Item #III-10
June 5, 2012

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

Submitted for: Action.

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

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

Eastern Illinois University
- Geographic Information Science Center in the Prairie Region

Governors State University
- Bachelor of Arts in Anthropology and Sociology in the South Metro Region
- Master of Science in Mathematics in the South Metro Region

University of Illinois at Urbana-Champaign
- Department of Asian American Studies in the Prairie Region

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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 Program Title: Geographic Information Science Center in the Prairie Region

Projected Enrollments and Degrees: This proposal is for a new organized research and public service center, the Geographic Information Science Center, not a degree program. As such, projections of student enrollments and degrees awarded are not relevant to this proposal. However, it is reported that over 1,100 students have enrolled in the 17 courses the Center has primary responsibility over. If approved by the IBHE, the Center will contribute significantly to the education of students in geographic information science (GISci) by working with faculty and academic departments that are responsible for coursework in geospatial sciences and related disciplines.

Background

Eastern Illinois University (the University) requests authority to establish a new Geographic Information Science Center (the Center) in the Prairie Higher Education Region. The Center's objectives are to a) coordinate high caliber teaching, scholarship and research, and outreach in geographic information science and related fields, b) provide facilities where faculty, students and staff can use state-of-the-art equipment and software to meet their goals, and c) secure external grants to fund its activities and improve its infrastructure. Currently, the Center offers an interdisciplinary Geographic Information Science minor, a post-baccalaureate Certificate in Public Planning using geographic information science, and an Environmental Systems Research Institute (ESRI) certificate authorized to only few sites in Illinois. In addition, the Center offers a professional science master's (PSM) in Geographic Information Science as a part of the University's Master of Science in Natural Sciences.

The current administrative unit, which will be replaced by the proposed Center when it is approved, has primary responsibility for 17 courses that have enrolled over 1,100 students. The courses include Geographic Information Systems I and II, Advanced Cartography, Remote Sensing I and II, Biometrics, Spatial Analysis, Resource Management, Landscape Ecology, and Advanced Biostatistics. Currently, the unit has 17 faculty members with doctoral degrees from six academic units, including Biological Sciences, Business, and Geology/Geography.

The unit and its collaborating academic departments, and the Center for Clean Energy Research and Education, have already established relationships with the state, local, regional, and federal agencies as well as private sector entities to maximize its impact and effectiveness. Examples of external partners in the private sector are the Savannah River Nuclear Solutions and GIS software leader ESRI, which is responsible for certification in geographic information science.

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 proposed Geographic Information Science Center is needed by faculty and student researchers for hands-on application, external agencies at the regional and state levels, and public and private employers interested in employing students educated by the unit.

Geographic information science is a powerful tool applied by researchers in diverse disciplines. Accurate, multi-dimensional geospatial information, including maps, is routinely required at all levels within academic, public, private, and governmental organizations. To meet the need, the Center will offer a diverse set of GISci applications and training courses and programs.

Over the past five years, faculty members associated with the GISci Laboratory have repeatedly been requested to contract with a variety of outside organizations, including Coles, Macon, and Edgar Counties, the cities of Charleston, Decatur, and Tuscola, to provide them with GISci services and products. Research grants for the unit have been awarded by a number of entities, including the Illinois Department of Natural Resources, Embarras River Management Association, Illinois Environmental Protection Agency, Illinois State Water Survey, and the Vermillion County Soil and Water Conservation District. Within Eastern Illinois University, mapping projects have been completed for Facilities Planning and Management, the ROTC, the History Department, the Office of Enrollment Management, the Office of Admission, and the Honors College. The unit's potential to acquire new contracts is limited only by the number of experienced GISci users on the campus.

According to the Bureau of Labor Statistics' (BLS) *Occupational Outlook Handbook, 2010-11*, cartographers, photogrammetrists, survey and mapping technicians, and individuals in allied disciplines that use the GISci will have faster than average employment growth between 2008 and 2018. Mapping specialists from a variety of disciplines who have a bachelor's degree and strong GISci skills will have favorable employment prospects. The BLS employment projections during this period show that employment opportunity will grow by 27 percent for cartographers & photogrammetrists, 20 percent for survey & mapping technicians, 19 percent for urban and regional planners, and 18 percent for geoscientists & hydrologists. These professionals

and others have had significant or some geographic information science education and skills. Occupational projections by the Illinois Department of Employment Security show similar employment growth for occupations identified above. These documentations show significant state and national need for those who are and will be trained by the proposed Center.

The Illinois Public Agenda for College and Career Success

The proposed Geographic Information Science Center will address all goals of *The Illinois Public Agenda*, particularly, Goal 3 and Goal 4. Goal 3, *Increase the number of high-quality post-secondary credentials*, is and will be addressed by recruiting, educating and graduating students in the three certificate programs: the post-baccalaureate Certificate in Public Planning, the ESRI certificate, as well as the professional science masters in Geographic Information Science as a part of the University's Master of Science in Natural Sciences. Graduates of the programs contribute to the state's priority for producing more high quality credentials.

Goal 4, *Integration of Educational, Research, and Innovation Assets*, is being addressed and will be addressed by providing career and technical training to students who are already employed or upon the graduation have so far no problem getting employment before or after completing their education.

Comparable Programs in Illinois

No center or institute with a similar mission is currently at any of the public universities. However, two centers with tangentially related mission to the proposed Center are currently operated by the University of Illinois at Chicago, namely: Urban Transportation Center and City Design Center. At this time, the IBHE Program Inventory does not include centers and institutes operated by independent colleges and universities.

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 Geographic Information Science Center mission is to provide a foundation for excellence in teaching, research, and public service in GISci with an emphasis on educating students to become leaders in the geospatial sciences. The objectives of the Center are threefold: 1) to coordinate high caliber teaching, scholarship, and outreach through application of GISci tools, 2) to provide facilities in which users can access the state-of-the-art equipment and software to support their work, and 3) to secure external grants to fund its activities and improve its infrastructure.

The Center does and will provide students with opportunity to attain a level of proficiency in geographic information sciences that will enable them to effectively merge into the professional and academic GISci community through a comprehensive and dynamic understanding of the methods and procedures necessary to perform advanced thematic mapping and spatial analysis across related disciplines. It provides the necessary hardware, software, geographic data, and methodological framework to empower faculty to achieve their goals and objectives. It will foster increased interdisciplinarity among existing GISci curricula and

programs, and oversee the development of new ones, as well as collaborate with the Center for Clean Energy and Education and other academic units at the University.

The mission and objectives of the Center support the University's mission and priorities.

Assessment of Student Learning Outcomes

The Center has an established set of assessment measures for its activities and outcomes. It will be subject to its quality assessment mechanisms, including:

1. Staff of the Center will complete an annual progress "map" to support the University's goals and priorities and the report will be on the Center's website, http://castle.eiu.edu/~acaffair/MAP/ . The report will be reviewed by the College's Dean and the Provost and used to inform staffing and budgeting decisions.
2. An Advisory Committee will be established and it will meet regularly to review the Center's plans and achievements and recommend needed changes to improve the Center. Currently, the Center is advised by a temporary committee which includes representation of the Office of the Dean, eight academic departments, including Geology/Geography, Political Science, Biological Sciences, and Anthropology, as well as the College of Business, and the Business & Technology Institute. Once the Center is approved, the temporary committee's membership will be expanded to include external liaisons from the professional GISci community.
3. If approved, the Center will submit to the IBHE its progress report at the end of the third year of operation and subsequently, it will participate in the University's eight-year program review process. The review report will include a summary of the Center's strengths and weaknesses, as well as steps that will be taken to improve the Center.
4. The ability to secure external grants and contracts to support its mission will be a progressive benchmark for measuring the Center's productivity and the quality of its outcomes.

Facilities (space, equipment, instructional materials)

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

The Center's current facilities include the Geographic Information Science Laboratory which has 23 modern computer stations, a computer podium, a high resolution overhead projection system, a large format color laser printer, and a high resolution black and white laser printer; the Special Project Laboratory which houses four modern and dual-monitor computer stations and many other high-tech equipment necessary for a state-of-the-art GISci facility. The Center has an Applied Environmental Geographic Information Systems computer laboratory which has 24 computers with the most current versions of the industry-leading software and other accompanying equipment. These resources have been acquired over a number of years before the plan to establish the Center matured. In addition, a Transforming Undergraduate Education in Science, Technology, Engineering, and Mathematics (STEM) grant will be sought from the

National Science Foundation to maintain and improve the existing laboratories. These resources currently meet the needs of the Center.

It is expected that when the University's Physical Science Building is renovated, there will be a bigger and better facility for the Center to move to it.

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 Geographic Information Science Center is an initiative of the College of Sciences. The unit is currently co-directed by Dr. Karen Gaines, an eminent scholar in Biological Sciences. She specializes in the design and implementation of spatially explicit models that predict changing environmental conditions using GIS technology. Mr. Steven Di Naso, from Geology/Geography, is the second co-director who is highly regarded, and he has a 20-year record of using GIS for his research. He is one of the few Environmental Systems Research Institute Authorized Certified Professional Trainers in Illinois.

Currently, 17 faculty members with doctorates, most of them with the ranks of assistant professor through full professor, are affiliated with the Center. They represent six academic units at the University, including Biological Sciences, Business, Geology/Geography, Economics, and Political Science. Their expertise encompass a wide spectrum of disciplines, including wildlife biology and landscape ecology, biometrics and ecological genetics, information systems, disaster preparedness and recovery, environmental policy, public policy, remote sensing and digital terrain modeling, and geodatabase design and special analysis. If approved, the Center will be supported by an Advisory Committee consisting of 17 faculty members from the key participating academic units at the University and leading academics and professionals in GISci and closely related disciplines. As the Center grows, more faculty members may become affiliated with it, and it is anticipated the Center will develop new programs to expand and enhance its outcomes and mission.

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 Geographic Information Science Center. The proposal to establish the Center is to formalize instructional, research, public service, and grant-seeking activities that are already occurring. Approval of the Center would increase its visibility and reputation to enable the faculty and staff to secure additional funding, a prerequisite for continued growth. The existing resources from the University, the state, and external sources, as well as grants and contracts that are currently sought, will be sufficient to support the Center.

New resources from internal reallocations projected for the Center will grow from $54,595 in the first year to $57,325 in the fourth year. These projections do not include funds already invested in the Center, for example: funding for faculty totaling over $352,000, laboratory

costs of over $159,000, and equipment and supply costs totaling over $73,000. In addition, the Center faculty and staff have submitted grant proposals totaling over $6.6 million from sources such as:

- The U.S. Department of Agriculture for $499,756 for the Multi-scale, Multi-Taxa Evaluation of Midwest Bioenergy Systems Interaction with Wildlife and Agricultural Pests;
- The U.S. Department of Agriculture for $150,000 for Sustainable Energy in a Rural Landscape: A Multidisciplinary Approach to Integrative Undergraduate Education;
- The Illinois Department of Natural Resources for $34,456 for the Effects of Agricultural Biofuel Plantings on Biodiversity in East-Central Illinois; and
- The U.S. Department of Agriculture and the Department of Energy for $6 million for Growing Biomass-Energy-Driven Economy for the Prairie State and the Midwest, in partnership with the newly established Center for Clean Energy Research and Education.

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 programs in geographic information sciences. However, all of the University's degree programs, certificates, and minors are covered by the University's accreditation by the Higher Learning Commission of the North Central Association of Colleges and Schools. If approved, the Center will be covered by this accreditation. Additionally, the Center is and will be offering a program of study leading to the ESRI certificate by Certified Professional Trainers, one of only few sites in Illinois.

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 Eastern Illinois University's Geographic Information Science Center, including a summary description of the mission and objectives, structure and leadership, instructional activities, assessment activities, and information about the faculty and

administrators, will be published on the University's website, www.eiu.edu. Comparable information about the Center will be published in the University's Undergraduate and Graduate catalogs, and similar information about the Center may be available from the College of Sciences upon request.

Staff Conclusion. The staff concludes that the Geographic Information Science Center 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.

Governors State University

Proposed Program Title: Bachelor of Arts in Anthropology and Sociology in the South Metro Region

> *Projected Enrollments and Degrees:* Governors State University has projected that enrollment in the proposed Bachelor of Arts in Anthropology and Sociology will grow from approximately eight students in the first year to 50 students in the fifth year and each year thereafter. The University has projected that three degrees will be conferred in the second year and 14 degrees will be awarded in the fifth year and approximately the same number annually thereafter.
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> The University was approved in December 2011 by the Illinois Board of Higher Education to admit freshman students for the first time beginning in 2014. When the Lower Division Program has been implemented, more students will be admitted than currently projected. Accordingly, more degrees will be awarded in the program than projected depending on the number of freshman students admitted.

Background

Governors State University (GSU or University) requests authority to offer the Bachelor of Arts in Anthropology and Sociology in the College of Arts and Sciences to align with specific objectives of the institution's mission, its core values, and its strategic growth plan (Strategy 2015). The proposed Anthropology and Sociology program is a critical component in serving the incoming first-year students in Fall 2014 and realizing the most recent implementation of Strategy 2015. Goals of Strategy 2015 that the proposed degree in Anthropology and Sociology will help meet include: offering an exceptional and accessible education; imbuing students with knowledge, skills, and confidence to succeed in a global society; creating an intellectually stimulating public square; providing an economic catalyst for the region; modeling diversity; and developing responsible citizenship. In this program, the anthropology and sociology disciplines are joined in a single degree. Students study both fields learning the history of ideas, theory, and methods common to both disciplines; they select one field as their concentration; and they finish the program by completing an original research capstone experience. A shared set of core courses enables students to master the common concepts, theoretical approaches, and methodological practices across the two disciplines.

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.

Governors State University is the only public institution in the State of Illinois University System that does not offer a degree in either sociology or anthropology, thus leaving Governors State University vulnerable to not meeting and sustaining projected growth in the undergraduate student population who will choose elsewhere to continue their degree in anthropology or sociology. In addition, GSU is the only public university to confer a bachelor degree between Chicago and Urbana-Champaign, making it a significant untapped resource for growth and service to Chicago's south suburbs and the primarily rural counties in the region. A majority of the public universities report robust enrollments and degrees in anthropology and sociology programs. In order to remain competitive and as a viable option to prospective students in the south Chicago suburban region, Governors State University requires a vibrant and cutting-edge Anthropology and Sociology program that provides high quality education at a low cost. Faculty created this program to fulfill regional and state needs so current and future students will have access to the familiar disciplines as offered in other regional and state universities.

A degree in Anthropology and Sociology provides strong problem solving and communication skills, as well as knowledge about people, their cultures, and the institutions and organizations that they create. These skills and this knowledge prepare students to succeed in careers that benefit from individuals with a background in the study of human origins, cross-cultural understanding, foreign languages, social organization, social movements and social change, inequality, social problems, and other topics related to social development framed in the Anthropology and Sociology major. Illinois Department of Employment Security projects steady growth in employment opportunities in careers for which a baccalaureate degree in Anthropology and Sociology will be required or helpful. According to a 2008 brief from the American Sociological Association, students with a sociology bachelor's degree find career opportunities in social and governmental services; administrative support and management in organizations; professional researchers and evaluators for social, governmental, corporate, or world organizations; and public relations and human resource departments. Many students continue on to graduate degree programs in anthropology, sociology, public policy, social work, library science, museum studies, and law.

The Illinois Public Agenda for College and Career Success

Governors State University's baccalaureate program in Anthropology and Sociology will address all four goals of *The Illinois Public Agenda*. Goal 1, *Increase educational attainment to match best- performing states*, will be addressed by extending educational opportunity to adult students, including minorities who have transferred from partner community colleges in the University's region and later to freshman students when the new Lower Division Program is implemented. *Ensure college affordability for students, families, and taxpayers*, in Goal 2 will be addressed through a concerted effort to remain one of the most affordable public universities in the state as the University has currently the lowest tuition in the sector. Goal 3, *Increase the number of high-quality post-secondary credentials*, will be addressed by recruiting, educating and graduating students in this program to contribute to meeting the state's priority for increasing significantly the number of post-secondary credentials. Goal 4, *Integration of Educational, Research, and Innovation Assets*, will be addressed by providing graduates a degree in Anthropology and Sociology which provides students with strong problem solving and communication skills, as well as knowledge about people, their cultures, and the institutions and organizations that they create. These skills and knowledge prepare students to succeed in careers that deal with the social problems and issues that they studied in their major.

Comparable Programs in Illinois

Each of the other public universities in Illinois offers anthropology, sociology, or both majors. GSU faculty developed this Anthropology and Sociology program to be a combined degree (not merely a combined department), an unusual approach to cross-discipline study in these related fields with different histories and traditions. Only University of Illinois at Springfield offers such a joint degree program in the State of Illinois.

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.

Governors State University is a minority-serving institution with one of the most diverse student bodies in the nation in terms of age, gender, and race. Faculty in the Anthropology and Sociology program developed the curriculum to emphasize analyzing systems of privilege, especially the ways in which race, class, gender, and sexuality shape social and cultural life. The curriculum will challenge diverse students to explain and change systems of privilege. Faculty created new courses and revised existing courses to encourage students to evaluate social phenomena objectively and to propose solutions in a constructive way. Professors will address the ways in which anthropologists and sociologists approach questions, methods, theory, and so forth differently from one another. As a result, each student should be able to articulate the diversity of the disciplines by differentiating some of the major differences and similarities between anthropology and sociology in terms of theory, method, and philosophy. The preceding objectives are congruent and support the mission of the College of Arts and Sciences and the University.

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

Prospective transfer applicants for admission to the program must have a minimum GPA of 2.25 out of 4.0 in 60 hours of transferrable credits from a regionally accredited institution and must have earned the associate degree. In addition, students must have completed six hours of anthropology and/or sociology courses with a minimum of a “C” grade.

The University does not yet offer any program below the associate degree level and therefore, students at the freshman and sophomore levels are not admitted by the University. The University will begin offering lower-division study in 2012 and will admit a first class of first-year students 2014. The Anthropology and Sociology Program will use the same admissions requirements as the University will use once first-year admissions commence. Governors State University will use a combination of high school GPA and ACT scores to determine admission. Admission standards will aim to attract students who need no more than one semester of remediation. The University will have mandatory summer courses to prepare students for college-level work and will incorporate remediation through supplemental instruction during the first semester.

Curriculum

The curriculum for the Bachelor of Arts in Anthropology and Sociology consists of at least 120 semester hours, including general education courses and courses for the program major. All students learn the history of ideas, theory, and methods common to both the anthropology discipline and the sociology discipline through completion of a shared set of core courses. This common core all majors experience enables students to master the shared concepts, theoretical approaches, and methodological practices of both disciplines. Then students choose either a concentration in either anthropology or in sociology. At the end of the program, students complete a research-based capstone experience.

The Anthropology and Sociology degree program consists of foundational general education courses, and it is structured so that Anthropology and Sociology students will engage with communities in multiple stages throughout their coursework. Under faculty advisement, students will bridge communities to the University through collaborative research projects with set goals to seek out solutions to the social developments they analyzed as students in the Anthropology and Sociology program. Faculty engage students in applied learning exercises through field trips and incorporating faculty-advised community-based research opportunities into the curriculum. In addition, the Anthropology and Sociology faculty has modeled and will maintain its program curriculum to align with ethics and social justice codes of conduct and expectations of its respective professional organizations (American Anthropological Association, Society for Applied Anthropology, and the American Sociological Association).

Assessment of Student Learning Outcomes

Anthropology and Sociology faculty mapped out an assessment plan that is informed by best practices found in research on assessment as well as the directives from forthcoming Governors State University student learning assessment initiatives. To date, faculty have consulted Banta, et al, (1996) *Assessment in Practice: Putting Principles to Work on College Campuses* and Craig Dykstra's *Evaluation as Collaborative Inquiry* to frame general principles to guide thinking on assessment. Faculty continue to engage and refine assessment principles and practices as a significant element of program development.

In addition to the course-by-course assessment, student learning outcomes will be measured through a pre-post competency evaluation by using samples of student writing and qualitative and quantitative analytic exercises in core courses sequenced earlier in the program to be compared with student writing complied by faculty teaching core courses sequenced later. The capstone course, conceived as a comprehensive and cumulative experience of student research under individual advisement of a faculty member, will serve as an important assessment

tool of student learning as it is designed to incorporate all dimensions of student learning outcomes.

By the time each student completes the program, he or she should have demonstrated the ability to:

- Master critical thinking and analytical skills, with a focus on applied problem solving.
- Articulate global and cross-cultural knowledge.
- Acquire and apply technological and digital library skills.
- Develop and apply visual and oral communication skills.
- Learn and apply collaborative and teamwork skills.

Other measures that will be used in student assessment include student grades and GPAs, time to degree completion, and other feedback from the program's faculty members.

Program Assessment

Consistent with the IBHE staff requirements, GSU will submit a progress report on the proposed bachelor's program of Anthropology and Sociology at the end of the third year of operation. The report will summarize key areas of accomplishments and challenges that remain to be addressed. As in other degree programs at GSU, the program faculty will participate in the University's eight-year program review process to assess the program using multiple indicators to determine its strengths and weaknesses. Factors that will be considered in the assessment include an annual survey of current students at the conclusion of the first marking period in Year 1 (Fall 2012) and program graduates at the conclusion of the program's second year (Spring 2014) and annually thereafter (Fall 2014 and beyond). At the conclusion of every Spring marking period, faculty will review student retention, graduation activity, career plans, opportunities, and enrollment in graduate and professional programs. The regular review process plan for upper-division transfers and applicants include collecting and storing samples of student writing and qualitative and quantitative analytic exercises in 3000-level core courses to be compared with student writing compiled by faculty teaching 4000-level core courses, which includes the program capstone course. Faculty will review the material at the end of the Spring term marking period. A summary of the program review, including the program's strengths and weaknesses, as well as steps that will be taken to improve the program, will be submitted 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.

Library

Current library resources are adequate given current funding levels. As long as computer labs remain up to date, there are no additional costs involved there. In a few years, additional software may be desirable. With a subscription to SPSS and other qualitative research software (such as Hyperbundle), the labs will serve the students well.

To ensure that the library's resources adequately support the new Anthropology and Sociology program at Governors State University, the Social Sciences liaison librarian has begun a systematic review of the library's database subscriptions, specialized reference materials, and current journal and text holdings. The liaison librarian has begun purchasing monographs to ensure the collections meet the library's standard for "study or institutional support." Additionally, the library faculty has recently added the Oxford Digital Reference Shelf package to its reference holdings. Currently the library provides access to greater than 200 anthropology and sociology journals through its print holdings and subscriptions to products like Academic Search Complete, ProQuest Research Library, Science Direct-College Edition, and the Directory of Open Access Journals.

Technology and Instructional Resources

The University's existing baccalaureate and graduate programs related to social sciences have enough technology and instructional resources to support the proposed program. If approved, the Bachelor of Arts in Anthropology and Sociology will have access to needed University classrooms and various other spaces and facilities, such as the academic computer center, lecture halls and laboratories, including a skills lab and other dedicated classrooms. Students will be able to take online or web hybrid courses and have full online access to the University's library, writing center, and student resources. Online students are eligible to access all on-campus resources that on-campus students use.

GSU's Academic Resource Center provides a range of student support services including the following: a counseling center, access services for students with disabilities, business and computer science tutoring, math, statistics, and science tutoring, and the writing center. In addition, GSU provides other student services and support, such as campus computing, career services, distance learning, and the Latino Center for Excellence.

All faculty members have private offices equipped with climate control features, phones and computers. The program is designed to provide economies of scale without negatively affecting other units on the 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.

Current faculty will support the program through its first two years. The Division of Liberal Arts faculty currently includes two full-time anthropologists and two full-time sociologists, with doctoral degrees in their respective disciplines. All have experience teaching and advising students in multi-disciplinary programs. In addition, with overlap in the Social Science program, additional faculty such as the three full-time political science faculty may teach appropriate courses for students in the Anthropology and Sociology program. There is an anticipated need for the hiring of a new faculty member in the third year of operation. The new

faculty member will have an earned doctoral degree in either anthropology or sociology. The candidate will have an interdisciplinary preparation needed to work with students in a combined program. There will be no need for additional support staff to serve the program, such as those responsible for serving students with disabilities in accordance with the American Disabilities Act of 1990 (ADA) and Section 504 of the Rehabilitation Act of 1973, because the existing staff will do the job.

Faculty evaluation and reward structure are defined by the University, and they are applied regularly. They will be applicable to the faculty responsible for this program.

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 resources are needed to establish the proposed program. The program will be supported by existing resources in the College of Arts and Sciences, in addition to internally reallocated resources. The University has indicated that resources to support the Bachelor of Arts in Anthropology and Sociology will require an additional $60,000 in the third year of operation for additional faculty; the University anticipates that tuition revenue will exceed the cost of the program operation no later than year three of the new degree. Revenue sources have been identified within the University and with continued growth and the Dual Degree Program, the increase in funds will help to support the additional hire.

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 programs in anthropology and sociology. All of GSU's degree programs are covered by the University's accreditation by the Higher Learning Commission of the North Central Association of Colleges and Schools.

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 GSU's Bachelor of Arts in Anthropology and Sociology, 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.govst.edu. Comparable information about the program will be published in hard copy in the University's Undergraduate catalog. Similar information may be obtained from the College of Arts and Sciences.

Staff Conclusion. The staff concludes that the Bachelor of Arts in Anthropology and Sociology program proposed by Governors State University meets the criteria to implement the Board of Higher Education Act (110 ILCS 205/et.seq.) as set forth in 23 Illinois Administration Code, Ch. II, Section 1050.30, and the Illinois Board of Higher Education policies pertaining to assessment.

Governors State University

Proposed Program Title: Master of Science in Mathematics in the South Metro Region

Projected Enrollments and Degrees: Governors State University's enrollments in the Master of Science in Mathematics are projected to grow from approximately 25 full-time and part-time students in the first year to 50 students in the fifth year of which 38 are expected to enroll full-time by the fifth year. The University has projected that approximately 25 degrees will be awarded in this program in the third year and the same or more degrees conferred annually after the third year.

The IBHE granted the University authority in December 2011 to admit freshman students for the first time beginning in 2014. When the Lower Division Program has been implemented, there will be more undergraduate students at the University than at the current level. Accordingly, there may be more students admitted to this and more degrees awarded in the program than projected depending on the number of freshman students admitted to the program.

Background

Governors State University (the University) requests authority to offer a Master of Science (M.S.) in Mathematics in the South Metro Higher Education Region to build upon the success of its current Bachelor of Science in Mathematics which was approved by the IBHE in 2005. The program will build upon the successes of the existing certificate in Mathematics Education for those wishing to teach mathematics in elementary or secondary education, as well as the existing B.S. and M.S. in Computer Science. The B.S. in Mathematics enrolled 65 students in Fall 2010 including 11 African Americans, five Hispanics, as well as 25 women consistent with the University's practice and priority of educating students from diverse backgrounds.

Some of the goals of the proposed program are for its students to a) acquire an in-depth knowledge of significant theories, issues and findings, and mastery of appropriate skills in mathematics, b) apply such knowledge and skills effectively, c) read, analyze, and interpret as well as evaluate research literature in the discipline, d) analyze critically mathematical problems

and critique solutions, and e) design and implement research scholarly or creative projects at a professional level in mathematics. In addition, the program will emphasize both applied and theoretical aspects of mathematics.

It is expected that this proposed program will benefit from the authority granted in 2011 to admit freshmen students for the first time in 2014 by enrolling not only transfer students but also lower division students in the program.

Need

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

Documentations of strong current and future needs for graduates in mathematics and other science, technology, engineering, and mathematics (STEM) disciplines are available from many sources, including the University's survey in 2009, the U.S. President's Council of Economic Advisors, the National Academy Press, the Heritage Foundation, the U.S. Department of Labor's *Occupational Outlook Handbook*, the Illinois Department of Employment Security, and the National Security Agency.

In response to its survey of students enrolled in the University's B.S. in Mathematics in 2009, 85 percent of the students expressed their intentions to pursue graduate studies and over one-half of them wished to study mathematics. Some of these students are already pursuing master's degrees while others have already graduated. These students' interests and career plans are validated by past, current and future strong occupational demand for those with degrees in STEM disciplines. For example, in *Preparing Workers for the Jobs of Tomorrow*, the Presidents' Council of Economic Advisors indicated that those with analytical and quantitative skills in mathematics and other STEM fields are valued and sought after by employers.

Rising Above the Gathering Storm: Energizing and Employing America for a Brighter Economic Future, by the National Academy Press in 2009, raised concerns about issues related to the decreasing numbers of U.S. students enrolling in STEM fields. Also related to this, a book by D. Lipps and J. McNeal, *A New Technology Approach to Improving Science, Technology, Engineering, and Math Education* and the Heritage Foundation's *Backgrounder*, indicated that among other things, the U.S. ability to produce STEM graduates has a "direct effect on national security".

The U.S. Department of Labor has projected in its *Occupational Outlook Handbook* of 2010-2011 that employment of mathematicians is expected to increase by 22 percent between 2008 and 2018 because advancements in technology usually lead to expanding applications of mathematics and greater need for more workers with advanced knowledge of mathematics. The report indicated that about 81 percent of all mathematicians are employed by the federal government, and they work primarily in the U.S. Department of Defense. Some of the rest of mathematicians work in the private sectors in fields such as insurance, scientific research and development, and management and technical consulting services, Mathematicians work in fields such as physics, actuarial science, statistics, engineering, and operations research. Additionally, the Illinois Department of Employment Security's projections show growth in occupational demand for mathematicians, particularly the increasing need for postsecondary math teachers projected at 16.5 percent between 2006 and 2016. In general, graduates with degrees in

mathematics and other STEM fields are paid comparatively high salaries ranging from $35,000 to $134,000.

The Illinois Public Agenda for College and Career Success

Governors State University's M.S. in Mathematics will address Goals 1, 2, and 3 of *The Illinois Public Agenda for College and Career Success*. Goal 1, *Increase educational attainment to match the best performing states*, will be addressed because the program is designed to support educational attainment by providing a convenient opportunity for adult students to complete the program in an occupationally high demand field by strengthening the preparation of secondary math teachers with a rigorous curriculum and increase the number of graduates with master's degrees in mathematics, including minority teachers.

Goal 2, *Ensure college affordability for students, families and taxpayers*, will be addressed because Governors State University has one of the most competitive tuition rates in the state for graduate programs. With a cost of $266 per credit hours, a total cost of about $11,000, including tuition, fees and other related cost is estimated for the this program. When the program is established, part-time and full-time students will be eligible for financial aid, including grants, loans, and work-study.

Goal 3, *Increase the number of high-quality post-secondary credentials to meet the demands of the economy and an increasingly global society*, will be addressed by a rigorous curriculum which includes courses in financial mathematics, probability and statistics, combinatorics, topology, analysis, and the history of mathematics and by addressing one of the state's top priorities to increase significantly the number of high quality credentials awarded in Illinois.

Comparable Programs in Illinois

Currently 29 master's degrees are offered in mathematics, and applied mathematics in Illinois, including 14 programs at public universities and 15 at independent colleges and universities. The related fields of studies include applied probability and statistics, mathematics and information sciences, statistics, computational finance, and financial mathematics. For a large state and a discipline with high and increasing occupational demand for its graduates, the existing 29 master's programs are not enough master's programs in mathematics to meet the needs of Illinois. There are many more master's degree programs in other major disciplines in the state. For example, there are 71 programs in engineering, 97 programs in biology, 181 in business and management, 321 in education, 47 in computer science and information sciences, and 61 in social sciences.

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 Bachelor of Science in Mathematics is designed to prepare its students as professional mathematicians with an emphasis on problem solving and mathematical inquiry. To achieve these goals, several processes central to the preparation of students are incorporated into the curriculum of the program. They include the ability to use a broad range of strategies and representations when solving problems and creating models to: use logic and reasoning for the

analysis and development of mathematical proof, identify connections within mathematics and other related disciplines, correctly communicate mathematical ideas precisely using the language of mathematics.

At the completion of the program each graduate should be able to demonstrate essential knowledge about mathematics to a high degree and be able to do the following and more:

- Apply a wide range of strategies to solve problems in mathematics and statistics with effective application of mathematics and statistics;
- Integrate related knowledge and pose questions across a wide range of mathematics, applied mathematics and statistics;
- Communicate mathematical and statistical thinking clearly to peers, faculty and others;
- Recognize and apply reasoning and proof as fundamental aspects of mathematics;
- Use the knowledge of mathematics to select and use appropriate technological tools, including spreadsheet, dynamic graphing tools, computer algebra systems, statistical packages, and graphing calculators;
- Develop and evaluate mathematical arguments and proofs; and
- Prepare and present a culminating research thesis or project that demonstrates an ability to synthesize and integrate graduate coursework in mathematics.

The goals and objectives of this program are consistent with and support the mission and priorities of Governors State University.

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

To be admitted to this program, an applicant must have completed appropriate coursework to meet the minimum requirements, principally three semesters of calculus, a course in linear algebra, a course in abstract or modern algebra, a course in analysis, and have earned a baccalaureate degree in mathematics or a closely related academic major with a minimum grade point average (GPA) of 2.75 out of 4.00 from an accredited college or university. The closely related majors include actuarial science, engineering, and computer science. Additionally, an applicant must submit three professional or academic letters of reference from those who are familiar with his or her mathematical ability and the capacity to benefit from this program.

Curriculum

Development of the curriculum of the Master of Science in Mathematics was informed by the guidelines of three national organizations: the American Mathematical Society, Mathematical Association of America, and the National Council of Teachers of Mathematics. The three organizations recommend that students should be required to demonstrate excellent written and oral communication, as well as command of mathematical technology, including computer algebra systems, statistical software, and dynamic geometry software. The curriculum of the program consists of a total of 34 semester hours of graduate courses at the 600, 700, and 800 levels. Of the 34 semester hours, 15 hours are from a set of five required core courses that every student in the program must complete. The five core courses are: Linear Algebra II, Modern Algebra II, History of Mathematical Ideas, Advanced Probability, and Mathematical Modeling.

Fifteen hours of electives must be completed by every student in this program, and they are to be selected with the approval of the Program Coordinator from a set of ten courses, including Advanced Calculus, Modern Geometry, Mathematical Computing, Topology, Combinatorics and Graph Theory, Advanced Calculus for Educators, and Financial Mathematics. Additionally, up to six hours or two courses are to be completed with the approval of the Program Coordinator from a set of seven courses from closely related disciplines. They include Formal Languages and Automata, Artificial Intelligence, Numerical Algorithms, Managerial Economics and Forecasting, and Financial Management.

The third component of the curriculum consists of a master's thesis or a required Project Option for which four semester hours from two courses are earned. According to the curriculum, a good thesis should demonstrate the student's ability to absorb and synthesize new topics in mathematics and knowledge from both the bachelor's and master's coursework. It should consist of original research that is clear, correct, and constitute a unified whole based on multiple sources such as modern mathematics journals on the selected topic. Students who plan to pursue doctoral studies in mathematics will be advised to complete the thesis option. Examples of good thesis are related to graph algebras, algebra of functions and relations, and a study of the applications of fractal geometry.

A student, who selects the Project Option, should clearly demonstrate a high level of synthesis and integration of knowledge from coursework completed in the program. Strong emphasis will be placed by the advisor and a three member graduate faculty committee on quality of the research effort, level of new knowledge covered, literature reviews and documentation, and the student's writing. Examples of good topics for the Project Option are: applications of linear algebra in inventory and shipping problems, a historical account of the development of the calculus, a timeline for famous Hispanic mathematicians, and an examination of discrete mathematics in the secondary curriculum. The student's Project Committee will oversee each student's project from beginning to the final oral presentation, consists of three graduate faculty members including the academic or thesis advisor.

Assessment of Student Learning Outcomes

Assessment of student learning in the program will be based on evaluation of how each of the programs objectives are achieved by each student demonstrating success in many ways, including:

- Integration of related knowledge as well as posing questions across a wide range of mathematics topics;
- How mathematical ideas build and connect to one another to produce a related whole;
- How to communicate mathematical and statistical thinking clearly to peers, faculty and others;
- How to use a variety of representations to model and interpret physical, social and mathematical phenomena;
- How to develop and evaluate mathematical arguments and proofs;
- Knowledge of historical development of mathematics, including contributions from diverse cultures;
- How to use the knowledge of mathematics to select and use appropriate technological tools, including spreadsheet, dynamic graphing tools, computer algebra systems, statistical packages, and graphing calculators; and
- How to prepare and present a culminating research thesis or project that shows his or her ability to synthesize and integrate graduate coursework in mathematics.

In addition, assessment of student learning will be accomplished by tests and exams in program courses, oral presentations in classrooms and other venues, an evaluation of the quality of student these, and graduate projects completed for this degree.

Program Assessment

Consistent with the IBHE staff requirements, the University will submit to the IBHE a progress report on the Master of Science in Mathematics at the end of the third year of operation. The report 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 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 students, the level of faculty research and scholarship, awards and honors, retention and graduation rate of students in the program, and the level of alumni and employer satisfaction with the program based on periodic surveys. The faculty will use measures such as the percent of graduates employed in occupations closely related to mathematics, and related mathematical sciences, the proportion of students involved in faculty research, and the percent of students who have completed or are pursuing doctoral and other professional studies. 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.

Beginning in October of 2011, Governors State University's E and F wings have been undergoing extensive renovation which includes the addition of a number of "SMART" classrooms, computer laboratories with advanced technology, and a specialized secondary mathematics and science education classroom. The classrooms and laboratories are equipped with an interactive whiteboard, advanced documentation projection technology, and wireless Internet access. The proposed program will be housed in these state-of-art renovated spaces for its new faculty offices, academic advising, and new classrooms, among others. It is indicated that the Division of Science at the University functionally equivalent to an academic department has an adequate staff of administrative and office support to support this program and other programs in the Division.

Library

The University's Library has extensive and diverse holding of library materials that will support undergraduate and graduate studies in mathematics. The holdings include:

- Mathematics and Computers, *ProQuest*,
- *Mathematics and Computers in Simulation* (Science Direct Physical Sciences College Edition),
- *EDSCO* (Selected Databases),
- *Academic Search Complete*, Databases
- *Business Source Premier*,
- Mathematics of Computation, *JSTOR* Arts and Sciences,
- *Mathematics Teaching, Education Full Text*,
- *Financial Economics*,
- *Actuarial* Digital Library, and
- Many others.

To purchase additional library resources for this program, the Library has budgeted $5,000 in the first year of the program and $2,000 annually in the second through the fourth year of operation. These funds will be used to pay for subscriptions for scholarly, peer reviewed journals currently not available at the University. Examples of the journals are: *Journal of Computers in Mathematics and Science, Journal of Research in Mathematics Education, Actuarial Notes, North American Actuarial Journal, American Journal of Mathematics, Advances in Pure Mathematics, Applied Mathematics and Computation,* and *Business Statistics.* In addition, $10,000 is budgeted to purchase as many as 25 additional software licenses and support materials, including computer algebra system, statistical software, and interactive geometry software.

In addition to these, the Library contains a limited collection of video tapes and DVDs with movies and interactive instruction for mathematics, financial, and statistics topics. Furthermore, Governors State University is a member of a consortium of over 70 academic libraries in Illinois that share their library resources. All these library resources will be available to support the Master of Science in Mathematics and related programs in the Division. Any needed resources unavailable for the program will be acquired with support from the Division, the College or the University.

Technology and Instructional Resources

The University uses a course server, Blackboard, to which all faculty and students will have access. The use of Blackboard supplements classroom facilities and enhances instructional technologies by permitting faculty to post materials, deliver tests and surveys, hold online discussions, and employ many other course-related functions. Electronic guides and tutorials for teaching using Blackboard are available to faculty members.

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.

At this time, Mathematics at the University has three faculty members, including two Ph.D.s,: one in mathematics education and one in mathematics. To complement this, there is plan to hire three new faculty members with Ph.D.s in mathematics within three years when the program is approved by IBHE. Qualified adjunct faculty members will assist in teaching courses in the program.

Governors State University's Academic Resource Center provides a range of staffed student support services, including: a Counseling Center, Access Services for Students with Disabilities, Business and Computer Science Tutoring, Mathematics, Statistics and Science Tutoring, the Writing Center, and Basic Math Skills Prep Workshops. Additionally, the University has other student support services and programs such as Campus Computing, Career Services, Distance Learning, Latino Center for Excellence, and Student Life.

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 program because the program will be funded through the internal transfer of funds, including tuition and fees paid by students enrolled in the program. Expenditures for the program are projected to increase from $113,400 in the first year to $184,874 in the fourth year. During this period, resources for the program are projected to grow from $119,700 in the first year to $215,654 in the four year. Estimated resources are significantly higher than the projected expenditures.

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.

Currently, traditional mathematics programs such as the proposed program have no specialized accreditation. However, the development of the curriculum was informed by guidelines of the American Mathematical Society, Mathematical Association of America, and the National Council of Teachers of Mathematics. The existing B.S. in Mathematics has earned national recognition of the Specialty Professional Association for secondary mathematics within the National Council of Teachers of Mathematics and the program is accredited by the National Council for the Accreditation of Teacher Education. When this program is approved by the IBHE, the University's current campus-wide accreditation of the Higher Learning Commission will cover it.

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 Governors State University's Master of Science in Mathematics, 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.govst.edu. Comparable information about the program will be published electronically in the University's catalog. Similar information may be available from the College of Arts and Sciences upon request.

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

University of Illinois at Urbana-Champaign

Proposed Program Title: Department of Asian American Studies in the Prairie Region

> *Projected Enrollments and Degree:* This proposal is for a new administrative unit, the Department of Asian American Studies, not a degree program. As such, projections of student enrollments and degrees awarded are not relevant to this proposal. If the proposal is approved by IBHE, the Department will have administrative oversight over degree programs offered in future, current and future curricula, personnel, and other academic matters in the unit.

Background

The Asian American Studies Program has operated as an administrative unit offering undergraduate and graduate courses under its own rubric since it was established in 2000. It has

grown significantly over the past decade to become the largest Asian American program/unit in the Midwest and it is comparable to many well established units on the West coast, considered the traditional home of the discipline. The Program's curriculum has grown steadily in the 11 years since inception and it currently offers 41 courses, many cross-listed with other academic units, and controls enrollment for 22 of these courses. A Master of Arts in Asian Studies, closely related to the Asian American Studies Program, is offered by the University and the program and the unit benefit by sharing some resources.

The unit currently offers an undergraduate and a graduate minor in the field and the unit is in the process of completing an application for a baccalaureate program in Asian American Studies. The proposal has been approved by the department's Advisory Committee and it is under review by the College of Liberal Arts and Sciences and approval is expected this Fall. Establishing the degree program is a priority of the College.

Although the unit is not yet an academic department, its 23 faculty members, including 15 core faculty members, are very productive and they have won many scholarly awards, including four major book awards. Their expertise to support this interdisciplinary field of study encompasses many academic disciplines, including social and cultural anthropology, ethnic studies, Asian American Studies, English, sociology, human and community development, theatre, linguistics, women and gender studies, and educational policy studies.

The mission and goals of the unit are congruent and support the University's mission and priorities.

Need

Asian and Asian Americans are one of the fastest growing minorities in Illinois. Their population has grown 39 percent since 2000 and they currently represent five percent of the state's population. They make up 5.6 percent of the U.S. population and their numbers have grown by 46 percent in the nation since 2000. According to the 2010 U.S. Census, 12 counties in Illinois experienced 100 percent population growth. On the University's campus, the number of Asian and Asian Americans constitutes 14 percent of the student population, which makes them the largest racial-ethnic minority group at the University.

Asian and Asian Americans in Illinois are a tremendously diverse group who speak several different languages; the largest-growing populations come from Southeast Asia, the Philippines, and South Asia comprising India, Pakistan and the subcontinent. Chicago has the third largest population of Indians and Indian Americans in the U.S. according to the 2010 U.S. Census data. The proposed unit is important and needed because it will continue to help to recruit and educate Asians and Asian Americans from Chicago and other parts of the state by offering them an inclusive intercultural space to meet their academic and other needs.

Over the past four years, 385 students have registered per semester on average in courses offered by the Asian American Studies Program. When course enrollment in other cross-listed areas is counted, the primarily Asian American Studies courses have enrolled over 660 students per semester on average. Some of the courses, such as Introduction to Asian American Studies, enrolled over 200 students each semester with 280 students enrolling in Spring 2011. Enrollment has increased during this period because of the enhanced curriculum, ability of students to complete the two minors, and the growing interest in this field.

Many but not all Asians and Asian Americans pursue and complete their degrees in science, technology, engineering, and mathematics (STEM) disciplines. They comprise the second largest group of Asians and Asian Americans at the University enrolled in the College of Liberal Arts and Sciences. The increasing importance of Asia as an economic and cultural entity requires that students be well-educated in Asian American Studies and related subjects. Accordingly, preparing students to successfully negotiate diverse environments and cultures is at the heart of the mission of Asian American Studies, which would be administered by the proposed department. Courses of the program and the department help to retain and improve student experience at the University for Asian and Asian Americans population as well as non-Asians. It is expected that success of the proposed unit will contribute significantly to the retention and graduation rates of students and contribute to addressing the needed increase of high quality credentials, a state priority.

The Illinois Public Agenda for College and Career Success

If the proposed Department of Asian American Studies is approved by the IBHE, the Department will administer existing and future coursework offered in Asian American Studies, and the Bachelor of Arts in Asian American Studies for which the unit is currently seeking University approval. In collaboration with its constituent units, the Department would recruit, educate and produce needed high quality credentials at the undergraduate level and potentially at the master's level as it addresses Goal 1, to *"increase educational attainment to match the best performing states"*, and Goal 3, to "i*ncrease the number of high-quality post-secondary credentials to meet the demands of the economy and an increasingly global society".*

Unit Objectives

The goal of the proposed Department is to become a preeminent academic unit in the discipline as it strives to achieve and maintain academic excellence, and breakthrough knowledge and innovation, among other goals. In addition, the mission and objectives of the unit includes commitment "to expanding the traditions of knowledge within academia to address Asian American epistemologies, activities, and experiences" through teaching, research, and service activities, locally and nationally.

Additionally, the unit strives to continually enhance the courses and the minors it offers, and to serve its students effectively as evidenced by winning the 2008-2009 University's Student Affairs Outstanding Program Award. Furthermore, there is a plan in progress to establish in the near future a Bachelor of Arts in Asian American Studies through the active participation and leadership of the proposed Department. The accomplishments summarized below show that the unit is meeting its objectives even as it adds new ones.

Organization and Structure

The unit has had a faculty Director appointed by the Dean of the College of Liberal Arts and Sciences in consultation with the core faculty of the Asian American Studies program since the unit was established. The Director who reports to the Dean is the executive officer for the unit and is responsible for all matters pertaining to faculty, staff, and students of the unit. An Administrative Coordinator who is an academic professional and a Civil Service Support Staff work for the Director.

The structure of the unit is similar and comparable to academic departments at the College, including Latina/Latino Studies, Gender and Women Studies, and African American

Studies. The unit has approved by-laws that describe the unit's structure and processes. In accordance with these by-laws, the title of the Director will change to Department Chair when the unit is approved by the IBHE.

Unit Outcomes/Accomplishments

As an academic research and instructional unit, the success of the department has been measured by the number of undergraduate and graduate courses offered, student enrollment in its courses, the number of minors offered and the number of students who enroll and complete the minors, and the research service productivity of the faculty. The accomplishments of the unit include its faculty winning the highly competitive Conrad Award given by the College to an outstanding midcareer scholar, and the faculty have won 13 national and international book awards since 2002, all for monographs that were produced on the campus. Specific examples of the awards are:

- Lisa Nakamura won the Association of Asian American Studies Award in Cultural Studies in 2010, and the same Award was won by Martin Manalansan in 2001;
- Moon Kie Jung won the 2008 Oliver Cromwell Cox Book Award from the Section on Racial and Ethnic Minorities of the American Sociological Association, and in 2007 won the Distinguished Contribution to Scholarship Award from the Political Sociology Section of the same Association; and
- Esther Kim Lee received the 2007 Research Award for Outstanding Book-length Study in Theatre Practice and Pedagogy from the Association for Theatre in Higher Education.

Since 2002, the Program hosted seven major conferences that had excellent attendance. One of them was the Balogopal Annual Lecture on Asian Americans and Human Rights that brings on campus important figures in Asian American activism. The Annual Lecture is endowed by a generous gift from Professors Emeriti Pallassana and Shyamala Balogopal. Altogether, the proposed unit has 23 faculty of which 15 are core faculty members, seven are affiliated faculty, and one Emeritus faculty member.

The Program was the 2008-2009 winner of the University's Student Affairs Outstanding Program Award while the faculty and staff were deeply involved in the field at a national level as well. By using CourseLink technology, the unit's courses such as the Asian American Ethnic Groups, serve students at the other Big 10 universities.

Quality Assurance Processes

The Director of the Asian American Studies Program meets annually with the Dean or Associate Dean of the College of Liberal Arts and Sciences to discuss quality and accomplishments of the unit and compiles and submits the unit's report. In addition, the Director evaluates faculty and staff annually and recommends merit increases based on performance. Fiscal controls are in place in the unit based on the College and Campus protocols. The Program produces standard monthly and annual budget reports that are reviewed by the Director and shared with the faculty. At the same time, the College and the campus staff work with the unit to determine the need for equipment and other resources. The budget of the unit is determined and disbursed by the College of Liberal Arts and Sciences.

When it is submitted to the IBHE and it is approved, the B.A. in Asian American Studies program currently under evaluation at the campus level will submit to the IBHE a progress report at the end of the third year of operation and the program will participate in the University's well established program review process every eight years.

Other quality assurance measures will be added as the unit's scope and activities increase in future.

Faculty and Staff

Currently, the unit has 23 faculty members, all them with appropriate qualifications. Fifteen are core faculty for the unit, while one is an Emeritus faculty member, and seven are affiliated faculty members. As summarized under Unit Outcomes/Accomplishments, the unit has very productive academics who have won many scholarly awards, including outstanding national awards. The awards and other types of recognition provide external validation of the caliber of the faculty of the unit. Faculty qualifications, and educational backgrounds of the faculty in the interdisciplinary unit encompass a significant range of academic disciplines, including anthropology, social work, English, women studies, political science, history, sociology, human and community development, theatre, sexuality and gender, communication, media and cinema studies, linguistics, and educational policy.

The Director of the unit is assisted by two staff members: an administrative coordinator who is an academic professional, and a Civil Service employee.

Resources

No new state resources are needed to establish the proposed Department. As in the past and at this time, the unit is supported by University's funds. It is projected that expenditures for the unit will grow from $681,050 in the first year to $718,850 in the fourth year. During the same period, resources for the unit are projected to grow from $706,100 in the first year to $746,500 in the fourth year which indicates that resources will exceed expenditures.

Program Information

Information about University of Illinois at Urbana-Champaign's Department of Asian American Studies, including a summary description of the mission and objectives, structure and leadership, instructional activities, assessment activities, and information about the faculty, will be published on the University's website, www.illinois.edu. Comparable information about the department will be published in the University's Undergraduate catalog and similar information may be available from the College of Liberal Arts and Sciences upon request.

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

The staff recommends adoption of the following resolutions:

The Illinois Board of Higher Education hereby grants to Eastern Illinois University authorization to establish the Geographic Information Science Center 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 Governors State University authorization to establish the Bachelor of Arts in Anthropology and Sociology in the South Metro

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 Governors State University authorization to establish the Master of Science in Mathematics in the South Metro Region subject to the institution's implementation and maintenance of the conditions that were presented in its application and that form the basis upon which this authorization is granted.

The Illinois Board of Higher Education hereby grants to University of Illinois at Urbana-Champaign authorization to establish the Department of Asian American Studies 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.