

APPROVED

DECEMBER 14, 2021

Item #F-3
December 14, 2021

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

Submitted for: Action.

Summary: This item requests approval of 12 degree programs at three public universities.

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

University of Illinois Chicago

- Bachelor of Arts in Liberal Arts and Sciences in Global Asian Studies in the Chicago Region
- Bachelor of Science in Environmental Engineering in the Chicago Region
- Bachelor of Science in Real Estate in the Chicago Region

University of Illinois Urbana-Champaign

- Bachelor of Science in Accountancy + Data Science in the Prairie Region
- Bachelor of Science in Computer Science + Education in the Prairie Region
- Bachelor of Science in Finance + Data Science in the Prairie Region
- Bachelor of Science in Information Sciences + Data Science in the Prairie Region
- Bachelor of Science in Liberal Arts and Sciences in Astronomy + Data Science in the Prairie Region
- Bachelor of Science in Liberal Arts and Sciences in Astrophysics in the Prairie Region
- Master of Science in CyberGIS and Geospatial Data Science in the Prairie Region
- Master of Science in Predictive Analytics and Risk Management in the Prairie Region

Western Illinois University

- Master of Music Therapy in the Western 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 (IBHE) is responsible for approving new on-campus and off-campus units of instruction, organized research, and public service, and units of administration proposed by public university governing boards. The Board's approval criteria, defined in rules adopted for administering the statute, addresses university mission, academic control, faculty and staff, support services, financial resources, student demand, curriculum, statewide need, and congruence with Board policies and priorities. In addition to the approval criteria in rules, each new program was reviewed for its contributions to the goals of *A Thriving Illinois: Higher Education Paths to Equity, Sustainability, and Growth*, which sets forth priorities to guide Illinois higher education. Staff recommendations are based on analyses of application materials and responses to staff questions.

Executive Summary – Public Institutions

University of Illinois Chicago

- Bachelor of Arts in Liberal Arts and Sciences in Global Asian Studies in the Chicago Region

The University of Illinois Chicago (University or UIC) is seeking authorization to offer a Bachelor of Arts in Liberal Arts and Sciences in Global Asian Studies in the Chicago Region. The proposed 120-credit hour degree program is designed to prepare students to critically analyze the global, political, and economic forces that have structured relations between the West and various regions of Asia, including histories of colonialism, migration, militarism, economic development, and cultural exchanges. The program provides a foundation for graduate education and a range of career options in relation to Asia and Asian American migrations, diasporic politics, and cultures including public relations, public health, social services, government, media relations, education, marketing, and a host of other fields that value critical analysis, racial literacy, and cultural competency. There are policies in place to ensure faculty members possess the training, credentials, and qualifications to provide instruction in the proposed program. The University has sufficient library, technology, staff, and financial resources in place to support the program.

- Bachelor of Science in Environmental Engineering in the Chicago Region

The University of Illinois Chicago (University or UIC) is seeking authorization to offer a Bachelor of Science in Environmental Engineering in the Chicago Region. The proposed 128-credit hour degree program is designed to prepare students with the background and skillset for entry-level jobs in the environmental engineering field, in addition to preparing them for graduate-level programs in environmental engineering. Graduates will be qualified to work in the environmental remediation and pollution abatement industry as engineering professionals and specialists, whether in field work, as company liaisons, managers, or within local, state, or federal government agencies. There are policies in place to ensure faculty members possess the training, credentials, and

qualifications to provide instruction in the proposed program. The University has sufficient library, technology, staff, and financial resources in place to support the program.

- Bachelor of Science in Real Estate in the Chicago Region

The University of Illinois Chicago (University or UIC) is seeking authorization to offer a Bachelor of Science in Real Estate in the Chicago Region. The BS in Real Estate requires a minimum of 120 credit hours of which 40 credit hours must be upper-division coursework. The program will be administered by the Stuart Handler Department of Real Estate in the College of Business Administration. Real Estate students will be able to use 400-level courses offered by the Department of Finance as electives for the BS in Real Estate and Finance students will be able to take Real Estate courses as electives for the BS in Finance. The BS in Real Estate provides a career path in a field that is in demand and growing in employment both locally and nationally. In addition, students are equipped with the skills necessary to use real estate as an investment vehicle. According to the U.S. Census, real estate investment has been highlighted to build sustainable wealth, as individuals own about 75 percent of all rental properties in the United States. There are policies in place to ensure faculty members possess the training, credentials, and qualifications to provide instruction in the proposed program. The University has sufficient library, technology, staff, and financial resources in place to support the program.

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

University of Illinois Urbana-Champaign

- Bachelor of Science in Accountancy + Data Science in the Prairie Region
- Bachelor of Science in Finance + Data Science in the Prairie Region
- Bachelor of Science in Information Sciences + Data Science in the Prairie Region
- Bachelor of Science in Liberal Arts and Sciences in Astronomy + Data Science in the Prairie Region

The University of Illinois Urbana-Champaign (University or UIUC) is seeking authorization to offer four “+ Data Science” degree programs in Accountancy, Finance, Information Science, and Astronomy. This is in response to the University’s 2018 Strategic Plan “The Next 150” which calls for “providing all Illinois students the opportunity to have a meaningful exposure to data science.” In recognition of the interdisciplinary and outward-looking nature of data science, the University developed the “X + Data Science Majors” as a way to offer students the opportunity to study data science while engaging with an application domain. The Departments of Computer Science, Mathematics, Statistics, the Gies College of Business, and the School of Information Sciences (iSchool) collaborated to develop a framework for the X + Data Science majors. Each X + Data Science major builds on education and training in the field of study X together with education and training in data science. There are policies in place to ensure faculty members possess the training, credentials, and qualifications to provide instruction in the proposed program. The University has sufficient library, technology, staff, and financial resources in place to support the program.

- Bachelor of Science in Computer Science + Education in the Prairie Region

The University of Illinois Urbana-Champaign (University or UIUC) is seeking authorization to offer a Bachelor of Science (BS) in Computer Science + Education in the Prairie Region. The BS in Computer Science + Education is an interdisciplinary program that requires a minimum of 120 credit hours. The program is jointly sponsored by the Department of Computer Science in the

Grainger College of Engineering and the Department of Curriculum and Instruction in the College of Education. The BS in Computer Science + Education will have two concentrations that will meet the needs of state employers in the public and private sectors: The Learning Sciences concentration and the Secondary Education concentration. The Learning Sciences concentration was designed to meet the needs of the rapidly growing educational technology industry while the Secondary Education concentration will provide the coursework and field experience for students to be licensed to teach computer sciences in grades 5-12. The BS in Computer Science + Education will prepare students for advanced study at the graduate level, as well as immediate entry into the workforce at educational institutions, research centers, non-profits, and technology companies. There are policies in place to ensure faculty members possess the training, credentials, and qualifications to provide instruction in the proposed program. The University has sufficient library, technology, staff, and financial resources in place to support the program.

- Bachelor of Science in Liberal Arts and Sciences in Astrophysics in the Prairie Region

The University of Illinois Urbana-Champaign (University or UIUC) is seeking authorization to offer a Bachelor of Science in Liberal Arts and Sciences in Astrophysics (BSLAS in Astrophysics) in the Prairie Region. The BSLAS in Astrophysics is an interdisciplinary program that requires a minimum of 120 credit hours of which 40 credit hours must be upper-division coursework. The program is offered by the Department of Astronomy in the College of Liberal Arts and Sciences. The University's restructuring which resulted in the moving of the Department of Physics to The Grainger College of Engineering while other physical sciences, such as chemistry, atmospheric sciences, geology, and astronomy reside within the College of Liberal Arts and Sciences (LAS), leading to the development of the proposed program. The BSLAS in Astrophysics will provide the rigorous preparation necessary for graduate study in Astronomy and Astrophysics, and it prepares students for employment in technical or scientific fields. There are policies in place to ensure faculty members possess the training, credentials, and qualifications to provide instruction in the proposed program. The University has sufficient library, technology, staff, and financial resources in place to support the program.

- Master of Science in CyberGIS and Geospatial Data Science in the Prairie Region

The University of Illinois Urbana-Champaign (University or UIUC) is seeking authorization to offer a Master of Science (MS) in CyberGIS and Geospatial Data Science in the Prairie Region. The proposed MS in CyberGIS and Geospatial Data Science is a non-thesis program that requires 32 credit hours 12 of which must be from GIS (Geography and Geographic Information Science). The Department of Atmospheric Sciences, the Department of Geology, and the Department of Geography and Geographic Information Science within the School of Earth, Society and Environment collaborated to design the non-thesis MS degree in CyberGIS and Geospatial Data Science. The program is designed to meet the growing demand for advanced GIS skills such as cyberGIS, geospatial big data analytics, geospatial visualization, needed in many industries. The MS in CyberGIS will accommodate remotely located students. There are policies in place to ensure faculty members possess the training, credentials, and qualifications to provide instruction in the proposed program. The University has sufficient library, technology, staff, and financial resources in place to support the program.

- Master of Science in Predictive Analytics and Risk Management in the Prairie Region

The University of Illinois Urbana-Champaign (University or UIUC) is seeking authorization to offer a Master of Science (MS) in Predictive Analytics and Risk Management in the Prairie Region. The proposed MS in Predictive Analytics and Risk Management requires 32 credit hours and is designed to be completed in one year, with summer coursework that will be available online. The program will offer two concentrations: Financial and Insurance Analytics and Enterprise Risk Management. Graduates will have a balanced knowledge of data science, actuarial science, and finance to expertly address problems of predictive analytics for risk management. There are policies in place to ensure faculty members possess the training, credentials, and qualifications to provide instruction in the proposed program. The University has sufficient library, technology, staff, and financial resources in place to support the program.

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

Western Illinois University

- Master of Music Therapy in the Western Region

Western Illinois University is seeking authorization to offer the Master of Music Therapy in the Western Region. The Master of Music Therapy requires 34 credit hours. WIU has offered a Bachelor of Music in Music Therapy for four decades, but in recent years students have inquired about a master's degree in the subject as national trends lean toward requiring music therapists to have a graduate degree. The proposed program has been approved by the National Association of Schools of Music and the American Music Therapy Association. Graduates of the program will be eligible to become board-certified music therapists qualified to work in hospitals, hospice, counseling, and disability services as well as to teach entry-level students at universities. There are policies in place to ensure faculty members possess the training, credentials, and qualifications to provide instruction in the proposed program. The University has sufficient library, technology, staff, and financial resources in place to support the program.

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

The staff recommends adoption of the following resolutions:

The Illinois Board of Higher Education hereby grants the University of Illinois Chicago authorization to grant the Bachelor of Arts in Liberal Arts and Sciences in Global Asian Studies 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 the University of Illinois Chicago authorization to grant the Bachelor of Science in Environmental Engineering 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 the University of Illinois Chicago authorization to grant the Bachelor of Science in Real Estate 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 the University of Illinois Urbana-Champaign authorization to grant the Bachelor of Science in Accountancy + Data Science, Bachelor of Science in Finance + Data Science, Bachelor of Science in Information Sciences + Data Science, and Bachelor of Science in Liberal Arts and Sciences in Astronomy + Data Science 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 the University of Illinois Urbana-Champaign authorization to grant the Bachelor of Science in Computer Science + 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 the University of Illinois Urbana-Champaign authorization to grant the Bachelor of Science in Liberal Arts and Sciences in Astrophysics 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 the University of Illinois Urbana-Champaign authorization to grant the Master of Science in CyberGIS and Geospatial Data Science 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 the University of Illinois Urbana-Champaign authorization to grant the Master of Science in Predictive Analytics and Risk Management 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 the Western Illinois University authorization to grant the Master of Music Therapy in the Western 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.

University of Illinois Chicago

Proposed Degree Title in the Region of Authorization: Bachelor of Arts in Liberal Arts and Sciences in Global Asian Studies in the Chicago Region

Projected Enrollments and Degrees:

First Year Enrollment	Fifth Year Enrollment	Degrees Awarded Fifth Year
10-15	40	15

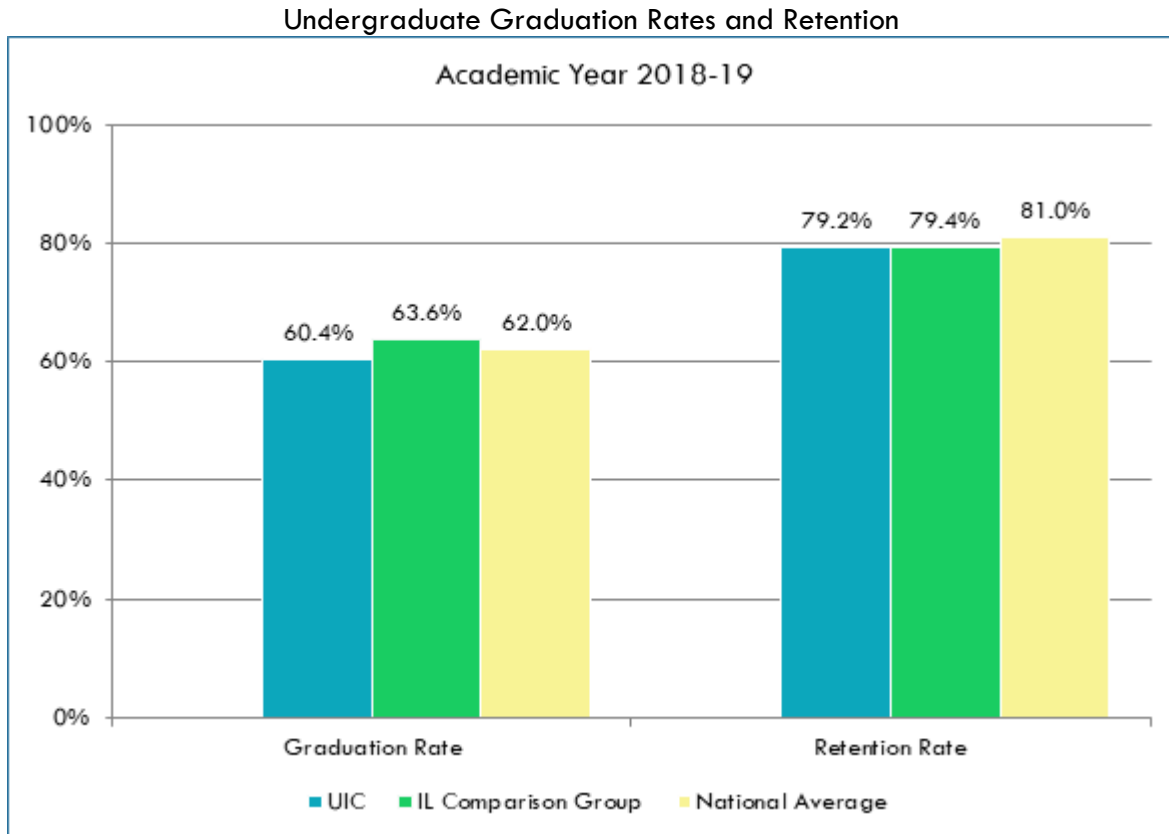
Background

The University of Illinois Chicago (University or UIC) is seeking authorization to offer a Bachelor of Arts in Liberal Arts and Sciences (BSLAS) in Global Asian Studies in the Chicago Region. The proposed degree program will be administered by the Global Asian Studies Program, which is led by a director and faculty members who hold tenurable appointments in the program and will also include appointed student and community advisory boards. The Global Asian Studies Program is a product of the 2016 merger of the Asian Studies Program and the Asian American Studies Program and their minors. Thus, the proposed program combines faculty and resources from both units to provide an encompassing degree program. Since its inception, the number of students in the Global Asian Studies minor has increased five-fold, with 67 students currently enrolled in the minor. Additionally, data from a Fall 2020 survey to gauge interest in Global Asian Studies as a major indicated that 72 percent of the respondents were in favor of establishing the degree. It is projected that the new degree program will grow steadily and provide varied career options for graduates.

Institutional Data

1050.30(b)(1)(H): Success in student progression and graduation rates across all existing approved programs, and success rates in programs preparing students for certification and licensure, shall be consistent with expectations in higher education and the appropriate related field of study. At a minimum, the Board shall consider these factors based on results for similar institutions. (i) Graduation rates, certificate and degree completion rates, retention rates, and pass rates for licensure and certification aligned with thresholds set by State nor national regulatory bodies. (ii) The success rate shall be, at a minimum, higher than those of the lowest quartile of these measures for similar Illinois institutions defined as open versus competitive enrollment institutions and primarily associate versus primarily baccalaureate granting institutions. Exceptions may be made to the lowest quartile if an institution is above the national average for these measures using the same comparison categories of institutions.

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



Source: National System for Education Statistics (NCES), US Department of Education
 Note: University of Illinois Chicago is in the four-year, selective Illinois comparison group.
 Higher percentages are positive indicators.

Undergraduate Graduation Rate

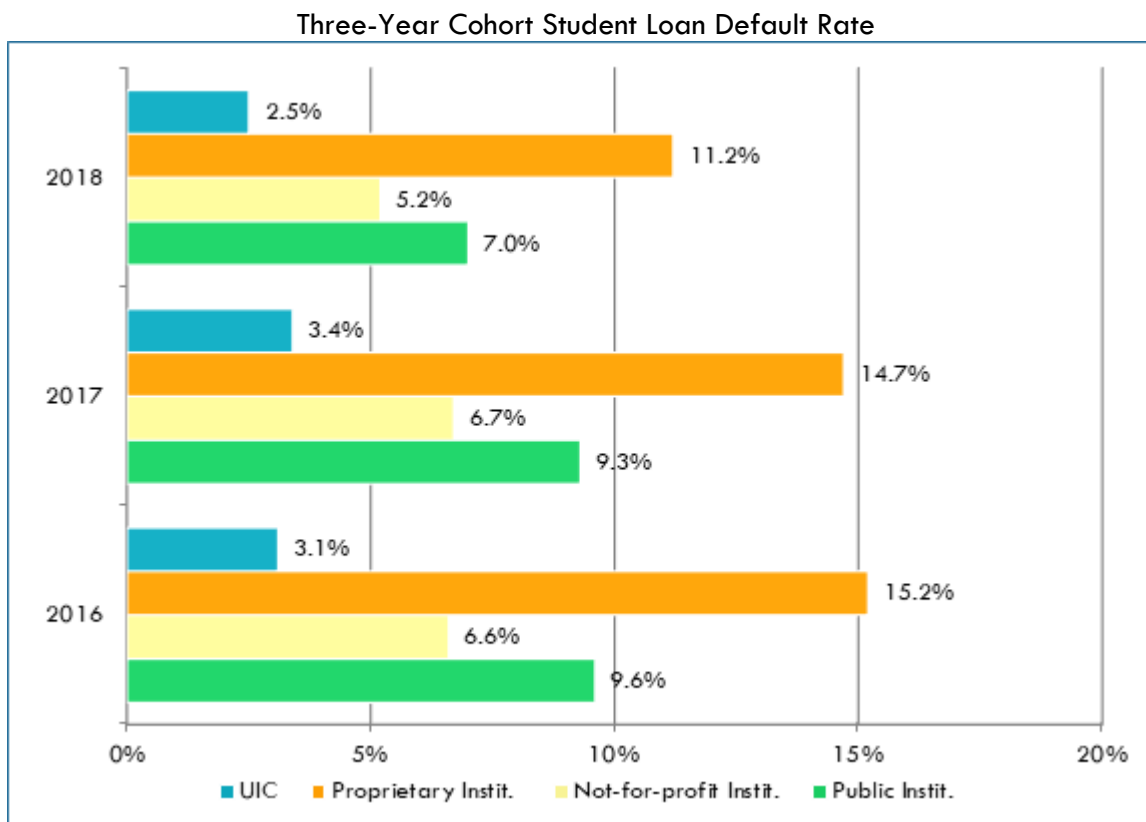
The graduation rate measures the rate at which entering freshmen graduate within 150 percent of normal program length. Data are provided for six-year graduation rates for first-time, full-time bachelor's degree-seeking students and three-year graduation rates for full-time associate degree-seeking students. The national standard for graduation rates is reported annually by the National Center for Education Statistics (NCES).

Undergraduate Retention Rate

Retention rates examine the percentage of first-time degree seeking students enrolled in the fall of the prior year that are still enrolled in the fall of the current year. The national standard for retention rates is reported annually by NCES.

Undergraduate Completions per 100 FTE		
Academic Year 2018-19	University of Illinois Chicago	Comparable Illinois Institutions
	22	24.3

The full-time equivalent (FTE) data is a unit of measurement intended to represent one student enrolled full-time for one academic year. The calculation is based upon credit/contact hours offered at an institution divided by a standard minimum (12 credit hour) full-time course load. The completions per 100 FTE data are included to provide a holistic view of completion across different student populations.



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

Note: The national cohort default rate for fiscal year 2018 is 7.3 percent.

A lower number is a positive indicator.

The three-year cohort student loan default rate is the percentage of a school's borrowers who enter repayment on certain Federal Family Education Loan Program or William D. Ford Federal Direct Loan Program loans during a particular federal fiscal year, October 1 to September 30, and default or meet other specified conditions prior to the end of the second following fiscal year.

Need

1050.30(a)(6): A) The unit of instruction, research or public service is educationally and economically consistent with the educational priorities and needs of the State 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 2010 U.S. Census indicates that the Asian population grew faster than any other race group and faster than the total U.S. population between 2000 and 2010. At 48 percent, the growth rate of the Asian population in the Midwest surpassed all but the growth rate in the South at 69 percent. The Chicago Metropolitan area alone experienced a 39 percent growth rate

between 2000 and 2010. Designated as an Asian American and Native American Pacific Islander-Serving Institution, UIC has student interest and demand for the proposed program. The data indicate a growing population of Asian Americans in Chicagoland and Illinois at large that will require a workforce of skilled professionals prepared to meet their unique needs.

According to the U.S. Bureau of Labor Statistics, jobs that require a bachelor's degree qualification are projected to grow 12.1 percent by 2022 nationally, and the state will need qualified workers to meet current and future job demands. The skills provided through the proposed program do not project clearly onto any one field. There are many professions that would benefit from the added value of ethnic studies, racial literacy, and cultural competency training that Global Asian Studies provides. The curriculum will prepare UIC graduates to address such issues as cultural differences in the workplace, language differences for students with limited English-language proficiency in public schools, and access to social services, particularly regarding Asians, Asian Americans, and other immigrant populations. As such, graduates will be sought out for employment opportunities with organizations in need of professionals with the knowledge, skills, and understanding necessary to work effectively with diverse groups. The BSLAS in Global Asian Studies responds to current and growing demands for personnel who are skilled and knowledgeable in Asian and Asian American histories, politics, and practices. Graduates of the program will find career opportunities at the national, state, and local government levels, as well as with non-profit organizations.

A Thriving Illinois: Higher Education Paths to Equity, Sustainability, and Growth

The proposed BALAS in Global Asian Studies supports Goal 1, Equity of A Thriving Illinois to close the equity gaps for students who have historically been left behind. UIC is designated as a Minority-Serving Institution (MSI) as well as a Hispanic-Serving Institution (HSI) and an Asian American and Native American Pacific Islander-Serving Institution (AANAPISI). In September 2021, UIC received an AANAPISI grant for the fourth time since 2010, which will provide \$1.5 million over the next five years to support the recruitment, retention, and graduation of students.

The proposed program would serve a diverse student population, and students would be able to take advantage of the financial aid resources available to UIC students. Departmental staff will be working together to ensure students are making progress towards the completion of the degree and are receiving the student support services they need. Additionally, Global Asian Studies Program works closely with the Asian American Resource and Cultural Center on campus, which runs the Asian American Mentor Program. That program provides peer mentoring and seminars for first year and transfer students and has proven to be effective in helping students adjust to college life, thereby helping to retain these same students at UIC.

The proposed program will also address Goal 2, Sustainability, to build a stronger financial future for individuals and institutions by finding ways to reduce the financial burden of education on students and their families. UIC provides an affordable in-state tuition rate to Illinois students. The overall percentage of undergraduate students at UIC receiving Pell Grants is consistently above 50 percent, and many in the Asian American and Latinx student populations are Pell-Grant-eligible. Additionally, 68 percent of full-time undergraduate students at UIC receive financial aid in the form of grants, scholarships, and fellowships from UIC and federal, state, or local government agencies.

The Global Asian Studies Program (GLAS) is committed to addressing longstanding inequities in educational achievement that affect Illinoisans across regional, ethnic, and class lines, in part by making the program accessible to students who are transferring from a community

college. Moreover, with increased economic integration with Asia on a national level, and with a growing Asian population in the state, there is greater demand for culturally competent workers in Illinois who are attuned to Asian and Asian American issues. The degree program prepares students to meet this demand. The program will further encourage students to study abroad or to seek an internship at a local community organization, thus broadening the skill sets of program graduates and making them more competitive for employment. This program will respond to the employment demands in the field of health and social services, and students may also be in a position to address a need within the Illinois public school education system, in light of the Teaching Equitable Asian American Community History (TEAACH) Act, which has passed in Illinois and amends the Illinois school code to mandate the teaching of Asian American history in public schools.

The proposed degree program will contribute to Goal 3, Growth, to increase talent and innovation to drive economic growth. Student demand for this degree program has been indicated through robust enrollment in the program's current Global Asian Studies minor and a Fall 2020 survey that showed 72 percent of the 102 student respondents expressed an interest in GLAS as a declared first or second major. Survey respondents were majoring in humanities, social sciences, health sciences, business, and STEM fields. In the new degree program, students will learn about the histories of the Asian American community which they can apply to their careers in a variety of fields in the global economy.

Comparable Programs in Illinois

There are five private institutions and two public institutions that offer a comparable program. Most of these programs focus on either Asian studies or Asian American studies. However, the proposed Bachelor of Arts in Liberal Arts and Sciences in Global Asian Studies program reflects a combination of Asian studies and Asian American studies.

Institution	Program Name	Sector
Knox College	BA in Asian Studies	Private Not-For-Profit
Lake Forest College	BA in Asian Studies	Private Not-For-Profit
North Central College	BA in East Asian Studies	Private Not-For-Profit
Northwestern University	BA in Asian Studies	Private Not-For-Profit
Southern Illinois University Carbondale	BA Language, Cultures, and International Studies: East Asian Language and Culture	Public
University of Chicago	BA in East Asian Languages and Civilization	Private Not-For-Profit
	BA in South Asian Languages and Civilizations	
	BA in South Asian Studies	
University of Illinois Urbana Champaign	BALAS in Asian American Studies	Public

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 program is consistent with the purpose, goals, objectives, and mission of the University. The requested degree title reflects the programs objectives and curriculum.

Curriculum and Assessment

1050.30(b)(1) [applicable only to units of instruction]: 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 programs 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.

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

Admission Requirements

Applicants must meet the minimum high school course requirements for admission to UIC which includes:

- English – 4 years
- Math – 3-4 years
- Science – 3 years
- Social Science 3 years
- Foreign Language – 2 years

Curriculum

The Bachelor of Arts in Liberal Arts and Sciences Global Asian Studies is an interdisciplinary program that requires a minimum of 120 credit hours, with at least 40 semester hours of upper-division coursework. The relationship with other interdisciplinary programs at UIC allows for a robust and multidisciplinary analysis of culture, race, and ethnicity. The curriculum will provide foundational knowledge and skills for understanding and engaging the field of Global Asian Studies while preparing students for a variety of careers and graduate studies. In addition to the three required core courses that draw from the humanities, social sciences, and arts, students will select eight Global Asian Studies courses from the following three thematic categories: Empire, Migration, and Diaspora; Culture and the Arts; and Society, Politics, and the State. Coursework must be taken from at least two of these categories and no more than 12 hours can be taken in a single category. The

capstone course will allow students to synthesize what they learned. Graduation requirements include:

- General Education coursework and electives – 87 hours
- Major requirements – 33 hours

Assessment of Student Learning

The University of Illinois Chicago has established processes to measure and analyze student learning outcomes. Assessment of the learning outcomes within each course will take place each semester, including via course-by-course assessment and end-of-program assessment (through the capstone project). Direct measures include quizzes, midterm and final exams, response papers, analytical papers, discussion forums, guided in-class and outside-of-class learning activities, classroom discussion facilitation, literature reviews, media dossier projects, service-learning projects, and research projects as well as the capstone project. Indirect measures of assessment include self-assessments, supervisor assessments, employer satisfaction surveys, graduate satisfaction surveys, and job placement results. A benchmark for student success will be when 85 percent of students in the degree program achieve a B or higher in a given course. Individual instructors and the department curriculum committee will review assessments for each course at the end of each semester, evaluate effectiveness, and make recommendations to improve student learning.

Program Assessment

The University of Illinois Chicago has articulated a comprehensive plan to continually evaluate and improve the BALAS in Global Asian Studies. Program evaluation will involve the director of undergraduate studies, program director, assistant director, curriculum committee, and faculty affairs committee. The curriculum committee will evaluate the need for adjustments in program courses and make recommendations for improvement in consultation with the course instructors. A major component of the evaluation process will involve the capstone course as student assignments are used to evaluate the culmination of student learning. The following indicators will aid in a comprehensive program assessment:

- Enrollment, retention, and graduation rates
- Academic performance
- Course selection and sequence
- Course assessments
- Alumni, employer, and exit surveys

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.

Existing facilities are sufficient for implementing the proposed program. The University possesses appropriate library resources with access to books, databases, journals, and media to support teaching and scholarly work.

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. At a minimum, faculty shall have a degree from an institution accredited by a U.S. Department of Education and/or Council for Higher Education Accreditation recognized accrediting body or a degree from another country evaluated for U.S. equivalency in the discipline they will teach or for which they will develop curricula at least one level above that of the courses being taught or developed. 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. E) Support personnel, including but not limited to counselors, administrators, clinical supervisors, and technical staff, that are directly assigned to the unit of instruction, research or public service, have the educational background and experience necessary to carry out their assigned responsibilities.

The University has identified institutional policies that ensure faculty and staff possess the training, credentials, and other related qualifications to provide instruction at the institution. Faculty teaching in the proposed program will have the appropriate qualifications. A formal faculty evaluation process is in place.

Fiscal and Personnel Resources

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

The University has adequate faculty, staff, and other instructional resources to administer the proposed program. Existing faculty will teach the proposed curricula. There are plans for a replacement hire to account for a faculty member's departure.

Accreditation and Licensure

1050.30(b)(3)[applicable only to units of instruction]: 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.

No specialized accreditation or licensure is required.

Program Information

1050.30(b)(2)[applicable only to units of instruction]: A) The information which 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, 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 and the number of graduates and enrollments as provided by the institution to the Integrated Postsecondary Education Data System (IPEDS) and any submission of data to satisfy Board reporting requirements; 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.

Detailed information about the proposed program, including description of the admission policies, university policies, tuition, fees, and curriculum, is provided in the proposal and will be published on the University's website.

Staff Conclusion

The staff concludes that the Bachelor of Arts in Liberal Arts and Sciences in Global Asian Studies proposed by the University of Illinois Chicago 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.

Proposed Degree Title in the Region of Authorization: Bachelor of Science in Environmental Engineering in the Chicago Region

Projected Enrollments and Degrees:

First Year Enrollment	Fifth Year Enrollment	Degrees Awarded Fifth Year
10	45	10

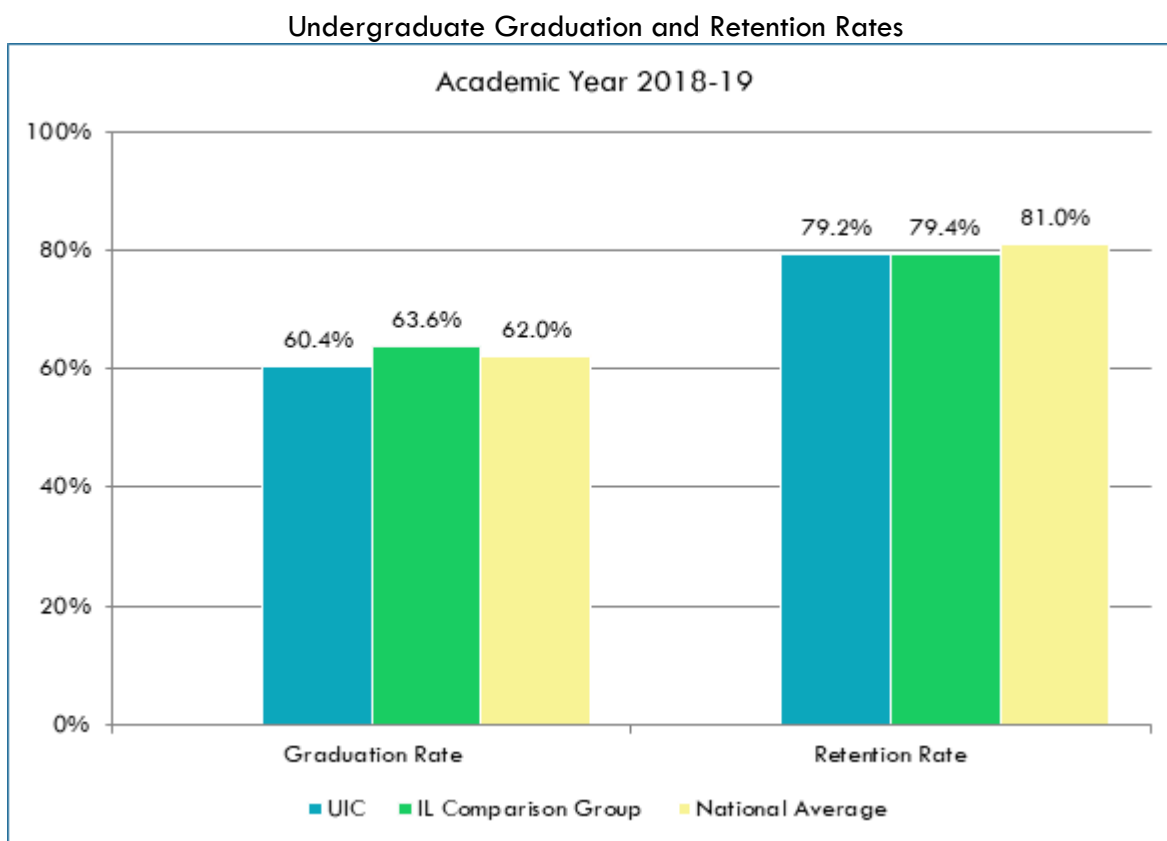
Background

The University of Illinois Chicago (University or UIC) is seeking authorization to offer a Bachelor of Science (BS) in Environmental Engineering in the Chicago Region. Currently the Department of Civil, Materials, and Environmental (CME) Engineering offers the BS in Civil Engineering, three Master of Science degrees including Civil Engineering, Materials Engineering, and Construction Engineering and Management, and two doctoral programs in Civil Engineering and Materials Engineering. The proposed BS in Environmental Engineering has been developed based on several factors, including the expected industry demand for environmental engineers, the interest of potential high school applicants, and the expansion of the existing Minor in Environmental Engineering. Civil engineering encompasses several disciplines, including environmental engineering and water resources engineering and as such, most of the courses required for the new BS in Environmental Engineering are already offered by the CME department.

Institutional Data

1050.30(b)(1)(H): Success in student progression and graduation rates across all existing approved programs, and success rates in programs preparing students for certification and licensure, shall be consistent with expectations in higher education and the appropriate related field of study. At a minimum, the Board shall consider these factors based on results for similar institutions. (i) Graduation rates, certificate and degree completion rates, retention rates, and pass rates for licensure and certification aligned with thresholds set by State nor national regulatory bodies. (ii) The success rate shall be, at a minimum, higher than those of the lowest quartile of these measures for similar Illinois institutions defined as open versus competitive enrollment institutions and primarily associate versus primarily baccalaureate granting institutions. Exceptions may be made to the lowest quartile if an institution is above the national average for these measures using the same comparison categories of institutions.

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



Source: National System for Education Statistics (NCES), US Department of Education
Note: University of Illinois Chicago is in the four-year, selective Illinois comparison group.
Higher percentages are positive indicators.

Undergraduate Graduation Rate

The graduation rate measures the rate at which entering freshmen graduate within 150 percent of normal program length. Data are provided for six-year graduation rates for first-time, full-time bachelor's degree-seeking students and three-year graduation rates for full-time associate degree-seeking students. The national standard for graduation rates is reported annually by the National Center for Education Statistics (NCES).

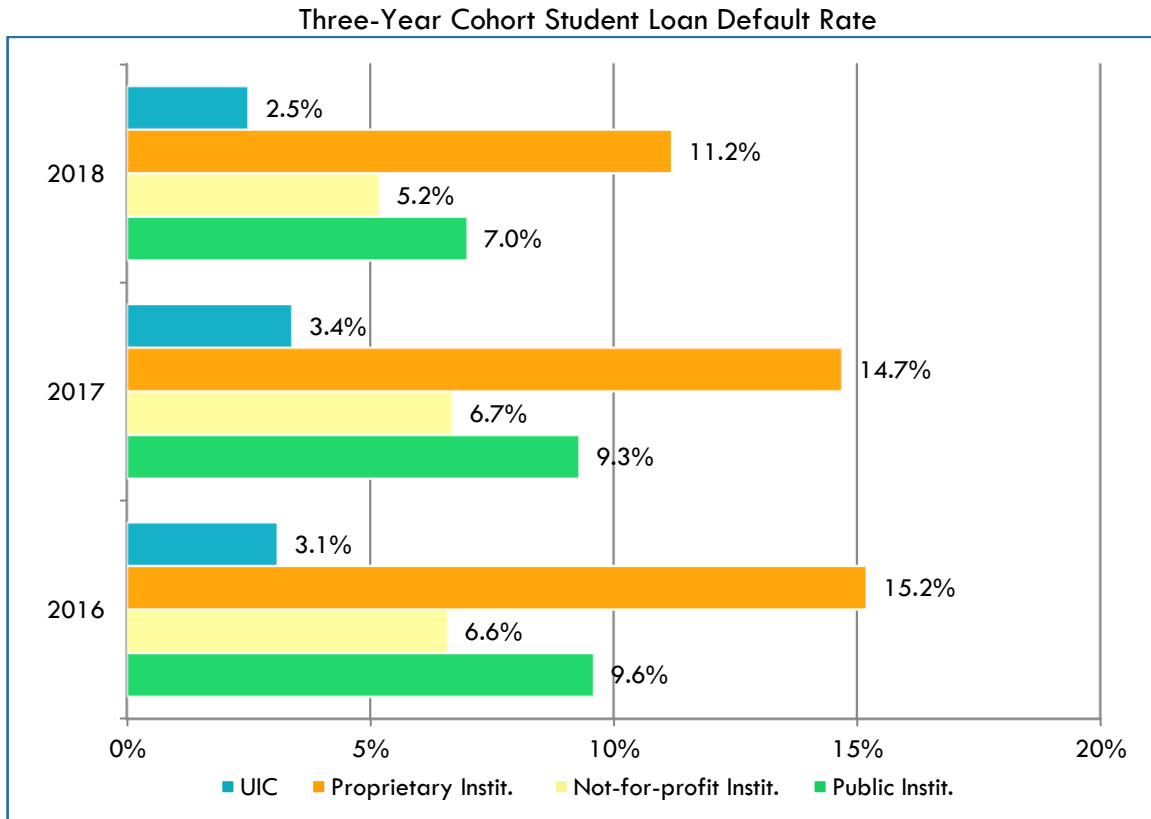
Undergraduate Retention Rate

Retention rates examine the percentage of first-time degree seeking students enrolled in the fall of the prior year that are still enrolled in the fall of the current year. The national standard for retention rates is reported annually by NCES.

Undergraduate Completions per 100 FTE

Academic Year 2018-19	University of Illinois Chicago	Comparable Illinois Institutions
	22	24.3

The full-time equivalent (FTE) data is a unit of measurement intended to represent one student enrolled full-time for one academic year. The calculation is based upon credit/contact hours offered at an institution divided by a standard minimum (12 credit hour) full-time course load. The completions per 100 FTE data are included to provide a holistic view of completion across different student populations.



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

Note: The national cohort default rate for fiscal year 2018 is 7.3 percent.

A lower number is a positive indicator.

The three-year cohort student loan default rate is the percentage of a school's borrowers who enter repayment on certain Federal Family Education Loan Program or William D. Ford Federal Direct Loan Program loans during a particular federal fiscal year, October 1 to September 30, and default or meet other specified conditions prior to the end of the second following fiscal year.

Need

1050.30(a)(6): A) The unit of instruction, research or public service is educationally and economically consistent with the educational priorities and needs of the State 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.

According to the U.S. Bureau for Labor Statistics, the 2020 median annual salary for environmental engineers was \$92,120. The job outlook for environmental engineers for the period from 2020 to 2030 includes an expected increase of four percent in jobs available for environmental professionals. Workers on average earn \$91,700 in Illinois whereas 10 percent of workers earn \$65,310 or less and ten percent earn \$136,220 or more. More environmental engineers will be needed as the overall requirements for environmental quality and pollution control increase over the next decade, not only in the U.S. but also around the world.

A Thriving Illinois: Higher Education Paths to Equity, Sustainability, and Growth

The proposed BS in Environmental Engineering supports Goal 1, Equity of A Thriving Illinois to *close the equity gaps for students who have historically been left behind*. UIC has been designated as a Minority Serving Institution and a Hispanic Serving Institution, and it is the largest urban institution of higher education in Illinois which attracts underrepresented minority applicants. First-time college students and transfer students will receive year-round academic advising and support through enrichment and academic support programs. There are opportunities for students to get involved in professional societies and student organizations, which increase their interactions with peers, mentors, and faculty advisors. Incoming underrepresented minority students are offered the opportunity for enhanced learning practice including service learning, faculty research, internships, and field experience. Part-time and working adult students can complete degree requirements in a flexible format amenable to their available time schedules over an extended period of time.

The proposed program will also address Goal 2, Sustainability, to *build a stronger financial future for individuals and institutions* by finding ways to reduce the financial burden of education on students and their families. The BS in Environmental Engineering would provide a public university option for Illinois students that will be less expensive than the comparable programs offered by the two private institutions serving the greater Chicago metropolitan area. For example, based on 2021-2022 academic year tuition and fees, students at UIC would pay over \$40,000 less per year than they would at Northwestern University. Paying in-state tuition at a public university in Illinois would also be more affordable than tuition at an out-of-state public institution.

The proposed degree program will contribute to Goal 3, Growth, to *increase talent and innovation to drive economic growth*. Over the next decade, the demand for environmental engineering graduates and professionals is projected to increase which necessitates growth in undergraduate programs and degrees in environmental engineering that address ongoing advances and innovations within environmental engineering technology. The proposed BS in Environmental Engineering will produce well-equipped engineering graduates with high-quality, post-secondary credentials. These graduates will join the work force in the growing environmental industry which includes manufacturing, commercial businesses, government, and infrastructure in the greater Chicago metropolitan area, in Illinois, and across the nation. Students graduating with this degree will become industry leaders citywide, statewide, nationwide, or globally, helping to satisfy the increasing demand for environmental engineering professionals across the United States and internationally.

Comparable Programs in Illinois

Loyola University of Chicago and Northwestern University are the two private institutions that offer a comparable bachelor's degree program. Environmental engineering programs at neighboring states of Indiana, Michigan, Missouri, and Wisconsin are mostly associated with civil engineering. The proposed BS in Environmental Engineering will provide a more affordable option at a public institution in the greater Chicago area. It will offer the flexibility of building several technical electives into the curriculum and the admissions process will provide credit for the AP course in Environmental Science.

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 program is consistent with the purpose, goals, objectives, and mission of the University. The requested degree title reflects the programs objectives and curriculum.

Curriculum and Assessment

1050.30(b)(1) [applicable only to units of instruction]: 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 programs 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.

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

Admission Requirements

Applicants are expected to have had four years of mathematics and four years of science in high school. First-year students and transfer students may apply to the program. College credit for the AP course in environmental science will be accepted for potential high school applicants. Besides math and science, other coursework recommendations for admission to UIC include:

- English – 4 years
- Social Science – 3 years
- Foreign Language – 2 years

Curriculum

The BS in Environmental Engineering requires a minimum of 128-credit-hours including a minimum of 46 hours of coursework at the 300-400 level. The technical elective coursework allows flexibility of selecting upper-level courses offered by the Department of Civil, Materials, and Environmental Engineering or other STEM departments at UIC. The curriculum will prepare students to use principles of engineering, soil science, biology, and chemistry to develop solutions to environmental problems. The capstone course involves the application of engineering and design

methods to the solution of a large-scale design program while communicating design solutions through verbal and written media. Graduation requirements include:

- Non-Engineering and General Education coursework – 60 hours
- Engineering coursework – 53 hours
- Technical Elective coursework – 15 hours

Assessment of Student Learning

The University of Illinois Chicago has established processes to measure and analyze student learning outcomes. Assessment will incorporate factors such as teaching effectiveness, periodic curriculum review by the faculty, and feedback from current students and alumni about their learning experiences. Direct measures include exams, quizzes, reports, projects, oral presentations, and collaborative group work. Indirect measures of student learning outcomes include grades, GPA, and satisfaction surveys.

Program Assessment

The University of Illinois Chicago has articulated a comprehensive plan to continually evaluate and improve the BS in Environmental Engineering. The department head and program director will evaluate assessment results. The findings and recommendations for improvement will be presented in the annual program assessment report and will be used as a baseline for the next academic year's assessments. The following metrics will be involved in evaluating and improving the program:

- Alumni/current student satisfaction surveys
- Job placement/career advancement rates
- Results of student learning assessment
- Retention, graduation, and time-to-degree completion rates

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.

Existing facilities are sufficient for implementing the proposed program. The University possesses appropriate library resources with access to online textbooks, online journals, and references to support teaching and scholarly work.

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. At a minimum, faculty shall have a degree from an institution accredited by a U.S. Department of Education and/or Council for Higher Education Accreditation recognized

accrediting body or a degree from another country evaluated for U.S. equivalency in the discipline they will teach or for which they will develop curricula at least one level above that of the courses being taught or developed. 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. E) Support personnel, including but not limited to counselors, administrators, clinical supervisors, and technical staff, that are directly assigned to the unit of instruction, research or public service, have the educational background and experience necessary to carry out their assigned responsibilities.

The University has identified institutional policies that ensure faculty and staff possess the training, credentials, and other related qualifications to provide instruction at the institution. Faculty teaching in the proposed program will have the appropriate qualifications. A formal faculty evaluation process is in place.

Fiscal and Personnel Resources

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

The University has adequate faculty, staff, and other instructional resources to administer the proposed program. Existing faculty will teach the proposed curricula. There are plans to hire two full-time faculty and two adjunct faculty over the next four to five years to address enrollment growth of programs within the department.

Accreditation and Licensure

1050.30(b)(3)[applicable only to units of instruction]: 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.

Graduates may take the Fundamentals of Engineering Exam (FE Exam) upon completion of the BS in Environmental Engineering program. Environmental engineers who have gained more than four years of work experience may take the Principles and Practice of Engineering Exam (PE Exam). After passing the FE and PE examinations, individuals are eligible to practice as licensed professional engineers in Illinois. Additionally, the Department of Civil, Materials, and Environmental Engineering at UIC will seek specialized accreditation for the proposed BS in Environmental Engineering through the Accreditation Board of Engineering and Technology.

Program Information

1050.30(b)(2)[applicable only to units of instruction]: A) The information which 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, 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 and the number of graduates and enrollments as provided by the institution to the Integrated Postsecondary Education Data System (IPEDS) and any submission of data to satisfy Board reporting requirements; 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.

Detailed information about the proposed program, including description of the admission policies, university policies, tuition, fees, and curriculum are provided in the proposal and will be published on the University's website.

Staff Conclusion

The staff concludes that the Bachelor of Science in Environmental Engineering proposed by the University of Illinois Chicago 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.

Proposed Degree Title in the Region of Authorization: Bachelor of Science in Real Estate in the Chicago Region

Projected Enrollments and Degrees:

First Year Enrollment	Fifth Year Enrollment	Degrees Awarded Fifth Year
90	200	50

Background

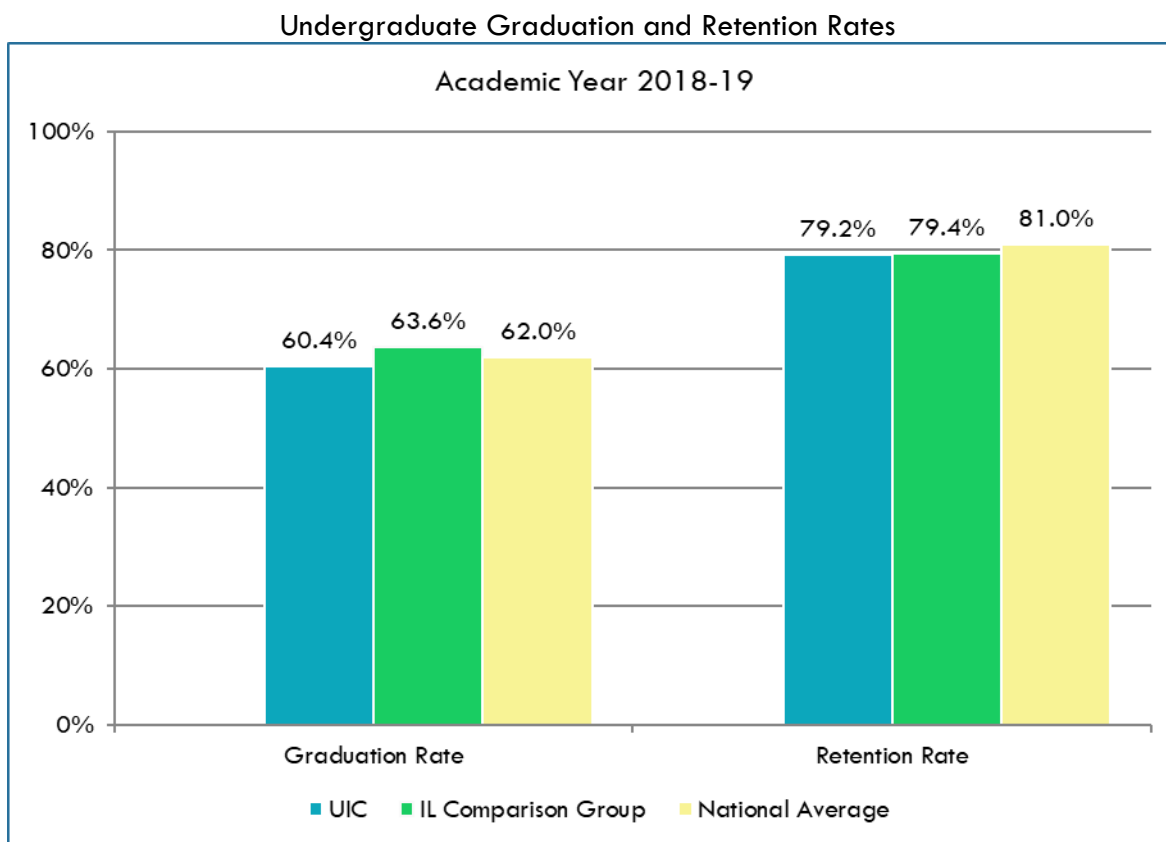
The University of Illinois Chicago (University or UIC) is seeking authorization to offer a Bachelor of Science in Real Estate in the Chicago Region. The College of Business Administration conducted a survey in Spring 2018 to gauge student interest in a real estate major. According to the data from 249 respondents, 35 percent strongly agreed, and 22 percent agreed that it is a good idea for UIC to add a Bachelor's in Real Estate to its undergraduate program offerings. The proposed program will be administered by the Stuart Handler Department of Real Estate in the College of Business Administration. Real estate courses previously offered by the Department of Finance have been transferred to the Department of Real Estate. Real Estate students will be able to use 400-level courses offered by the Department of Finance as electives for the BS in Real Estate and Finance students will be able to take Real Estate courses as electives for the BS in Finance. The new major in Real Estate will strengthen both programs and will provide all College of Business Administration students with the opportunity to take Real Estate courses as electives.

Institutional Data

1050.30(b)(1)(H): Success in student progression and graduation rates across all existing approved programs, and success rates in programs preparing students for certification and licensure, shall be

consistent with expectations in higher education and the appropriate related field of study. At a minimum, the Board shall consider these factors based on results for similar institutions. (i) Graduation rates, certificate and degree completion rates, retention rates, and pass rates for licensure and certification aligned with thresholds set by State nor national regulatory bodies. (ii) The success rate shall be, at a minimum, higher than those of the lowest quartile of these measures for similar Illinois institutions defined as open versus competitive enrollment institutions and primarily associate versus primarily baccalaureate granting institutions. Exceptions may be made to the lowest quartile if an institution is above the national average for these measures using the same comparison categories of institutions.

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



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

Note: University of Illinois Chicago is in the four-year, selective Illinois comparison group. Higher percentages are positive indicators.

Undergraduate Graduation Rate

The graduation rate measures the rate at which entering freshmen graduate within 150 percent of normal program length. Data are provided for six-year graduation rates for first-time,

full-time bachelor's degree-seeking students and three-year graduation rates for full-time associate degree-seeking students. The national standard for graduation rates is reported annually by the National Center for Education Statistics (NCES).

Undergraduate Retention Rate

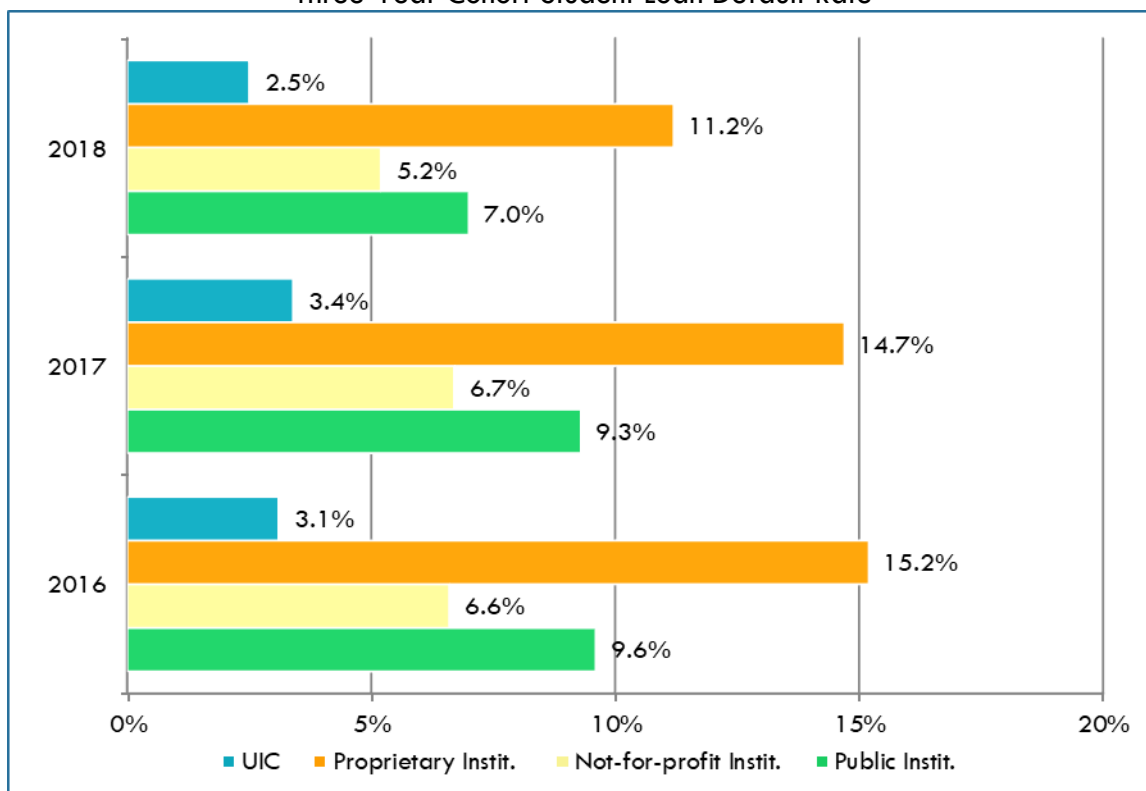
Retention rates examine the percentage of first-time degree seeking students enrolled in the fall of the prior year that are still enrolled in the fall of the current year. The national standard for retention rates is reported annually by NCES.

Undergraduate Completions per 100 FTE

Academic Year 2018-19	University of Illinois Chicago	Comparable Illinois Institutions
	22	24.3

The full-time equivalent (FTE) data is a unit of measurement intended to represent one student enrolled full-time for one academic year. The calculation is based upon credit/contact hours offered at an institution divided by a standard minimum (12 credit hour) full-time course load. The completions per 100 FTE data are included to provide a holistic view of completion across different student populations.

Three-Year Cohort Student Loan Default Rate



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

Note: The national cohort default rate for fiscal year 2018 is 7.3 percent.

A lower number is a positive indicator.

The three-year cohort student loan default rate is the percentage of a school's borrowers who enter repayment on certain Federal Family Education Loan Program or William D. Ford Federal Direct Loan Program loans during a particular federal fiscal year, October 1 to September 30, and default or meet other specified conditions prior to the end of the second following fiscal year.

Need

1050.30(a)(6): A) The unit of instruction, research or public service is educationally and economically consistent with the educational priorities and needs of the State 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 degree is primarily geared towards UIC undergraduate students enrolled in the College of Business Administration, yet it is also expected to attract students from other UIC departments or colleges. Students will receive specialized training necessary to conduct financial analysis of real estate investments along with instruction in market analysis, valuation, and development that will enable them to obtain desirable jobs in the industry. While students may choose to pursue a career as a residential real estate broker, the BS in Real Estate prepares students more broadly for careers in the field of real estate including careers in the mortgage industry, commercial real estate, real estate market analysis, real estate data analytics, and real estate investing, among others. Entry-level jobs include financial analysts, brokers, real estate agents, property managers, appraisers, lease managers, and loan officers.

According to the Bureau of Labor Statistics, the national employment outlook for entry-level jobs commonly taken by real estate students include assessors and appraisers of real estate, financial analysts, and loan officers, which have growth rates ranging from six to eight percent faster than the average between 2018 and 2028. The 2020 median pay is \$58,650 for assessors and appraisers; \$83,660 for financial analysts; and \$63,960 for loan officers. Chicago is in the top five metro areas for employment in all three of these job categories. The demand for financial analysts is especially strong in Illinois: the state ranks in the top five nationally in employment levels and is in the top decile for wages. The East Central region of Illinois ranks second among all non-metropolitan areas in the country in the concentration of jobs as assessors and appraisers.

A Thriving Illinois: Higher Education Paths to Equity, Sustainability, and Growth

The proposed BS in Real Estate supports Goal 1, Equity of A Thriving Illinois to close the equity gaps for students who have historically been left behind. The proposed BS in Real Estate will provide academic preparation for students pursuing careers in the real estate industry or who want to attend graduate programs in real estate or finance. Given the diverse and traditionally underserved nature of the students the program will serve at UIC, offering a new program with training in a field with abundant and lucrative employment opportunities will work toward closing the income gap that has worked against these students. Additionally, UIC is engaged in a major strategic planning initiative, Advancing Racial Equity (ARE), launched in 2020 and designed to address any institutional and structural racism that impacts the campus and the neighboring communities. As part of the initiative, the department is discussing the following priorities: Student Equity/Inclusion, Advancing Faculty and Staff Inclusive Excellence, Collaborating with the Community, Promoting an Atmosphere of Care and Concern, and Achieving Transparency and Accountability. The initiative will work to change and strengthen student support services that are currently available to the unit. The new program is committed to offering students full information about these services and any changes and resources that result from the ARE initiative.

The proposed program will also address Goal 2, Sustainability, to build a stronger financial future for individuals and institutions by finding ways to reduce the financial burden of education on students and their families. The department is working with the advisory board to set up scholarship funds for students in the new program. These scholarships are intended to further enhance the value that traditionally underserved populations are getting at UIC. The proposed program will be more affordable than existing programs in Illinois. The BS in Real Estate will provide excellent access to internship and employment opportunities in the Chicago area by connecting students to the College's local industry-leading Board of Directors. Training in real estate will also directly augment the ability of students to build a stronger financial future for themselves, and thereby contribute to a more sustainable future for state and local institutions. This real estate program provides a career path in a field that is in demand and growing in employment both locally and nationally. In addition, students are equipped with the skills necessary to use real estate as an investment vehicle. According to the U.S. Census, real estate investment has been highlighted to build sustainable wealth, as individuals own about 75 percent of all rental properties in the United States.

The proposed degree program will contribute to Goal 3, Growth, to increase talent and innovation to drive economic growth. The BS in Real Estate will work toward building talented and innovative students and faculty members. The department at UIC is unique within the State of Illinois in the quality and quantity of its research faculty, whose research will be incorporated into the classroom. Real Estate faculty conduct innovative research, using data from Chicago, that provides information that is highly relevant to state and local policy makers. For example, Real Estate faculty have studied the effects of O'Hare airport noise on property value, the effects of the Orange Line on house prices, and the effects of assessment practices on the incidence of the property tax. Starting with research active faculty will spark student interest and innovation in a field that is already a strong and growing employer locally in Chicago and nationwide. The program will emphasize strong quantitative skills that are particularly in demand as the real estate industry moves more in the direction of incorporating data and analytics into decision making.

Comparable Programs in Illinois

DePaul University and Roosevelt University are the two private not-for-profit institutions in the Chicago Region that offer a comparable program. The proposed BS in Real Estate will have an analytical emphasis, which will provide graduates with skills that are in demand by employers. It will prepare students more broadly for careers in the field including the mortgage industry, commercial real estate, real estate market analysis, real estate data analytics, and real estate investing, among others.

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 program is consistent with the purpose, goals, objectives, and mission of the University. The requested degree title reflects the programs objectives and curriculum.

Curriculum and Assessment

1050.30(b)(1) [applicable only to units of instruction]: 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 programs 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.

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

To qualify for admission to the BS in Real Estate program, applicants must meet requirements for admission to UIC. The College of Business recommends a strong math background with 4 years of high school math, yet the following courses are recommended for competitive applications to the University:

- English – 4 years
- Math – 3-4 years
- Science – 3 years
- Social Science – 3 years
- Foreign Language – 2 years

Curriculum

The BS in Real Estate requires a minimum of 120-credit-hours that includes a minimum of 40 upper-level courses. The curriculum will cover major topics in real estate with an emphasis on data analysis and urban real estate markets. Major course requirements will include a foundational course in real estate, real estate market and data analysis, real estate valuation, international real estate, commercial real estate, and real estate finance. Graduation requirements include:

- General and basic education courses – 48 hours
- Business core courses – 42 hours
- Business electives – 12 hours
- Major requirements – 18 hours

Assessment of Student Learning

The University of Illinois Chicago has established processes to measure and analyze student learning outcomes. Direct measures include a final exam, written project in two required courses, and a written review of work done in the internship. Indirect measures of student learning outcomes include input from the department's Advisory Committee along with surveys that will be conducted on interns, employers, job fair attendees, and alumni. The department curriculum committee will conduct annual reviews of the curriculum, student performance in the courses, teaching evaluations,

and the feedback from the Advisory Committee, alumni, and job fair and internship participants to determine whether students are meeting the program objectives. The results of the review will be used by the Department of Real Estate faculty to revise the curriculum as needed.

Program Assessment

The University of Illinois Chicago has articulated a comprehensive plan to continually evaluate and improve the BS in Real Estate. Program data will be evaluated annually by program faculty and staff through year three of implementation; then every two years thereafter. Upon review, faculty will summarize findings and generate recommendations in a report that will be shared with those involved with the degree. The following key indicators will be used to evaluate the program:

- Enrollment, including breakdown of gender and race/ethnicity
- Number of students participating in internships and other integrative learning activities
- GPA for required and selective courses
- Grades earned on papers in two of the required courses
- Graduation rates
- Average starting salary of graduates
- Graduate school acceptance rates into Real Estate and related disciplines
- Student satisfaction and accomplishment through
 - Course evaluations
 - Post-graduation survey
 - Job placement at the time of graduation, as well as three- and six-months post-graduation

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.

Existing facilities are sufficient for implementing the proposed program. The University possesses appropriate library resources with access to online databases and other electronic resources to support teaching and scholarly work.

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. At a minimum, faculty shall have a degree from an institution accredited by a U.S. Department of Education and/or Council for Higher Education Accreditation recognized accrediting body or a degree from another country evaluated for U.S. equivalency in the discipline they will teach or for which they will develop curricula at least one level above that of the courses being

taught or developed. 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.* E) *Support personnel, including but not limited to counselors, administrators, clinical supervisors, and technical staff, that are directly assigned to the unit of instruction, research or public service, have the educational background and experience necessary to carry out their assigned responsibilities.*

The University has identified institutional policies that ensure faculty and staff possess the training, credentials, and other related qualifications to provide instruction at the institution. Faculty teaching in the proposed program will have the appropriate qualifications. A formal faculty evaluation process is in place.

Fiscal and Personnel Resources

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

The University has adequate faculty, staff, and other instructional resources to administer the proposed program. If future demand warrants it, additional faculty may be added to teach, but salary costs will be fully supported by the additional tuition revenues generated by the increase in enrollment.

Accreditation and Licensure

1050.30(b)(3)[applicable only to units of instruction]: 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.

No specialized accreditation or licensure is required.

Program Information

1050.30(b)(2)[applicable only to units of instruction]: A) The information which 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, 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 and the number of graduates and enrollments as provided by the institution to the Integrated Postsecondary Education Data System (IPEDS) and any submission of data to satisfy Board reporting requirements; 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.

Detailed information about the proposed program, including description of the admission policies, university policies, tuition, fees, and curriculum are provided in the proposal and will be published on the University's website.

Staff Conclusion

The staff concludes that the Bachelor of Science in Real Estate proposed by the University of Illinois Chicago 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 Urbana-Champaign

Proposed Degree Title in the Region of Authorization: Bachelor of Science in Accountancy + Data Science in the Prairie Region

Projected Enrollments and Degrees:

First Year Enrollment	Fifth Year Enrollment	Degrees Awarded Fifth Year
50	100	65

Proposed Degree Title in the Region of Authorization: Bachelor of Science in Finance + Data Science in the Prairie Region

Projected Enrollments and Degrees:

First Year Enrollment	Fifth Year Enrollment	Degrees Awarded Fifth Year
5	40	20

Proposed Degree Title in the Region of Authorization: Bachelor of Science in Information Sciences + Data Science in the Prairie Region

Projected Enrollments and Degrees:

First Year Enrollment	Fifth Year Enrollment	Degrees Awarded Fifth Year
50	100	25

Proposed Degree Title in the Region of Authorization: Bachelor of Science in Liberal Arts and Sciences in Astronomy + Data Science in the Prairie Region

Projected Enrollments and Degrees:

First Year Enrollment	Fifth Year Enrollment	Degrees Awarded Fifth Year
5	20	5

Background

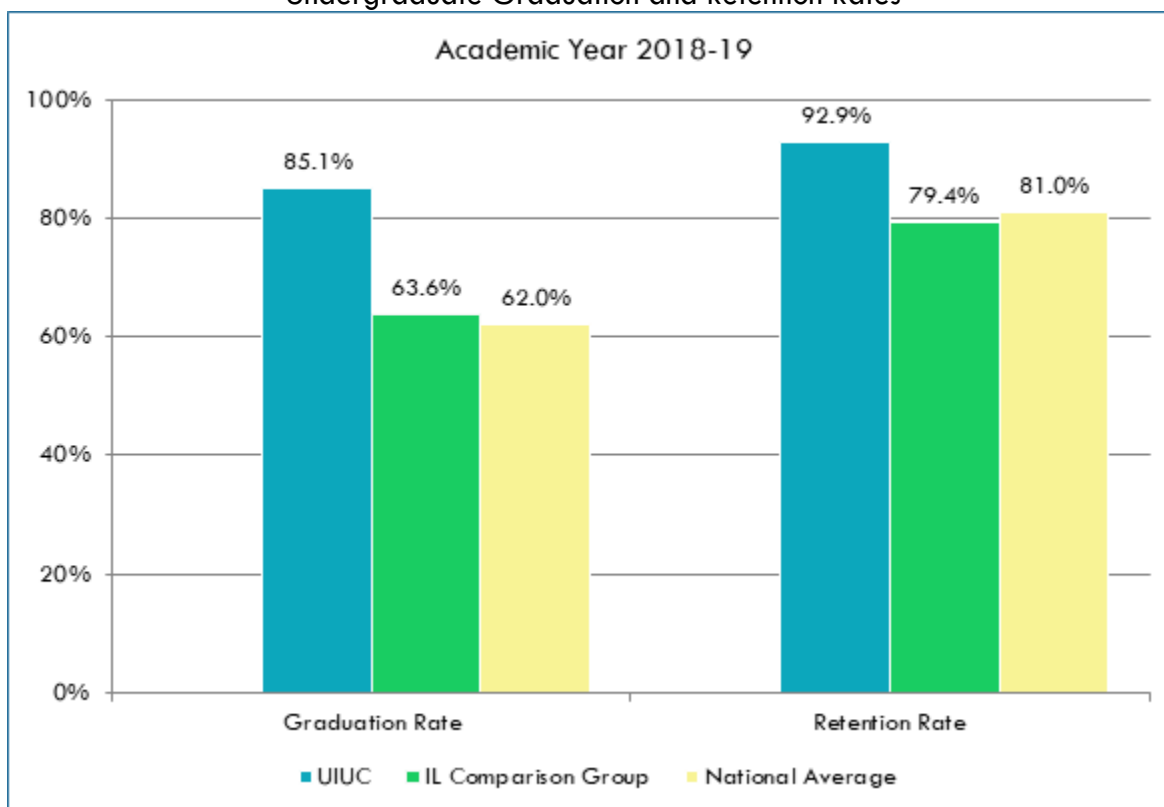
The University of Illinois Urbana-Champaign (University or UIUC) is seeking authorization to offer four “+ Data Science” degree programs in Accountancy, Finance, Information Science, and Astronomy in the Prairie Region. This is in response to the University’s 2018 Strategic Plan “The Next 150” which calls for “providing all Illinois students the opportunity to have a meaningful exposure to data science.” In recognition of the interdisciplinary and outward-looking nature of data science, the University developed the “X + Data Science Majors” as a way to offer students the opportunity to study data science while engaging with an application domain. The Departments of Computer Science, Mathematics, Statistics, the Gies College of Business, and the School of Information Sciences (iSchool) collaborated to develop a framework for the X + Data Science majors. Each X + Data Science major builds on education and training in the field of study X together with education and training in data science.

Institutional Data

1050.30(b)(1)(H): Success in student progression and graduation rates across all existing approved programs, and success rates in programs preparing students for certification and licensure, shall be consistent with expectations in higher education and the appropriate related field of study. At a minimum, the Board shall consider these factors based on results for similar institutions. (i) Graduation rates, certificate and degree completion rates, retention rates, and pass rates for licensure and certification aligned with thresholds set by State nor national regulatory bodies. (ii) The success rate shall be, at a minimum, higher than those of the lowest quartile of these measures for similar Illinois institutions defined as open versus competitive enrollment institutions and primarily associate versus primarily baccalaureate granting institutions. Exceptions may be made to the lowest quartile if an institution is above the national average for these measures using the same comparison categories of institutions.

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

Undergraduate Graduation and Retention Rates



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

Note: University of Illinois Urbana-Champaign is in the four-year, selective Illinois comparison group. Higher percentages are positive indicators.

Undergraduate Graduation Rate

The graduation rate measures the rate at which entering freshmen graduate within 150 percent of normal program length. Data are provided for six-year graduation rates for first-time, full-time bachelor's degree-seeking students and three-year graduation rates for full-time associate degree-seeking students. The national standard for graduation rates is reported annually by the National Center for Education Statistics (NCES).

Undergraduate Retention Rate

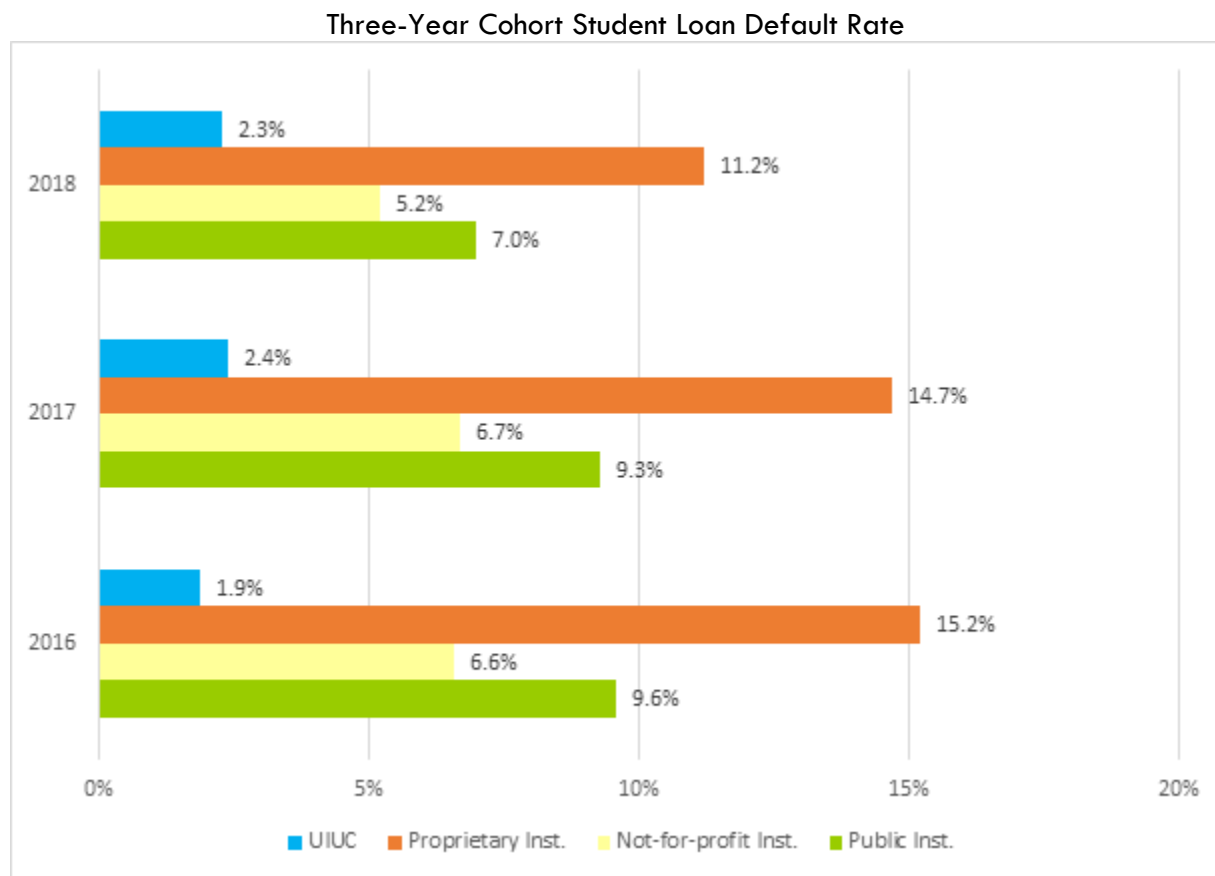
Retention rates examine the percentage of first-time degree seeking students enrolled in the fall of the prior year that are still enrolled in the fall of the current year. The national standard for retention rates is reported annually by NCES.

Undergraduate Completions per 100 FTE

Academic Year 2018-19	University of Illinois Urbana-Champaign	Comparable Illinois Institutions
	N/A	24

The full-time equivalent (FTE) data is a unit of measurement intended to represent one student enrolled full-time for one academic year. The calculation is based upon credit/contact hours

offered at an institution divided by a standard minimum (12 credit hour) full-time course load. For the University of Illinois Urbana-Champaign, the undergraduate completion per 100 FTE is not an accurate indicator. The majority of students at the University are full-time, and substantial numbers double major and take more than 12 (up to 18) credit hours, and the standard calculation does not account for these factors.



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

Note: The national cohort default rate for fiscal year 2018 is 7.3%.

A lower number is a positive indicator.

The three-year cohort student loan default rate is the percentage of a school's borrowers who enter repayment on certain Federal Family Education Loan Program or William D. Ford Federal Direct Loan Program loans during a particular federal fiscal year, October 1 to September 30, and default or meet other specified conditions prior to the end of the second following fiscal year.

Need

1050.30(a)(6): A) The unit of instruction, research or public service is educationally and economically consistent with the educational priorities and needs of the State 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 rapid emergence of massive data sets has created demand for people trained in data science across most of the economy, including sectors that are of great importance in Illinois, such as agribusiness, computing, education, engineering, finance, government, insurance, marketing, medicine, and supply chain management. The demand for data science professionals is growing at a very rapid pace. Major international accounting firms, the principal employer of accountancy graduates, have promoted and advocated for data science education for many years and the increased demand for data science education has seen dramatic increases within accountancy graduate programs. According to BLS, Data Scientists and Mathematical Science Occupations category is projected to grow by 31 percent, from 2020-2030. By adding a data science component to the accountancy undergraduate program, it would provide broader options for undergraduate employment and would better prepare students for graduate work. In a 2015 report, PricewaterhouseCoopers LLP, one of the University's graduates' primary employers, recommends that skills such as understanding of structured and unstructured databases, obtaining and cleaning data, univariate and multivariate regression, machine learning, and programming languages such as Python, Java, or R be added to undergraduate accounting education.

BLS also ranks data scientist as one of the fastest growing occupations in 2020 and 2030 projection. The job outlook for financial analysts is 5 percent over the same period, faster than the average across all listed occupations. Financial markets in the U.S. and abroad have experienced explosive growth in recent years releasing a torrent of data that holds potential value to market professionals. The Financial Industry Regulatory Authority, which regulates securities brokerage businesses and exchanges in the U.S., collects on an average day information on about 30 billion events across American financial markets, yielding about 3.5 terabytes of data daily. The need for investors and analysts to process these data in a timely, efficient, and informative manner is creating a demand for finance specialists who are conversant with modern data science tools and big data methods.

In the private sector, the demand for data science professionals is growing at a rapid pace. A 2017 report by PricewaterhouseCoopers and Business- Higher Education Forum stated 69 percent of employers surveyed expressed a desire for job applicants skilled in data science and analytics, with job openings expected to rise to 2.7 million roles by 2020. The report found that the demand for candidates with data science and analytics skills was greatest "in finance and insurance, information technology, and professional, scientific, and technical services." The Information Sciences + Data Science will allow graduates to understand the data life cycle and be able to analyze, interpret, explain, qualify, and contextualize data at scale. These skills are needed across many rapidly growing employment sectors including technology and health.

A Thriving Illinois: Higher Education Paths to Equity, Sustainability, and Growth

The proposed programs support Goal 1, Equity of A Thriving Illinois *to close equity gaps for students who have historically been left behind*. The data science core of the X + Data Science programs was designed from the ground up to be inclusive and equitable by opening up access for program entry. The proposed programs reduce traditional gateway barriers to entry with fewer technical prerequisites and requirements than most programs in computer science, mathematics, or statistics. The first course in the data science core introduces students to data science and the computer language Python and has no prerequisites. The sequence has no external prerequisites beyond first-semester calculus.

The proposed programs will address Goal 2, Sustainability, *to build a stronger financial future for individuals and institutions* by providing collaborative work in an application domain that

will aid the success of graduates in the data-driven economy. The collaboration between the four departments in implementing X + Data Science programs ensures resources of the units are shared to avoid wasteful duplication. Students also save cost as they have fewer technical prerequisites and requirements than most programs in computer science, mathematics, or statistics. In addition, most other data science related programs in the state are offered at private institutions, so the proposed program will provide students with an affordable educational experience.

The proposed programs will contribute to Goal 3, *Growth, to increase talent and innovation to drive economic growth*. Each prepares graduates for specialized, high-wage quantitatively oriented careers or advanced graduate studies. The interdisciplinary nature of the program provides the opportunity for graduates to gain diverse skills and broadens employment opportunities for them.

Comparable Programs in Illinois

Several private and public institutions in Illinois offer bachelor's degrees in data science. However, no other university in the state is offering a bachelor's degree programs that integrate study in accountancy, finance, information science, and astronomy with study of data science to the extent that the proposed degree programs do.

Mission and Objectives

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

The proposed program is consistent with the purpose, goals, objectives, and mission of the University. The requested degree title reflects the programs objectives and curriculum.

Curriculum and Assessment

1050.30(b)(1) [applicable only to units of instruction]: 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 programs under the academic control of the institution must be developed. Assessment plans must demonstrate that the institution has identified a 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.

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

For the BS in Accountancy + Data Science and BS in Finance +Data Science, applicants will

be admitted to the University of Illinois Urbana-Champaign through the Gies College of Business. For the BS in Information Sciences + Data Science, applicants will be admitted to the University of Illinois Urbana-Champaign through the School of Information Sciences and for the BSLAS in Astronomy + Data Science through the College of Liberal Arts.

The University recommends four years for all courses below, but the minimum high school course requirements for admission are:

- 4 years of English
- 3-3.5 years of Math
- 2 years each of Social Sciences, Lab Sciences, and Language other than English
- 2 years of flexible academic units

Curriculum

Bachelor of Science in Accountancy + Data Science

The Bachelor of Science in Accountancy + Data Science is an interdisciplinary program that requires a minimum of 124 credit hours of which 40 credit hours must be upper-division coursework. Both the BS in Accountancy and the BS in Accountancy + Data Science position students to move into graduate programs which provide the requirements needed for eligibility for the Certified Public Accountant exam. The curriculum integrates data science courses with business and accounting and provides foundational knowledge in information technology, computer science, statistics, mathematics, accounting, and business analytics. The program requires research and hands-on experience, which can be fulfilled with a three-credit hour business core course. Graduation requirements include:

- General Education coursework
- Business Core - 42 credit hours
- Accounting Specialization - 21 credit hours
- Data Science Core - 29-30 credit hours
- Research - 3 credit hours

Bachelor of Science in Finance + Data Sciences

The BS in Finance + Data Sciences is an interdisciplinary program that requires a minimum of 124 credit hours of which 40 credit hours must be upper-division coursework. The program prepares students for professional or graduate work in finance and for careers in which knowledge of data processing and management is particularly important. The interdisciplinary nature of the curriculum, which includes coursework in business, computer science, mathematics, statistics, and information science prepares students to gain broader skills and knowledge to contribute to the rapidly growing knowledge economy. The program requires research and discovery experience, which can be fulfilled with a three-credit hour finance core course. Graduation requirements include:

- General Education coursework
- Business Core - 42 credit hours
- Data Science Core - 29-30 credit hours
- Major Core - 21 credit hours
- Research - 3 credit hours

Bachelor of Science in Information Sciences + Data Science

The BS in Information Sciences + Data Science is an interdisciplinary program that requires a minimum of 120 credit hours of which 40 credit hours must be upper-division coursework and 61-68 required major-specific credit hours. The program prepares students for professional or graduate work in information sciences and for applications in which knowledge of data processing and management is important. The interdisciplinary nature of the curriculum, which includes coursework in business, computer science, mathematics, statistics, and information science prepares students to gain broader skills and knowledge to contribute to the rapidly growing knowledge economy. The program requires research and discovery experience, which can be fulfilled with a three-credit hour information sciences core course. Graduation requirements include:

- General Education coursework
- Data Science Core - 29-30 credit hours
- Information Sciences Major Core - 24-30 credit hours
- Research - 3 credit hours

Bachelor of Science in Liberal Arts and Sciences in Astronomy + Data Science

The BSLAS in Astronomy + Data Science is an interdisciplinary program that requires a minimum of 120 credit hours of which 40 credit hours must be upper-division coursework. Graduates will learn how to work with modern large data sets using current computational and statistical methods, with an emphasis on data curation and ethics. These skills are transferrable to the many jobs and careers that need workers who can handle and communicate about data across the knowledge economy, such as agribusiness, computing, education, engineering, finance, government, insurance, marketing, medicine, supply chain, and many more. The program requires research and discovery experience, which can be fulfilled with a three-credit hour astronomy core course. Graduation requirements include:

- General Education coursework
- Astronomy - 31-32 credit hours
- Data Science Core - 29-30 credit hours
- Research - 3 credit hours

Assessment of Student Learning

The University of Illinois Urbana-Champaign has established processes to measure and analyze student learning outcomes. Students will be assessed on a course-by-course basis periodically throughout using direct measures such as class participation and academic grade performance on exercises, quizzes, exams, and project work. Throughout the semester, assessment of the learning outcomes will be collected within each course as well as evidence of content and skills mastery in undergraduate research and experiential opportunities through written research documents. Indirect measures of student learning include exit survey provided to students completing their final semester in the program. Based on the feedback received, modifications will be made to teaching and learning as needed so that students are supported to meet objectives and learning outcomes.

Program Assessment

The programs will be evaluated annually at multiple levels and involve key faculty, curriculum committee, and stakeholder groups. The program uses a standard evaluation process

monitored by the University's Academic Program Review Council. Based on the results, the appropriate College will evaluate the need for adjustment of the program and will make changes accordingly. The metrics that will aid in program assessment include the following:

- Student and employer survey results
- Academic performance
- Graduate school acceptance rates
- Job placement

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.

Existing facilities are sufficient for implementing the proposed program. The University possesses appropriate library resources with access to books and journal holdings to support teaching and scholarly work.

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. At a minimum, faculty shall have a degree from an institution accredited by a U.S. Department of Education and/or Council for Higher Education Accreditation recognized accrediting body or a degree from another country evaluated for U.S. equivalency in the discipline they will teach or for which they will develop curricula at least one level above that of the courses being taught or developed. 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. E) Support personnel, including but not limited to counselors, administrators, clinical supervisors, and technical staff, that are directly assigned to the unit of instruction, research or public service, have the educational background and experience necessary to carry out their assigned responsibilities.

The University has identified institutional policies that ensure faculty and staff possess the training, credentials, and other related qualifications to provide instruction at the institution. Faculty teaching in the proposed program will have the appropriate qualifications. A formal faculty evaluation process is in place.

Fiscal and Personnel Resources

1050.30(a)(5): A) The financial commitments to support the unit of instruction, research or public service are sufficient to ensure that the faculty and staff and support services necessary to offer the unit of instruction, research or public service can be acquired and maintained. B) Projections of revenues necessary to support the unit of instruction, research or public service are based on supportable

estimates of state appropriations, local tax support, student tuition and fees, private gifts, and/or governmental grants and contracts.

The University has adequate faculty, staff, and other instructional resources to administer the proposed program. Existing faculty will teach the proposed curricula.

Accreditation and Licensure

1050.30(b)(3)[applicable only to units of instruction]: 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.

No specialized accreditation is required for these four X + Data Science programs. The existing accountancy program is accredited by the Association to Advance Collegiate Schools of Business and the finance program is accredited by the Association to Advance Collegiate Schools of Business.

Program Information

1050.30(b)(2)[applicable only to units of instruction]: A) The information which 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, 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 and the number of graduates and enrollments as provided by the institution to the Integrated Postsecondary Education Data System (IPEDS) and any submission of data to satisfy Board reporting requirements; 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.

Detailed information about the proposed program, including description of the admission policies, university policies, tuition, fees, and curriculum are provided in the proposal and will be published on the University's website.

Staff Conclusion

The staff concludes that the Bachelor of Science in Accountancy + Data Science, Bachelor of Science in Finance + Data Science, Bachelor of Science in Information Sciences + Data Science, and Bachelor of Science in Liberal Arts and Sciences in Astronomy + Data Science proposed by the University of Illinois 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.

Proposed Degree Title in the Region of Authorization: Bachelor of Science in Computer Science + Education in the Prairie Region

Projected Enrollments and Degrees:

First Year Enrollment	Fifth Year Enrollment	Degrees Awarded Fifth Year
5	25	20

Background

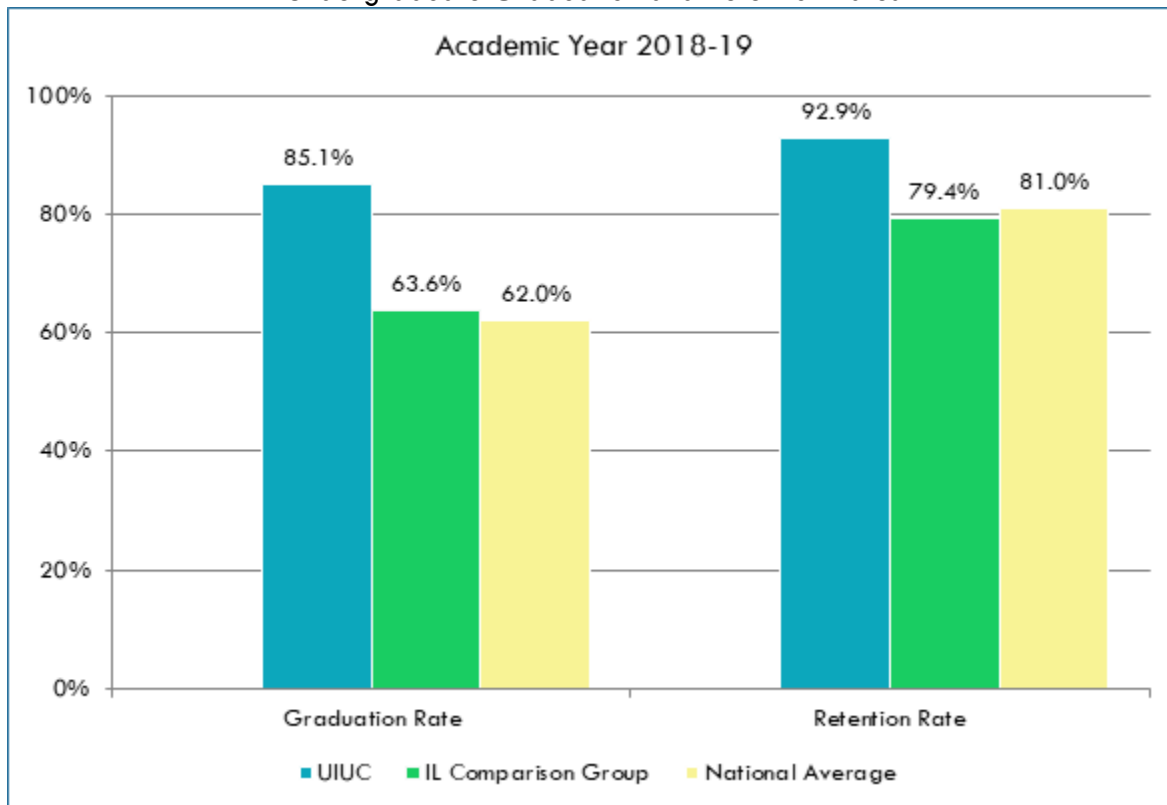
The University of Illinois Urbana-Champaign (University or UIUC) is seeking authorization to offer a Bachelor of Science (BS) in Computer Science + Education in the Prairie Region. The program is jointly sponsored by the Department of Computer Science in the Grainger College of Engineering and the Department of Curriculum & Instruction in the College of Education. The BS in Computer Science + Education will have two concentrations that will meet the needs of state employers, both in the public and private sectors: The Learning Sciences concentration and the Secondary Education concentration. The Learning Sciences concentration was designed to meet the needs of the rapidly growing educational technology industry while the Secondary Education concentration will provide the coursework and field experience for students to be licensed to teach computer sciences in grades 5-12. The BS in Computer Science + Education will prepare students for advanced study at the graduate level, as well as immediate entry into the workforce at educational institutions, research centers, non-profits, and technology companies.

Institutional Data

1050.30(b)(1)(H): Success in student progression and graduation rates across all existing approved programs, and success rates in programs preparing students for certification and licensure, shall be consistent with expectations in higher education and the appropriate related field of study. At a minimum, the Board shall consider these factors based on results for similar institutions. (i) Graduation rates, certificate and degree completion rates, retention rates, and pass rates for licensure and certification aligned with thresholds set by State nor national regulatory bodies. (ii) The success rate shall be, at a minimum, higher than those of the lowest quartile of these measures for similar Illinois institutions defined as open versus competitive enrollment institutions and primarily associate versus primarily baccalaureate granting institutions. Exceptions may be made to the lowest quartile if an institution is above the national average for these measures using the same comparison categories of institutions.

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

Undergraduate Graduation and Retention Rates



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

Note: University of Illinois Urbana-Champaign is in the four-year, selective Illinois comparison group. Higher percentages are positive indicators.

Undergraduate Graduation Rate

The graduation rate measures the rate at which entering freshmen graduate within 150 percent of normal program length. Data are provided for six-year graduation rates for first-time, full-time bachelor's degree-seeking students and three-year graduation rates for full-time associate degree-seeking students. The national standard for graduation rates is reported annually by the National Center for Education Statistics (NCES).

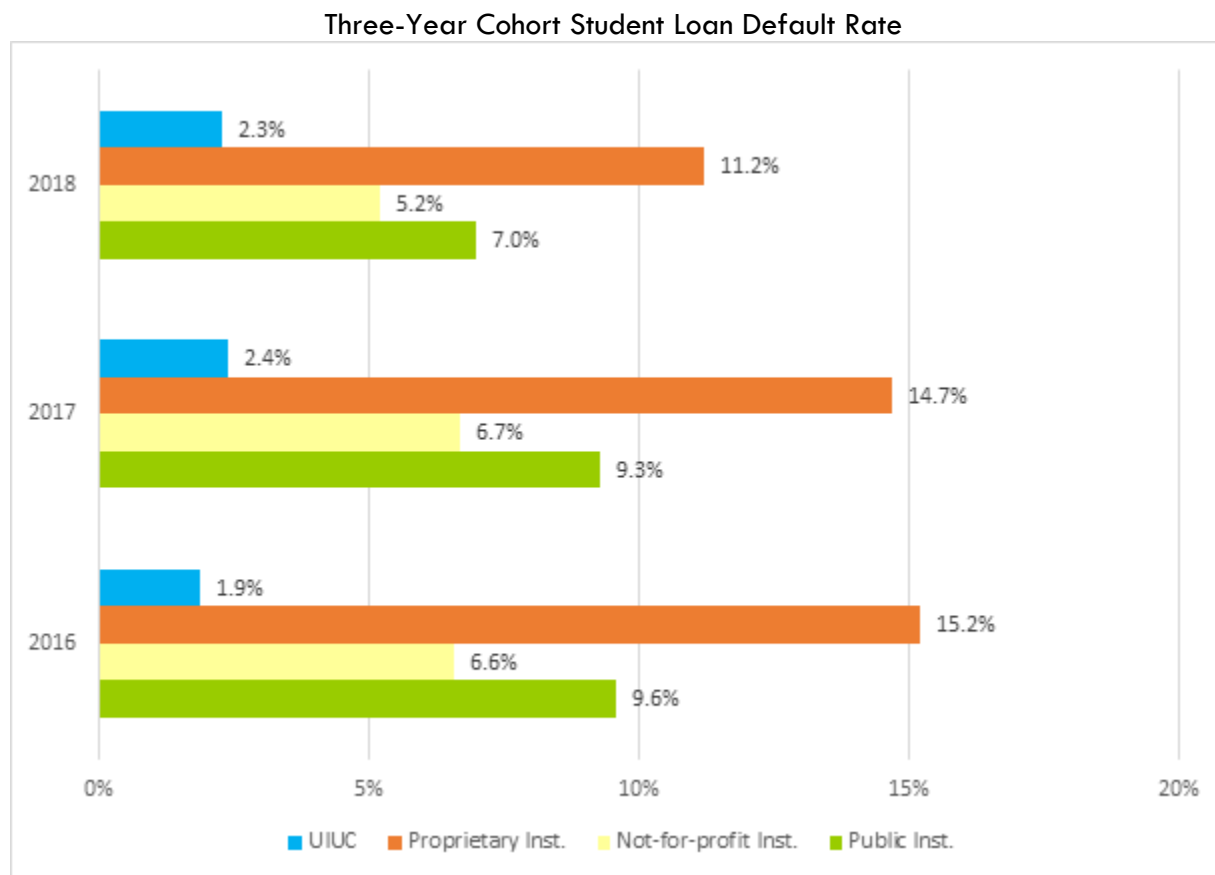
Undergraduate Retention Rate

Retention rates examine the percentage of first-time degree seeking students enrolled in the fall of the prior year that are still enrolled in the fall of the current year. The national standard for retention rates is reported annually by NCES.

Undergraduate Completions per 100 FTE

Academic Year	University of Illinois Urbana-Champaign	Comparable Illinois Institutions
2018-19	N/A	24

The full-time equivalent (FTE) data is a unit of measurement intended to represent one student enrolled full-time for one academic year. The calculation is based upon credit/contact hours offered at an institution divided by a standard minimum (12 credit hour) full-time course load. For the University of Illinois Urbana-Champaign, the undergraduate completion per 100 FTE is not an accurate indicator. The majority of students at the University are full-time, and substantial numbers double major and take more than 12 (up to 18) credit hours, and the standard calculation does not account for these factors.



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

Note: The national cohort default rate for fiscal year 2018 is 7.3%.

A lower number is a positive indicator.

The three-year cohort student loan default rate is the percentage of a school's borrowers who enter repayment on certain Federal Family Education Loan Program or William D. Ford Federal Direct Loan Program loans during a particular federal fiscal year, October 1 to September 30, and default or meet other specified conditions prior to the end of the second following fiscal year.

Need

1050.30(a)(6): A) The unit of instruction, research or public service is educationally and economically consistent with the educational priorities and needs of the State 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 BS in Computer Science + Education with the proposed concentrations in Learning Sciences and the Secondary Education concentration will meet the needs of state employers, both in the public and private sectors. Computing occupations are the number one source of new wages in the United States and 58 percent of new STEM jobs are in computing. According to the Illinois Task Force on Computer Science Education, “21,627 open computing jobs exist in Illinois alone (four times the annual demand rate for jobs in Illinois).” Beyond computing jobs, skills learned in computer science courses are valuable across the modern workforce, including computational thinking skills that provide a new way to approach problem solving. The growth in the computer science employment is supported by national data provided by the U.S. Bureau of Labor Statistics (BLS). According to BLS, Computer and Information Systems Managers employment category is projected to grow by 11 percent from 2020-2030, which outpaces the expected growth rate for all occupations. In addition, survey shows that there is increasing demand from parents, students, and communities to implement K-12 computer science programs. According to Code.org, the leading advocacy organization for K-12 computer science, 93 percent of parents across the United States want their child’s school to teach computer science, but currently only 40 percent of schools do so nationally. Similarly, a survey by Google/Gallup found that 65 percent of Illinois principals surveyed think computer science is just as or more important than required core classes. Fifty-one percent of the principals surveyed cite a lack of teachers trained in computer science as the greatest barrier to offering computer science education courses.

Despite the increasing recognition of the importance of computer science education in K-12 classrooms, the State of Illinois is behind many other states, including surrounding Midwestern states, in its implementation of computer science education. Currently only 15 percent of the over 1000 high schools in Illinois offer Advanced Placement (AP) computer science courses. This represents less than a quarter of the Illinois schools with AP programs. Training future Computer Science teachers through the Secondary Education concentration of the proposed program will contribute to an increase in access to computer science courses for high school students across the State of Illinois.

A Thriving Illinois: Higher Education Paths to Equity, Sustainability, and Growth

The proposed program supports Goal 1, Equity of A Thriving Illinois *to close equity gaps for students who have historically been left behind*. The proposed program will contribute to reducing this inequity by increasing access to computer science courses for students who have traditionally been underserved, including Black, Hispanic, and rural students. The Secondary Education concentration will contribute towards more equitable access to computer science courses in K-12 schools by increasing access to computer science in K-12 education that are currently limited and unevenly distributed across the State of Illinois. The proposed program will contribute towards increasing the number of teachers trained in computer science, which will increase the number and the diversity of K-12 students who are able to experience and learn about computer science before graduation. In addition, the Computer Science Department and Grainger College of Engineering have developed a Broadening Participation plan which includes K-12 outreach, student support services, events to raise awareness of diverse circumstances and needs of students, and new courses on equity and justice in computing.

The proposed program will also address Goal 2, Sustainability, *to build a stronger financial future for individuals and institutions* by providing collaborative work in an application domain that will aid the success of graduates in the data driven economy. The Secondary Education track of the proposed program will help increase access to Computer Science education in K-12 schools. This increased access will contribute towards training a future workforce that are qualified to engage in high wage computing jobs. Research has shown that early access to computer science courses

increases the likelihood of women and underrepresented students choosing computer science related careers. Code.Org found that women who try AP Computer Science in high school are ten times more likely to major in it and Black and Latinx students are seven times more likely. Thus, increasing access to computer science courses at the high school level, and even earlier, greatly impacts pipelines to high wage jobs for students of color and women. In addition, the College of Education offers a variety of scholarships including the College of Education Undergraduate Awards, the Illinois Club Isabelle Purnell Education Awards, Golden Apple Scholars Pathway Scholarship, and a national and international scholarship program to make the college programs more affordable and to reduce burden for students.

The proposed degree program will contribute to Goal 3, Growth, to *increase talent and innovation to drive economic growth*. The College of Education is engaged in ongoing discussions with the Discovery Partners Institute about providing business and industry connections to students in this and related programs. In addition, the faculty members of the Computer Science + Education program have cultivated relationships with local businesses with the purpose of creating opportunities for graduates. The University also has several educational partnerships with schools, community centers, and museums, who can serve as research and implementation sites for students working on capstone and other class projects to develop their skills.

Comparable Programs in Illinois

Several private and public institutions in Illinois offer bachelor's degrees in computer science and other related fields, however, these programs focus on computer science content and not educational content. Four institutions offer degree programs in technology education or technical education. While these institutions offer degrees related to teacher education and providing technical knowledge about technology use in classroom, none has requirements with the scope and scale for computer science content at the bachelor's level that the proposed program would require.

Mission and Objectives

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

The proposed program is consistent with the purpose, goals, objectives, and mission of the University. The requested degree title reflects the programs objectives and curriculum.

Curriculum and Assessment

1050.30(b)(1) [applicable only to units of instruction]: 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 programs 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.

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

Admission Requirements

Applicants interested in the BS in Computer Science + Education will be admitted to the University of Illinois Urbana-Champaign through the Department of Computer Science. The University recommends four years for all courses below, but the minimum high school course requirements for admission are:

- 4 years of English
- 3-3.5 years of Math
- 2 years each of Social Sciences, Lab Sciences, and Language other than English
- 2 years of flexible academic units

Curriculum

The BS in Computer Science + Education is an interdisciplinary program that requires a minimum of 120 credit hours of which 40 credit hours must be upper-division coursework. The program will prepare students for advanced study at the graduate level, as well as immediate entry into the workforce at educational institutions, research centers, non-profits, and technology companies. The first two years of the program, students will take general education and computer science courses, to achieve a strong foundation in the humanities, social and natural sciences, technology, and mathematics. In the final two years of the major, students will take a set of core courses in Education and Computer Science. Students will choose to specialize in one of two educational concentrations: The Learning Sciences concentration, which will provide students with the knowledge and skills necessary to become designers and creators of innovative learning technologies and the Secondary Education concentration, which will provide the coursework and field experience for students to be licensed to teach computer sciences in grades 5-12. The interdisciplinary nature of the curriculum, which includes skills in creating, designing, and researching learning technologies as well as knowledge to gain teaching licensure in Illinois will provide broader opportunities for graduates. The program requires research and student teaching experience. Graduation requirements include:

- General Education coursework – 34-49 credit hours
- Compute Science Core – 29-30 credit hours
- Mathematical Foundation – 12-14 credit hours
- Concentration Requirements – 36-39 credit hours
- Secondary education track – 39 (12 credit hours of teaching) credit hours
- Learning Sciences track – 37 credit hours

Assessment of Student Learning

The University of Illinois Urbana-Champaign has established processes to measure and analyze student learning outcomes. Students will be assessed on a course-by-course basis periodically throughout using direct measures such as class participation, assessment of student lesson plan, observation of student teaching, and academic grade performance on exercises, quizzes, exams, and project work. Throughout the semester, assessment of the learning outcomes will be collected within each course as well as evidence of content and skills mastery in undergraduate research and experiential opportunities through written research documents. Indirect

measures of student learning include exit survey provided to students completing their final semester in the program. Based on the feedback received, modifications will be made to teaching and learning as needed so that students are supported to meet objectives and learning outcomes.

Program Assessment

The program will be evaluated annually at multiple levels and involve key faculty, curriculum committee, and stakeholder groups. The program uses standard evaluation process monitored by the University's Academic Program Review Council. Based on the results, the departments will evaluate the need for adjustment of the program and will make changes accordingly. The metrics that will aid in program assessment include the following:

- Student and employer survey results
- Academic performance
- Graduate school acceptance rates
- Licensure passing rates
- Job placement

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.

Existing facilities are sufficient for implementing the proposed program. The University possesses appropriate library resources with access to books and journal holdings to support teaching and scholarly work.

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. At a minimum, faculty shall have a degree from an institution accredited by a U.S. Department of Education and/or Council for Higher Education Accreditation recognized accrediting body or a degree from another country evaluated for U.S. equivalency in the discipline they will teach or for which they will develop curricula at least one level above that of the courses being taught or developed. 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. E) Support personnel, including but not limited to counselors, administrators, clinical supervisors, and technical staff, that are directly assigned to the unit of instruction, research or public service, have the educational background and experience necessary to carry out their assigned responsibilities.

The University has identified institutional policies that ensure faculty and staff possess the training, credentials, and other related qualifications to provide instruction at the institution. Faculty

teaching in the proposed program will have the appropriate qualifications. A formal faculty evaluation process is in place.

Fiscal and Personnel Resources

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

The University has adequate faculty, staff, and other instructional resources to administer the proposed program. Existing faculty will teach the proposed curricula.

Accreditation and Licensure

1050.30(b)(3)[applicable only to units of instruction]: 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.

The Department of Curriculum and Instruction has sought accreditation from the Illinois State Board of Education (ISBE) for the Secondary Education concentration.

Program Information

1050.30(b)(2)[applicable only to units of instruction]: A) The information which 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, 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 and the number of graduates and enrollments as provided by the institution to the Integrated Postsecondary Education Data System (IPEDS) and any submission of data to satisfy Board reporting requirements; 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.

Detailed information about the proposed program, including description of the admission policies, university policies, tuition, fees, and curriculum are provided in the proposal and will be published on the University's website.

Staff Conclusion

The staff concludes that the Bachelor of Science in Computer Science + Education proposed by the University of Illinois 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.

Proposed Degree Title in the Region of Authorization: Bachelor of Science in Liberal Arts and Sciences in Astrophysics in the Prairie Region

Projected Enrollments and Degrees:

First Year Enrollment	Fifth Year Enrollment	Degrees Awarded Fifth Year
12	50	13

Background

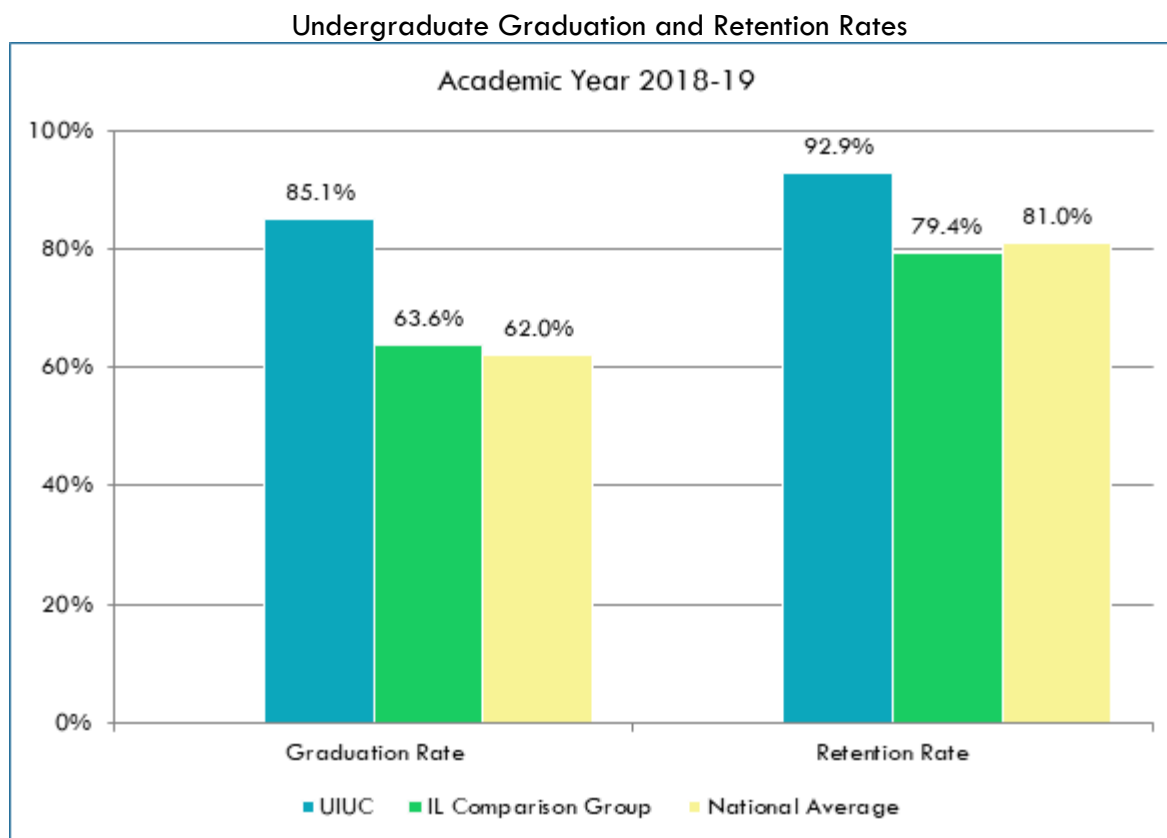
The University of Illinois Urbana-Champaign (University or UIUC) is seeking authorization to offer a Bachelor of Science in Liberal Arts and Sciences (BSLAS) in Astrophysics in the Prairie Region. The program is offered by the Department of Astronomy in the College of Liberal Arts and Sciences. The University's restructuring which resulted in the moving of the Department of Physics to The Grainger College of Engineering while other physical sciences, such as chemistry, atmospheric sciences, geology, and astronomy reside within the College of Liberal Arts and Sciences (LAS), leading to the development of the proposed program. Currently, students interested in astrophysics have been double majoring in astronomy and LAS physics. With physics undergraduate education moving to The Grainger College of Engineering, the existing LAS physics program will be phased out. The new major will build on the existing astronomy major and on the existing courses offered by the Department of Physics. The BSLAS in Astrophysics will provide the rigorous preparation necessary for graduate study in Astronomy and Astrophysics, and it prepares students for employment in technical or scientific fields.

Institutional Data

1050.30(b)(1)(H): Success in student progression and graduation rates across all existing approved programs, and success rates in programs preparing students for certification and licensure, shall be consistent with expectations in higher education and the appropriate related field of study. At a minimum, the Board shall consider these factors based on results for similar institutions. (i) Graduation rates, certificate and degree completion rates, retention rates, and pass rates for licensure and certification aligned with thresholds set by State nor national regulatory bodies. (ii) The success rate shall be, at a minimum, higher than those of the lowest quartile of these measures for similar Illinois institutions defined as open versus competitive enrollment institutions and primarily associate versus primarily baccalaureate granting institutions. Exceptions may be made to the lowest quartile if an institution is above the national average for these measures using the same comparison categories of institutions.

This section includes information about institutional and student success measures for each institution seeking program approval. The institution's rates will be compared to Illinois institutions from within a select comparison group and against the national standards or averages. For a proposed undergraduate program, this section will include undergraduate graduation rates, first

to second year retention rates, student loan default rates, and any applicable licensure passage rates. For a proposed graduate program, this section will primarily focus on student loan default data since this measure also includes graduate students in the calculation.



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

Note: *University of Illinois Urbana-Champaign is in the four-year, selective Illinois comparison group. Higher percentages are positive indicators.*

Undergraduate Graduation Rate

The graduation rate measures the rate at which entering freshmen graduate within 150 percent of normal program length. Data are provided for six-year graduation rates for first-time, full-time bachelor's degree-seeking students and three-year graduation rates for full-time associate degree-seeking students. The national standard for graduation rates is reported annually by the National Center for Education Statistics (NCES).

Undergraduate Retention Rate

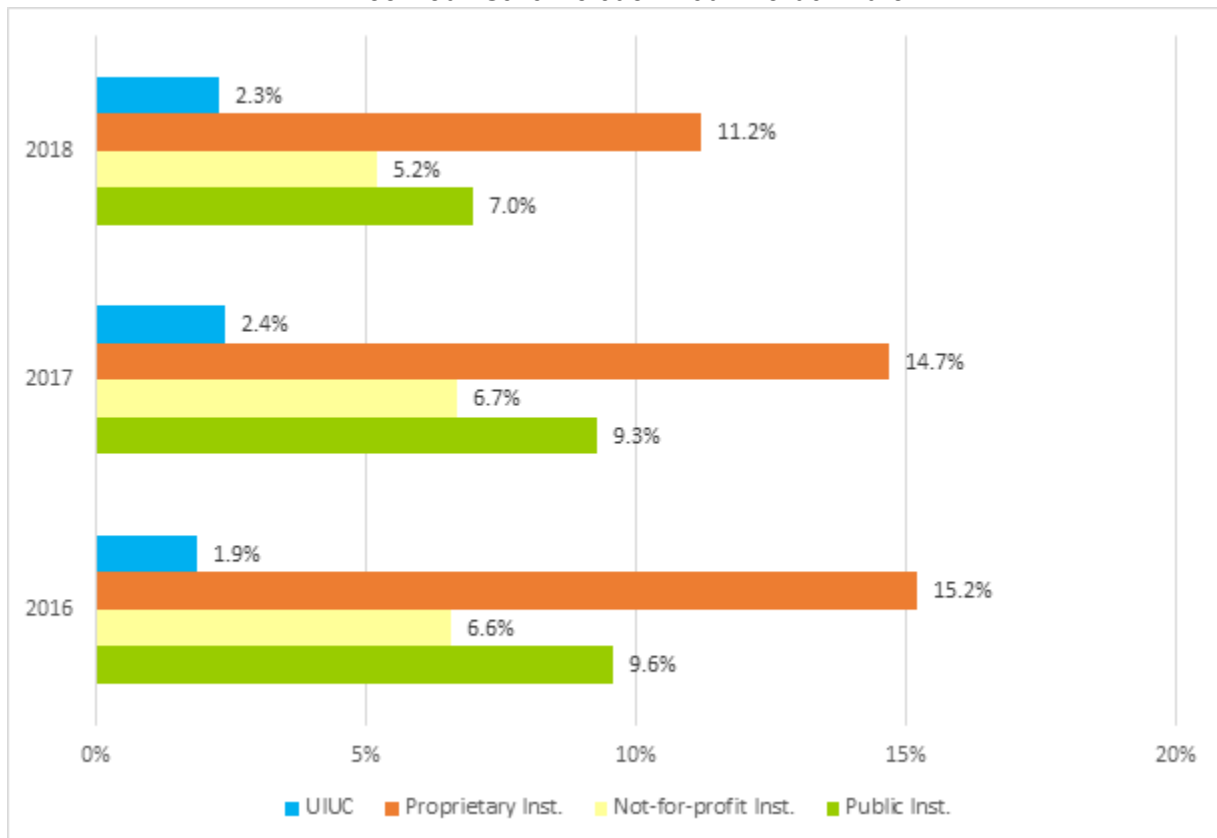
Retention rates examine the percentage of first-time degree seeking students enrolled in the fall of the prior year that are still enrolled in the fall of the current year. The national standard for retention rates is reported annually by NCES.

Undergraduate Completions per 100 FTE

Academic Year 2018-19	University of Illinois Urbana- Champaign	Comparable Illinois Institutions
	N/A	24

The full-time equivalent (FTE) data is a unit of measurement intended to represent one student enrolled full-time for one academic year. The calculation is based upon credit/contact hours offered at an institution divided by a standard minimum (12 credit hour) full-time course load. For the University of Illinois Urbana-Champaign, the undergraduate completion per 100 FTE is not an accurate indicator. The majority of students at the University are full-time, and substantial numbers double major and take more than 12 (up to 18) credit hours, and the standard calculation does not account for these factors.

Three-Year Cohort Student Loan Default Rate



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

Note: The national cohort default rate for fiscal year 2018 is 7.3%.

A lower number is a positive indicator.

The three-year cohort student loan default rate is the percentage of a school's borrowers who enter repayment on certain Federal Family Education Loan Program or William D. Ford Federal Direct Loan Program loans during a particular federal fiscal year, October 1 to September 30, and default or meet other specified conditions prior to the end of the second following fiscal year.

Need

1050.30(a)(6): A) The unit of instruction, research or public service is educationally and economically consistent with the educational priorities and needs of the State 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 BSLAS in Astrophysics is primarily designed to serve students who want more rigorous physics courses to be prepared for graduate school and for employment in the scientific or other technical professions. Currently, the department's students who pursue advanced degrees in Astronomy and Astrophysics do so at other leading institutions. The goal of establishing an astrophysics major in the Department of Astronomy is to provide the department's students with the option of graduate education within the University and to prepare them for employment in the scientific or other technical professions.

The demand for employment in the Astronomy field is also projected to continue to grow. According to the U.S. Bureau of Labor Statistics, Physicists and Astronomers employment category is projected to grow by eight percent from 2020-2030.

A Thriving Illinois: Higher Education Paths to Equity, Sustainability, and Growth

The proposed program supports Goal 1, Equity of A Thriving Illinois to close equity gaps for students who have historically been left behind. The Astrophysics program was designed to be inclusive and equitable. Without the Astrophysics program, students seeking a course of study in astrophysics would need to pursue a dual degree in physics from The Grainger College of Engineering and astronomy from the College of Liberal Arts and Sciences. The requirements for this can be onerous, usually requiring a fifth year of study unless the student enters the university with about 30 credit hours of academic credit (e.g., from AP credit or dual-enrollment credit). For students that come from populations that have historically been left behind, they may not have had the opportunity to earn large amounts of AP credit or take dual-enrollment courses in high-school. The astrophysics major provides all students a major they can pursue to seek a career in astrophysics.

The proposed program will also address Goal 2, Sustainability, to build a stronger financial future for individuals and institutions by providing consolidating all physics degree programs into The Grainger College of Engineering to better serve physics students at the University. By integrating the courses and streamlining the curriculum, students save cost and are prepared to work in a high wage employment. In addition, UIUC will be the only public institution offering the proposed program, thus students have the option of a lower cost of attendance.

The proposed degree program will contribute to Goal 3, Growth, to increase talent and innovation to drive economic growth. The regional and national job market for physicists and astronomers continues to grow. Within the state, several high wage job opportunities in the physics and astronomy fields exist including at universities and colleges, museums, and planetariums such as Adler Planetarium, research facilities such as Fermilab and Argonne National Lab, and private employers such as Wolfram Research in Champaign. These high wage job opportunities will contribute to growing the economy of the state.

Comparable Programs in Illinois

The University of Chicago offers two bachelor's degree programs in Astrophysics, a BA in Astrophysics and a BS in Astrophysics. The BA in Astrophysics is comparable to the University of Illinois Urbana-Champaign's existing BSLAS in Astronomy program, while the BS in Astrophysics is comparable to the proposed BSLAS in Astrophysics. The Illinois Institute of Technology offers BS in Astrophysics and DePaul University offers both a BA and BS in Astrophysics. Students at the University of Illinois Urbana-Champaign have historically been able to obtain a rigorous astrophysics education via a double major in Physics and Astronomy. With the proposed program, the students will be under a single major, rather than pursuing a double major or dual degree program.

Mission and Objectives

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

The proposed program is consistent with the purpose, goals, objectives, and mission of the University. The requested degree title reflects the programs objectives and curriculum.

Curriculum and Assessment

1050.30(b)(1) [applicable only to units of instruction]: 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 programs 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.

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

Admission Requirements

Applicants interested in the BSLAS in Astrophysics will be admitted to the University of Illinois Urbana-Champaign through the College of Liberal Arts and Sciences. The University recommends four years for all courses below, but the minimum high school course requirements for admission are:

- 4 years of English
- 3-3.5 years of Math
- 2 years each of Social Sciences, Lab Sciences, and Language other than English
- 2 years of flexible academic units

Curriculum

The BSLAS in Astrophysics is an interdisciplinary program that requires a minimum of 120 credit hours of which 40 credit hours must be upper-division coursework. The program will prepare students to gain understanding of the fundamental principles and concepts of astronomy and astrophysics to solve theoretical and applied problems in physics. The program requires students to plan and perform guided research or attain an advanced-level understanding of a topic of contemporary interest in astronomy and astrophysics. Graduation requirements include:

- General Education coursework – Seven course categories
- 300- and 400-level courses –40 credit hours
- Advanced Astronomy Core – 15 credit hours
- Advanced Physics Core –12 credit hours
- Supporting Technical Courses –18 credit hours

Assessment of Student Learning

The University of Illinois Urbana-Champaign has established processes to measure and analyze student learning outcomes. Students will be assessed on a course-by-course basis periodically throughout using direct measures such as class participation, assessment of student lesson plan, observation of student teaching, and academic grade performance on exercises, quizzes, exams, and project work. Throughout the semester, assessment of the learning outcomes will be collected within each course as well as evidence of content and skills mastery in undergraduate research and experiential opportunities through written research documents. Indirect measures of student learning include exit survey provided to students completing their final semester in the program. Based on the feedback received, modifications will be made to teaching and learning as needed so that students are supported to meet objectives and learning outcomes.

Program Assessment

The program will be evaluated annually at multiple levels and involve key faculty, curriculum committee, and stakeholder groups. The program uses standard evaluation process monitored by the University's Academic Program Review Council. Based on the results, the College of Liberal Arts and Sciences will evaluate the need for adjustment of the program and will make changes accordingly. The metrics that will aid in program assessment include the following:

- Student and employer survey results
- Academic performance
- Graduate school acceptance rates
- Job placement

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.

Existing facilities are sufficient for implementing the proposed program. The University possesses appropriate library resources with access to books and journal holdings to support teaching and scholarly work.

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. At a minimum, faculty shall have a degree from an institution accredited by a U.S. Department of Education and/or Council for Higher Education Accreditation recognized accrediting body or a degree from another country evaluated for U.S. equivalency in the discipline they will teach or for which they will develop curricula at least one level above that of the courses being taught or developed. 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. E) Support personnel, including but not limited to counselors, administrators, clinical supervisors, and technical staff, that are directly assigned to the unit of instruction, research or public service, have the educational background and experience necessary to carry out their assigned responsibilities.

The University has identified institutional policies that ensure faculty and staff possess the training, credentials, and other related qualifications to provide instruction at the institution. Faculty teaching in the proposed program will have the appropriate qualifications. A formal faculty evaluation process is in place.

Fiscal and Personnel Resources

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

The University has adequate faculty, staff, and other instructional resources to administer the proposed program. Existing faculty will teach the proposed curricula.

Accreditation and Licensure

1050.30(b)(3)[applicable only to units of instruction]: 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.

No specialized accreditation is required for the program.

Program Information

1050.30(b)(2)[applicable only to units of instruction]: A) The information which 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, 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 and the number of graduates and enrollments as provided by the institution to the Integrated Postsecondary Education Data System (IPEDS) and any submission of data to satisfy Board reporting requirements; 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.

Detailed information about the proposed program, including description of the admission policies, university policies, tuition, fees, and curriculum are provided in the proposal and will be published on the University's website.

Staff Conclusion

The staff concludes that the Bachelor of Science in Liberal Arts and Sciences in Astrophysics proposed by the University of Illinois 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.

Proposed Degree Title in the Region of Authorization: Master of Science in CyberGIS and Geospatial Data Science in the Prairie Region

Projected Enrollments and Degrees:

First Year Enrollment	Fifth Year Enrollment	Degrees Awarded Fifth Year
10	50	60

Background

The University of Illinois Urbana-Champaign (University or UIUC) is seeking authorization to offer a Master of Science (MS) in CyberGIS and Geospatial Data Science in the Prairie Region. The Department of Atmospheric Sciences, Department of Geology, and the Department of Geography and Geographic Information Science (GGIS) within the School of Earth, Society and Environment collaborated to design the non-thesis MS degree in CyberGIS and Geospatial Data Science, designed to meet the growing demand for advanced GIS skills such as cyberGIS, geospatial big data analytics, geospatial visualization, needed in many industries. The MS in CyberGIS will accommodate remotely located students, building upon existing GGIS faculty expertise in online pedagogy. Developing synergistic online MS degree programs in the three departments will provide educational advancement for distance learning students in each of the three core disciplines while also giving them the opportunity to learn computational and data sciences and geospatial analysis.

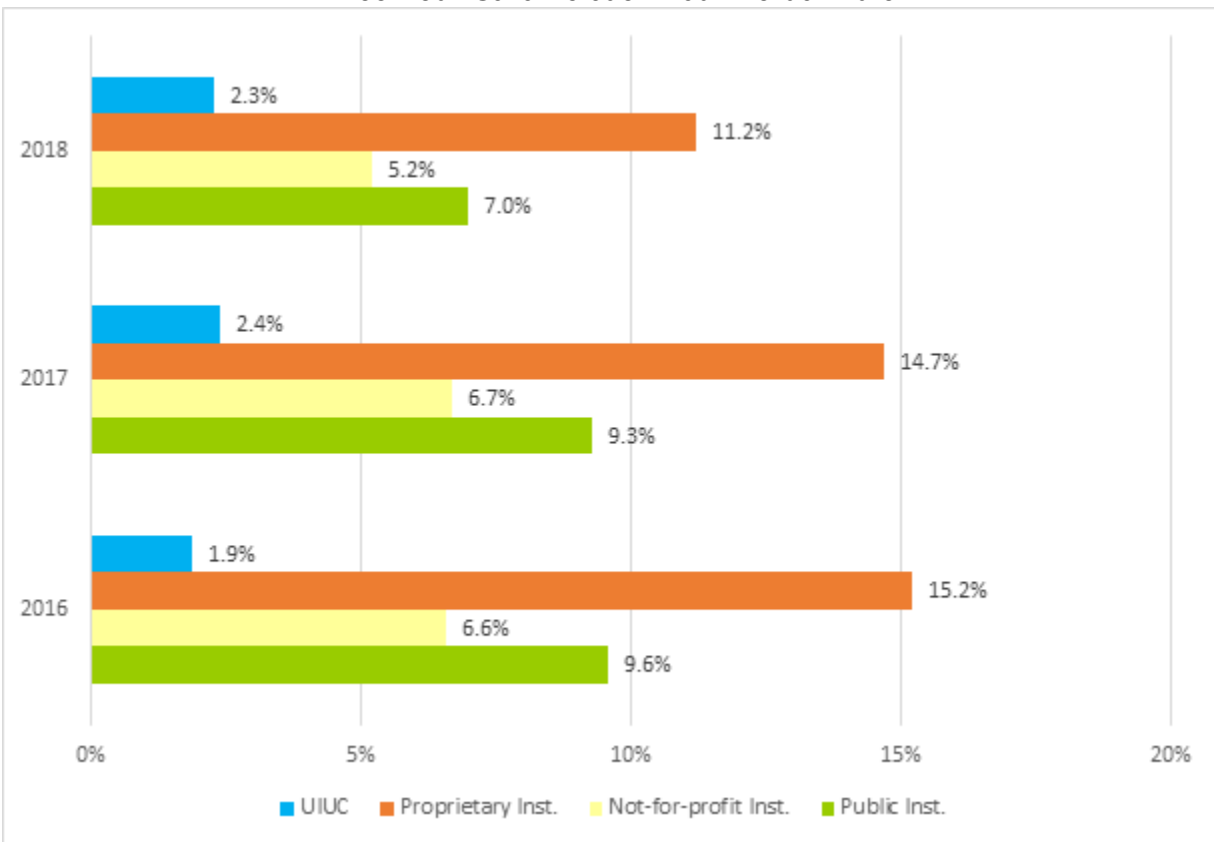
Institutional Data

1050.30(b)(1)(H): Success in student progression and graduation rates across all existing approved programs, and success rates in programs preparing students for certification and licensure, shall be consistent with expectations in higher education and the appropriate related field of study. At a minimum, the Board shall consider these factors based on results for similar institutions. (i) Graduation rates, certificate and degree completion rates, retention rates, and pass rates for licensure and certification aligned with thresholds set by State nor national regulatory bodies. (ii) The success rate shall be, at a minimum, higher than those of the lowest quartile of these measures for similar Illinois institutions defined as open versus competitive enrollment institutions and primarily associate versus primarily baccalaureate granting institutions. Exceptions may be made to the lowest quartile if an institution is above the national average for these measures using the same comparison categories of institutions.

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

Undergraduate success measures are not provided because the University is requesting a graduate level degree program.

Three-Year Cohort Student Loan Default Rate



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

Note: The national cohort default rate for fiscal year 2018 is 7.3%.

A lower number is a positive indicator.

The three-year cohort student loan default rate is the percentage of a school's borrowers who enter repayment on certain Federal Family Education Loan Program or William D. Ford Federal Direct Loan Program loans during a particular federal fiscal year, October 1 to September 30, and default or meet other specified conditions prior to the end of the second following fiscal year.

Need

1050.30(a)(6): A) The unit of instruction, research or public service is educationally and economically consistent with the educational priorities and needs of the State 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 program is designed to accommodate a demographic comprised of nontraditional and working learners by offering online coursework, advising, and capstone research. The program is expected to be particularly attractive to professionals who are working full time and cannot enroll in a full-time residential master's program. The MS in CyberGIS and Geospatial Data Science will prepare this cross-section of students to work, or continue to work as GIS Analysts, Geospatial Data Scientists in private or public-sector jobs that focus on the analysis, management, processing, and visualization of geospatial big data. These skills will be useful to a variety of sectors and industries including in energy, health, water resources, and urban sustainability. The students are also expected to acquire practical skills in data science, data

visualization, computer programming which are highly valuable and enable students to compete for jobs in the broader context of data science, one of the fastest growing employment areas in the United States and across the globe.

An MS degree is essential for desirable jobs in many industries that employ geospatial data scientists, specifically for career advancement. Key skills developed through the program include, high-performance and data-intensive geospatial computing, management of geospatial big data, geospatial visualization and visual analytics, geospatial artificial intelligence, and machine learning, and innovative CyberGIS applications. With these skills, students will be prepared to pursue opportunities available in many industries, local and federal governments, and academia. Examples of specific job titles include cartographer, data scientist, geospatial data scientist, GIS analyst, software engineer and developer. According to the U.S. Bureau of Labor Statistics (BLS), in the field of geography in general, professional experience and a master's degree are typical requirements for advanced positions. Also, according to BLS, the proposed program can be classified with Data Scientists and Mathematical Science Occupations, which is projected to grow by 31 percent, from 2020-2030.

A Thriving Illinois: Higher Education Paths to Equity, Sustainability, and Growth

The proposed program supports Goal 1, Equity of A Thriving Illinois to close equity gaps for students who have historically been left behind. With the majority of Illinois population situated outside the Champaign-Urbana area, the educational resources available at the Department of Geography and Geographic Information Science are not easily accessible to the majority of Illinois population. The proposed program will make highly valuable skills in geospatial data science more accessible to non-traditional students and working professionals who cannot afford to leave their jobs or move to the Champaign-Urbana area to enroll in a traditional MS program. Furthermore, the online degree program will be more affordable than other similar degree programs in Illinois as it will allow for much lower tuition costs for students, and also makes it possible for workers to simultaneously further their education while supporting themselves and/or their families.

The proposed program will also address Goal 2, Sustainability, to build a stronger financial future for individuals and institutions. The MS in CyberGIS and Geospatial Data Science will prepare students to work as GIS Analysts, Geospatial Data Scientists in private or public-sector jobs that are in high demand in many industries. Graduates will gain the skills to work as GIS analysts, geospatial data scientists, which allows them to find high wage employment that contributes to growing the economy.

The proposed degree program will contribute to Goal 3, Growth, to increase talent and innovation to drive economic growth. Analyzing, managing, processing, and visualizing geospatial “big data” has become an increasingly demanded and valuable skillset as geospatial data plays important roles in forming the digital fabric of our society. There is an urgent but largely unmet need in both public and private sectors for workforce who is well versed in handling such big data. The proposed program will meet this rapidly growing need for geospatial data scientists. One of the requirements of the proposed degree program is a capstone research project, designed to help students apply cyberGIS knowledge of geospatial “big data” and “big computing” problems to their specific industry and application domains.

Comparable Programs in Illinois

There are no similar programs 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.

The proposed program is consistent with the purpose, goals, objectives, and mission of the University. The requested degree title reflects the programs objectives and curriculum.

Curriculum and Assessment

1050.30(b)(1) [applicable only to units of instruction]: 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 programs 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.

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

Admission Requirements

Applicants interested in the MS in CyberGIS and Geospatial Data Science program are required to meet all minimum admission requirements as established by the Graduate College, including obtaining at least a bachelor's degree from a regionally accredited college in the United States or a comparable degree from a recognized institution of higher learning abroad and having a grade point average of 3.0 or higher on a 4.0 scale for the last 60 credit hours in a BA or BS program.

Curriculum

The proposed MS in CyberGIS and Geospatial Data Science is a non-thesis program that requires 32 credit hours, 12 of which must be from GGIS. The program prepares students to gain fundamental understanding of basic concepts and theoretical underpinnings of cyberGIS and geospatial data science and to apply cyberGIS tools for geospatial problem solving, analysis and visualization. The program requires research and students must work with their advisor to develop the capstone research project. Graduation requirements include:

- GIS Core – 6-7 courses
- CyberGIS and Geospatial Data Science Core – 8 credit hours
- Advanced courses in CyberGIS and Geospatial – 8 credit hours
- Additional 400-500 Level Courses – 6 credit hours
- Graduate Capstone Project – 4 credit hours

Assessment of Student Learning

The University of Illinois Urbana-Champaign has established processes to measure and analyze student learning outcomes. Students will be assessed on a course-by-course basis periodically throughout using direct measures such as presentations, project work, group discussions and academic grade performance on exercises, quizzes, exams, and project work. Throughout the semester, assessment of the learning outcomes will be collected within each course as well as evidence of content and skills mastery in graduate capstone research and experiential opportunities through written research documents. Indirect measures of student learning include exit survey provided to students completing their final semester in the program. Based on the feedback received, modifications will be made to teaching and learning as needed so that students are supported to meet objectives and learning outcomes.

Program Assessment

The program will be evaluated annually at multiple levels and involve key faculty, curriculum committee, and stakeholder groups. The program uses a standard evaluation process monitored by the University's Academic Program Review Council. Based on the results, School of Earth, Society and Environment will evaluate the need for adjustment of the program and will make changes accordingly. The metrics that will aid in program assessment include the following:

- Student and employer survey results
- Academic performance
- Graduate school acceptance rates
- Job placement

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.

Existing facilities are sufficient for implementing the proposed program. The University possesses appropriate library resources with access to books and journal holdings to support teaching and scholarly work.

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. At a minimum, faculty shall have a degree from an institution accredited by a U.S. Department of Education and/or Council for Higher Education Accreditation recognized accrediting body or a degree from another country evaluated for U.S. equivalency in the discipline they will teach or for which they will develop curricula at least one level above that of the courses being taught or developed. 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. E) Support personnel, including but not limited to counselors, administrators, clinical supervisors, and technical staff, that are directly assigned to the unit of instruction, research or public service, have the educational background and experience necessary to carry out their assigned responsibilities.

The University has identified institutional policies that ensure faculty and staff possess the training, credentials, and other related qualifications to provide instruction at the institution. Faculty teaching in the proposed program will have the appropriate qualifications. A formal faculty evaluation process is in place.

Fiscal and Personnel Resources

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

The University has adequate faculty, staff, and other instructional resources to administer the proposed program. Existing faculty will teach the proposed curricula.

Accreditation and Licensure

1050.30(b)(3)[applicable only to units of instruction]: 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.

No specialized accreditation is required for the program.

Program Information

1050.30(b)(2)[applicable only to units of instruction]: A) The information which 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, 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 and the number of graduates and enrollments as provided by the institution to the Integrated Postsecondary Education Data System (IPEDS) and any submission of data to satisfy Board reporting requirements; 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.

Detailed information about the proposed program, including description of the admission policies, university policies, tuition, fees, and curriculum are provided in the proposal and will be published on the University's website.

Staff Conclusion

The staff concludes that the Master of Science in CyberGIS and Geospatial Data Science proposed by the University of Illinois 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.

Proposed Degree Title in the Region of Authorization: Master of Science in Predictive Analytics and Risk Management in the Prairie Region

Projected Enrollments and Degrees:

First Year Enrollment	Fifth Year Enrollment	Degrees Awarded Fifth Year
20	50	50

Background

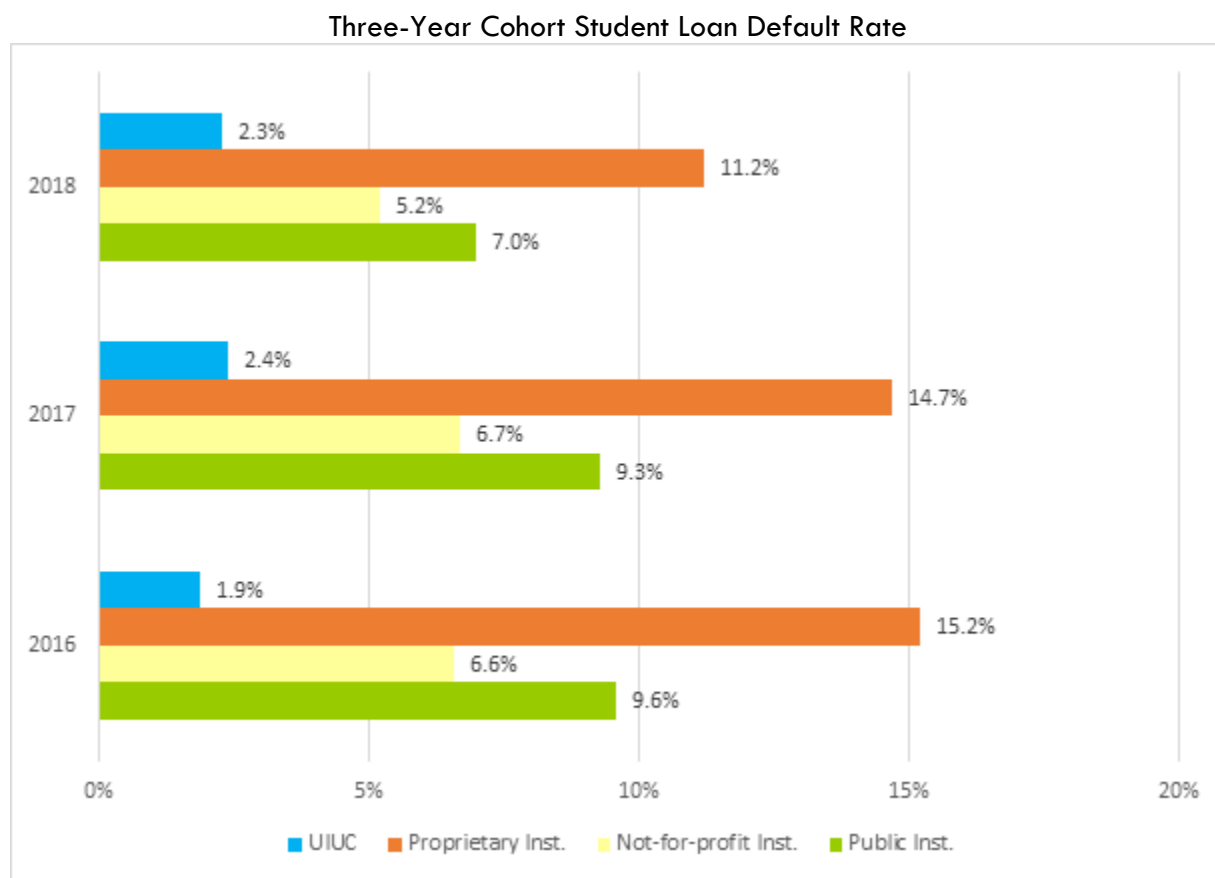
The University of Illinois Urbana-Champaign (University or UIUC) is seeking authorization to offer a Master of Science (MS) in Predictive Analytics and Risk Management in the Prairie Region. This proposed program will be jointly administered by the Departments of Mathematics and Statistics in the College of Liberal Arts and Sciences, and the Department of Finance in the Gies College of Business. The MS in Predictive Analytics and Risk Management will offer two concentrations: Financial and Insurance Analytics and Enterprise Risk Management. The proposed MS in Predictive Analytics and Risk Management will provide foundational education in predictive analysis and risk management which is a rapidly growing field and of major importance in society. Graduates will have the balanced knowledge of data science, actuarial science, and finance to expertly address problems of predictive analytics for risk management. Strong data science education coupled with a deep knowledge of financial principles will provide a systematic educational foundation for future leaders in financial industries.

Institutional Data

1050.30(b)(1)(H): Success in student progression and graduation rates across all existing approved programs, and success rates in programs preparing students for certification and licensure, shall be consistent with expectations in higher education and the appropriate related field of study. At a minimum, the Board shall consider these factors based on results for similar institutions. (i) Graduation rates, certificate and degree completion rates, retention rates, and pass rates for licensure and certification aligned with thresholds set by State nor national regulatory bodies. (ii) The success rate shall be, at a minimum, higher than those of the lowest quartile of these measures for similar Illinois institutions defined as open versus competitive enrollment institutions and primarily associate versus primarily baccalaureate granting institutions. Exceptions may be made to the lowest quartile if an institution is above the national average for these measures using the same comparison categories of institutions.

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

Undergraduate success measures are not provided because the University is requesting a graduate level degree program.



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

Note: The national cohort default rate for fiscal year 2018 is 7.3%.

A lower number is a positive indicator.

The three-year cohort student loan default rate is the percentage of a school's borrowers who enter repayment on certain Federal Family Education Loan Program or William D. Ford Federal Direct Loan Program loans during a particular federal fiscal year, October 1 to September 30, and default or meet other specified conditions prior to the end of the second following fiscal year.

Need

1050.30(a)(6): A) The unit of instruction, research or public service is educationally and economically consistent with the educational priorities and needs of the State 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 two concentrations offered by the MS in Predictive Analytics and Risk Management are designed to suit individual needs for professional development. The financial and insurance analytics concentration is suitable for candidates who aspire to become technically advanced professionals with strong modeling and data analytics skills. Students in this concentration are expected to come with a background in mathematics, statistics, or operations research, etc. The enterprise risk management concentration is intended for candidates interested in managing advanced analytics technology from high level roles. Students in this concentration are expected to come with a background in business administration, finance, insurance, and risk management. The University anticipates there will be a high demand of students in the program, including projection that the 1,000 annual applicants for the MS Statistics degree programs and MS Actuarial Science program will pick the program as a preferred choice. In particular, those with special interests in predictive analytics for the finance and insurance industries would be especially attracted. The program will target working actuaries who are interested in furthering their education in predictive analytics, which is a major push within the Society of Actuaries. This high demand in the field is also supported by data from the U.S. Bureau of Labor Statistics (BLS). According to BLS, the employment of financial managers who perform several functions, including cash management and risk management is projected to grow by 17 percent between 2020-2030.

A Thriving Illinois: Higher Education Paths to Equity, Sustainability, and Growth

The proposed program supports Goal 1, Equity of A Thriving Illinois to close equity gaps for students who have historically been left behind. The points below under Sustainability and Growth also support equity of access to an affordable educational program that provides training in a field that will equip graduates for employment that will provide financial stability for these individuals and their families. Also, as previously noted, the program is supportive of equity by providing an affordable educational program that is expected to attract diverse students; specifically, it is likely to be attractive to working adults employed in related fields who wish to increase their analytics and risk management skills, thereby positioning them for higher-level management positions with increased responsibility and higher pay.

The proposed program will address Goal 2, Sustainability, to build a stronger financial future for individuals and institutions. Program graduates will be sought after by the financial and insurance industry with high-paying jobs after graduation. Because there are few other programs in the State of Illinois that focus exclusively on applied analytics to finance and insurance, graduates of the proposed program will be highly competitive in the job market. The current tuition rate at the University of Illinois Urbana-Champaign is lower than other data analytics programs in Illinois and across the United States, so the program provides a more affordable option for students.

The proposed degree program will contribute to Goal 3, Growth, to increase talent and innovation to drive economic growth by offering a platform for the University to train early career and mid-career professionals on data analytics knowledge and skills. The proposed MS in Predictive Analytics and Risk Management is expected to produce high quality data scientists and predictive analytics professionals for the Chicago and State of Illinois financial industry. The insurance industry has a major impact on the State of Illinois' economy. According to a 2019 study by the Katie School of Insurance and Financial Services at Illinois State University, there are 191 property and casualty (P&C) insurers, 38 life insurers and 43 health insurers domiciled in the state of Illinois. Graduates of the program will have enhanced opportunities to leverage their skills in the rapidly growing insurance and financial areas and benefit from high wage employment.

Comparable Programs in Illinois

There are four private institutions and two public institutions that offer a comparable program. However, unlike data analytics programs, the proposed program has a specific focus on applications of data and predictive analytics to risk management professions in the financial and insurance industries. The program is designed to address the specific demands from employers in the financial industry, particularly in connection with the Chicago financial technology industry sector.

Institution	Program Name	Sector
DePaul University	MS in Data Science	Private Not-For-Profit
Elmhurst College	MS in Data Science	Private Not-For-Profit
Lewis University	MS in Data Science	Private Not-For-Profit
Northern Illinois University	MS in Data Analytics	Public
Northwestern University	MS in Data Science	Private Not-For-Profit
Northwestern University	MS in Predictive Analytics	Private Not-For-Profit
University of Illinois Springfield	MS in Data Science	Public

Mission and Objectives

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

The proposed program is consistent with the purpose, goals, objectives, and mission of the University. The requested degree title reflects the programs objectives and curriculum.

Curriculum and Assessment

1050.30(b)(1) [applicable only to units of instruction]: 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 programs 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.

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

Admission Requirements

Applicants interested in the MS in Predictive Analytics and Risk Management are required to meet all minimum admission requirements as established by the Graduate College, including obtaining at least a bachelor's degree from a regionally accredited college in the United States or a comparable degree from a recognized institution of higher learning abroad and having a grade point average of 3.0 or higher on a 4.0 scale.

Curriculum

The MS in Predictive Analytics and Risk Management requires 32 credit hours 12 of which must be from each concentration core. The proposed program is designed to be completed in one year, with coursework that includes summer courses that will be available online. The program will be available via online and traditional face-to-face delivery modes. Each concentration requires 12 hours of core courses, organized around three broad areas of expertise, including a case study course. Each concentration also requires 12 hours of related area coursework specific to the concentration, plus an additional eight hours of electives from a prescribed list of courses. At least 12 hours must be taken at the 500 level. Graduation requirements include:

- Core courses – 12 credit courses
- Concentration Required Courses – 12 credit hours
- Electives – 8 credit hours
- Additional 400-500 Level Courses – 6 credit hours
- 500 level Courses – 12 credit hours

Assessment of Student Learning

The University of Illinois Urbana-Champaign has established processes to measure and analyze student learning outcomes. Students will be assessed on a course-by-course basis periodically throughout using direct measures such as presentations, project work, group discussions and academic grade performance on exercises, quizzes, exams, and project work. Throughout the semester, assessment of the learning outcomes will be collected within each course as well as evidence of content and skills mastery in graduate capstone research and experiential opportunities through written research documents. Indirect measures of student learning include exit survey provided to students completing their final semester in the program. Based on the feedback received, modifications will be made to teaching and learning as needed so that students are supported to meet objectives and learning outcomes.

Program Assessment

The program will be evaluated annually at multiple levels and involve key faculty, curriculum committee, and stakeholder groups. The program uses a standard evaluation process monitored by the University's Academic Program Review Council. Based on the results, the departments administering the program will evaluate the need for adjustment of the program and will make changes accordingly. The metrics that will aid in program assessment include the following:

- Student and employer survey results
- Academic performance
- Graduate school acceptance rates
- Job placement

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.

Existing facilities are sufficient for implementing the proposed program. The University possesses adequate library resources, including textbooks, electronic journals, and database resources to support teaching and scholarly work.

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. At a minimum, faculty shall have a degree from an institution accredited by a U.S. Department of Education and/or Council for Higher Education Accreditation recognized accrediting body or a degree from another country evaluated for U.S. equivalency in the discipline they will teach or for which they will develop curricula at least one level above that of the courses being taught or developed. 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. E) Support personnel, including but not limited to counselors, administrators, clinical supervisors, and technical staff, that are directly assigned to the unit of instruction, research or public service, have the educational background and experience necessary to carry out their assigned responsibilities.

The University has identified institutional policies that ensure faculty and staff possess the training, credentials, and other related qualifications to provide instruction at the institution. Faculty teaching in the proposed program will have the appropriate qualifications. A formal faculty evaluation process is in place.

Fiscal and Personnel Resources

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

The University has adequate faculty, staff, and other instructional resources to administer the proposed program. Existing faculty will teach the proposed curricula.

Accreditation and Licensure

1050.30(b)(3)[applicable only to units of instruction]: 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.

The program will seek accreditation from the Professional Risk Managers' International Association and the Global Association of Risk Professionals.

Program Information

1050.30(b)(2)[applicable only to units of instruction]: A) The information which 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, 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 and the number of graduates and enrollments as provided by the institution to the Integrated Postsecondary Education Data System (IPEDS) and any submission of data to satisfy Board reporting requirements; 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.

Detailed information about the proposed program, including description of the admission policies, university policies, tuition, fees, and curriculum are provided in the proposal and will be published on the University's website.

Staff Conclusion

The staff concludes that the Master of Science in Predictive Analytics and Risk Management proposed by the University of Illinois 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.

Western Illinois University

Proposed Degree Title in the Region of Authorization: Master of Music Therapy in the Western Region

Projected Enrollments and Degrees:

First Year Enrollment	Fifth Year Enrollment	Degrees Awarded Fifth Year
5	10	5

Background

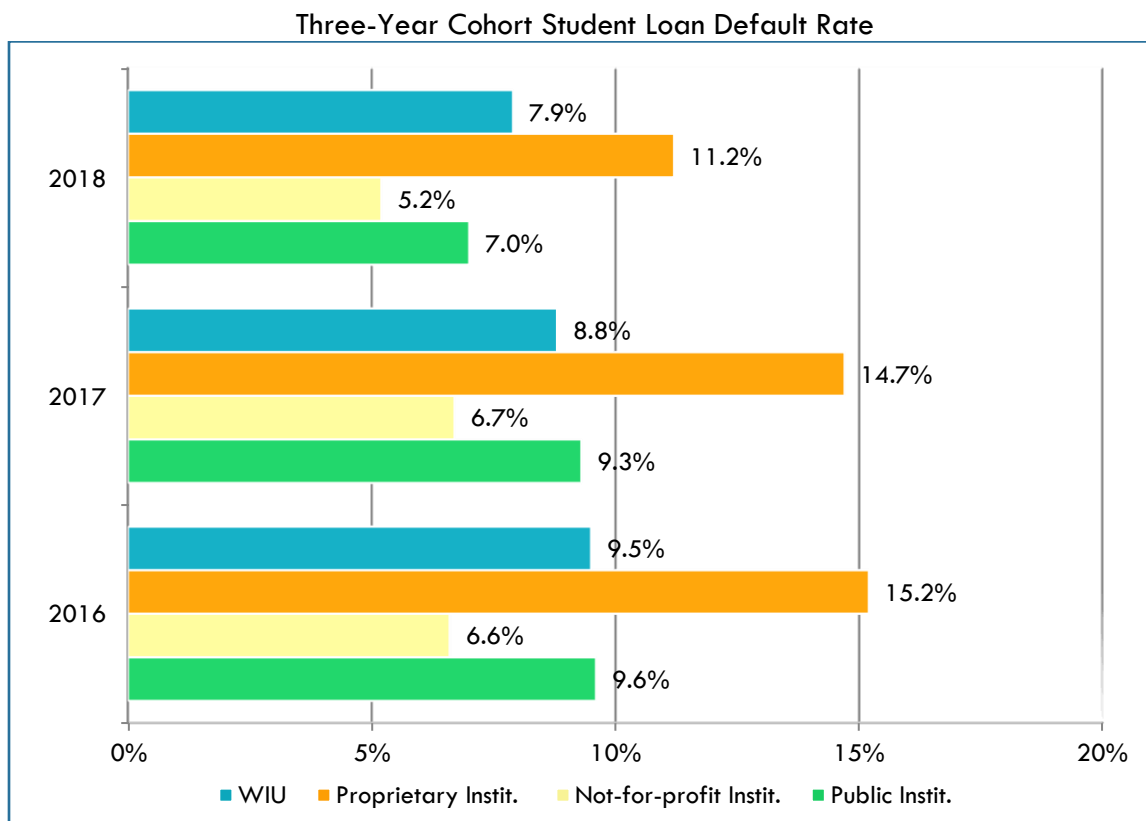
Western Illinois University (WIU or the University) is seeking authorization to offer the Master of Music Therapy in the Western Region. The Master of Music Therapy builds upon the existing Bachelor of Music in Music Therapy offered by the School of Music in the College of Fine Arts and Communication at WIU. While the undergraduate program has seen increased enrollment over the past decade, more recently prospective students have routinely inquired about a master's degree in music therapy. At the national level, discussions have trended toward requiring music therapists to have a master's degree to practice, and the possibility exists that it may be required by 2030. If that occurs, the Master of Music Therapy will replace the undergraduate option at WIU. The graduate coursework will have a substantial focus on analyzing research and applying findings to clinical practice, providing students opportunities for specialization in a clinical area through independent study, clinical work, and research. Graduates of the program will be eligible to become board-certified music therapists qualified to work in rehabilitation facilities, psychiatric hospitals, and other healthcare settings.

Institutional Data

1050.30(b)(1)(H): Success in student progression and graduation rates across all existing approved programs, and success rates in programs preparing students for certification and licensure, shall be consistent with expectations in higher education and the appropriate related field of study. At a minimum, the Board shall consider these factors based on results for similar institutions. (i) Graduation rates, certificate and degree completion rates, retention rates, and pass rates for licensure and certification aligned with thresholds set by State nor national regulatory bodies. (ii) The success rate shall be, at a minimum, higher than those of the lowest quartile of these measures for similar Illinois institutions defined as open versus competitive enrollment institutions and primarily associate versus primarily baccalaureate granting institutions. Exceptions may be made to the lowest quartile if an institution is above the national average for these measures using the same comparison categories of institutions.

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

Undergraduate success measures are not provided because the University is requesting a graduate level degree program.



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

Note: The national cohort default rate for fiscal year 2018 is 7.3%.

A lower number is a positive indicator.

The three-year cohort student loan default rate is the percentage of a school's borrowers who enter repayment on certain Federal Family Education Loan Program or William D. Ford Federal Direct Loan Program loans during a particular federal fiscal year, October 1 to September 30, and default or meet other specified conditions prior to the end of the second following fiscal year.

Need

1050.30(a)(6): A) The unit of instruction, research or public service is educationally and economically consistent with the educational priorities and needs of the State 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 program prepares students to become Board-Certified Music Therapists with the Advanced Competencies established by the American Music Therapy Association (AMTA). While individuals with bachelor's degrees in Music Therapy are eligible to sit for the board certification exam, the AMTA Board is considering replacing the bachelor's degree with the master's degree as an entry-level requirement. Furthermore, the Master of Music Therapy program would appeal to students who want to enter the field of music therapy but have a bachelor's degree in another field. In both cases, the proposed degree poises WIU well to meet the demands of this market.

WIU conducted alumni surveys as well as a review of job postings on relevant websites. Over half of the alumni respondents (all graduates of the Bachelor of Music, Music Therapy program) indicated they would consider returning to WIU for a Master of Music Therapy degree. Moreover, a review of job openings on the AMTA Job Listings showed 71.4 percent required board certification and 21 percent required or preferred a master's degree. A search on Indeed.com yielded similar results with 25 percent preferring or requiring a master's degree and most jobs requiring board certification. Finally, while the Bureau of Labor Statistics does not list a growth rate for music therapists specifically, the published rate of growth for recreation therapists, a closely related profession, is expected to be seven percent.

Salary is an important indicator of demand for the profession. According to an annual Workforce Statistical Profile published by the AMTA, the mean salary for music therapists with master's degrees rose from \$51,840 in 2013 to \$59,138. Furthermore, over the past seven years, music therapists with master's degrees earned, on average, \$7,000 to \$7,500 more per year than music therapists with bachelor's degrees.

A Thriving Illinois: Higher Education Paths to Equity, Sustainability, and Growth

The proposed program supports Goal 1, *Equity of A Thriving Illinois to close equity gaps for students who have historically been left behind*. The undergraduate Music Therapy program at WIU has a successful record of supporting students of color and low-income students by offering a relatively affordable option with a low student-to-faculty ratio. Music Therapy faculty will serve not only as instructors but graduate academic advisors, ensuring individual attention through every step of the program. Furthermore, a University Retention Initiative Team was established in Fall 2020 and charged with developing a retention plan that is currently being finalized. One specific strategy that has already been implemented is increasing and retaining faculty, staff, and administrators of color across the University. To date, two new faculty members of color have been hired in the School of Music as a result of this initiative.

The proposed program will also address Goal 2, *Sustainability, to build a stronger financial future for individuals and institutions*. The Master of Music Therapy program is only the second program of this type in the state, and the total cost is much lower than most comparable programs across the country. Furthermore, by allowing students with other music-related undergraduate degrees to enroll, it makes it possible for a variety of individuals interested in pursuing a career in music therapy to enter the specialized field. Finally, students enrolled in the equivalency-to-master's cohort have the opportunity to not only certify as a music therapist through bachelor's level equivalent courses required for certification, but also to advance their careers by completing the master's degree concurrently.

Finally, the proposed degree program will contribute to Goal 3, *Growth, to increase talent and innovation to drive economic growth*. A feasibility study conducted during the development of the proposed program indicated 24 percent growth nationally in the number of board-certified music therapists over the last five years. However, the relative number of therapists in Illinois has remained at about three percent of the total nationally over that time. The proposed program will become the second such educational option in the state, allowing more Illinois students and professionals to become Board Certified Music Therapists to fill jobs and increase access to services for Illinois residents. Music therapists provide therapeutic services to patients recovering from neurological injuries, those suffering from mental health issues, and veterans, to name a few examples. Besides filling much needed jobs, music therapists can assist others in returning to gainful employment.

Comparable Colleges in Illinois

Illinois State University (ISU) is the only other university, public or private, in the state that offers academic programs in music therapy. ISU also offers bachelor's and master's degree programs. Nationally, as of June 2021, the AMTA listed 40 colleges and universities on its website as approved to offer master's degrees in music therapy.

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 program is consistent with the purpose, goals, objectives, and mission of the University. The requested degree title reflects the program's objectives and curriculum.

Curriculum and Assessment

1050.30(b)(1) [applicable only to units of instruction]: 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 programs 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.

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

To be admitted to the proposed program, an applicant must meet requirements for admission to the School of Graduate Studies at Western Illinois University as well as program-specific requirements. General admission requirements include obtaining a bachelor's degree from a four-year college or university that is accredited by the appropriate regional accrediting body, or its equivalent, and at least a 2.75 grade point average (GPA) (based on all hours attempted at all institutions attended) or a 3.0 GPA or higher for the last two years (60 semester hours) of undergraduate work. Program specific requirements for admission include the following:

- A bachelor's degree or its equivalent in Music Therapy or with a major in Music from an accredited institution;
- A personal statement of why they are seeking a degree in Music Therapy;
- Three letters of recommendation; and
- An entry audition on relevant musicianship for clinical practice.
- In addition to the above criteria, international students whose native language is not

English must present a TOEFL score of 79 IBTG, 550 PBT, or an IELTS score of 6.5.

Curriculum

All students seeking the Master of Music Therapy must complete at least 34 semester credit hours of graduate-level coursework consisting of

- Music Therapy core courses - 15 hours
- Music Therapy electives – 4 hours
- Graduate Music courses or Clinical Foundations courses from other departments such as Psychology, Social Work, Nursing, Education, etc. – 11 hours
- Capstone consisting of a master's project or thesis – 4 hours

Students enrolled in the program will be divided into two cohorts – those with an undergraduate degree in Music Therapy and those whose undergraduate degree is in another Music field. The second cohort (equivalency-to-master's students) must complete prerequisite bachelor's-level music therapy-specific courses concurrent with master's level coursework. Faculty advisors will evaluate equivalency-to-master's students' transcripts and core music competency to determine the undergraduate coursework needed and create a degree plan that includes some combination of the 16 music therapy courses and internship that comprise the core bachelor's curriculum. The equivalency-to-master's degree plan carefully sequences undergraduate prerequisite courses prior to advanced coursework in the master's degree.

Assessment of Student Learning

Student learning will be assessed through a combination of direct and indirect methods. Direct measures include midterm and final exams, reports, response papers, independent and group projects, and presentations. In addition, all students will complete a comprehensive examination and a thesis or master's project under the guidance of a professor in the student's area of specialization. Indirect assessment of the learning objectives will be conducted by tracking job placement rates and soliciting feedback from employers.

Program Assessment

Assessment of the Master of Music Therapy will follow the standard academic program review process. Every WIU academic department must compile a Consolidated Annual Report and submit it to the Provost for review. Metrics include student recruitment, retention, and graduation rates, research productivity, publications, grants secured, levels of alumni and employer satisfaction with the program, and the percentage of graduates employed in relevant positions. Additionally, faculty will conduct annual self-studies of the program which will include input from stakeholders (graduates), analysis of course assessments, and retention/graduation rates.

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.

Existing facilities at the University are sufficient for implementing the proposed program. The University possesses adequate library resources, including textbooks, electronic journals, and database resources to support teaching and scholarly work. Faculty, staff, and students will have access to these resources, as well as curriculum and technology support services.

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. At a minimum, faculty shall have a degree from an institution accredited by a U.S. Department of Education and/or Council for Higher Education Accreditation recognized accrediting body or a degree from another country evaluated for U.S. equivalency in the discipline they will teach or for which they will develop curricula at least one level above that of the courses being taught or developed. 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. E) Support personnel, including but not limited to counselors, administrators, clinical supervisors, and technical staff, that are directly assigned to the unit of instruction, research or public service, have the educational background and experience necessary to carry out their assigned responsibilities.

The University has identified institutional policies that ensure individuals hired possess the training, credentials, and other related qualifications. Faculty teaching in the proposed programs will have the appropriate qualifications. A formal faculty evaluation process is in place.

Fiscal and Personnel Resources

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

The University has adequate faculty, staff, and other instructional resources to support the program. Existing faculty will teach the proposed curricula.

Accreditation and Licensure

1050.30(b)(3)[applicable only to units of instruction]: 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.

The Master of Music Therapy program has received approval from the necessary programmatic accreditors including the National Association of Schools of Music and the American Music Therapy Association. Graduates of the program will be eligible to sit for Board Certified Music Therapist exam.

Program Information

1050.30(b)(2)[applicable only to units of instruction]: A) The information which 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, 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 and the number of graduates and enrollments as provided by the institution to the Integrated Postsecondary Education Data System (IPEDS) and any submission of data to satisfy Board reporting requirements; 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.

Detailed information about the proposed program, including description of the admission policies, university policies, tuition, fees, and curriculum are provided in the proposal and will be published on the University's website.

Staff Conclusion

The staff concludes that the Master of Music Therapy proposed by Western Illinois University meet 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.