

**APPROVED**  
**MARCH 13, 2018**

Item #IV-3  
March 13, 2018

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

**Submitted for:** Action.

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

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

Northern Illinois University

- Doctorate of Philosophy in Computer Science in the Fox Valley Region

Southern Illinois University Edwardsville

- Master of Science in Nutrition and Dietetics in the Southwestern Region

Western Illinois University

- Bachelor of Business in Business Analytics 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 *The Illinois Public Agenda for College and Career Success*, which sets forth new priorities to guide Illinois higher education. Staff recommendations are based on analyses of application materials and responses to staff questions, and, for advanced degree programs, recommendations of external consultants.

**Executive Summary – Public Institutions**

Northern Illinois University

- Doctorate of Philosophy in Computer Science in the Fox Valley Region

Northern Illinois University requests authority to offer a Doctorate of Philosophy (PhD) in Computer Science in the Fox Valley region. The PhD in Computer Science is a 90 credit hour program designed for students with a degree in computer science or a related field. The doctoral program builds upon the curriculum of the existing Master of Science in Computer Science. The proposed program prepares students for careers within the technology industry requiring advanced technical expertise, research opportunities in national laboratories, and tenure-track faculty positions within academia. The program will be administered by the Department of Computer 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 proposed program.

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

Southern Illinois University Edwardsville

- Master of Science in Nutrition and Dietetics in the Southwestern Region

Southern Illinois University Edwardsville requests authority to offer a Master of Science in Nutrition and Dietetics in the Southwestern Region. The proposed program is designed to prepare students to pass the Registered Dietitian examination. The degree will also provide students with advanced scholarship in the area of sports and exercise nutrition, making them uniquely qualified for employment in these areas. The institution has outlined plans to obtain programmatic accreditation from the Academy of Nutrition and Dietetics Accreditation Council

for Education in Nutrition and Dietetics. 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

- Bachelor of Business in Business Analytics in the Western Region

Western Illinois University requests authorization to offer a Bachelor of Business in Business Analytics. The STEM-based 120 hour program will be administered by the Department of Economics and Decision Sciences within the College of Business and Technology at the University. The sequence of courses in the proposed program brings together the technical skills of data mining, forecasting, and computer programming for solving the analytical problems of the contemporary business world. The program will prepare students who are interested in combining business training with data analytics. There are policies in place to ensure faculty members possess the training, credentials, and qualifications to provide instruction in the proposed program. The University has sufficient library, technology, staff, and financial resources in place to support the proposed program.

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

The staff recommends adoption of the following resolutions:

*The Illinois Board of Higher Education hereby grants to Northern Illinois University authorization to establish the Doctorate of Philosophy in Computer Science in the Fox Valley Region, subject to the institution's implementation and maintenance of the conditions that were presented in its application and that form the basis upon which this authorization is granted.*

*The Illinois Board of Higher Education hereby grants to Southern Illinois University Edwardsville authorization to establish the Master of Science in Nutrition and Dietetics in the Southwestern Region, subject to the institution's implementation and maintenance of the conditions that were presented in its application and that form the basis upon which this authorization is granted.*

*The Illinois Board of Higher Education hereby grants to Western Illinois University authorization to establish the Bachelor of Business in Business Analytics 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.*

## **Northern Illinois University**

**Proposed Program Title in the Region of Authorization:** Doctorate of Philosophy in Computer Science in the Fox Valley Region

*Projected Enrollments and Degrees:* Northern Illinois University has projected that enrollment in the proposed Doctorate of Philosophy in Computer Science will grow from ten students in the first year to 30 students in the fifth year. The University has projected that approximately five degrees will be awarded in this program in its fifth year.

### **Background**

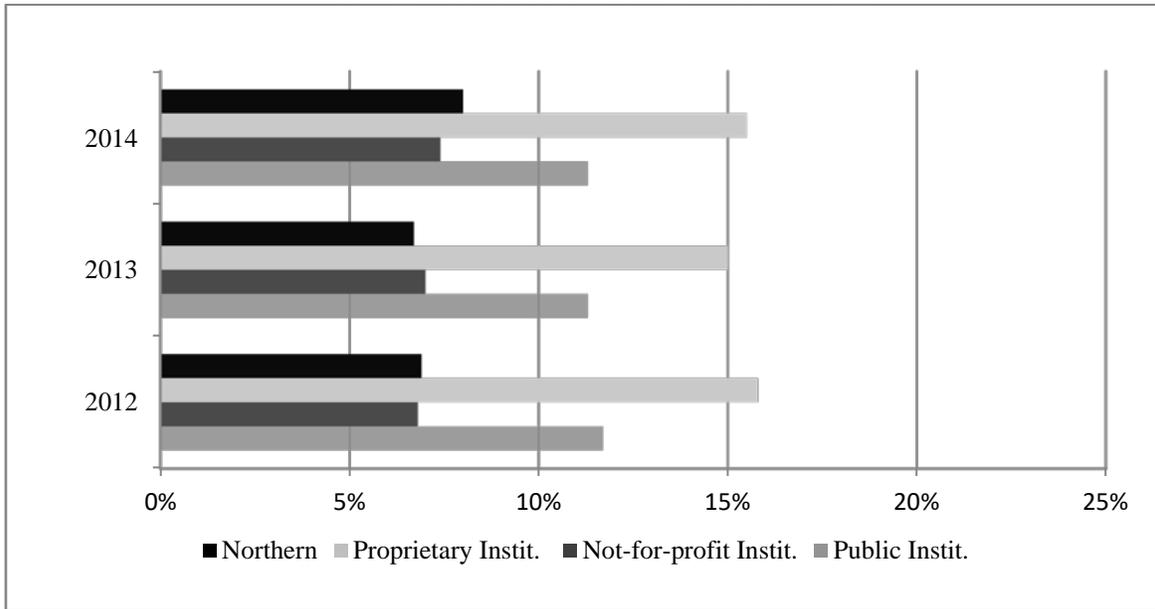
Northern Illinois University (NIU or the University) is seeking authority to offer a Doctorate of Philosophy in Computer Science (PhD in Computer Science) in the Fox Valley Region. The PhD in Computer Science is a 90 credit hour program designed for students with a degree in computer science or a related field. The proposed program will prepare students for careers within the technology industry requiring advance technical expertise, research opportunities in national laboratories, and tenure-track faculty positions within academia. The program will be administered by the Department of Computer 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.

### Three Year Cohort Student Loan Default Rate



Source: National Center for Education Statistics, U.S. Department of Education  
 Note: Northern Illinois University is a public institution. A lower number is a positive indicator.

#### Student Loan Default Rate

The three-year student loan default rate for the University was 8.0 percent in 2014, 6.7 percent in 2013 and 6.9 percent in 2012. 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. The U.S. Department of Education stated that the Fiscal Year 2014 three-year national cohort default rate was 11.5 percent. The Fiscal Year 2014 three-year national cohort average default rate breakdown by institutional sector is: 11.3 percent for public institutions; 7.4 percent for not-for-profit institutions; and 15.5 percent for proprietary institutions.

#### 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.

Since 2012, NIU’s undergraduate majors have grown by 25 percent and the graduate students have doubled to where the department now serves 500 undergraduate majors and 200 graduate students. From 1996 to 2014, each of these programs have conferred the second highest number of degrees among Illinois public universities for computer science. Additionally, according to the U.S. Bureau of Labor Statistics, employment for individuals who hold a graduate degree in computer science is projected to grow 11 percent from 2014 to 2024, faster than average for all occupations. Based on a 2015 report entitled, “Tech sector driving Chicago’s economy and office demand” by Jones, Lang, LaSalle (JLL), Chicago ranks third in the nation in technology job

growth. The U.S. Department of Labor predicts that from 2014 through 2024, the employment growth rate in professions for people with baccalaureate degrees in computer science (12.7 percent) is nearly double the average expected employment growth (6.5 percent). This heightened demand for graduates with baccalaureate degrees in computer science calls upon universities to educate more students in the field which, in turn, increases the demand for professors. The proposed program will help address that increased demand for computer science faculty by producing graduates who will be qualified to start their careers as a tenure-track university professor prepared to educate the large number of undergraduate and master's level students.

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

The University indicates that the proposed program will support Goal 3 of *The Illinois Public Agenda for College and Career Success*. Goal 3 is to increase the number of high-quality postsecondary credentials to meet the demands of the economy in an increasingly global society. Graduates of the proposed program will support one of the fastest growing employment sectors in the state along with Chicago as one of the nation's leading cities in technology job growth. Additionally, the Department of Computer Science has long-standing relationships with computer scientists at the two U.S. Department of Energy laboratories: Argonne National Laboratory and Fermilab. These relationships provide full-time employment opportunities for graduates. Finally, the newly established Center for Research Computing and Data will serve as a key facility that will continue to support many research efforts of the faculty and graduate curriculum.

### **Comparable Programs in Illinois**

In the Chicago area, DePaul University, Illinois Institute of Technology, Northwestern University, Toyota Technical Institute at Chicago, and University of Chicago all have a Doctorate of Philosophy in Computer Science program. The public universities with a doctoral program include the University of Illinois at Chicago, the University of Illinois at Urbana-Champaign, and Southern Illinois University Carbondale. The proposed program would be the one of the most affordable options in the northern part of the state and the only doctoral program in computer science in the Fox Valley region of 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 institution. The requested degree title reflects the degree's program 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

For the PhD in Computer Science, applicants must have a bachelor's degree in computer science or a related field. The following materials may also be considered when making admissions decisions: three letters of recommendation; official transcripts; a written personal statement or purpose; and an admission interview. To be considered for transfer, graduate work must have been completed in computer science by a regional accredited institution and must meet the quality and content of courses offered at Northern Illinois University. Thirty transfer credit hours is the maximum allowed.

### Curriculum

The PhD in Computer Science is a 90 semester hour program that includes, completion of the Master of Science in Computer Science with a thesis option (31 credit hours), three hours in research methods, 12 credit hours in advanced coursework, 24-44 hours in dissertation research, and electives to make up the balance. Prior to beginning full-time dissertation research, doctoral students will be required to complete the coursework and a comprehensive qualifying examination. The program will be administered by the Department of Computer Science.

### Assessment of Student Learning

NIU has established policies and practices in place for the assessment of student learning. The institution's approach incorporates direct and indirect measures administered periodically throughout the academic program. Direct assessment measures include: scholarly publications; scholarly presentations; course-level learning assignments; comprehensive qualifying examinations; and a dissertation proposal and defense. Indirect assessments include: formal student evaluations of faculty and courses; retention; graduation and time-to-completion rates; graduate exit surveys; and employer and alumni surveys.

## Program Assessment

The University has a clearly articulated assessment plan to determine the overall effectiveness of its programs and the degree to which students' needs are being met. Working with shared governance bodies including the University Assessment Panel and the Academic Planning Council, the Provost and his staff oversee the assessment and program review for the University. The program review process provides an opportunity to examine the program and identify areas for program improvement, and plans for the future. The Department of Computer Science will administer the program and provide the required documentation and data necessary during the review to demonstrate the program's strengths, areas for improvement, and plans for the future. The proposed program will follow these existing protocols for continuous improvement.

## 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.*

## Technology and Instructional Resources

The proposed program will remain under the administration of the Department of Computer Science. The University has sufficient dedicated classroom and computer lab space. The necessary technology and research capabilities to support the proposed doctoral program are available through the University.

## Library

The University's Founders Memorial Library (Founders) maintains a collection of resources to support the current program that will be utilized for the proposed doctoral program. Founders provides access to a collection of over 834,000 print and e-books. Through consortia agreements, the Library is affiliated through I-Share and WorldCat with over 10,000 libraries worldwide, expanding its collection to over 2.5 million print and electronic books and 275 databases.

## 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 academic professionals hired possess the training, credentials, and other related qualifications in order to provide instruction at the institution. Faculty teaching in the proposed program will have the appropriate qualifications. A formal faculty evaluation process is in place.

### **Fiscal and Personnel Resources**

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

Existing facilities, equipment, and library resources will support the proposed program. Any additional funds required will be reallocated from the current budget as part of the University's Program Prioritization recommendations and subsequent Action Planning.

### **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.

### **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.*

Information about the University's PhD in Computer Science including a detailed description of the curriculum, admission requirements, tuition, fees and other cost information of the program, as well as university and graduate school policies, will be published on the University's website. Comparable information about the program will be published in the University's Catalog.

**Staff Conclusion.**

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



## **Southern Illinois University Edwardsville**

**Proposed Program Title in the Region of Authorization:** Master of Science in Nutrition and Dietetics in the Southwestern Region.

*Projected Enrollments and Degrees.* Southern Illinois University Edwardsville projects enrollment of 10 students in the first year, increasing to 40 by the fifth year.

### **Background**

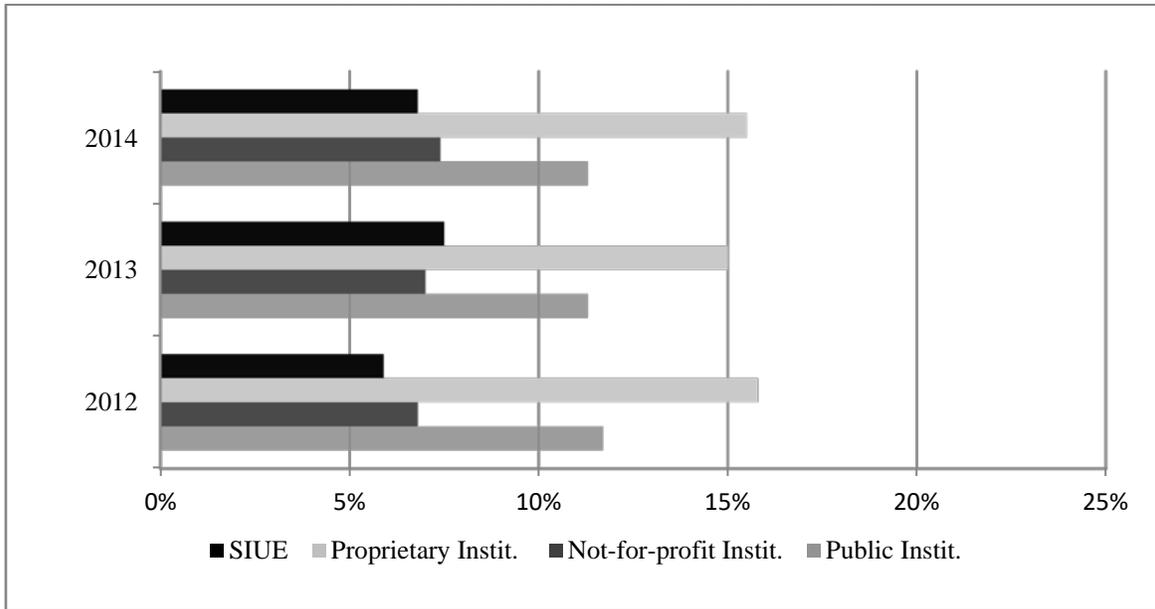
Southern Illinois University Edwardsville (SIUE) requests authority to offer a Master of Science (MS) in Nutrition and Dietetics in the Southwestern Region. The proposed MS in Nutrition and Dietetics is designed to prepare students to pass the Registered Dietitian (RD) examination. The degree will also provide students with advanced scholarship in the area of sports and exercise nutrition, making them uniquely qualified for employment in these areas. The institution has outlined plans to obtain programmatic accreditation from the Academy of Nutrition and Dietetics (AND) Accreditation Council for Education in Nutrition and Dietetics (ACEND).

### **Institutional Data**

*1050.30(b)(1)(H): Success in student progression and graduation, and success rates in programs preparing students for certification and licensure, shall be consistent with expectations in higher education and the appropriate related field of study. At a minimum, the Board shall consider the following factors, based on results for similar institutions. (i) Graduation rates, degree completion rates, retention rates, and pass rates for licensure and certification. (ii) Success rate, which shall be, at a minimum, higher than 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.

### Three Year Cohort Student Loan Default Rate



Source: National Center for Education Statistics, U.S. Department of Education  
 Note: Southern Illinois University- Edwardsville is a public institution. A lower number is a positive indicator.

#### Student Loan Default Rate

The three-year student loan default rate for Southern Illinois University- Edwardsville was 6.8 percent in 2014, 7.5 percent in 2013, and 5.9 percent in 2012. 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. The U.S. Department of Education stated that the Fiscal Year 2014 three-year national cohort default rate was 11.5 percent. The Fiscal Year 2014 three-year national cohort average default rate breakdown by institutional sector is: 11.3 percent for public institutions; 7.4 percent for not-for-profit institutions; and 15.5 percent for proprietary institutions.

#### Need

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

According to the Bureau of Labor Statistics, employment of dietitians is expected to increase 16 percent from 2012 to 2024, faster than average for all occupations nationally. In Illinois, the average increase is 13 percent from 2012 to 2021, above average for all occupations in Illinois. In recent years, there has been increased interest in the role of food in promoting health and wellness, particularly as a part of preventative healthcare in medical settings. The importance of diet in preventing and treating illnesses such as diabetes and heart disease is now well known. More registered dietitians will be needed to provide care for people with these conditions. An aging population also will increase the need for dietitians in nursing homes and long-term care

facilities. The median annual salary is higher than the median for all occupations in Illinois. The national median annual wage of dietitians was \$56,950 in May 2014. In Illinois, the 2014 median annual salary was \$53,891 with an entry level salary of \$32,459 and experienced salary of \$63,405.

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

The MS in Nutrition and Dietetics will address Goals 1, 2, 3, and 4 of the *Illinois Public Agenda for College and Career Success*. The program will address Goal 1, which focuses on increasing educational attainment by being one of only 23 coordinated MS programs nationwide combining the MS coursework with the 1200 hours of supervised practice. Goal 2, which focuses on college affordability, will be addressed because SIUE is currently the least expensive state school in Illinois. Therefore, a MS in Nutrition and Dietetics major at SIUE could earn their degree at cost savings of ten to 40 percent compared to other Illinois public universities and nearly three times less than private universities. Goal 3, which focuses on the offering of high quality credentials to meet economic demand, will be met because the MS Program will meet the new requirements that will be implemented by the Commission on Dietetic Registration as of 2024. Finally, the program will also meet Goal 4, the integration of education and innovation assets, by using established programs currently at SIUE in the Department of Applied Health to assist in administering the new MS Program. This approach will maximize the resources currently available in order to provide training for students to become RDs, a profession that has strong growth and a great need in Illinois. As part of the MS Program, 1200 hours of internship is required.

### **Comparable Programs in Illinois**

According to the research provided by SIUE, there are three public universities (Northern Illinois University, University of Illinois at Chicago, and University of Illinois at Urbana/Champaign) and two private universities (Loyola University of Chicago and Rosalind Franklin University) in Illinois that offer a Master of Science in Nutrition and Dietetics degree program. However, the Accreditation Council for Education in Nutrition and Dietetics (ACEND) is seeking new coordinated MS programs. There are currently just 22 coordinated programs nationwide and none are in southern Illinois. The other schools offering an MS in Nutrition and Dietetics do not combine the degree with the 1200 hours of supervised practice which is a new requirement of ACEND. Instead students must enter with a Bachelor of Science in Nutrition or take their 1200 of supervised practice from another university, both significant barriers for students attempting to complete the necessary requirements to take the RD exam. Offering a coordinated MS in Nutrition and Dietetics at SIUE will provide a needed resource for state citizens seeking an education in a growing area.

### **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.*

SIUE's mission is to have "a student-centered educational community dedicated to communicating, expanding and integrating knowledge." The program objectives of the master's program are aligned with the mission of the University.

## 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 are 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) Provision is made for guidance and counseling of students, evaluations of student performance, continuous monitoring of progress of students toward their degree objectives and appropriate academic record keeping.*

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

### Admission Requirements

Upon admission, the student's advisor will work with the student to tailor an individualized program of study according to the student's background, interests and goals. This program is ideal for those students who have earned a bachelor's degree in nutrition and/or dietetics who were not accepted or matched into a dietetic internship or those who have earned a bachelor's degree in another field, but are now interested in becoming a Registered Dietitian. Minimum requirements for admissions include a conferred bachelor's degree, minimum GPA of 2.75, and successful completion of academic prerequisites.

### Curriculum

The SIUE Department of Applied Health is proposing to establish a MS in Nutrition and Dietetics with specialization coursework completed concurrently. Currently available is a specialization in sports nutrition. The proposed program will be a full-time, two-year coordinated program. A coordinated program includes both the required academic courses and supervised practice (1200 hours of a dietetic internship/supervised practice) in one degree to meet ACEND core knowledge and competency requirements to become a RD. ACEND is the accrediting body of AND, the governing body of Registered Dietitians. Upon completion of this degree, students will be eligible to take the RD credentialing exam which is required to practice as a Dietitian.

### Assessment of Student Learning

The University has identified an early assessment in students' first year and an assessment for the end of the program in the students' second year. This assessment plan uses specific items from common exams, projects, and proficiency exams to determine student learning in a variety of courses. The assessment plans, goals, and desires are now based upon learning objectives outlined by AND. The rubric will provide a comprehensive assessment of student learning and allow us to monitor patterns in individual learning outcomes. The assessment rubric was developed to strengthen the program by providing important student learning outcomes early in the program to correct any deficiencies and late in the program to determine student progress.

### Program Assessment

The Department, led by the program director of nutrition, will collate data and create an Annual Student Assessment Report, which will include data on student performance on each of the learning outcomes, and will compare longitudinal data from the various courses, and recommend

any actions for improvements. Data gathered will be used to guide future content and curricular changes. In addition to the feedback mechanisms provided by the assessment practices in core courses, the major academic advisor will monitor the progress of students during the program through advising and dedicate time each semester during at least one department meeting to discuss any concerns. Therefore, an evaluation of their acceptance into graduate programs will be a further indicator of program performance. The combined data will be compiled by the program director and reviewed by the entire faculty. Potential changes to the curriculum in order to improve the assessment process and/or student performance can be proposed and agreed upon by a faculty vote.

### **Facilities (space, equipment, instructional materials)**

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

The facilities at SIUE will be adequate to support the program. SIUE has the classroom capacity to accommodate the increased offerings and projected enrollments. The Vadalabene Center has six classrooms equipped with state-of-the-art teaching tools including smart classrooms that primarily house classes administered by the Department of Applied Health. In fall 2017, a new Nutrition Laboratory, featuring cooking, demonstration, and classroom space, was completed. Additionally, the Department houses a Physical Activity Center, Exercise Physiology Lab, and Exercise and Sport Psychology Lab that will allow students to participate in hands-on training and research activities.

The Department is housed in the Lucas Annex adjacent to the Vadalabene Center and has office space and resources to support the nutrition faculty. In addition to the offices occupied by current faculty, additional space adjacent to the graduate student office is available. Students will have access to the University's library resources. The Lovejoy Library at SIUE is equipped with online and other instructional materials relevant to students in the program. The library has several electronic tools and resource sharing programs that will benefit students including: CARLI (Consortium of Academic and Research Libraries in Illinois); ILLiad (access to materials from all public university libraries in Illinois); UFind Catalog; I-Share; WorldCat; and EBSCOhost. In addition, the library subscribes to several electronic books and journals. Access to ProQuest Literature Online will allow students to peruse more than 350,000 electronic texts. Also, as a member of the Illinet network, SIUE students can access any book or periodical holding of any library in the state of Illinois.

### **Faculty and Staff**

*1050.30(a)(3): A) The academic preparation and experience of faculty and staff ensure that the objectives of the unit of instruction, research or public service are met. B) The academic preparation and experience of faculty and staff, as evidenced by level of degrees held, professional experience in the field of study and demonstrated knowledge of the field, ensure that they are able to fulfill their academic responsibilities. C) The involvement of faculty in the unit of instruction, research or public service is sufficient to cover the various fields of knowledge encompassed by the unit, to sustain scholarship appropriate to the unit, and to assure curricular continuity and*

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

Administration of the program will be coordinated by the program director. SIUE plans to utilize existing faculty resources and to hire a tenure track faculty member who will be responsible for teaching nutrition-related courses. The University has policies in place to ensure that faculty and staff have the training, credentials, and other related professional qualifications to provide quality instructions to students. Faculty in the programs will be evaluated using standard university procedures.

### **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 proposed MS in Nutrition and Dietetics will be supported through existing resources.

### **Accreditation and Licensure**

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

The program meets standards outlined by the Academy of Nutrition and Dietetics (AND) Accreditation Council for Education in Nutrition and Dietetics (ACEND) core knowledge and competency requirements to become a RD. SIUE will apply to ACEND for accreditation after it is approved by IBHE. The accreditation process will take approximately 12 to 14 months. Recruitment of students to the program will not begin until the program is accredited by ACEND.

### **Program Information**

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

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

**Staff Conclusion.**

The staff concludes that the Master of Science in Nutrition and Dietetics proposed by Southern Illinois University Edwardsville 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 Program Title in the Region of Authorization:** Bachelor of Business in Business Analytics in the Western Region.

*Projected Enrollments and Degrees:* Western Illinois University projects the Bachelor of Business in Business Analytics will increase from approximately 15 students in the first year to 50 students in the fifth year. The University projects approximately 20 degrees will be awarded in the fifth year.

### **Background**

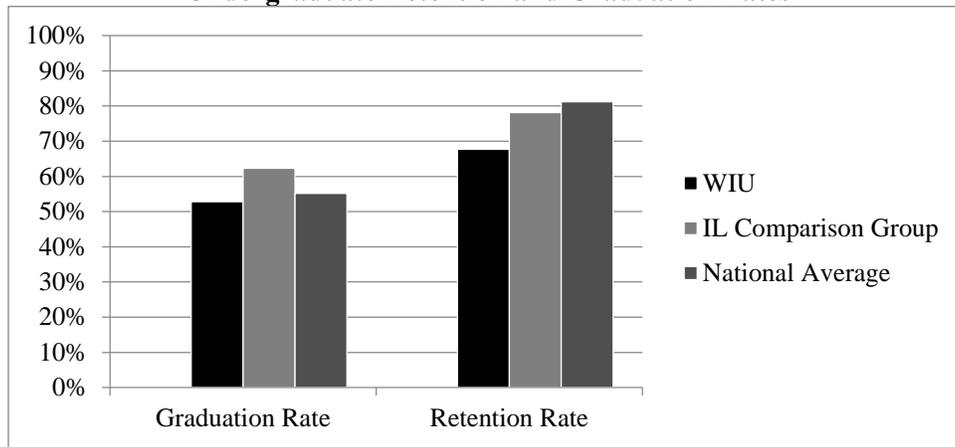
Western Illinois University (WIU or the University) requests authority to offer a Bachelor of Business (BB) in Business Analytics in the Western Region. Given WIU's success with their business graduate programs and rapid growth in their analytics minor, delivering a full Bachelor program in this field is an appropriate response to student demand and professional trends. The proposed program will be administered by the Department of Economics and Decision Sciences within the College of Business and Technology at the University. The target demographics include students, prospective students, and professionals who are interested in combining business training with data analytics.

### **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 Retention and Graduation Rates



*Source: National System for Education Statistics, U.S. Department of Education*

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

#### Undergraduate Graduation Rate

WIU's 2014-2015 graduation rate was 52.8 percent. The national 2015 average graduation rate for public four-year institutions was 55.2 percent and the average among comparable Illinois institutions was 62.3 percent. 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 System for Education Statistics (NCES).

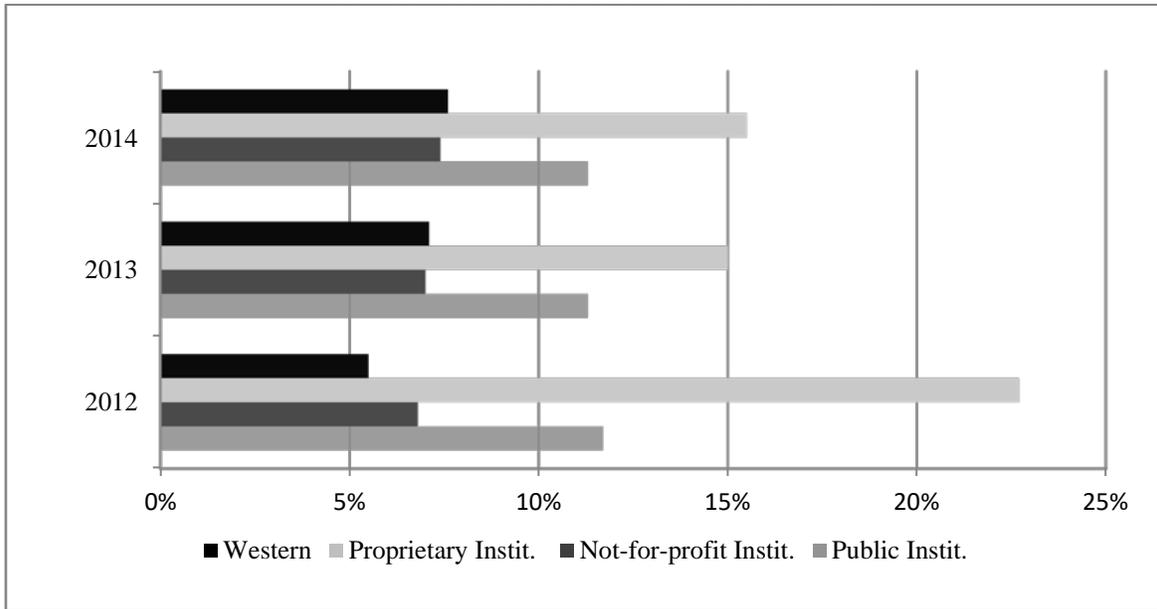
#### Undergraduate Retention Rate

WIU's 2014-2015 retention rate was 67.7 percent. The national average retention rate for public four-year institutions in 2014-2015 was 81.2 percent and the average for comparable Illinois institutions was 78.1 percent. 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 the NCES.

#### Undergraduate Completions per 100 FTE

WIU's 2014-2015 completions per 100 full-time equivalent (FTE) rate was 25. The average among comparable Illinois institutions was 24.8. The 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 completions across different student populations.

### Three Year Cohort Student Loan Default Rate



Source: National Center for Education Statistics, U.S. Department of Education  
 Note: Western Illinois University is a public institution. A lower number is a positive indicator.

#### Student Loan Default Rate

The three-year student loan default rate for the University was 7.6 percent in 2014, 7.1 percent in 2013 and 5.5 percent in 2012. 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. The U.S. Department of Education stated that the Fiscal Year 2014 three-year national cohort default rate was 11.5 percent. The Fiscal Year 2014 three-year national cohort average default rate breakdown by institutional sector is: 11.3 percent for public institutions; 7.4 percent for not-for-profit institutions; and 15.5 percent for proprietary institutions.

#### 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 McKinsey and Company’s “Big Data Report,” there is an estimated shortage of approximately 140,000 to 190,000 professionals in analytics. The Bureau of Labor and Statistics indicates that the estimated job growth in this area is approximately 19 percent and is therefore “much faster than average”. Furthermore, according to the Harvard Business Review the expected number of jobs in this field is anticipated to increase by 22 percent by 2020. There are also many Illinois job opportunities in the field from key employers such as Caterpillar, State Farm, John Deere, and others.

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

The proposed program will directly address Goals 3 and 4 of *The Illinois Public Agenda for College and Career Success*. Goal 3 of the Public Agenda is to *increase the number of high-quality post-secondary credentials to meet demands of the economy and an increasingly global society*. The proposed Bachelor degree program is a direct avenue for WIU to establish itself as a leader in business analytics. Through this program, WIU will help meet the increased demand for trained statisticians as the world becomes more dependent upon data and quantitative reasoning. Goal 4 of the *Public Agenda* is to *better integrate Illinois' educational, research, and innovation assets to meet economic needs of the state and its region*. In particular, the *Public Agenda* states that Illinois needs to better cultivate a “culture of entrepreneurship” to promote economic development. Graduates will be trained to specifically address this issue by making Illinois more globally competitive as this program addresses the need for educational, research, and innovation assets. Furthermore, this degree program will play a critical role in boosting the analytical capacity of the region, which increases chances for long-term economic growth and employment of its citizens.

### **Comparable Programs in Illinois**

Based upon the IBHE program database, there are no Illinois public universities currently offering an undergraduate degree in business analytics. There are very few institutions currently offering full degree programs in Business Analytics, with most defining study in the field as a minor or concentration within existing baccalaureate programs. The only private college in the State of Illinois that offers a Bachelor's degree in Business Analytics program is Benedictine University. Three other private institutions offer an undergraduate degree in data analytics. WIU is therefore poised to be an early leader in providing this high-need program due to the limited options available for undergraduate business analytics students in 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 in alignment with the overall mission of the University and is consistent with the purpose, goals, objectives, and mission of the institution. The requested degree title reflects the degree program objectives and curriculum.

### **Curriculum and Assessment**

*1050.30(b)(1) [applicable only to units of instruction]: A) The caliber and content 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

The College of Business and Technology does not impose separate admission standards beyond those required for admission to the University. The admission requirements state that student applications are evaluated based on the following criteria: college preparatory curricula/academic coursework; grade trends; and the rigor of courses completed throughout high school. Applicants must provide written evidence of their ability to perform at a high academic level by submitting a personal and academic statement. Admission for transfer students is the same for all transfer students to the University.

### Curriculum

The proposed STEM-based 120 semester hour BB in Business Analytics program and ensuing sequence of courses brings together the technical skills of data mining, forecasting, and computer programming for solving the analytical problems of the contemporary business world. This program is built upon the previously approved Bachelor of Business in Economics, Bachelor of Science in Mathematics, Master of Science in Applied Statistics and Decision Analytics, Post-Baccalaureate Certificate in Business Analytics, and minor in Business Analytics (formerly titled Decision Sciences), and is designed for undergraduate students interested in bringing together business training with data analytics. The program requires 57 semester hours of core business and analytics coursework. Students must also complete a capstone course wherein case studies are conducted in both team-based and individualized approaches.

### Assessment of Student Learning

Assessment of student learning is conducted within each core course and at the end of the students' academic experience at WIU. Achieved learning objectives are demonstrated through student-completed projects which are compiled into a senior portfolio that will be reviewed by the Economics and Decision Sciences Assessment Committee. Additionally, students will take an assessment exam at the end of their senior year. The exam scores and portfolio review provide direct measures of the learning outcomes. A student must successfully complete each course in his/her degree program by earning a grade of C or better. This includes core courses, emphasis courses, and directed elective courses. Information is also collected annually on other program metrics such as the number of internships as well as graduate and placement / employment rates.

### Program Assessment

WIU requires every academic program to submit annually a Report of Assessment of Student Learning to the Provost's Office for review. WIU utilizes a four-step assessment model, which includes articulating the program's student learning outcomes, direct and indirect measures, assessment results, and a discussion of the impact on the improvement of student learning. In addition to the annual review, and consistent with IBHE requirements, the University will submit a progress report on the proposed programs at the end of the third year of operation. The report will summarize key areas of accomplishments, the challenges faced by the program and the

measures utilized to address these challenges. Also, the program director and faculty will participate in the University's eight-year program review process to assess the program using multiple measures including student evaluation of faculty teaching; the level of faculty research, scholarship and public service, awards and honors; retention and graduation rate of students in the program; and the level of alumni and employer satisfaction with the program. A summary of the program review including the program's strengths and weaknesses as well as steps taken to improve the program, will be submitted by the University to the IBHE with summaries of other programs on the same cycle.

### **Facilities (space, equipment, instructional materials)**

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

The proposed BB in Business Analytics is built upon existing courses and resources. Classroom, technology, and library resources are sufficient as this program will share existing facilities and equipment within the Department of Economics and Decision Sciences.

### **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 policies in place to ensure that faculty and staff hired have the training, credentials, and other related professional qualifications to provide quality instructions to students. Current faculty and staff are sufficient to support the proposed program. Faculty in the program are evaluated using standard university procedures.

### **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.*

Existing resources are sufficient to launch and support the proposed program.

### **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.*

Programmatic accreditation is not required. However, all business programs at the University are 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, 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.*

Information about the proposed program, including a detailed description of the curriculum, admission requirements, tuition, fees, and other cost information as well as University policies will be published in the University's catalog.

### **Staff Conclusion.**

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

