. Centers for Disease Control and Prevention – CDC, Illinois Department of Public Health).

At the national level, it was reported by the American Heart Association that more than 5.5 million Americans suffer from heart failure and 670,000 new cases are diagnosed each year. These statistics underscore the Center's emphasis for studying the basis of obesity, metabolic syndrome, and diabetes in the development of heart disease.

To combat some of the problems associated with heart disease, the Center has and will be active in sponsorship and volunteer activities of the American Heart Association Midwest Affiliate, which is located in Chicago. Its members advocate for and donate their time and resources for fundraising and educational activities in support of patient services, community education on lifestyles and other risk factors associated with heart disease, as well as for student training, and for medical research. Additionally, the Center organizes and sponsors bimonthly seminars for the express purpose of information exchange on the latest scientific and clinical advances in cardiovascular disease mechanisms, prevention, and treatment.

## Accomplishments

The Center has accomplished much during the last several years and has exceeded the expectation of the IBHE staff, which granted the temporary approval. Some of the Center's major accomplishments include: a recently renewed grant totaling about \$12 million from the National Institute of Health to support joint multidisciplinary research; a \$1.2 million grant from the National Institute of Health to support two training programs for 11 pre-doctoral fellows and 11 post-doctoral fellows; discovery of new intracellular mechanisms that cause cardiac dysfunction in heart failure and persistent ischaemic heart disease and early strategies to remedy these maladaptations; translation of basic research to the patient, including human trials, with pharmacological agents and the development of replacements for beta-blockers; the involvement of faculty from nearly every health science college on the University's West Campus, as well as the College of Engineering; over 300 separate, peer-reviewed publications during the temporary approval period; and the establishment of an Internal Advisory Committee consisting of the Center's program directors, and an External Advisory Board consisting of pre-eminent biomedical researchers and faculty of national and international standing in cardiovascular research and closely related fields. Currently, 23 primary, tenure track faculty members serve as committed Center faculty, with an additional number of non-tenure track faculty.

During the temporary approval period, the faculty affiliated with the Center received notable awards and honors, including two major MERIT Awards from the National Heart, Lung, and Blood Institute of the National Institutes of Health (NIH); a Nagano Award of the International Academy of Cardiovascular Sciences; and the Illinois Biotechnology Industry Organization iCON Award; as well as fellowship inductees into the American Heart Association; the International Society for Heart Research; the American Physiological Society, Cardiovascular Section; and the Society for Clinical Investigation.

### ***The Illinois Public Agenda for College and Career Success***

The mission and goals of the Center for Cardiovascular Research address primarily Goal 4 of *The Illinois Public Agenda for College and Career Success*, to better integrate the state's educational, research, and innovation assets to address the state's economic needs. Even during its short life as a temporary Center, it has made tremendous progress toward achieving its goals as summarized in the above section, most notably a renewed \$12 million grant award from the NIH to study heart failure, along with other extramural grant support from the NIH and private foundations, which with other Center activity, has created an estimated 80 jobs. It is expected that if granted permanent approval, the Center will continue to build on its successes and accomplishments.

The Center is significantly involved in the advanced training of pre-doctoral and post-doctoral fellows in cardiovascular and related fields. Additionally, the Center is actively involved in public service activities in collaboration with the American Heart Association and other organizations to promote better lifestyles and the prevention of cardiovascular diseases.

### **Comparable Institutes and Centers**

Currently, there is no center or institute in Illinois with similar scope and magnitude in cardiovascular research. However, it is important to note that the center-based concept for research and training is the pervading model at the leading medical schools in the United States.

### **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 overall mission of the Center is to advance areas of excellence in cardiovascular science at the University through a platform of collaborative, multidisciplinary, and state-of-the-art research, and in so doing, to provide world-class training for the coming generations of basic and clinician scientists in the field. In this manner, the Center enables discovery of fundamental mechanisms of cardiovascular disease to be translated into clinical research and ultimately, clinical utility.

The objectives of the Center are to:

- Promote the growth of scientific discovery and the growth of cardiovascular science and medicine at the University by providing the necessary critical mass of resources and expertise for scientific creativity;
- Provide a development platform that is capable of an integrative approach for studying scientific questions from molecular to clinical levels;

- Work with the College of Medicine to support the development of a new doctoral program in cardiovascular science that would include legal, business, and scientific concepts to better prepare graduates of the program for professional careers inside and outside the academy;
- Expand collaborations in research and education efforts with the medical centers at Loyola University, University of Chicago, Northwestern University, Rush Medical College, as well as the University's Medical College campuses in Peoria and Rockford;
- Provide a coordinated unique educational experience in the cardiovascular sciences for researchers, clinicians, pre-doctoral and post-doctoral trainees, and the larger University community; and
- Promote philanthropy targeted for cardiovascular sciences in conjunction with the University's development officers, as well as provide a point of interaction between the University and its industrial partners.

The mission of the Center is supportive and consistent with the mission of the College of Medicine and the mission of the University.

### **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.*

Assessment of the curriculum is not applicable to this proposal because this is not a proposal for a degree program. However, the Center's faculty currently supports degree programs and academic administrative units related to cardiovascular research through direct training and funding via the Center's grants. For example, the Center is the academic base for two existing NIH training grants for pre-doctoral students and post-doctoral fellows.

### **Assessment of Center Outcomes**

The quality, effectiveness, and impact of the Center will be regularly assessed in multiple ways, such as:

- A quarterly consultation between the Director and the internal advisors and a quarterly consultation with the Dean, Chief Financial Officer, and Senior Associate Dean for Research of the College of Medicine;
- An annual review and written critique from members of the external advisory board;
- The extent to which the excellent record of the Center's recent accomplishments in the publication in peer reviewed media, the winning of notable academic and professional awards and honors, and the securing of external grants is matched or exceeded;

- The amount, number, and diversity of extra-mural funding, which is strongly correlated with quality and indicative of the impact of the Center on the University, jobs, and the economy of the state;
- The participation of Center members and affiliates on national and international panels such as the NIH review panels, editorial boards, symposia chairs, and organizers; and
- The success of the Center's graduate and post-doctoral trainees based on their publications and extra-mural funding, as well as on their professional success.

As is a common practice with the University's new degree programs and centers/institutes, the Center will submit a progress report to the IBHE staff at the end of the third year of operation. The report will include a summary of key areas of accomplishments and remaining challenges. Additionally, the Center will participate in the University's eight-year program review process, using multiple measures to determine its strengths and weaknesses. Key factors that will be used in the assessment will include evaluation of the outcomes of the Center's primary objectives and priorities, including research productivity, publication, and related outcomes, winning of prestigious awards and honors, and public service in collaboration with existing and new partners. A summary of the review, including the Center's strengths and weaknesses, as well as steps to be taken to improve the Center, will be submitted by the University to the IBHE staff 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, there are sufficient facilities, including space, equipment, and instructional materials, to support the proposed Center. Principal among them are the University's College of Medicine Research Building and the Clinical Sciences Building, which house the research and office space for the Center. Additional equipment and research space are shared with the home departments of the Center's many investigators and through the core facilities on the University's campus. Some examples of specific resources that currently support the Center are a state-of-the-art nuclear magnetic resonance (NMR) facility within the Program for Integrative Cardiac Metabolism for NMR spectroscopy and magnetic resonance imaging (MRI) to visualize and evaluate heart function and metabolic activity in rodent models of heart disease; a physiological phenotyping facility that provides cardiac function testing in experimental animal models of disease; and a set of surgery suites with surgical expertise and support for testing therapeutic protocols on animal models of heart disease.

#### **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.*

As indicated above, the Center is led by Director Dr. E. Douglas Lewandowski, a leading scientist recruited from Harvard University Medical School's Departments of Medicine and Radiology at Massachusetts General Hospital, holding an adjunct appointment at the Massachusetts Institute of Technology. Twenty-three faculty members with strong academic and research backgrounds from related academic units are currently members of the Center. The expertise of the faculty and scientists spans many fields of study, including bioengineering, physiology, biophysics, medicine (cardiology, pulmonary, and endocrine), emergency medicine, nursing, and pharmacology. Additional, highly qualified faculty/scientists will be recruited to join the Center, as supported by the Dean of the College of Medicine.

### **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 give the Center permanent approval because it has established a very strong record of external funding and is led by a very accomplished Director. It is expected that, if approved, the Center will build on its strong history of extra-mural funding and exceed the current level of funding. The University has reported that total resources to support the Center are projected to grow from \$5,263,695 in the first year to \$5,897,695 in the fourth year. Most of these funds are from federal sources. Expenditures, excluding those from federal funds, are projected to vary from \$262,695 to \$265,695 per year during the next four years. Most of these expenditures are for personal services and other personnel costs.

### **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.*

Accreditation and licensure are applicable only to degree programs and certificates, not to centers and institutes.

## 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 Chicago's Center for Cardiovascular Research, including a summary of the objectives, research, and public service activities will be published on the University's website, [www.uic.edu](http://www.uic.edu). Information about the Center may be obtained from the College of Medicine and the Office of the Vice Chancellor for Research.

**Staff Conclusion.** The staff concludes that the Center for Cardiovascular Research proposed by the University of Illinois at Chicago meets the criteria to implement the Board of Higher Education Act (110 ILCS 205) 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.

## University of Illinois at Urbana-Champaign

**Proposed Program Title:** Master of Arts in Religion in the Prairie Region

*Projected Enrollments:* The University projects that the proposed program will enroll a cohort of approximately five to ten full-time students in the first year, increasing to 14 to 20 students when the program is fully implemented. Also, some part-time students will be accepted. It is estimated that approximately seven to ten students will graduate from each cohort annually when the program is fully implemented.

## Background

The University of Illinois at Urbana-Champaign (the University) requests authority to offer the Master of Arts (M.A.) in Religion. Since its inception approximately 30 years ago, this unit (which formally became a department in 2008) has been focused on undergraduate education, teaching two to three thousand students each year in undergraduate courses, providing many general education courses, as well as offering an undergraduate major. The Department of Religion (the Department) has 12 faculty members in the 2010-2011 academic year and 13 faculty members in the 2011-2012 academic year. Many University departments this size, and with similarly outstanding scholarly profiles, have doctoral programs. There are few, if any, major universities in the United States with major graduate programs in the humanities that lack a graduate program in religious studies.

The M.A. in Religion program will prepare students for more advanced (doctoral) work in religion, as well as in other disciplines of the humanities. This M.A. in Religion program is not a professional degree (such as a J.D. or a Masters of Divinity) and, as such, does not qualify or prepare a recipient for a specific career. Nonetheless, religious organizations are a major source of employment in the United States and graduates of this program will be viewed as having a deep knowledge of religion, should they launch careers in that area. Men and women who pursue careers in the clergy often undertake advanced academic research (as opposed to seminary-based



preparation) in religious studies. Most important, the faculty members in the M.A. in Religion program teach critical thinking and communication skills that will be valuable in many professions and business careers.

## **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 M.A. in Religion program is educationally justified, based on the needs of the citizens of Illinois, because it will offer a humanities-based education in the politically and socially relevant discipline of religious studies. The goal of the program is to offer an intellectually sophisticated basis (grounded in history, philosophy, social sciences, and anthropology) for understanding the global phenomenon of religion. Religion is at the center of global issues and of cultural conflict. It provokes heartfelt commitment, eloquent expression, deliberate action, and intense debate. The systematic, sophisticated, objective study of religion, using all of the available methodologies, is at least as important as it has ever been.

An important educational justification for this program is that it will strengthen a large undergraduate curriculum by attracting highly qualified teaching assistants to the campus. The growing popularity of the Religious Studies curriculum and faculty reflects the burgeoning interest in religion among American students. The extension of the program into graduate studies will enrich the humanities disciplines across the campus and also help the Department retain and recruit leading scholars.

This program does not offer a direct career path, leading to a specific job. Certainly, the most important job skills that the program will develop are communication and creative (or critical) thinking. Many students will complete this program in order to have credentials necessary for admission to advanced-degree programs in such fields as education, law, ministry, etc.

## ***The Illinois Public Agenda for College and Career Success***

The proposed M.A. in Religion program will address Goal 3 of *The Illinois Public Agenda for College and Career Success* by providing its students a great education and increasing the number of high-quality graduate degrees to meet the University and state needs. Also, the program will address Goal 4 by providing high quality research training and opportunities for its students and faculty.

## **Comparable Programs in Illinois**

Northwestern University has a Master's and a Ph.D. in Religion, while the University of Chicago has a Master's in Religious Studies and a Ph.D. in its School of Divinity. Northwestern University's programs are highly rated nationally, while the programs at the University of Chicago rank among the most important in the United States. The University of Illinois at Urbana-Champaign's proposed program will offer outstanding students at a public university the opportunity to qualify for admission to a program expected to be nationally prominent. Because of the national reputations of many faculty members and because of the high admissions standards set for prospective students in the proposed program, the Department is confident that the M.A. program will achieve an excellent reputation in a very short period of time.

## **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 M.A. in Religion program will contribute importantly to fulfilling the University's commitment to fostering learning and research in the humanities. As an interdisciplinary program, the M.A. in Religion program will have the additional benefit of supplementing education and research in other areas of the humanities on campus.

The program objectives include preparation for doctoral work in religion and other disciplines of the humanities through mastery of the methodologies currently used in religious studies. In addition, the program objectives incorporate critical thinking and writing skills.

The goals and objectives of the proposed program are supportive and compatible with the mission of the College of Liberal Arts and Sciences and the mission of the University.

## **Curriculum and Assessment**

*1050.30(b)(1): A) The caliber and content of 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

The admission requirements of the University's Graduate College will apply. Applicants need not have an undergraduate major in the study of religion but must demonstrate a capacity to undertake advanced study in this area of inquiry. All applications for admission must be supported by three letters of recommendation from persons qualified to comment on the applicant's aptitude for graduate study in religion. Applicants are required to submit a sample of their written work. The Graduate Record Examination (GRE) results are required.

International applicants whose native language is not English must take the International English Language Testing System (IELTS) or the Test of English as a Foreign Language (TOEFL). A score of at least 600 on the paper-based test, or 250 on the computer-based test, or 100 on the Internet-based test is required for admission to this program.

## Curriculum

The curriculum of the M.A. in Religion program consists of a 32 semester hour program of study including 12 hours of coursework at the 500-level with at least eight hours in Religion. All students in the program must complete the 500-level Introduction to Graduate Studies in Religion course. Among the unique qualities of this M.A. program are the breadth and diversity of courses offered to its students. The program is not only highly diverse but also highly interdisciplinary. Most students will take some relevant courses in departments other than the Department of Religion.

Students will be expected to fulfill the following additional requirements:

- Each student will establish a primary field of study. This will be done in consultation with the Director of Graduate Studies and the student's advisor. In most cases, the primary area of study will be a particular field (such as Buddhism, Christianity, Hinduism, Islam, Judaism, Philosophy of Religion, Religion in America, Religion and Education, etc). The range of fields would be limited to significant areas of scholarship in which there is adequate faculty expertise;
- Each student will complete at least two courses within that field;
- Each candidate for the M.A. must demonstrate reading comprehension in one language other than English that is appropriate for research in the student's primary field of interest. The student will demonstrate that competence by completing a fourth-semester (or more advanced) course in a foreign language or by passing a reading comprehension test administered by the Department;
- Students will submit either an M.A. thesis or two research papers in the student's primary area of specialization in the program; and
- Students must pass the M.A. examination. The M.A. examination is an oral examination that covers both general coursework and the student's research projects (either the M.A. thesis or the two research papers). A committee consisting of at least three faculty members, formed in cooperation with the Director of Graduate Studies, will administer the examination.

## Assessment of Student Learning Outcomes

Faculty in the proposed program expects students to acquire a general mastery of the methodologies currently used in religious studies and to achieve expertise in one well-defined area of study. Specific measures that will be used to assess student learning outcomes include the following: 1) assessment of the quality of M.A. Thesis or capstone research papers; 2) analysis of information from exit interviews of graduates; and 3) continuous assessment of quality (conducted under the supervision of the Director of Graduate Studies).

Program objectives will be measured in class performance (examination and seminar papers) throughout each student's course of study. The final assessment (evaluation of a major writing/research project and a comprehensive examination) is the most important indicator of the level of achievement. The Director of Graduate Studies will monitor the progress of each student at the end of each semester. Professors will be asked to submit a brief written assessment of the performance of each M.A. student in a given class to the Director of Graduate Studies. The final assessment will occur when the thesis and examination committee evaluates the performance of each student on the comprehensive examination and the research project.

The Graduate Studies Committee will examine written work done in graduate seminars in order to assess the student's intellectual progress. The committee will also confer with professors of those courses to help define goals for writing and critical thinking. The most important assessment will be an evaluation of each student's research project(s) and performance on the comprehensive M.A. examination. The committee will write evaluations of each student's research project.

## Program Assessment

Consistent with the Illinois Board of Higher Education's (IBHE) staff requirements, the University will submit to the IBHE a progress report on the M.A. in Religion at the end of the third year of operation. The report will summarize key areas of accomplishments by the program and key partners and any remaining challenges and how each challenge will be addressed. In addition, the program faculty will participate in the University's eight-year program review process to assess the program using multiple measures, including evaluation of faculty teaching in the program by the students, the level of faculty research and scholarship awards and honors, retention and graduation rate of students in this program, and the level of alumni and employer satisfaction with the program. A summary of the program review, 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 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.*

Necessary space to support the M.A. in Religion program, such as classrooms and offices, already exist in the Department of Religion. Students in the program will have access to the other University facilities that support student success as well.

### Library

The faculty and students are served by one of the finest libraries in the United States. Supporting documents indicate that the proposed M.A. program will be more than adequately served by the library, and the program will not necessitate adding to the current library staff. The library of the University of Illinois is one of the best in the world for the humanities. Its collections in Religious Studies are outstanding. The general collections are broad and deep, particularly in the areas of Christianity, Judaism, and Eastern Religions. The library subscribes to over 300 general and specialized online resources for religious studies, from the ATLA Religion Database, Index Islamicus, and J-Stor to the Patrologia Latina, Encyclopedia Judaica, and Buddhist-Christian Studies review. In addition, the History Library has bibliographers devoted to religious studies collection development and the Rare Book & Manuscript Library contains one of the best collections in the world for studying Reformation studies, English spirituality, and early American religion. The library, both its collections and its services, is well-suited for advanced graduate studies in the field of religion.

### Technology and Instructional Resources

There are sufficient technology and instructional resources to support the proposed program at the University. The resources are available in the academic departments that will offer courses for the program and also in other facilities, such as computer labs, specialized laboratories, instructional resource centers, and the library on campus.

### 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 most significant personnel resources in place are the 12 faculty members, all of whom are doctorally qualified, distinguished scholars and teachers who have published important research, some prolifically, in the most prestigious presses and journals. Moreover, the faculty is already offering a graduate-level curriculum that is sufficient to meet the needs of the proposed M.A. program. The School of Literatures, Culture, and Linguistics also has an extensive student support system in place for the graduate programs and has agreed to support students in the proposed program without any additional positions.

## **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 budget resources are needed for this program. The Department of Religion has designed the program so as to be compatible with the current budget. Faculty are already able to incorporate the teaching required for this M.A. program without compromising their considerable contributions to undergraduate education.

Supporting documents verify that the admissions processing and staff needed to support the program already exist and is provided by the School of Literatures, Cultures, and Linguistics (SLCL) Graduate Student Services Office. The small number of students in the proposed program can be served by the present staff levels. Advising will be organized by the Director of Graduate Studies and provided by individual faculty members. Advertising costs are expected to be no more than \$1,000 annually, which will be covered by increased tuition 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.*

There is no specialized accreditation for the M.A. in Religion program. All of the University's degree programs are accredited by the Higher Learning Commission (HLC).

## Program Information

*1050.30 (b)(2)(A) The information the institution provides for students and the public shall include the following: (i) An accurate description of the unit of instruction, including its objectives, length and residency requirements if any; (ii) Schedule of tuition, fees, and all other charges and expenses necessary for completion of the unit of instruction, and cancellation and refund policies; (iii) Student rights and responsibilities; (iv) A statement regarding the transferability of college credits, including the fact that the decision to accept transfer credits is determined by the receiving institutions; (v) A statement as to how the institution will advise students on the nature of the transfer process, including the importance of consulting with institutions to which the student may seek to transfer; (vi) Evidence of arrangements for the transfer of courses or credits or both to institutional counterparts, when these arrangements exist; these arrangements are also known as articulation agreements; (vii) A statement of the institution's most recent graduation rates as provided by the institution to the Integrated Postsecondary Education Data System (IPEDS); and (viii) Other material facts concerning the institution and the unit of instruction as are likely to affect the decision of the student to enroll. (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 proposed M.A. in Religion program at the University of Illinois at Urbana-Champaign, including a detailed description of the curriculum, admission requirements, tuition, fees, and other cost information, as well as University and Graduate School policies, will be published on the University's website, [www.illinois.edu](http://www.illinois.edu). Comparable information about the program will be published in the University's Programs of Study Catalog. Similar information may be obtained from the Graduate College or the College of Liberal Arts and Sciences.

**Staff Conclusion.** The staff concludes that the Master of Arts in Religion degree program proposed by the University of Illinois at Urbana-Champaign meets the criteria to implement the Board of Higher Education Act (110 ILCS 205) 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.

The staff recommends adoption of the following resolutions:

*The Illinois Board of Higher Education hereby grants to Eastern Illinois University authorization to establish the Center for Clean Energy Research and Education 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.*

*The Illinois Board of Higher Education hereby grants to the University of Illinois at Chicago authorization to establish the Center for Cardiovascular Research 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.*

*The Illinois Board of Higher Education hereby grants to the University of Illinois at Urbana-Champaign authorization to establish the Master of Arts in Religion 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.*

