03/26/2019

BOARD OF REGENTS OF THE UNIVERSITY OF WISCONSIN SYSTEM

I.1. Education Committee Agenda

Thursday, April 4, 2019
10:30 a.m. – 12:00 p.m.
1820 Van Hise Hall
1220 Linden Dr., Madison, Wisconsin

a. Approval of the Minutes of the February 7, 2019 meeting of the Education Committee

b. Report of the Vice President for Academic and Student Affairs
   - Update: UW System Task Force for Advancing Teacher Education and School Leadership in Wisconsin
   - Restructuring Update: UW System Associate Degree Program Approval Policy (SAP 102)

c. UW-Green Bay:
   Second Reading and Approval of the Proposed Select Mission Change [Resolution I.1.c.]

d. UW Collaborative Degree Programs:
   (1) Approval of the Master of Science in Applied Biotechnology [Resolution I.1.d.(1)]
   (2) Approval of the Master of Science in Information Technology Management [Resolution I.1.d.(2)]

EDUCATION COMMITTEE

Resolution I.1.c.:

That, upon the recommendation of the President of the University of Wisconsin System, final approval be granted to change the select mission at UW-Green Bay.

CHANGE TO THE DISTINCT MISSION STATEMENT
UNIVERSITY OF WISCONSIN-GREEN BAY
SECOND READING

BACKGROUND

Section 36.09(1)(b), Wis. Stats., Regent Policy Document (RPD) 1-1, and UW System Policy SYS 102 require that: "the Board, after public hearing at each institution, shall establish for each institution a mission statement delineating specific program responsibilities and types of degrees to be granted."

A UW System Administration review of UW institutions' mission statements revised after 2009 revealed that some mission statements were no longer compliant with Board of Regents and UW System policies. Accordingly, UW-Green Bay was asked to revise its current mission.

In response, UW-Green Bay engaged in a four-year process, which not only fulfilled all of the requirements set forth by both the UW System Board of Regents and the Higher Learning Commission, but also engaged faculty, staff, students, and members of the sixteen-county campus community. As a result, UW-Green Bay has developed a revised mission statement to:

- Closely match its programs and partnerships to a rapidly changing region;
- Better serve regional goals for increasing the economic output of Northeast Wisconsin, as expressed within the Greater Green Bay Economic Development Strategic Plan; and
- Align the narrative between the UW System Board of Regents and UW-Green Bay regarding the institution's academic program portfolio, innovation risks, and regional obligations and opportunities.

REQUESTED ACTION

Adoption of Resolution I.1.c., approving UW-Green Bay's revised select mission statement.

DISCUSSION

In submitting this revised mission statement for a second reading, the University of Wisconsin-Green Bay has fulfilled the procedural requirements of the UW System Board of Regents, as follows. On October 24, 2018, the UW-Green Bay shared governance groups unanimously approved the revised mission statement, including the: Faculty Senate, Academic Staff Committee, University Staff Committee, and Student Government Association. On November 12, 2018, Chancellor Gary Miller transmitted correspondence to UW System President Raymond Cross, seeking a first reading of its revised mission statement from the Board of Regents. On February 8, 2019, the Board of Regents completed its first reading of the UW-Green Bay revised mission statement. On March 14, 2019, Regent Robert Atwell presided over a public hearing of the UW System Board of Regents on the proposed UW-Green Bay Mission Change. On March

18, 2019, Chancellor Gary Miller transmitted correspondence to UW System President Raymond Cross, seeking a second reading and approval from the UW System Board of Regents of the UW-Green Bay revised mission statement.

Therefore, final approval is now requested from the Board of Regents at the April 5, 2019 meeting.

Attached to this document are three appendices: (1) Appendix A, containing the proposed UW-Green Bay mission statement; (2) Appendix B, containing the current mission statement with changes marked; and (3) Appendix C, containing the current mission statement. Following the appendices are the two letters from UW-Green Bay Chancellor Gary L. Miller to UW System President Cross, as well as the Public Meeting Notice of the Board of Regents of the UW System.

RELATED REGENT POLICY

Regent Policy Document 1-1: Mission Statements.

APPENDIX A

UW Green Bay Revised Mission

Approved by Shared Governance – Faculty Senate, Academic Staff Committee, University Staff Committee, and Student Government Association - ***10/24/2018***

The University of Wisconsin-Green Bay is a multi-campus comprehensive university offering exemplary undergraduate, master's and select doctoral programs and operating with a commitment to excellence in teaching, scholarship and research, and service to the community. The University provides a problem focused educational experience that promotes critical thinking and student success.

The culture and vision of the University reflect a deep commitment to diversity, inclusion, social justice, civic engagement, and educational opportunity at all levels. Our core values embrace community-based partnerships, collaborative faculty scholarship and innovation.

Our commitment to a university that promotes access, career success, cross-discipline collaboration, cultural enrichment, economic development, entrepreneurship, and environmental sustainability is demonstrated through a wide array of programs and certifications offered in four colleges: College of Arts, Humanities and Social Sciences; College of Science, Engineering and Technology (including the Richard Resch School of Engineering); College of Health, Education and Social Welfare; and the Austin E. Cofrin School of Business, leading to a range of degrees, including AAS, BA, BAS, BBA, BM, BS, BSN, BSW, MS, MSW, MSN, and Ed.D.

APPENDIX B

UW Green Bay Mission with Tracked Changes

The University of Wisconsin-Green Bay is a multi-campus comprehensive university offering exemplary undergraduate, master's and select doctoral programs and operating with a commitment to excellence in teaching, scholarship and research, and service to the community. ~~provides an interdisciplinary, problem-focused educational experience that prepares students to think critically and address complex issues in a multicultural and evolving world~~. The University provides a problem focused educational experience that promotes critical thinking and student success.

The culture and vision of the University reflect a deep commitment to~~enriches the quality of life for students and the community by embracing the educational value of~~ diversity, inclusion, social justice, civic engagement, and educational opportunity at all levels. Our core values embrace community-based partnerships, collaborative faculty scholarship and innovation.

Our commitment to a university that promotes access, career success, cross-discipline collaboration, cultural enrichment, economic development, entrepreneurship, and ~~promoting~~ environmental sustainability is demonstrated through a wide array of programs and certifications offered in four colleges: College of Arts, Humanities and Social Sciences; College of Science, Engineering and Technology (including the Richard Resch School of Engineering); College of Health, Education and Social Welfare; and the Austin E. Cofrin School of Business,~~, encouraging engaged citizenship, and serving as an intellectual, cultural and economic resource.~~

~~The University offers undergraduate and graduate programs in the liberal arts and sciences and in professional studies that cultivate knowledge and encourage investigations into disciplinary and interdisciplinary fields, promote civic engagement and lifelong learning, and serve the needs of a diverse student body. Programs in the arts and humanities; business, management, and communication; science and technology; education; environment; health science; social and behavioral sciences; and social justice~~ leading to a range of degrees, including AAS, BA, BAS, BBA, BM, BS, BSN, BSW, ~~BBA,~~ MS, MSW, ~~and~~ MSN, and Ed.D. ~~degrees~~.

APPENDIX C

UW Green Bay Current Mission

Approved by the UW System Board of Regents, ***December 2014****.*

The University of Wisconsin-Green Bay provides an interdisciplinary, problem-focused educational experience that prepares students to think critically and address complex issues in a multicultural and evolving world. The University enriches the quality of life for students and the community by embracing the educational value of diversity, promoting environmental sustainability, encouraging engaged citizenship, and serving as an intellectual, cultural and economic resource.

The University offers undergraduate and graduate programs in the liberal arts and sciences and in professional studies that cultivate knowledge and encourage investigations into disciplinary and interdisciplinary fields, promote civic engagement and lifelong learning, and serve the needs of a diverse student body. Programs in the arts and humanities; business, management, and communication; science and technology; education; environment; health science; social and behavioral sciences; and social justice lead to a range of degrees, including AAS, BA, BAS, BM, BS, BSN, BSW, BBA, MS, MSW, and MSN degrees.

November 12, 2018

GARY L. MILLER
Chancellor

President Ray Cross
UW System
1720 Van Hise Hall
1220 Linden Dr.
Madison, WI 53706

Dear President Cross:

Please be advised that the University of Wisconsin-Green Bay Community is presenting to the University of Wisconsin Board of Regents a substantive change to the select mission of the university. We have been active this last year conferring with the faculty, staff, student body and 16-county community to develop a mission that better aligns with our current vision and direction of the institution.

In documents proceeding this letter, you will see the extensive process we navigated to present you with the draft mission. We followed all steps set out by the University of Wisconsin Board of Regents and Higher Learning Commission while seeking additional support and input above and beyond the official steps.

In a memo I sent to UW System earlier in the year, I outlined why this needs to be done. I want to call to your attention three key reasons:

1. Institutional survival *requires* us to closely match our programs and partnerships to a rapidly changing region.
2. The opportunity of Project Coastal significantly expands the footprint of the University as well as its influence, thus requiring a clear, positive, and inclusive mission.
3. A new mission is required in order to align the narrative between the Board of Regents and the University regarding the institution's academic program portfolio, innovation risks, and regional obligations and opportunities.

Thank you for your leadership and support in the transformation of the University of Wisconsin-Green Bay and I ask for your support on this mission change.

Sincerely,

Gary L Miller
Chancellor

c: UW Board of Regents
UW-Green Bay Council of Trustees
UW-Green Bay University Committee

2420 NICOLET DRIVE • GREEN BAY, WISCONSIN 54311-7001 • 920-465-2207 • FAX 920-465-2192 • millerg@uwgb.edu

UNIVERSITY of WISCONSIN
GREEN BAY

NOTICE OF PUBLIC HEARING
BOARD OF REGENTS OF THE UNIVERSITY OF WISCONSIN SYSTEM

Thursday, March 14, 2019
5:30 – 7:00 PM
UW-Green Bay Campus
Weidner Center for the Performing Arts, Fort Howard Hall
2420 Nicolet Drive, Green Bay, WI 54311

The University of Wisconsin-Green Bay will hold a public hearing on its Mission Change. UW-Green Bay is seeking a substantive change to the select mission in order to adopt a mission that matches established and emerging programs and partnerships; demonstrates commitment to new branch campuses and communities; and better aligns with the vision of the institution.

Appearances at the Hearing and Submittal of Written Comments

Regent Robert Atwell will preside over the public hearing, to provide interested persons with the opportunity to make an oral presentation on the revised statement. Each individual who registers to speak will be given up to three minutes for an oral presentation. Registration will be available on site before and during the listening session. Only those who are registered will be able to provide a statement regarding the proposed mission statement.

The proposed mission change is available online at https://www.uwgb.edu/chancellor/mission/proposed.asp. If you have any questions, please contact Ben Joniaux, Office of the Chancellor, University of Wisconsin-Green Bay at 920-465-2067 or JoniauxB@uwgb.edu.

Accessibility

Persons with special needs or circumstances regarding communication or accessibility at the hearing should contact Ben Joniaux at 920-465-2067 JoniauxB@uwgb.edu. Accommodations such as ASL interpreters, English translators, or materials in audio format will be made available on request to the fullest extent possible.

GARY L. MILLER
Chancellor

March 18, 2019

President Ray Cross
1720 Van Hise Hall
1220 Linden Drive
Madison, WI 53706

Dear President Cross,

After a multi-year process of drafting a new mission for the University of Wisconsin-Green Bay, I am contacting you today to ask that you recommend the UW-Green Bay proposed mission for a second reading of the Board of Regents at the April 2019 meeting.

This process began over four years ago during the University's vision to become an institution that better served and matched the economic profile of Northeast Wisconsin. The Greater Green Bay Chamber's Strategic Plan specifically charged the University to craft a new mission that would better service the goals for increasing the economic output of Northeast Wisconsin. After a year of faculty, staff, student, community and UW System Collaboration, the University has crafted a mission that completes the task set by the Chamber.

We have seen strong support of this new mission through unanimous votes in all shared governance committees at the University, approval from our Council of Trustees and a voice of approval from Regent Millner, Chair of Board of Regents Education Committee, at the initial reading of the mission.

Thank you for your support in this vital project, and I would ask once again for a second reading of the new select mission of the University of Wisconsin-Green Bay.

Sincerely,

Gary L. Miller
Chancellor

2420 NICOLET DRIVE • GREEN BAY, WISCONSIN 54311-7001 • 920-465-2207 • FAX 920-465-2192 • millerg@uwgb.edu

Program Authorization (Implementation)
Collaborative Online Master of Science in Applied Biotechnology
UW-Green Bay, UW-Madison, UW-Oshkosh, UW-Parkside, UW-Platteville, UW-Stevens Point, and UW-Whitewater, with University of Wisconsin Extended Campus

EDUCATION COMMITTEE

Resolution I.1.d.(1):

That, upon the recommendation of the Chancellors of University of Wisconsin-Green Bay, University of Wisconsin-Madison, University of Wisconsin-Oshkosh, University of Wisconsin-Parkside, University of Wisconsin-Platteville, University of Wisconsin-Stevens Point, and University of Wisconsin-Whitewater, with administrative and financial support from University of Wisconsin Extended Campus, and the President of the University of Wisconsin System, the Chancellors are authorized to implement the collaborative online Master of Science in Applied Biotechnology.

NEW PROGRAM AUTHORIZATION
COLLABORATIVE ONLINE
MASTER OF SCIENCE IN APPLIED BIOTECHNOLOGY

UW-MADISON (LEAD)
UW-GREEN BAY
UW-OSHKOSH
UW-PARKSIDE
UW-PLATTEVILLE
UW-STEVENS POINT
UW-WHITEWATER

With administrative and financial support from
University of Wisconsin Extended Campus

EXECUTIVE SUMMARY

BACKGROUND

The University of Wisconsin (UW)-Madison proposes to establish a collaborative online Master of Science (M.S.) in Applied Biotechnology, with UW-Madison as the lead institution and on behalf of the defined academic partners: UW-Green Bay, UW-Oshkosh, UW-Parkside, UW-Platteville, UW Stevens Point, and UW-Whitewater. The M.S. in Applied Biotechnology represents a fully online, asynchronous curriculum comprised of 31 credits and includes a culminating, project-based experience.

This program responds to the recognized growth of the biotechnology industry and the resulting increase in demand for highly qualified professionals in the field. Core courses provide students with a solid foundation in biotechnology, leadership, ethics, research, communications, product development, quality control, as well as regulatory and compliance practices. Graduates will serve an important function and role within the biotechnology workforce, and thereby support economic development in Wisconsin.

REQUESTED ACTION

Adoption of Resolution 1.1.d.(1), approving the implementation of the Collaborative Online Master of Science in Applied Biotechnology.

DISCUSSION

Program Description. The M.S. in Applied Biotechnology requires 31 credits, including: six core courses, three concentration or track courses, a capstone preparation course, and a project-based capstone course. The program offers three unique tracks for students to tailor

coursework to meet their career goals. These include quality assurance and compliance, business management, and research and development. Students will be able to complete more than one program track.

This multidisciplinary degree will build bridges between disciplines and develop students' abilities to think in terms of systems and interrelationships within complex organizations. The required capstone course, which represents the culminating experience in the program, will provide students with the opportunity to apply skills acquired from coursework through a project-based experience in their concentration area. As a result, program graduates will gain the core competencies required to manage functions across a wide range of biotechnology industries.

Mission. Implementation of the M.S. in Applied Biotechnology will contribute to the mission of the UW System, which defines a commitment to disseminate and extend knowledge beyond the boundaries of its institutions. Strong support for the proposed program has been realized through engagement with leaders from more than 30 biotechnology companies and professional associations within the state and region.

The M.S. in Applied Biotechnology will advance institutional missions by building upon the undergraduate experience of working adults in the state and region and by building advanced proficiencies in communication, critical thinking, problem solving, analysis, leadership, teamwork, and collaboration skills. Further, the program will advance institutional missions to support equity, as the program is targeted at adult and nontraditional students possessing a bachelor's degree in any field and thus broadens access to UW alumni and others for advanced study within the UW System. Finally, the collaborative design of the M.S. in Applied Biotechnology supports the UW System doctoral and comprehensive cluster missions to promote inter-institutional relationships and statewide coordination of programs in order to optimize the educational opportunities that are available to the people of Wisconsin.

Collaborative Nature of the Program. The M.S. in Applied Biotechnology will be delivered as a collaborative degree program, which benefits from administrative and financial support from UW Extended Campus. As a result, this degree program, like other collaborative programs currently offered within the UW System, provides each participating institution the ability to offer a high-quality, sustainable graduate program without extending significant local resources or compromising existing programs.

Faculty and staff from the seven partner institutions collectively developed and approved the program curriculum, program competencies, student learning outcomes, and admission requirements. Partner institutions will identify qualified faculty and instructional staff to deliver coursework and assess student learning and conduct program review. Instructional development and delivery of the online courses will be supported and hosted by UW Extended Campus. This cohesive development and offering of courses will ensure students have a consistent experience even though the faculty reside at multiple partner institutions.

Students will select and enroll at a home campus at which they will receive academic support and the degree will be conferred. All courses will be listed in each partner institution's course catalog and registration system. The student record will be maintained in the student information system of the home institution.

A Program Work Group will oversee growth, development, assessment, and performance of the M.S. in Applied Biotechnology degree program. The Program Work Group will be comprised of academic program directors and Continuing Education representatives from each partner institution, as well as a UW Extended Campus program manager. UW Extended Campus staff will regularly report on program performance. All partners will share equally in the net revenues from the program, once realized.

UW Extended Campus staff will coordinate external engagement, input, and advice through a Program Advisory Board consisting of 12 to 15 representatives from industry. The academic directors from each institution also will hold seats on the Advisory Board. Quarterly Advisory Board meetings will provide opportunities to present program progress and to gather feedback regarding changes in the industry and how those changes may affect program graduates. The meetings will also help to ensure that the program and curriculum stay relevant to trends in the field. Industry board members will be asked to host students working on capstone projects and to create school-to-work transitions so that as students graduate from the program, they will move to advanced employment.

Student Demand. The M.S. in Applied Biotechnology will predominantly appeal to mid-level managers who currently work in diverse biotechnology and related settings and require the flexibility provided through a fully online academic program. It is expected that most will be adult and nontraditional students who have completed at least a bachelor's degree, currently work in the field, and have a desire to continue their education toward a master's degree primarily to expand knowledge and specialized skills in the field and for career advancement. The audience may also include those with a science background who reside in areas distant from Madison and want to expand their knowledge of the biotechnology industry so they can enter the field and expand their career options.

Market Demand. In early 2018, UW Extended Campus commissioned the Center for Research and Marketing Strategy at the University Professional and Continuing Education Association (UPCEA) to conduct a feasibility analysis for the possible development of an online Master of Science in Biotechnology. Findings suggest that the current master's in biotechnology marketplace is competitive throughout the United States. Nationally, there are at least five competing institutions that offer their master's level biotechnology program through a hybrid or online delivery format. However, of the competing programs within the region, none are offered through online delivery. In addition, there are no competing online programs located in Wisconsin.

Requirements and Tuition. Students will be required to satisfy all program prerequisites or to demonstrate proficiency prior to formal admission into the program. Admission requirements include a bachelor's degree in any field and a 3.0 undergraduate GPA. Program prerequisites include general biology and general chemistry.

Students must maintain an overall cumulative GPA of 3.0 or better to graduate. Program tuition will be set at $850 per credit for 2019-20, and will be identical at all seven partner institutions. The tuition rate is based on market-demand estimates, as well as comparisons with other master's level online programs offered by the UW System and nationally. The pricing structure will follow the UW System pricing guidelines for distance education programs provided in UW System Administrative Policy SYS 130. Segregated fees for students enrolled in this program will be waived by all of the partner institutions. Students will not be required to pay any additional fees as part of the program, except for the cost of their books. There is no tuition differential for out-of-state students.

RELATED REGENT POLICY

Regent Policy Document 4-12: Academic Program Planning, Review, and Approval in the University of Wisconsin System.

REQUEST FOR AUTHORIZATION TO IMPLEMENT A COLLABORATIVE ONLINE MASTER OF SCIENCE IN APPLIED BIOTECHNOLOGY

PREPARED JOINTLY BY
UW-MADISON (LEAD)
UW-GREEN BAY
UW-OSHKOSH
UW-PARKSIDE
UW-PLATTEVILLE
UW-STEVENS POINT
UW-WHITEWATER

With administrative and financial support from
University of Wisconsin Extended Campus

ABSTRACT

The University of Wisconsin (UW)-Madison, as the lead institution and on behalf of the defined academic partners, UW-Green Bay, UW-Oshkosh, UW-Parkside, UW-Platteville, UW-Stevens Point, and UW-Whitewater, proposes to establish a collaborative online Master of Science (M.S.) in Applied Biotechnology. The development of this program responds to the recognized growth of the biotechnology industry and corresponding increased demand for well-qualified professionals in the field. The program represents a comprehensive, multidisciplinary curriculum that prepares students to advance their careers and pursue their academic ambitions through leadership and management positions within the biotechnology field. Core courses provide students with a solid foundation in biotechnology, leadership, ethics, research, communications, product development, quality control, and regulatory and compliance practices. In addition, the program offers three unique tracks for students to tailor coursework to meet their career goals. These include quality assurance and compliance, business management, and research and development. The M.S. in Applied Biotechnology represents a fully online, asynchronous curriculum comprised of 31 credits and includes a culminating, project-based experience. Graduates of the program will gain the core competencies required to manage functions across a wide range of biotechnology industries.

PROGRAM IDENTIFICATION

Institution Name
University of Wisconsin-Green Bay
University of Wisconsin-Madison
University of Wisconsin-Oshkosh
University of Wisconsin-Parkside
University of Wisconsin-Platteville
University of Wisconsin-Stevens Point
University of Wisconsin-Whitewater
With administrative and financial support from UW Extended Campus, a division of UW System Administration

Title of Proposed Program
Applied Biotechnology

Degree/Major Designations
Master of Science

Mode of Delivery
Collaborative/Consortial and Distance Education (100% Online)

Projected Enrollments and Graduates by Year Five

Table 1 represents enrollment and graduation projections for students entering the program over the next five years and is based, in part, on other successful comparable University of Wisconsin (UW) collaborative online programs. It is assumed that the majority of students will enroll part-time. As shown, strong enrollments are anticipated with 340 students enrolling in the program and 48 students having graduated from the program by the end of year five. Based on experience with similar collaborative, online, graduate-level programs across the UW System, it is anticipated that the average annual attrition rate will be approximately 20 percent once the program becomes established (Years 4 and 5).

Table 1: Five-Year Degree Program Enrollment Projections

Students/Year	Year 1	Year 2	Year 3	Year 4	Year 5
New Students	35	70	75	80	80
Continuing Students		31	83	126	152
Total Enrollment	35	101	158	206	232
Graduating Students	0	0	4	16	28

Tuition Structure

Program tuition for the M.S. in Applied Biotechnology program will be set at $850 per credit for 2019-20 and will be identical at all seven partner institutions. The tuition rate is based on market-demand estimates as well as comparisons with other master's level, online programs offered by the UW System and nationally, and will be charged outside the credit plateau, if approved by the Board of Regents. The pricing structure will follow the UW System pricing guidelines for distance education programs provided in UW System Administrative Policy (SYS) 130.[1] Segregated fees for students enrolled in this program would be waived by all of the partner institutions. Students will not be required to pay any additional fees as part of the program, except for the cost of their books. There is no tuition differential for out-of-state students.

Department, College/Schools or Functional Equivalent

The schools/colleges and departments that will offer courses for this program at each institution are as follows:

- UW-Green Bay, College of Science, Engineering and Technology; Biological Science Department
- UW-Madison, School of Medicine and Public Health, Department of Cell and Regenerative Biology
- UW-Oshkosh, College of Business; Management and Human Resources Department

- UW-Parkside, College of Natural and Health Sciences, Chemistry Department
- UW-Platteville, College of Business, Industry, Life Science & Agriculture; Department of Biology
- UW-Stevens Point, College of Letters and Science, Department of Biology
- UW-Whitewater, College of Letters and Science, Biological Sciences Department

UW Extended Campus (formerly UW Extension Office of Continuing Education, Outreach, & E-Learning (CEOEL)) will provide administrative and financial support for the program. UW-Madison will serve as the lead institution representing the proposed collaborative program when seeking authorization from UW System and program accreditation through the Higher Learning Commission (HLC).

Proposed Date of Implementation
September 2019 pending approval of the Higher Learning Commission (HLC)

DESCRIPTION OF PROGRAM

Overview of the Program

The M.S. in Applied Biotechnology represents a fully online, asynchronous curriculum comprised of 31 credits to include six core courses, three concentration or track courses, a capstone preparation course, and a project-based capstone course. Students will be able to complete more than one program track. UW-Green Bay, UW-Madison, UW-Oshkosh, UW-Parkside, UW-Platteville, UW-Stevens Point, and UW-Whitewater will offer the program jointly. Students will select and enroll at a home campus at which they will receive academic supports and the degree will be conferred. Graduates of the program will gain the core competencies required to manage functions across a wide range of biotechnology industries. The required capstone course, which represents the culminating experience in the program, will provide students with the opportunity to apply skills acquired from coursework through a project-based experience in their concentration area.

Student Learning Outcomes and Program Objectives

Students completing the M.S. in Applied Biotechnology degree will have achieved the following learning outcomes. Graduates will be able to:

1. Demonstrate professional and scientific communication appropriate for biotechnology settings
    a. Select the most appropriate modalities, methodologies, tools, and practices to communicate complex ideas effectively across diverse audiences
    b. Demonstrate effective listening, written, verbal, and nonverbal communication skills
    c. Construct and deliver effective professional presentations

2. Demonstrate comprehensive understanding of organizational processes and product development pipelines
    a. Evaluate and describe systems of product research, development, and production
    b. Analyze the potential for commercialization for innovations within the biotechnology industry

c. Critique and integrate changes to an existing product development pipeline
d. Compare organizational processes employed by biotech firms

3. Distinguish among diverse methods and technologies and their applications in biotechnology
   a. Compare and contrast emerging with existing technologies
   b. Exhibit strong technical knowledge to evaluate and choose appropriate technologies
   c. Demonstrate the ability to read, interpret and apply scientific literature
   d. Demonstrate competency in data analyses and statistics

4. Demonstrate strategic leadership and decision-making skills necessary in biotechnology
   a. Compare best practices in leadership required for executive action
   b. Demonstrate the skills and processes that maximize team performance to successfully meet goals both as an effective team member and leader
   c. Identify and provide evidence-based solutions to problems in compliance, development, personnel, and finance

5. Appraise the current regulatory, quality control, and legal frameworks that impact biotechnology
   a. Demonstrate understanding of relevant domestic and global regulatory agencies, laws, policies and guidances
   b. Assess intellectual property considerations in biotechnology
   c. Justify the importance of quality and risk management in biotechnology and explain current good practices

6. Demonstrate professional and ethical behaviors that foster positive and productive interactions in diverse biotechnology settings
   a. Recognize, foster and apply principles of ethical and professional conduct
   b. Identify professional opportunities and personal success by acquiring knowledge, networking, and other career development strategies
   c. Understand cultural differences that exist in the global marketplace

Program Requirements and Curriculum

Admission requirements for the M.S. in Applied Biotechnology program will include a bachelor's degree in any field and a 3.0 undergraduate GPA. Program prerequisites will include general biology and general chemistry. Students will be required to satisfy all program prerequisites or demonstrate proficiency prior to formal admission into the program. There will be no required aptitude tests for admission in the program (e.g., GRE, GMAT, other). Students must maintain an overall cumulative GPA of 3.0 or better to graduate.

Table 2 illustrates the 31-credit, fixed curriculum for the proposed M.S. in Applied Biotechnology program and the institutional partner that will be responsible to deliver each course. To satisfy degree requirements, students must complete 18 credits of core coursework and 9 credits of coursework from within one of three tracks. Students may choose to complete more than one track. The 3-credit capstone course requirement, which represents the culminating

experience for students, must be taken in the final semester of study. A capstone preparation course will be taken the semester prior to the capstone course and will provide the student the opportunity to prepare a capstone proposal for the applied project-based, self-directed experience. The proposal will be reviewed and approved by the capstone instructor and home campus academic director for implementation in the capstone course. Students may implement and complete capstone projects within their current place of employment or through another host organization. A significant role and responsibility of the Program Advisory Board is to recommend possible projects and to possibly host capstone students at their organizations.

Table 2: M.S. in Applied Biotechnology Program Curriculum

Core Courses (18 credits)			
ABT 700	Principles of Biotechnology	3 cr.	Platteville
ABT 705	Ethics, Safety, and Regulatory Environments in Biotechnology	3 cr.	Green Bay
ABT 710	Professional and Technical Communication in Biotechnology	3 cr.	Stevens Point
ABT 715	Techniques in Biotechnology	3 cr.	Parkside
ABT 720	Experimental Design and Analysis in Biotechnology	3 cr.	Whitewater
ABT 725	Leadership in Organizations	3 cr.	Oshkosh
Track Options (Pick one)			
Track 1 – Quality Assurance and Compliance (9 credits)			
ABT 735	Quality Control and Validation	3 cr.	Madison
ABT 740	Regulatory Practice and Compliance	3 cr.	Madison
ABT 745	Industrial Applications in Regulatory Affairs	3 cr.	Green Bay
Track 2 – Business Management (9 credits)			
ABT 750	Biotechnology Marketing and Entrepreneurship	3 cr.	Parkside
ABT 755	Global Operations and Supply Chain Management	3 cr.	Whitewater
ABT 760	Quality and Project Management	3 cr.	Platteville
Track 3 – Research and Development (9 credits)			
ABT 765	Assessing Innovation in Biotechnology	3 cr.	Platteville
ABT 770	Product Development	3 cr.	Madison
ABT 775	Tools for Data Analysis	3 cr.	Oshkosh
Capstone Courses (4 credits)			
ABT 789	Pre-Capstone	1 cr.	Stevens Point
ABT 790	Capstone	3 cr.	Stevens Point
Total Credits		31 credits	

Assessment of Outcomes and Objectives

The program assessment team, comprised of academic program directors from each partner institution as well as the UW Extended Campus program manager, will manage the assessment of student learning outcomes for the M.S. in Applied Biotechnology degree program.

This assessment team will identify and define measures, and establish a rubric to evaluate how well students are demonstrating attainment of program learning outcomes. The team will also identify and collect data needed to complete the assessment. As a part of the course development and review process, the assessment team will determine which examples of student work will be most appropriate to demonstrate competency.

Each semester the team will receive data collected from partner institutions by UW Extended Campus. UW Extended Campus will also monitor data on new enrollments, retention rates, and graduation rates. The assessment team will compile these various sources of data and complete annual reports summarizing the data, assessment findings, and decisions regarding improvements to the curriculum structure and program delivery. The report will be shared with the faculty of the program and other stakeholders at each partner institution. The assessment team is responsible for ensuring that recommendations for improvement are implemented.

Diversity

The collaborative, online program model was established, in part, to increase access to higher education for primarily nontraditional students and to maximize the educational benefits of diversity. Many students from underrepresented minority groups, first-generation Americans, first-generation college students, and low-income students are included in the definition of nontraditional students. Nontraditional students may have family or work responsibilities that prevent them from attending school in traditional formats. The online delivery format will provide opportunities to those students who are time and place bound, and do not reside within proximity to an existing UW institution. The program design recognizes that nontraditional students come to the learning environment from diverse backgrounds, with unique knowledge and experiences, and looking for opportunities to share that knowledge with others. The strength of this program and the success of its students is, in large part, based on the ability to attract and retain a diverse adult student audience.

Biotechnology is a global industry and it is expected that the program will attract a diverse student base. In response, it is critical that the program stay informed of the cultural diversity among students and continuously seek ways to develop culturally inclusive curricula. Faculty, with support from UW Extended Campus instructional designers and media specialists, are committed to develop course activities that recognize the cultural backgrounds of enrolled students to ensure each student feels welcome, encouraged and supported in the online course environment. Students will be encouraged to engage with one another and diverse perspectives through these activities. This approach will allow students to make deeper connections with the instructor, fellow students and the course curriculum.

UW Extended Campus has several initiatives currently underway to attract more students from underrepresented groups into the UW System. For example, UW Extended Campus works with UW HELP to develop and disseminate brochures and materials specific to Hispanic and Hmong students. The UW Extended Campus program manager for the M.S. in Applied Biotechnology program will conduct outreach, working with employers to encourage and support the education of their employees, especially focusing on students from underrepresented minority groups. In addition, a program advisory board (described below) will provide support in this area by helping the program extend its reach to diverse groups of prospective students and communities.

An essential goal of this program is to increase both the access for diverse audiences to this degree and the success of those students once they enter the program. Students enrolled in the M.S. in Applied Biotechnology program will receive academic and student support services that support an inclusive learning environment and equity in student success. Further, a UW Extended Campus success coach will work closely with all students to self-identify barriers to their success. Success coaches either will serve as a resource to directly help students overcome those barriers or will point them to other resources available at their home campus or elsewhere. UW Extended Campus will maintain online student environments that will allow individuals from diverse ethnic backgrounds to connect with other students around academic programmatic interests and cultural similarities to help build points of commonality and understanding. Social media opportunities for student connection will be made available through Facebook, Twitter, and LinkedIn, to name a few.

While the proposed degree does not project a significant number of new faculty and staff, the partner institutions will continue to be committed to recruiting a culturally diverse campus community. Each institution has policies in place to support attainment of equity in the recruitment and hiring of faculty and instructional staff, when openings exist in their respective departments, schools, and colleges.

Collaborative Nature of the Program

The M.S. in Applied Biotechnology will be delivered as a collaborative degree program. Collaborating institutions will benefit from the shared academic and administrative resources of all partnering institutions. Development of the proposed program supports UW systemwide interests to build collaborative efforts among institutions that efficiently develop and deliver quality academic programs based on market and student needs. These collaborations serve the mutual academic program interests of institutional partners, while leveraging limited institutional resources. This degree, like other collaborative programs currently offered within the UW System, provides each of the participating academic institutions the ability to offer a high-quality, sustainable graduate program without a requirement to extend significant local resources or a risk of compromising existing programs.

Faculty and staff from the seven partner institutions collectively developed and approved the program curriculum, program competencies, student learning outcomes, and admission requirements. These partner institutions will be responsible for identifying qualified faculty and instructional staff to deliver coursework and assess student learning and conduct program review. The faculty and staff who are expected to teach in the program have been identified, and all are qualified to teach graduate-level coursework, per Higher Learning Commission (HLC) and UW System requirements. The faculty of the cooperating institutions comprise a highly qualified pool of instructors for this program. As needed, additional faculty and staff will be recruited and assigned by the academic directors.

Each partner institution will appoint an academic program director who will work with the respective academic units to implement the program. Collaboratively, these directors, along with a designated continuing education representative at each institution and the UW Extended Campus program manager, will comprise the program workgroup. This team will oversee the ongoing growth, development and performance of the M.S. in Applied Biotechnology degree

program. The committee will meet quarterly in person and via teleconferencing, as needed. Instructional development and delivery of the online courses will be supported and hosted by UW Extended Campus. This cohesive development and offering of courses will ensure students have a consistent experience even though the faculty reside at multiple partner institutions.

Students will choose a home institution from where their degree will be conferred. All courses will be listed in each partner institution's course catalog and registration system. The student record will be maintained in the student information system of the home institution. Local program stakeholders will include continuing education staff, academic support office leads, host department representatives, and instructional and business office personnel, and will meet biannually to review local processes and concerns and to adjust them as necessary. Program evaluation regarding the collaborative nature of the model will help assess processes critical to the success of the collaboration such as the financial model, marketing, student recruitment and advising, admission and enrollment processes and trends, and curriculum and course design. UW Extended Campus staff will regularly report on program performance. All partners will share equally in the net revenues from the program, once realized.

UW Extended Campus staff will coordinate external engagement, input, and advice through a Program Advisory Board consisting of 12 to 15 representatives from industry. Advisory Board members will also serve as advisors, ambassadors and referral agents to the program. The academic directors from each of the seven partner institutions also will hold seats on the Board. The M.S. in Applied Biotechnology Advisory Board will meet biannually. The board members will be asked to host students working on capstone projects and to create school-to-work transitions so that as students graduate from the program, they will move to advanced employment. The program manager will provide administrative support to the board, coordinate meetings, coordinate activities described above, and satisfy other administrative functions. The academic directors of the program and the program manager will engage with board members and ensure that the board is connected to the program in constructive and positive ways. Board meetings will provide opportunities to present program progress and successes and to gather feedback regarding changes in the industry and how those changes may affect program graduates. The meetings will also help to ensure that the program and curriculum stay relevant to trends in the field.

One benefit of the collaborative program model is the extended reach or scope of contacts provided through the involvement of multiple academic partners located within unique markets throughout the state. Academic partners have established significant relationships, reputation, and strength-of-brand within their individual regions, which has proven valuable in identifying regional interest in the program and will help raise awareness of this opportunity throughout the state. These relationships will improve the program capacity to support students and regional business needs and interests, promote program growth statewide, and position the program for sustainability. It is anticipated that the program will establish several unique partnerships with various companies that represent products and tools commonly used by biotechnology professionals and that may be incorporated into the curriculum/courses. These connections will serve to better prepare and position students for success in the field upon graduation as they put their new knowledge to work.

Projected Time to Degree

Based on experience with similar collaborative offerings within the UW System and the typical adult, online student profile, it is assumed that most students will enroll part-time and take an average of three to four courses per year. At this rate, students would complete the program within three to four years. Students may enter the program for the spring, summer, or fall semester. Students will be encouraged to take courses in sequence and as influenced by defined internal course prerequisites. The capstone, which represents the culminating experience for students, must be taken in the final semester of study.

Program Review

Program review and evaluation occur on a more frequent schedule than in traditional academic programs. As previously discussed, assessment relative to student learning will be reviewed annually. The M.S. in Applied Biotechnology program will go through an internal three-year review focusing on program, administrative and fiscal matters. In addition, the seven partner institutions will be responsible for conducting a comprehensive five-year program review. Data collected, analyzed and reported as part of the above-defined processes will be shared with each of the partner institutions for inclusion in their unique, local, comprehensive academic program review processes. Academic directors, faculty, and administrators from all partners will have input into programmatic changes and upcoming needs. UW Extended Campus, as the fiscal agent for this program, will manage resources to ensure that funds are available to support scheduled program reviews and to invest in the program as deemed necessary and valuable. The decision about how to invest in the program will be made collaboratively by all partners, as will the recommendations that are related to the continuation of the program.

Accreditation

Partner institutions will secure approval to offer this program as a consortial online degree from the Higher Learning Commission, the regional accrediting body for all seven partner institutions.

JUSTIFICATION

Rationale and Relation to Mission

Implementation of the M.S. in Applied Biotechnology will contribute to the mission of the UW System which defines a commitment to disseminate and extend knowledge beyond the boundaries of its institutions. Strong support for the proposed program has been realized through interactions with leaders from over 30 biotechnology companies and professional associations within the state and region. Graduates will serve an important function and role within the biotechnology workforce, and thereby support economic development in the state.

Similarly, the proposed program will advance the select missions of partner institutions to support student potential to advance intellectually and thereby serve students to become accomplished professionals who can manage biotechnology solutions that address complex problems facing communities. The M.S. in Applied Biotechnology will advance institutional missions by building upon the undergraduate experience of working adults in the state and region and by building advanced proficiencies in communication; critical thinking; problem solving;

and analytical, leadership, teamwork, and collaboration skills. Furthermore, this multidisciplinary degree will build bridges between disciplines and develop students' abilities to think in terms of systems and interrelationships within complex organizations. Further, the program will advance institutional missions to support equity, as the program is targeted at adult and nontraditional students possessing a bachelor's degree in any field, and thus will broaden access to UW alumni and others for advanced study within the UW System. Finally, the collaborative design of the M.S. in Applied Biotechnology supports the UW System doctoral and comprehensive cluster missions that promote inter-institutional relationships and statewide coordination of programs in order to optimize the educational opportunities that are available to the people of Wisconsin.

Institutional Program Array

There is consensus among the seven academic partners that the M.S. in Applied Biotechnology degree program will serve as a valuable complement to the existing graduate program array at each of their institutions and will not compete with any current programs.

At UW-Green Bay, the proposed online M.S. in Applied Biotechnology degree program complements and integrates well with programs within the College of Science, Engineering, and Technology, including Human Biology and Natural and Applied Sciences. UW-Green Bay has a record of academic success in preparing individuals for careers in biotechnology-related fields such as biology, chemistry, engineering, business, and pre-professional human and veterinary medicine. Graduates from UW-Green Bay are highly competitive for careers in industry or government, as well as graduate or professional education programs. Presently, the institution does not offer a graduate-level program in biotechnology; however, students would benefit from this program for placement or advancement in biotechnology careers.

At UW-Madison, the Department of Cell and Regenerative Biology in the School of Medicine and Public Health offers a face-to-face, two-year M.S. in Biotechnology degree with traditional fall and spring semesters. This biotechnology program was designed for working professionals and focuses on life science product development and commercialization, integrating science, law, regulatory, business, and ethical issues in biotechnology. It also includes intensive, hands-on laboratory courses in the multidisciplinary curriculum. The course structure is such that students can continue to work full-time while completing the program, which culminates in an independent capstone thesis project. The M.S. in Applied Biotechnology will complement the existing program through its fully online delivery and unique specialization tracks not covered as in-depth by the existing program. The Applied Biotechnology program also provides a way to grow UW-Madison's commitment to biotechnology education and serves a new group of students who are unable to travel to campus for the existing program. This extended reach to all of the Wisconsin biotechnology-related communities fits well with the *Wisconsin Idea*.

At UW-Oshkosh, the M.S. in Applied Biotechnology program will enhance the current portfolio of graduate programs, including the Master in Business Administration (MBA) and Executive Master of Business Administration (EMBA), by offering students another avenue for career advancement. The course structure and capstone thesis project strongly align with the MBA focus on full-time working adults. The program also leverages faculty expertise in Human

Resources and Management, including strategy, leadership, creativity and innovation, ethics and social responsibility, change management, project management and entrepreneurship.

At UW-Parkside, the M.S. in Applied Biotechnology program will fit well with the array of current graduate programs. The College of Natural and Health Sciences houses five master's programs including M.S. degrees in Applied Molecular Biology, Clinical Mental Health Counseling, and Sport Management as well as the collaborative M.S. in Health and Wellness Management and M.S. in Sustainable Management. The proposed program will provide an additional and unique online M.S. program for students interested in pursuing further education in the biological sciences. Currently, the Applied Molecular Biology program provides an intensive laboratory experience without the management, regulatory, and product development aspects provided in the Applied Biotechnology program. Thus, it is possible that students will wish to pursue both the Applied Biotechnology and Applied Molecular Biology degrees sequentially, or even concurrently. Furthermore, while other master's programs on campus teach some aspects of business, marketing, and management, like those provided by the Applied Biotechnology program, the focus of these existing programs falls outside of the specific requirements of the biotechnology industry.

At UW-Platteville, a graduate degree program in the biological sciences does not currently exist. Within the undergraduate biology program, both an emphasis in molecular/genetics biology as well as a minor in biotechnology are popular educational areas. Many alumni are currently employed in the biotech sector. The M.S. in Applied Biotechnology degree will complement existing programs by continuing to support Platteville alumni as they advance their careers.

At UW-Stevens Point, the proposed M.S. in Applied Biotechnology strongly aligns with its current program array within the College of Letters and Science. The interdisciplinary undergraduate major in biochemistry has a history of academic success, preparing individuals for careers in biotechnology, molecular biology, and biochemistry as well as preparing them for graduate and professional schools. Therefore, the M.S. in Applied Biotechnology would complement the biochemistry program.

At UW-Whitewater, the proposed M.S. in Applied Biotechnology complements the undergraduate program in biological sciences, the Integrated Science business major, and the new bioinformatics minor. While these undergraduate programs have successfully prepared students for entry-level careers in biotechnology laboratories, the institution does not currently offer graduate-level programs in biotechnology. Therefore, this program aligns with the UW-Whitewater Academic Plan goals for graduate programs that forge new regional partnerships and that address regional employer workforce needs, using innovative approaches to design and deliver courses in order to reach a broad range of audiences.

For UW Extended Campus, this degree complements the existing array of collaborative, online program offerings, and contributes significantly to the division mission to expand access to a UW education to working adults through the development and delivery of need-based, industry-informed, online programs primarily in the areas of health/healthcare, business, and technology. Benefiting from the rich resources of its UW campus partners, this collaboration will

accelerate the ability of the UW System to develop and offer the degrees and certificates that adult students need and industry demands.

Other Programs in the University of Wisconsin System

UW-Madison, an academic partner and lead campus in this program, currently offers the only M.S. in Biotechnology degree within the University of Wisconsin System. The UW-Madison M.S. in Biotechnology program is cohort-based, with students moving through the coursework as a group in a defined sequence. The program offers a 32-credit, hands-on laboratory curriculum and is delivered in a face-to-face format, evenings and weekends, which allows students to continue to work full-time. The program intertwines the business, science, law, regulatory, and ethical aspects of biotechnology to highlight the issues involved in life science product development and commercialization, including therapeutics, diagnostic testing and devices, agricultural, and tool biotechnology. The proposed collaborative online M.S. in Applied Biotechnology degree is unique given its fully asynchronous, online delivery format. The primary target audience will include mid-level managers currently working in diverse biotechnology and related settings who require more flexibility as provided through a fully online academic program. The statewide focus will be consistent with the geographical locations of the seven academic partners. Potential students may include those with a science background who reside in areas distant from Madison and want to expand their knowledge of the biotechnology industry so they can enter the field and expand their career options.

Need as Suggested by Current Student Demand

The M.S. in Applied Biotechnology will predominantly appeal to mid-level managers currently working in diverse biotechnology and related settings and who require the flexibility provided through a fully online academic program. It is expected that most will be adult and nontraditional students who have completed at least a bachelor's degree, currently work in the field, and have a desire to continue their education toward a master's degree, primarily to expand knowledge and specialized skills in the field and for career advancement. The audience may also include those with a science background who reside in areas distant from Madison and want to expand their knowledge of the biotechnology industry so they can enter the field and expand their career options.

In early 2018, UW Extended Campus commissioned the Center for Research and Marketing Strategy at the University Professional and Continuing Education Association (UPCEA) to conduct a feasibility analysis for the possible development of an online Master of Science degree in biotechnology. Findings suggest that the current master's in biotechnology marketplace is competitive throughout the United States. Nationally, there are at least five competing institutions that offer their master's level biotechnology program through a hybrid or online delivery format. However, of the competing programs within the region, none are offered through online delivery. In addition, there are no competing online programs located in Wisconsin.

Student demand for this degree is greatly influenced by market demand as indicated by current and future employment opportunities within the biotechnology industry (see market demand data below). Like other collaborative online programs developed and administered through UW Extended Campus, the M.S. in Applied Biotechnology represents a program designed to satisfy a recognized workforce gap within the state and region as defined through

research conducted and/or commissioned by UW Extended Campus. This research included industry focus groups and interviews with biotechnology professionals including those self-identifying as prospective students for an M.S. in Applied Biotechnology degree program.

Need as Suggested by Market Demand

The feasibility analysis completed by the Center for Research and Marketing Strategy at UPCEA included a review of biotechnology trends, occupational demographics, internet and library scans, and in-depth interviews with key opinion leaders from the biotechnology field representing a variety of organizations in several different states. Key findings from the report indicated a favorable environment exists for launching the online graduate degree program in Applied Biotechnology, specifically:

- During the past five years, biotechnology professionals in Wisconsin have experienced a positive average annual growth (0.8%).
- The demand for talented biotechnology professionals is at an all-time high and is expected to continue to grow throughout 2018 and beyond.
- Nationally, forecasted growth rates for all biotechnology occupations are projected to experience an annual growth rate of 1.8%, or 18% growth over the next 10 years.
- There was consensus among the opinion leaders interviewed that there is a significant need for a master's in biotechnology that prepares working biotechnology professionals to succeed in leadership and management positions within the industry.
- Opinion leaders identified support for an online program based, in part, on its accessibility and flexibility for working professionals.[2]

Findings of a recent economic impact study commissioned by BioForward, a Wisconsin-based organization representing over 200 biohealth member companies, identified that the direct economic output from the complete bioscience's industry in Wisconsin is $33.3 billion with 81% of that coming from the biohealth industry. The remaining 19% comes from agriculture-related sources. Excluding agriculture and including healthcare providers, it is estimated that in 2013 biohealth components of the bioscience industry created $20.7 billion in direct economic output, which by 2017 had growth of $6.3 billion to nearly $27.0 billion in direct economic output. Economic output from direct, indirect, and induced sources rose from an estimated $38.3 billion in 2013 to $47.8 billion in 2017, or a growth rate of 24.8%. Job growth over this period increased from 91,985 positions in 2013 to 107,616 positions in 2017. This reflects growth of 15,631 positions, or a growth rate of 17%.[3]

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[1] University of Wisconsin System (2001). *UW System Administrative Policy 130: Programming for the Non-Traditional Market in the University of Wisconsin System.* Retrieved from https://www.wisconsin.edu/uw-policies/uw-system-administrative-policies/programming-for-the-non-traditional-market-in-the-uw-system/.

[2] University Professional and Continuing Education Association (UPCEA), Center for Research and Marketing Strategy (April 2018). *Feasibility Analysis: Online M.S. in Biotechnology*. Commissioned by the University of Wisconsin-Extension, Division of Continuing Education, Outreach and E-Learning.

[3]BioForward Wisconsin. (2018). *Wisconsin's Biohealth Industry: 2018 Economic Impact Report*. Baker Tilly Virchow Krause, LLP. Retrieved from https://www.bioforward.org/wisconsins-biohealth-industry-2018-report

University of Wisconsin-Collaborative
Costs and Revenue Projection For M.S. in Applied Biotechnology

	Items	Projections				
		FY 19-20	FY 20-21	FY 21-22	FY 21-23	FY 23-24
		Year 1	Year 2	Year 3	Year 4	Year 5
I	**Enrollment (New Student) Headcount**	35	70	75	80	80
	Enrollment (Continuing Student) Headcount	-	31	83	126	152
	Enrollment (New Student) FTE	13	25	27	29	29
	Enrollment (Continuing Student) FTE	-	11	30	45	55
II	**Total New Credit Hours Enrolled**	276	837	1,398	1,761	1,944
	Courses Offered/Taught	9	18	23	29	32
	Course Student Enrollments	92	279	466	587	648
	Existing Student Credit Hours					
III	**FTE of Faculty/Instructional Staff**	2	3	3	4	5
	FTE of Admin Staff	3	7	7	5	5
IV	**Revenues**					
	From Tuition ($850 per credit)	234,600	711,450	1,188,300	1,496,850	1,652,400
	From Fees					
	Program Revenue - Grants					
	Program Revenue - Other					
	Allocation of GPR & Program Revenue Balances	638,005	271,992			
	Total Revenue	872,605	983,442	1,188,300	1,496,850	1,652,400
V	**New Expenses**					
	Salaries plus Fringes					
	UW Partner Institution Academic and Student Support Activities					
	Academic Director / Program Support	183,792	183,792	183,792	183,792	183,792
	Faculty Course/Content Development	52,512	52,512	0	0	0
	Faculty Course/Content Revisions	0	0	15,754	15,754	15,754
	Faculty Course Instruction	106,337	212,674	271,750	342,641	378,086
	Student Services	45,948	45,948	45,948	45,948	45,948
	UW Extended Campus Administrative Support					
	Program Management	49,030	49,030	49,030	49,030	49,030
	Instructional & Media Design	178,578	178,578	66,765	66,765	66,765
	Student Engagement	45,678	45,678	45,678	45,678	45,678
	Marketing & Recruitment	45,450	45,450	45,450	45,450	45,450
	Other Direct Expenses					
	Instructional Supplies and Expenses	4,500	9,000	11,500	14,500	16,000
	Marketing Supplies and Expenses	129,000	129,000	129,000	129,000	129,000
	General Supplies and Expenses	31,780	31,780	27,946	27,946	27,946
	Total Expenses	872,605	983,442	892,613	966,504	1,003,449
VI	**Net Revenue**					
		-	-	295,687	530,346	648,951

Notes to the Cost and Revenue Projections:

1. Program deficits, expenditures greater than revenues, will be absorbed and funded with UW Extended Campus carryforward funds.
2. Program surpluses, revenues greater than expenditures, will be shared equally among the eight partners with the intent of those funds to be reinvested back into growing the program.
3. See attached narrative for more information on the assumptions used to build the Costs and Revenue Projections.

Provost's Signature:	**Date:**
Please see Provost joint letter of commitment	

UNIVERSITY OF WISCONSIN COLLABORATIVE DEGREE
COST AND REVENUE PROJECTIONS NARRATIVE
MASTER OF SCIENCE (M.S.) IN APPLIED BIOTECHNOLOGY

University of Wisconsin-Green Bay
University of Wisconsin-Madison
University of Wisconsin-Oshkosh
University of Wisconsin-Parkside
University of Wisconsin-Platteville
University of Wisconsin-Stevens Point
University of Wisconsin-Whitewater

With administrative and financial support from
University of Wisconsin Extended Campus

Introduction

The M.S. in Applied Biotechnology will be implemented as a collaborative program. Each UW partner institution will provide qualified faculty, develop curriculum, deliver a share of the instruction, assess student learning, and conduct academic program review. Partner institutions will also provide local administrative support and direct academic and student support services. UW Extended Campus (formerly UW-Extension Office of Continuing Education, Outreach & E-Learning (CEOEL)) will provide the administrative management and resources to provide ongoing implementation support; to convene academic, industry and government expertise to discuss relevant curriculum; to provide instructional design and media support services to faculty in the development and delivery of online courses; to market and recruit students to the program; to provide student services from admissions through graduation; and to serve as the fiscal agent for the program to include accounting, budgeting, forecasting, analysis, and reporting.

A zero-based budgeting model was used to create the cost and revenue projections. While General Purpose Revenue (GPR) and other program revenue sources will be used to establish the program, the program is expected to be self-supporting through tuition revenues within three to five years of enrolling students, thus leading to revenue-sharing among the partner institutions.

Tuition is established and annually reassessed following guidelines from market-based pricing as outlined in SYS 130 Appendix B: Service-Based Pricing Guidelines and Procedures, and SYS 130 Appendix C: Principles for Pricing Distance Education Credit Courses, Degree and Certificate Programs. Tuition is assessed annually to monitor consistent market pricing, and thus future increases do not go to the Board of Regents for approval.

Section I – Enrollment

Approximately 35-80 new students will enroll in the program each year. Retention is expected to be approximately 80% based on a review of similar collaborative programs. Based on enrollment data for similar collaborative online programs, most students will enroll part-time. Therefore, it is difficult to estimate the student FTE enrollments, given the anticipated course enrollment patterns of nontraditional students who may vary the number of courses in which they

enroll each term. For the purposes of this proposal, headcounts are converted to FTE by identifying the total credits hours enrolled per student (headcount) each year and dividing this number by 24 credit hours. Twelve credit hours per each fall and spring semester is used to convert headcount to student FTE.[i] Based on this formula, the mean conversion quotient calculated over five years is 0.36.

Section II – Credit Hours

Nine courses will be offered/taught in the first academic year. Beginning in Year 2, each of the 16 courses will be offered and taught at least once during the academic year, and offerings will increase as enrollment grows as reflected in the *Cost and Revenue Projection Model*. It is anticipated that each student will enroll in 3-5 courses each year. Projected total credit hours represent projected student course enrollments multiplied by 3 credit hours per course.

Section III – Faculty and Staff Appointments

The FTE faculty and instructional staff in this section reflect contributions that will be made by several faculty and staff who hold current appointments at one of the partnering UW institutions. Faculty teaching workload that is contributed to the delivery of the proposed program will constitute a proportion of their workload. Faculty and instructional staff positions listed in this section reflect the aggregated FTE required to develop online course content, review course content, and deliver instruction and student evaluation. Each of the 16 courses will be developed over a 2-year period and will be reviewed and revised every 2 to 3 years.

Similarly, administrative staff figures reflect the aggregated FTE attributable to several current positions. At UW Extended Campus, FTE administrative staff positions listed in this section represent the program manager, instructional and media design staff, student coordinator and technical support staff, and marketing and recruitment staff. At the partner institutions, these include an academic director and student services staff.

Section IV – Program Revenues

Tuition revenue will accrue from tuition charged at the rate of $850 per credit and will not include segregated fees. Tuition revenue is calculated based on the total number of projected credit hours in which students will be enrolled, as indicated in Section II.

The projected contribution from GPR and program revenue balances will be used to offset program losses expected in Years 1 and 2. It is expected that the program will become self-supporting from its tuition program revenues within three to five years of enrolling students. UW Extended Campus will allocate a combination of GPR and program revenues to cover the UW Extended Campus incurred expenses associated with the development and initial delivery of the program. UW partner institutions' academic expenditures will initially be funded with GPR allocated from UW Extended Campus. The GPR serves to pay for costs associated with planning and developing the curriculum as well as the instructional and program support costs related to offering the degree program in the first years of the program.

Section V – Program Expenses

Salary and Fringe

Expenses are separated into academic and student support activities as implemented at the UW partner institutions and administrative activities as provided by UW Extended Campus. Note: Although the FTE listed in Section III represent a number of current appointments, the FTE contribution at each institution will be accounted as a direct program expense.

Academic and Student Support (UW Partner Institutions)

Each of the seven partner institutions will receive $20,000 per year, plus fringe of $6,256, to support the assignment of an academic director who will coordinate the program at each respective institution. As well, each partner institution will receive $5,000, plus fringe of $1,564, to cover the cost of student support services. Faculty and instructional staff salary and fringe costs attributable to course development, revision, and instruction will be paid to faculty and staff as an ad hoc sum on a per-course rate. The 16 online courses will be developed over a two-year period (8 courses per year) at a cost of $5,000 per course developed, plus fringe of $1,564. Courses will be reviewed and revised every two to three years, with four course revisions occurring each year at a cost of $3,000 per revision, plus fringe of $938.40. Online instructional salary costs are anticipated to be $9,000 per course, plus fringe of $2,815.20. All figures represent salary and fringe costs calculated at the rate of 31.28% of salary. This rate represents the average fringe rate of the seven academic partner institutions.

Administrative Support (UW Extended Campus)

Administrative staff salary and fringe costs attributable to services provided by UW Extended Campus represent salary plus fringe costs calculated at the rate of 34.33% of salary. This rate represents the UW Extended Campus fringe rate. Expenses include program management, online instructional and media design, student engagement, and marketing and recruitment staff. A 0.50 FTE dedicated program manager will direct the overall delivery of the program at a cost of $36,499.67 plus fringe of $12,530.33 per year.

UW Extended Campus places a high value and investment in the instructional and media design services provided to UW institutional partners as a means to assist faculty in development, review and revision of online coursework. Online courses offered in this program will be media-rich and offer students a highly interactive learning experience. This award-winning instructional and media design serves to best engage students, and subsequently support student retention and success. In turn, this student success record yields a return on investment that sustains the delivery of quality educational programming. Further, instructional and media design staff provide ongoing professional development and support to UW partner faculty and instructional staff who develop course content and provide instruction. Development of the 16 online courses will occur over a two-year period at a cost of $22,322 per course and a total cost of $178,578 per year for the first two years. Thereafter, the cost to regularly maintain (prepare courses/course sections to be offered each semester) and revise existing courses (update content and instructional materials) will be $66,765 per year.

A 0.50 FTE dedicated student coordinator will support student success through extensive student services and proactive advising. In addition, a help desk will provide support to students

for the learner management system and other technologies used in online coursework. Salary costs attributable to these student engagement services per year is $34,004.32 plus fringe of $11,673.68. Finally, UW Extended Campus will provide dedicated marketing and recruitment staff who will be assigned to the program at a salary cost of $33,834.59 plus fringe of $11,615.41 per year.

Other Direct Expenses

Projected expenses related to instructional supplies and expenses are estimated to be $500 per course section taught. Each partner campus will receive $7,000 per year to locally promote and market the program. UW Extended Campus will broadly promote and market the program using search engine optimization, websites, email, direct mail, and other strategies at an estimated cost of $80,000 per year. General supplies and expenses represent costs associated with program meetings and supporting UW Extended Campus staff assigned to the program.

Section VI – Net Revenue

Program deficits, expenditures greater than revenues, will be absorbed and funded with UW Extended Campus carryforward funds. Program surpluses, revenues greater than expenditures, will be shared equally among the eight partners, with the intent that those funds will be reinvested back into growing the program.

The collaborative partners will meet annually to review and discuss program trends and financial results. The partners will jointly develop and implement programming strategies aimed at growing the program and enabling the program to be self-supporting within three to five years of enrolling students, thus leading to revenue-sharing among the partner institutions.

[i] See UW System Administration Accountability Dashboard technical notes available at https://www.wisconsin.edu/accountability/access/.

WISCONSIN
UNIVERSITY OF WISCONSIN–MADISON

Date: February 8, 2019

To: Karen Schmitt
Interim Vice President for Academic and Student Affairs, University of Wisconsin System

From: Sarah C. Mangelsdorf
Provost and Vice Chancellor for Academic Affairs, University of Wisconsin–Madison

Re: Collaborative Online M.S. in Applied Biotechnology

As provost at the lead institution in this UW collaborative degree program and on behalf of Provosts Greg Davis, UW–Green Bay; John Koker, UW–Oshkosh; Robert Ducoffe, UW–Parkside; D. Joanne Wilson, UW–Platteville; Greg Summers, UW–Stevens Point; and Susan Elrod, UW-Whitewater, I request authorization to implement the Master of Science in Applied Biotechnology. This program represents a 31-credit fully online degree offered collaboratively by the seven UW academic institutions defined above. UW Extended Campus will provide administrative and financial support. Students entering the program will select an academic home institution from among the eight degree-offering partners.

Each of the participating institutions has strongly embraced the collaborative program model; has contributed greatly to the development of this new, innovative and exciting degree program; has made resource commitments to ensure program success to include faculty, curriculum, materials and required academic supports for students; and has secured support and approval from each of their faculty governance bodies. In addition, each provost listed below endorses the submitted UW System budget template developed for this collaborative program offering. Finally, this program will be integrated into each institution's assessment and accreditation processes and program review procedures.

Greg Davis, Provost and Vice Chancellor for Academic Affairs, UW-Green Bay

John Koker, Interim Provost and Vice Chancellor for Academic Affairs, UW–Oshkosh

Robert Ducoffe, Provost and Vice Chancellor for Academic Affairs, UW–Parkside

D. Joanne Wilson, Acting Provost and Vice Chancellor for Academic Affairs, UW-Platteville

Greg Summers, Provost and Vice Chancellor for Academic Affairs, UW-Stevens Point

Susan L. Elrod, Provost and Executive Vice Chancellor, UW-Whitewater

Attachments

Office of the Provost and Vice Chancellor for Academic Affairs
150 Bascom Hall University of Wisconsin-Madison 500 Lincoln Drive Madison, Wisconsin 53706
608/262-1304 Fax: 608/265-3324 E-mail: provost@provost.wisc.edu www.provost.wisc.edu

Program Authorization (Implementation)
Collaborative Online Master of Science in Information Technology Management
UW-La Crosse, UW-Oshkosh, UW-Parkside, UW-Stevens Point, and UW-Superior,
with University of Wisconsin Extended Campus

EDUCATION COMMITTEE

Resolution I.1.d.(2):

That, upon the recommendation of the Chancellors of University of Wisconsin-La Crosse, University of Wisconsin-Oshkosh, University of Wisconsin-Parkside, University of Wisconsin-Stevens Point, and University of Wisconsin-Superior, with administrative and financial support from University of Wisconsin Extended Campus, and the President of the University of Wisconsin System, the Chancellors are authorized to implement the collaborative online Master of Science in Information Technology Management.

NEW PROGRAM AUTHORIZATION
COLLABORATIVE ONLINE
MASTER OF SCIENCE IN INFORMATION TECHNOLOGY MANAGEMENT

UW-OSHKOSH (LEAD)
UW-LA CROSSE
UW-PARKSIDE
UW-STEVENS POINT
UW-SUPERIOR

With administrative and financial support from
University of Wisconsin Extended Campus

EXECUTIVE SUMMARY

BACKGROUND

The University of Wisconsin-Oshkosh, as lead campus and on behalf of UW-La Crosse, UW-Parkside, UW-Stevens Point, and UW-Superior, proposes to establish a collaborative online Master of Science in Information Technology Management (M.S. in IT Management). The M.S. in IT Management represents a fully online, asynchronous curriculum comprised of 37 credits, which culminates in a project-based experience. The program represents a multidisciplinary curriculum that balances real-world applications and practices relevant to the current field, and draws primarily from business, information systems, information technology, cybersecurity, data science, communications and project management.

Similar to other need-based, collaborative online programs developed by UW Extended Campus, this degree program is designed to satisfy a recognized workforce gap within the state and the region. Graduates of the program will gain the core competencies required to manage information technology functions across a wide range of industries.

REQUESTED ACTION

Adoption of Resolution I.1.d.(2), approving the implementation of the Collaborative Online Master of Science in Information Technology Management.

DISCUSSION

Program Description. The online M.S. in Information Technology Management program represents a fully online, fixed curriculum consisting of 37 credits, including 11 three-credit courses, a one-credit capstone preparation course, and a three-credit capstone course. The required capstone course, which represents the culminating experience in the program, will provide students with the opportunity to apply skills acquired from coursework through a

project-based experience to address a complex problem and/or identified need in an IT setting. Each student will work with a host organization, often his or her place of employment, for real-world application of project management and leadership tools obtained through coursework. By working directly with IT leaders in the field, the students' hands-on projects may result in an action plan or product suitable for implementation by the host organization.

Mission. The online M.S. in IT Management degree program contributes directly to the institutional mission of the University of Wisconsin System to discover and disseminate knowledge and to extend knowledge and its application beyond the boundaries of its institutions. The M.S. in IT Management also supports the institutional missions of the five academic partner institutions by building upon the undergraduate experience of working adults in the state and the region and by advancing proficiencies in communication, critical thinking, problem solving, analysis, leadership, teamwork, and collaboration skills.

Collaborative Nature of the Program. The M.S. in IT Management is a collaborative degree program that benefits from the shared academic and administrative resources of all partnering institutions. This degree, like other collaborative programs currently offered within UW System, provides each of the participating academic institutions the ability to offer a high-quality, sustainable graduate program, without a requirement to extend significant local resources or a risk of compromising existing programs. UW Extended Campus will provide administrative support, financial investment, marketing, and student services for the program. All partners will share equally in the net revenues from the program, once realized.

Faculty and staff from five partner institutions collectively developed and approved the program curriculum, student learning outcomes, and admission requirements. Partner institutions will identify qualified faculty and instructional staff to deliver coursework, assess student learning, and conduct program review. The faculty and staff who teach in the program will be qualified, per Higher Learning Commission (HLC) and UW System requirements, to teach graduate-level coursework.

Students will choose a home institution from where their degree conferred. All courses will be listed in each partner institution's course catalog and registration system. The student record will be maintained in the student information system of the home institution.

Each partner institution will appoint an Academic Program Director who will work with their respective academic units to implement the program. Collaboratively, these directors, along with a designated campus Continuing Education representative and the UW Extended Campus program manager, will comprise the Program Work Group. This workgroup will meet quarterly in person and via teleconferencing, as needed. Instructional development and delivery of the online courses will be supported and hosted by UW Extended Campus. This cohesive development and offering of courses will ensure that students have a consistent experience even though the faculty reside at multiple partner institutions.

UW Extended Campus will coordinate external engagement, input, and advice through a Program Advisory Board consisting of 12 to 15 representatives from industry who will also serve as advisors, ambassadors and referral agents to the program. Board members will be

asked to help host students working on capstone projects and to help create school-to-work transitions so that as students graduate from the program, they will move to advanced employment. Biannual Advisory Board meetings will provide opportunities to present program progress and to gather information regarding changes in the industry to ensure that the program and curriculum stay relevant to trends in the field.

Student Demand. It is anticipated that the online M.S. in IT Management will predominantly attract adult and nontraditional students who possess a minimum of a completed bachelor's degree, and have a desire to pursue study toward a master's degree, primarily to achieve an advanced level of knowledge and specialized skills in the field for career advancement.

Need as Suggested by Market Demand. In early 2018, UW Extended Campus commissioned the Center for Research and Marketing Strategy at the University Professional and Continuing Education Association (UPCEA) to conduct a feasibility analysis for the possible development of an online Master of Science in Information Technology Management. UPCEA conducted a feasibility analysis that included a review of IT management trends, occupational demographics, internet and library scans, and in-depth interviews with key opinion leaders from the IT sector representing a variety of organizations in several different states. Additionally, UPCEA conducted a secret shopper survey of 10 potential competing programs.

Key findings from the report include the following:

- In general, the size and quality of the IT workforce needs to be increased. The supply of qualified applicants is insufficient to meet even current demands, and growth trends within this sector dictating the size and scope of needs will only grow with the passage of time. This trend extends to management/leadership positions, including scenarios where entire business models are changing to become more tech-centric, demanding more tech-savvy leaders.
- In many ways, the very definition of IT is evolving. The field is rapidly diversifying and becoming more and more a discipline of specialization.
- New advancements are rapidly changing the ways in which technology permeates daily life – big data, machine learning, Internet of Things, artificial intelligence – and the scope of responsibilities and demands facing IT professionals is changing to keep pace.
- Opinion leaders described dissatisfaction with a supply of qualified employees perceived to be inadequate, and felt that higher education providers have yet to catch up in terms of closing this need/qualification gap.
- There was support for fully online delivery of the program, although the need to provide interactive elements and hone communication/interpersonal skills must not be neglected. Opinion leaders noted the suitability of online delivery for a target audience with high comfort levels with technology working full-time at odd hours.

Admission Requirements and Tuition. Admission requirements for the M.S. in IT Management program will include a bachelor's degree and a 3.0 undergraduate GPA. Program prerequisites will include Programming 1, Database 1, and Data Communications/Network. There will be no required aptitude tests for admission into the program (e.g., GRE, GMAT, other). Students must maintain an overall cumulative GPA of 3.0 or better to graduate.

Program tuition for the M.S. in Information Technology Management program will be set at $850 per credit for 2019-20 and will be identical at all five partner institutions. Students will not be required to pay any additional fees as part of the program, except for the cost of their books. There is no tuition differential for out-of-state students. If students live near their home campus and wish to pay segregated fees for the use of recreational and other facilities, they may do so. This tuition pricing approach and structure follows the current UW System pricing guidelines for distance education programs.

RELATED REGENT POLICY

Regent Policy Document 4-12: Academic Program Planning, Review, and Approval in the University of Wisconsin System.

REQUEST FOR AUTHORIZATION TO IMPLEMENT A COLLABORATIVE ONLINE MASTER OF SCIENCE IN INFORMATION TECHNOLOGY MANAGEMENT

PREPARED JOINTLY BY
UW-OSHKOSH (LEAD)
UW-LA CROSSE
UW-PARKSIDE
UW-STEVENS POINT
UW-SUPERIOR

With administrative and financial support from
University of Wisconsin Extended Campus

ABSTRACT

The University of Wisconsin-Oshkosh, as lead campus and on behalf of UW-La Crosse, UW-Parkside, UW-Stevens Point, and UW-Superior, proposes to establish a collaborative online Master of Science in Information Technology Management (M.S. in IT Management). The development of this program responds to the recognized need to increase the size and quality of the IT workforce as the current supply of qualified IT leaders is insufficient to meet demand. The program represents a multidisciplinary curriculum that balances real-world applications and practices relevant to the current field and draws primarily from business, information systems, information technology, cybersecurity, data science, communications and project management. The M.S. in IT Management represents a fully online, asynchronous curriculum comprised of 37 credits to include a culminating, project-based experience. Graduates of the program will gain the core competencies required to manage information technology functions across a wide range of industries.

PROGRAM IDENTIFICATION

Institution Name
University of Wisconsin-La Crosse
University of Wisconsin-Oshkosh
University of Wisconsin-Parkside
University of Wisconsin-Stevens Point
University of Wisconsin-Superior
With administrative and financial support from University of Wisconsin Extended Campus

Title of Proposed Program
Information Technology Management

Degree/Major Designations
Master of Science

Mode of Delivery
Collaborative and Distance Education (100% Online)

Projected Enrollments and Graduates by Year Five

Table 1 represents student enrollment and graduation projections for the program over the next five years and is based, in part, on other successful comparable University of Wisconsin collaborative online programs. It is assumed that the majority of students will enroll part-time. As shown, the partner institutions are anticipating strong enrollments with 340 students enrolling in the program and 48 students having graduated from the program by the end of year five. Based on experience with similar collaborative, online, graduate-level programs across the UW System, it is anticipated that the annual attrition rate will be moderate – approximately 20 percent – once the program becomes established (Years 4 and 5).

Table 1: Five-Year Degree Student Enrollment Projections

Students/Year	Year 1	Year 2	Year 3	Year 4	Year 5
New Students	35	70	75	80	80
Continuing Students		31	83	126	152
Total Students	35	101	158	206	232
Graduating Students	0	0	4	16	28

Tuition Structure

Program tuition for the M.S. in Information Technology Management program will be set at $850 per credit for 2019-20 and will be identical at all five partner institutions. The tuition rate is based on market-demand estimates as well as comparisons with other master's level, online programs offered by the University of Wisconsin (UW) System and nationally, and will be charged outside the credit plateau, if approved by the Board of Regents. Students will not be required to pay any additional fees as part of the program, except for the cost of their books. There is no tuition differential for out-of-state students. If students live near their home campus and wish to pay segregated fees for the use of recreational and other facilities, they may do so. This tuition pricing approach and structure follows the current UW System pricing guidelines for distance education programs.[i]

Department or Functional Equivalent

This highly collaborative, interdisciplinary program follows a home campus model. Students will select and enroll at a home campus from which they will receive academic supports and the degree will be conferred. The departments and schools/colleges that will offer courses for this program at each institution are as follows:

- UW-La Crosse, Library Department with academic service support from the College of Science and Health
- UW-Oshkosh, College of Business, Information Systems Department
- UW-Parkside, College of Business, Economics and Computing; Computer Science Department
- UW-Stevens Point, College of Letters and Science, Department of Computing and New Media Technologies
- UW-Superior, Mathematics and Computer Science Department

UW Extended Campus (formerly UW Extension Office of Continuing Education, Outreach & E-Learning (CEOEL)) will provide administrative and financial support for the program. UW-Oshkosh will serve as the lead institution representing the proposed collaborative program when seeking authorization from UW System and program accreditation through the Higher Learning Commission (HLC).

Proposed Date of Implementation
September 2019 pending approval of the Higher Learning Commission (HLC)

DESCRIPTION OF PROGRAM

Overview of the Program

The online M.S. in Information Technology Management program represents a fully online, fixed curriculum consisting of 37 credits – 12 three-credit courses and a one-credit capstone preparation course. UW-La Crosse, UW-Oshkosh, UW-Parkside, UW-Stevens Point, and UW-Superior will offer the program jointly. The required capstone course, which represents the culminating experience in the program, will provide students with the opportunity to apply skills acquired from coursework through a project-based experience that addresses a problem, need, or concern in an IT setting. Each student will work with a host organization, often his or her place of employment, for real-world application of project management and leadership tools obtained through coursework. By working directly with IT leaders in the field, the students' hands-on projects may result in an action plan or product suitable for implementation by the host organization.

Student Learning Outcomes and Program Objectives

Upon completion of the M.S. in IT Management degree program, students will have achieved the following learning outcomes and will be able to:

Conduct financial analysis and develop and manage technology budgets

- Interpret and create pro forma financial statements
- Perform financial analysis for IT strategic planning purposes including portfolio management
- Develop and manage technology budgets

Lead and manage technology functions, projects and personnel

- Plan and manage technology projects
- Develop organizational leadership skills relevant for IT management
- Lead IT personnel to meet organizational needs

Demonstrate effective professional collaboration and soft skills appropriate for technology settings

- Demonstrate ability to effectively conduct crucial conversations
- Demonstrate ability to effectively communicate with stakeholders across the organization

- Demonstrate professional behavioral skills accounting for ethics, diversity and cultural sensitivity

Manage security and compliance, accounting for governance and ethical implications

- Apply ethical frameworks to analyze problems and evaluate alternative solutions
- Create and manage technology policies and procedures for an organization with an understanding of the regulatory environment
- Interpret and manage IT governance policies
- Design appropriate security architecture with an understanding of the technology

Investigate and plan innovative solutions for business challenges

- Evaluate the impact of emerging technologies
- Analyze data to address organizational challenges and create competitive advantages
- Analyze requirements and propose technical solutions

Engineer, develop and deploy strategies for enterprise systems

- Develop appropriate data management technologies
- Create and deploy enterprise solutions in support of organizational goals
- Plan and implement projects related to infrastructure, security, software development or data analysis

Program Requirements and Curriculum

Admission requirements for the M.S. in IT Management program will include a bachelor's degree and a 3.0 undergraduate GPA. Program prerequisites will include Programming 1, Database 1, and Data Communications/Network. Students will be required to satisfy all program prerequisites or demonstrate proficiency prior to formal admission into the program. There will be no required aptitude tests for admission in the program (e.g., GRE, GMAT, other). Students must maintain an overall cumulative GPA of 3.0 or better to graduate.

Table 2 illustrates the 37-credit, fixed curriculum for the proposed M.S. in IT Management program. Students will complete 12 three-credit courses and a one-credit capstone preparation course.

Table 2: M.S. in IT Management Program Curriculum

Course Number	Course Title	Credits	Host Campus
ITM 700	Communications for IT Professionals	3	La Crosse
ITM 705	Leading the IT Function	3	La Crosse
ITM 710	Finance for IT Managers	3	Superior

ITM 715	Data Science	3	Parkside
ITM 720	Cloud Computing and Enterprise Applications	3	Superior
ITM 725	Enterprise Security	3	Parkside
ITM 730	Agile and Traditional IT Project Management	3	Parkside
ITM 735	Business Analysis and System Development	3	Oshkosh
ITM 740	IT Operations	3	Stevens Point
ITM 745	IT Governance, Ethics, and Regulatory Compliance	3	Oshkosh
ITM 750	Evaluation of Emerging Technologies	3	Oshkosh
ITM 754	Capstone Preparation	1	Stevens Point
ITM 755	Capstone	3	Stevens Point

Assessment of Outcomes and Objectives

The assessment of student learning outcomes for the M.S. in IT Management degree program will be managed by the academic program directors from each partner campus as well as the UW Extended Campus program manager. This assessment team will identify and define measures, and establish a rubric for evaluating how well students are meeting the program's six competency areas. The team will also identify what data will be needed and serve as the collection point for the data. As a part of the course development process, the assessment team will determine which examples of student work will be most appropriate to demonstrate competency.

The team will receive data collected from institutions by UW Extended Campus each semester. UW Extended Campus will also monitor data on new enrollments, retention rates, and graduation rates. The assessment team will compile these various sources of data and complete annual reports summarizing the data, assessment of the data, and decisions regarding improvements to the curriculum, structure, and program delivery. The report will be shared with the faculty of the program and other stakeholders at each partner institution. The assessment team is responsible for ensuring that recommendations for improvement are implemented.

Diversity

The collaborative, online program model was established, in part, to increase access to higher education for primarily nontraditional students and to maximize the educational benefits

of diversity. Many students from underrepresented minority groups, first-generation Americans, first-generation college students, and low-income students are included in the definition of nontraditional students. Nontraditional students may have family or work responsibilities that prevent them from attending school in traditional formats. The online delivery format will provide opportunities to those students who are time and place bound, and do not reside within close proximity to an existing UW institution. The program design recognizes that nontraditional students come to the learning environment from diverse backgrounds, with unique knowledge and experiences, and looking for opportunities to share that knowledge with others. The strength of this program and the success of its students is, in large part, based on the ability to attract and retain a diverse adult student audience.

UW Extended Campus has several initiatives currently underway to attract more students from underrepresented groups into the UW System. Through UW HELP, brochures and materials specific to Hispanic and Hmong students are sent to those respective potential student groups. The program manager for the M.S. in IT Management program employed by UW Extended Campus will conduct outreach, working with employers to encourage and support the education of their employees, especially focusing on underrepresented minorities. In addition, the Advisory Board will provide support in this area by helping the program extend its reach to diverse prospective students and communities.

Ensuring that diverse student populations enter the M.S. in IT Management program is important, but equally important is providing the support services that enable students to feel comfortable and to succeed. The UW Extended Campus success coach will work closely with all students to self-identify barriers to their success either to help them overcome those barriers directly or to point them to home campus and other resources that will be of assistance to them. UW Extended Campus will maintain online student environments that will allow individuals from diverse ethnic backgrounds to connect with other students over both cultural similarities and programmatic interests to help build points of commonality and understanding. Social media opportunities for student connection will be made available through Facebook, Twitter, and LinkedIn, to name a few. Simply put, an essential goal of this program is to increase both the access for diverse audiences to this degree and the success of those students once they enter the program.

While the proposed degree does not project a significant number of new faculty and staff, the partner institutions will continue to be committed to recruiting a culturally diverse campus community. The program will work toward achieving equity in the gender distribution of faculty, and faculty of color will be encouraged to participate in this program.

Collaborative Nature of the Program

The M.S. in IT Management is a collaborative degree program that benefits from the shared academic and administrative resources of all partnering institutions. UW System encourages and supports systemwide, cooperative and collaborative efforts among institutions as a means to develop need-based programs of mutual interest, benefit, and value to all partners; add to the existing base of quality academic offerings within the UW System; leverage limited resources; and more effectively and efficiently address the needs of both traditional and nontraditional learners, as well as employers within the state. This degree, like other

collaborative programs currently offered within the UW System, provides each of the participating academic institutions the ability to offer a high-quality, sustainable graduate program without a requirement to extend significant local resources or a risk of compromising existing programs.

Faculty and staff from five partner institutions (UW-La Crosse, UW-Oshkosh, UW-Parkside, UW-Stevens Point and UW-Superior) collectively developed and approved the program curriculum, student learning outcomes, and admission requirements. These partner institutions will identify qualified faculty and instructional staff to deliver coursework, assess student learning, and conduct program review. The faculty and staff who are expected to teach in the program are qualified, per Higher Learning Commission (HLC) and UW System requirements, to teach graduate-level coursework. Additional faculty and staff, as needed, will be recruited and assigned by the academic directors. The faculty of the cooperating institutions comprise a highly qualified pool of instructors for this program.

Each partner institution will appoint an academic program director who will work with their respective academic units to implement the program. Collaboratively, these directors, along with a designated campus Continuing Education representative or designate and the UW Extended Campus program manager, will comprise the program workgroup. This team will oversee the ongoing growth, development and performance of the M.S. in IT Management degree program. The committee will meet quarterly in person and via teleconferencing, as needed. Instructional development and delivery of the online courses will be supported and hosted by UW Extended Campus. This cohesive development and offering of courses will ensure students have a consistent experience even though the faculty reside at multiple partner institutions.

Students will choose a home institution from where their degree will be conferred. All courses will be listed in each partner institution's course catalog and registration system. The student record will be maintained in the student information system of the home institution. Student services, instructional, and business office personnel from each institution will also meet biannually to review local processes and concerns and to make adjustments as necessary. Program evaluation regarding the collaborative nature of the model will help assess processes critical to the success of the collaboration such as the financial model, marketing, student recruitment and advising, admission and enrollment processes and trends, and curriculum design. In addition, UW Extended Campus will provide administrative support, financial investment, marketing, and student services for the program. All partners will share equally in the net revenues from the program, once realized.

UW Extended Campus will coordinate external engagement, input, and advice through a Program Advisory Board consisting of 12 to 15 representatives from industry who will also serve as advisors, ambassadors and referral agents to the program. The academic directors from each of the five partner institutions will also hold seats on the Advisory Board. The M.S. in IT Management Advisory Board will meet biannually. The board members will be asked to help host students working on capstone projects and to help create school-to-work transitions so that as students graduate from the program, they will move to advanced employment. The program manager will provide assistance to the board, coordinate meetings, and so on. The academic

directors of the program and the program manager will engage with board members and ensure that the board is connected to the program in constructive and positive ways. Board meetings will provide opportunities to present program progress and successes and to gather feedback regarding changes in the industry and how those changes may affect program graduates. The meetings will also help to ensure that the program and curriculum stay relevant to trends in the field.

One of the many recognized and significant benefits of the collaborative program model is the extended reach or scope of contacts provided through the involvement of multiple academic partners located within unique markets throughout the state. Academic partners have established significant relationships, reputation, and strength-of-brand within their individual regions, which has proven valuable in identifying regional interest in the program and will help raise awareness of this opportunity throughout the state and expand program reach. This will ultimately result in greater success in reaching and serving students throughout the state, supporting student and regional business needs and interests, promoting program growth, and positioning the program for sustainability.

It is anticipated that the program will establish several unique partnerships with various companies that represent products and tools commonly used by IT professionals that may be incorporated into the curriculum/courses. These connections will serve to better prepare and position students for success in the field upon graduation as they put their new knowledge to work.

Projected Time to Degree

Based on experience with similar collaborative offerings within the UW System and the typical adult, online student profile, it is assumed that most students will enroll part-time and take an average of three to four courses per year. At this rate, the majority of students would complete the program within three to four years. Students may enter the program for the spring, summer, or fall semester. Students will be encouraged to take courses in sequence and as influenced by defined internal course prerequisites. The capstone, which represents the culminating experience for students, must be taken in the final semester of study.

Program Review

Program review and evaluation occur on a more frequent schedule than in traditional academic programs. As previously discussed, assessment relative to student learning will be reviewed annually. The M.S. in IT Management program will go through an internal three-year review focusing on program, administrative and fiscal matters. In addition, the program will conduct a comprehensive five-year review with support from an external contracted academic assessment consultant. Academic directors, faculty, and administrators from all partners will participate in the review process and have input into programmatic changes and needs. UW Extended Campus, as the fiscal agent for this program, will manage resources to ensure that funds are available to invest in the program as needed. The decision about how to invest in the program will be made collaboratively by all partners, as will recommendations related to the continuation of the program. Data collected, analyzed and reported as part of the above-defined processes will be shared with each of the partner institutions for inclusion in their unique, local, comprehensive academic program review processes.

Accreditation

Partners will be securing authorization to offer this program as a consortial online degree from the Higher Learning Commission, the regional accrediting body for all five partner institutions.

JUSTIFICATION

Rationale and Relation to Mission

The online M.S. in IT Management degree program contributes directly to the institutional mission of the University of Wisconsin System which clearly defines a commitment *to discover and disseminate knowledge, to extend knowledge and its application beyond the boundaries of its institutions*. The degree addresses a recognized high-need area as supported by research that included extensive input from employers and industry representatives throughout the state. Students will develop advanced knowledge and skills that will enable them to serve an important function and role within the Wisconsin IT workforce. It is a degree targeted at adult and nontraditional students possessing a bachelor's degree, and thus broadens access for alumni and others to advanced study within the UW System. The M.S. in IT Management also supports the institutional missions of the five academic partner institutions by building upon the undergraduate experience of working adults in the state and region by advancing proficiencies in communication, critical thinking, problem solving, analysis, leadership, teamwork, and collaboration skills. Furthermore, this multidisciplinary degree will serve to build bridges between disciplines and develop students' abilities to think in terms of systems and interrelationships within complex organizations. Strong support for the degree has already been realized through leaders from a number of IT-related professional groups in Wisconsin to include Women in Technology (WiT), the NEW IT Alliance, and the Association for IT Professionals (AITP).

Institutional Program Array

There is consensus among the five academic partners that the M.S. in IT Management degree program will serve as a valuable complement to the existing graduate program array at each of their institutions and will not compete with any program currently offered. Statements of support have been provided by each of the partner campuses as follows:

> "UW-La Crosse has a long history of strong STEM fields and preparation for advanced degrees. Of note at the undergraduate level, we have degrees in Computer Science and in Information Systems. At the graduate level, UWL offers a Software Engineering program and a Data Science program. Consequently, the master's degree in IT Management will nicely complement our current offerings and may be an excellent next step for our graduates."
>
> "At UW-Oshkosh, the proposed M.S. in Information Technology Management strongly aligns with the current graduate programs within the College of Business. In the summer of 2017, the Information Systems Department in the UW-Oshkosh College of Business began work to reactivate the College's own M.S. in Information Systems based on increased market demand. Admissions had been suspended for approximately 10 years.

However, a decision was made to put our efforts on hold once the opportunity for the collaborative M.S. in ITM became available. We view the collaborative degree program as a potentially more effective way to serve market demand with the limited resources available in our College."

"At UW-Parkside, the Computer Science department currently offers a Master of Science in Computer Information Systems (MS-CIS), a face-to-face program. MS-CIS is highly technical compared to the proposed MS-ITM program. The MBA and the Master of Arts in Applied Professional Studies (MAPS) programs overlap in a limited manner with the MS-ITM program in the data analytics area, though both MBA and MAPS are less technical than MS-ITM."

"At UW-Stevens Point, the proposed Master of Science in Information Technology Management program will complement the existing online program array offered by the Computing and New Media Technologies department, which includes B.S. in Applied Computing, B.S. in Health Information Management and Technology, and M.S. in Data Science. The institution does not currently offer online graduate programs for students to specialize in technology management."

"At UW-Superior, the proposed Masters in IT Management is a welcome addition to the suite of graduate programs offered by the campus community. UW-Superior serves a large geographic region in northern Wisconsin and contributing to this program establishes a resource for professionals to enhance their career prospects and build upon existing expertise. The online program also enables faculty to extend their expertise to a broad range of individuals seeking an advanced post-baccalaureate degree."

Other Programs in the University of Wisconsin System

A comprehensive search of current online graduate degrees in IT Management or related areas within the UW System reveals that only UW-Milwaukee offers an M.S. in IT Management (30 credits) although the degree is not offered in an online format. UW-Milwaukee also offers an M.S. in Information Science and Technology (36 credits) offered *primarily* online as well as a combined M.S. in Information Science and Technology/Master of Library and Information Science (54 credits) – a specialized degree which prepares students for positions in information technology in all types of libraries. Unique features of the proposed collaborative online M.S. in IT Management degree program include its fully asynchronous, online delivery format, statewide focus consistent with the geographic locations of the five academic partners, and unique primary target audience to include mid-level managers currently working in diverse business settings and across industry sectors.

Need as Suggested by Current Student Demand

It is anticipated that the online M.S. in IT Management will predominantly attract adult and nontraditional students who possess a minimum of a completed bachelor's degree and have a desire to pursue study toward a master's degree, primarily to achieve an advanced level of knowledge and specialized skills in the field and for career advancement. Student demand for this degree is greatly influenced by market demand as indicated by current and future employment opportunities within the IT industry (see market demand data below). Similar to

other need-based, collaborative online programs developed and administered through UW Extended Campus, the M.S. in IT Management represents a program designed to satisfy a recognized workforce gap within the state and region as defined through research conducted and/or commissioned by UW Extended Campus to include industry focus groups and interviews with IT professionals to include those self-identifying as prospective students for an M.S. in IT Management degree program.

Need as Suggested by Market Demand

In early 2018, UW Extended Campus commissioned the Center for Research and Marketing Strategy at the University Professional and Continuing Education Association (UPCEA) to conduct a feasibility analysis for the possible development of an online Master of Science degree in Information Technology Management. UPCEA conducted a feasibility analysis that included a review of IT management trends, occupational demographics, internet and library scans, and in-depth interviews with key opinion leaders from the IT sector representing a variety of organizations in several different states. Additionally, UPCEA conducted a secret shopper survey of 10 potential competing programs. Key findings from the report include the following:

- A favorable environment exists for launching the online graduate degree program in IT management.
- Nationally, IT management professionals highlighted in the occupational analysis are projected to experience an annual growth rate of 1.8% over the next 10 years.
- In general, the size and quality of the IT workforce needs to be increased. The supply of qualified applicants is insufficient to meet even current demands, and growth trends within this sector dictating the size and scope of needs will only grow with the passage of time. This trend extends to management/leadership positions, including scenarios where entire business models are changing to become more tech-centric, demanding more tech-savvy leaders.
- Opinion leaders described dissatisfaction with a supply of qualified employees perceived to be inadequate, and felt that higher education providers have yet to catch up in terms of closing this need/qualification gap. Industry sees a definite and important role for colleges and universities in workforce development, but there is room for both expansion and improvement.
- In many ways, the very definition of IT is evolving. New advancements are rapidly changing the ways in which technology permeates daily life – big data, machine learning, Internet of Things, artificial intelligence – and the scope of responsibilities and demands facing IT professionals is changing to keep pace. The field is rapidly diversifying and becoming more and more a discipline of specialization.
- There was support for fully online delivery of the program, although the need to provide interactive elements and hone communication/interpersonal skills must not be neglected. Opinion leaders noted the suitability of online for a target audience with high comfort levels with technology working full-time at odd hours.[ii]

Information technology management professionals are tasked with managing resources related to IT efficiently and effectively to achieve the organization's needs and goals. This includes tangible resources like networking hardware, computers, and people, as well as intangible resources like software and data. For the purpose of this research, five information

technology management-related occupations were selected to illustrate the current marketplace for IT professionals. The occupations are as follows: computer and information systems managers; management analysts; information security analysts; network and computer systems administrators; and software developers, applications. While this is not an exhaustive list of IT management professions, the select occupations do provide valuable insight into the overall market. The following presents occupational and demographic information at the state, regional (Illinois, Minnesota, Wisconsin, Iowa, and Indiana), and national level.

- Over the past five years, IT management-related professionals in Wisconsin have experienced an average annual growth rate of 2.6%, equal to the national average.
- Forecasted growth rates for all IT management occupations are substantial, ranging from 1.5% to 2.0% annually on the national scale.
- IT management professionals have a low unemployment rate of 2.6%, significantly lower than the national average of 4.3% for all occupations.
- Over the next decade, demand for select IT management professions will increase by over half-a-million jobs nationally.
- In Wisconsin there are currently 3,166 job postings for IT management professionals, from 985 different employers, at 377 locations for IT management professionals.
- Within the region, there are currently 22,756 job postings for select information technology management professionals, by more than 4,900 different employers at over 2,000 locations. Of the 22,756 open positions in the region, over 4,000 are located in Chicago. After Chicago, the cities in the region with the highest demand are Minneapolis (1,463 posts), Indianapolis (896), and Milwaukee (687).
- Nationwide, there are currently over 240,000 job postings for select IT management professionals. Jobs were posted by nearly 30,000 employers at over 19,000 different locations.[ii]

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[i] University of Wisconsin System (2001). *UW System Administrative Policy 130: Programming for the Non-Traditional Market in the University of Wisconsin System.* Retrieved from https://www.wisconsin.edu/uw-policies/uw-system-administrative-policies/programming-for-the-non-traditional-market-in-the-uw-system/.

[ii] University Professional and Continuing Education Association (UPCEA), Center for Research and Marketing Strategy (February 2018, Revised April 2018). *Feasibility Analysis: Online M.S. in Information Technology Management*. Commissioned by the University of Wisconsin-Extension, Division of Continuing Education, Outreach and E-Learning.

University of Wisconsin-Collaborative
Cost and Revenue Projection For M.S. in Information Technology Management

	Items	Projections				
		FY 19-20	FY 20-21	FY 21-22	FY 21-23	FY 23-24
		Year 1	Year 2	Year 3	Year 4	Year 5
I	**Enrollment (New Student) Headcount**	35	70	75	80	80
	Enrollment (Continuing Student) Headcount	-	31	83	126	152
	Enrollment (New Student) FTE	13	25	27	29	29
	Enrollment (Continuing Student) FTE		11	30	45	55
II	**Total New Credit Hours Enrolled**	276	837	1,398	1,761	1,944
	Courses Offered/Taught	9	15	23	30	33
	Course Student Enrollments	92	279	466	587	648
	Existing Student Credit Hours					
III	**FTE of Faculty/Instructional Staff**	2	3	3	4	5
	FTE of Admin Staff	2	6	6	5	5
IV	**Revenues**					
	From Tuition ($850 per credit)	234,600	711,450	1,188,300	1,496,850	1,652,400
	From Fees					
	Program Revenue - Grants					
	Program Revenue - Other					
	Allocation of GPR & Program Revenue Balances	580,634.0	215,139.0			
	Total Revenue	815,234.0	926,589.0	1,188,300	1,496,850	1,652,400
V	**New Expenses**					
	Salaries plus Fringes					
	UW Partner Institution Academic and Student Support Activities					
	Academic Director / Program Support	130,770	130,770	130,770	130,770	130,770
	Faculty Course/Content Development	39,231	45,770	0	0	0
	Faculty Course/Content Revisions	-	-	15,692	15,692	15,692
	Faculty Course Instruction	105,924	176,540	270,694	353,079	388,387
	Student Services	32,693	32,693	32,693	32,693	32,693
	UW Extended Campus Administrative Support					
	Program Management	49,030	49,030	49,030	49,030	49,030
	Instructional & Media Design	178,578	178,578	66,765	66,765	66,765
	Student Engagement	45,678	45,678	45,678	45,678	45,678
	Marketing & Recruitment	45,450	45,450	45,450	45,450	45,450
	Other Direct Expenses					
	Instructional Supplies and Expenses	4,500	7,500	11,500	15,000	16,500
	Curriculum Software and Hosting	36,600	67,800	75,600	91,200	97,800
	Marketing Supplies and Expenses	115,000	115,000	115,000	115,000	115,000
	General Supplies and Expenses	31,780	31,780	27,946	27,946	27,946
	Total Expenses	815,234	926,589	886,818	988,303	1,031,711
VI	**Net Revenue**					
		-	-	301,482	508,547	620,689

Notes to the Cost and Revenue Projections:

1. Program deficits, expenditures greater than revenues, will be absorbed and funded with UW Extended Campus carryforward funds.
2. Program surpluses, revenues greater than expenditures, will be shared equally among the eight partners with the intent of those funds to be reinvested back into growing the program.
3. See attached narrative for more information on the assumptions used to build the Costs and Revenue Projections.

Provost's Signature:	**Date:**
Please see Provost joint letter of commitment	

UNIVERSITY OF WISCONSIN COLLABORATIVE DEGREE
COST AND REVENUE PROJECTIONS NARRATIVE
MASTER OF SCIENCE (M.S.) IN INFORMATION TECHNOLOGY MANAGEMENT

University of Wisconsin-La Crosse
University of Wisconsin-Oshkosh
University of Wisconsin-Parkside
University of Wisconsin-Stevens Point
University of Wisconsin-Superior

With administrative and financial support from
University of Wisconsin Extended Campus

Introduction

The M.S. in Information Technology Management will be implemented as a collaborative program. Each UW partner institution will provide qualified faculty, develop curriculum, deliver a share of the instruction, assess student learning, and conduct academic program review. Partner institutions will also provide local administrative support and direct academic and student support services. The UW Extended Campus (formerly UW Extension Office of Continuing Education, Outreach & E-Learning (CEOEL)) will provide the administrative management and resources to provide ongoing implementation support to convene academic, industry and government expertise to discuss relevant curriculum; provide instructional design and media support services to faculty in the development and delivery of online courses; market and recruit students to the program; provide student services from admissions through graduation; and serve as the fiscal agent for the program to include accounting, budgeting, forecasting, analysis, and reporting.

A zero-based budgeting model was used to create the cost and revenue projections. While General Purpose Revenue (GPR) and other program revenue sources will be used to establish the program, the program is expected to be self-supporting through tuition revenues within three to five years of enrolling students, thus leading to revenue-sharing among the partner campuses.

Tuition is established and annually reassessed following guidelines from market-based pricing as outlined in SYS 130 Appendix B: Service-Based Pricing Guidelines and Procedures, and SYS 130 Appendix C: Principles for Pricing Distance Education Credit Courses, Degree and Certificate Programs. Tuition is assessed annually to monitor consistent market pricing, and thus future increases do not go to the Board of Regents for approval.

Section I – Enrollment

Approximately 35-80 new students will enroll in the program each year. Retention is expected to be approximately 80% based on a review of similar programs. It is anticipated that the vast majority of students will enroll part-time. Further, tuition revenues will be based on projected credit and course enrollment, and charged outside of the credit plateau.

It is difficult to estimate the student FTE enrollments, given the anticipated course enrollment patterns of the nontraditional students. Based on enrollment data for other

collaborative online programs, the vast majority of students will enroll part-time. Further, students may vary the number of courses in which they enroll each term. For the purposes of this proposal, headcounts are converted to FTE by identifying the total credits hours enrolled per student (headcount) each year and dividing this number by 24 credit hours. Twelve credit hours per each fall and spring semester is used by the UW System to convert headcounts to student FTE.[i] Based on this formula, the mean conversion quotient calculated over five years is 0.36.

Section II – Credit Hours

Nine courses will be offered/taught in the first academic year. Beginning in Year 2, each of the 14 courses will be offered and taught at least once during the academic year, and offerings will increase as enrollment grows as reflected in the *Cost and Revenue Projection Model*. It is anticipated that each student will enroll in 3-5 courses each year. Projected total credit hours represent projected student course enrollments multiplied by 3 credit hours per course.

Section III – Faculty and Staff Appointments

The FTE faculty and instructional staff in this section reflect contributions that will be made by several faculty and staff who hold current appointments at one of the partnering UW institutions. Faculty teaching workload that is contributed to the delivery of the proposed program will constitute a proportion of their workload. Faculty and instructional staff positions listed in this section reflect the aggregated FTE required to develop online course content, review course content, and deliver instruction and student evaluation. Each of the 13 courses will be developed over a 2-year period and will be reviewed and revised every 2 to 3 years.

Similarly, administrative staff figures reflect the aggregated FTE attributable to several positions. At UW Extended Campus, FTE administrative staff positions listed in this section represent the program manager, instructional and media design staff, student coordinator and technical support staff, and marketing and recruitment staff. At the partner institutions, these include an academic director and student services staff.

Section IV – Program Revenues

Revenue will accrue from tuition charged at the rate of $850 per credit and will not include segregated fees. Tuition revenue is calculated based on the total number of projected credit hours in which students will be enrolled, as indicated in the revenue projections in Section II.

As part of the Adult Student Initiative, GPR allocated to UW Extended Campus (formerly UW-Extension Office of Continuing Education, Outreach & E-Learning) will be used as temporary start-up funding to cover the expenses associated with the development and initial delivery of the proposed M.S. in Information Technology Management program. The projected contribution from these revenue sources will offset program losses expected in Years 1 and 2 that will be funded from an allocation of GPR and program revenue balances reflected in Section IV. It is expected that the program will become self-supporting from its tuition program revenues within five years of enrolling students.

UW partner campuses' academic expenditures will initially be funded with 3 years of GPR allocated from UW Extended Campus. The GPR serves to pay for costs associated with planning and developing the curriculum in Year 1 as well as the instructional and program

support costs related to offering the degree program in Years 2 and 3. UW Extended Campus will allocate a combination of program revenues and GPR to cover administrative program expenses incurred by UW Extended Campus.

Section V – Program Expenses

Salary and Fringe

Expenses are separated into academic and student support activities as implemented at the UW partner institutions and administrative activities as provided by UWEX. Note: Although the FTE listed in Section III represent a number of current appointments, the FTE contribution at each institution will be accounted for as a direct program expense.

Academic and Student Support (UW Partner Institutions)

Each partner institution will receive $20,000 per year, plus fringe at $6,154, to support the assignment of an academic director to coordinate the program at each respective campus. Faculty and instructional staff salary and fringe costs will be attributable to course development, revision, and instruction, and paid to faculty and staff as an ad hoc sum on a per-course rate. The 13 online courses will be developed over a two-year period at a cost of $5,000 per course developed, plus fringe. Courses will be reviewed and revised every two to three years, with four course revisions occurring each year at a cost of $3,000 per revision, plus fringe. Online instructional salary costs are anticipated to be $9,000 per course, plus fringe. Finally, each partner institution will receive $5,000 plus fringe to cover the cost of student support services. All figures represent salary and fringe costs calculated at the rate of 30.77% of salary. This rate represents the average fringe rate of the five academic partner institutions.

Administrative Support (UW Extended Campus)

Administrative staff salary and fringe costs will be attributable to services provided by UW Extended Campus. All figures represent salary plus fringe costs calculated at the rate of 34.33% of salary. This rate represents the UW Extended Campus fringe rate. Expenses include program management, online instructional design and media services, student technical support, and marketing and recruitment staff. A 0.50 FTE dedicated program manager will direct the overall delivery of the program at a cost of $49,030 per year.

UW Extended Campus places a high value and investment in the instructional and media design services provided to UW institutional partners as a means to assist faculty in development, review and revision of online coursework. Online courses offered in this program will be media-rich and offer students a highly interactive learning experience. This award-winning instructional and media design serves to best engage students, and subsequently support student retention and success. In turn, this student success record yields a return on investment that sustains the delivery of quality educational programming. Further, instructional and media design staff provide ongoing professional development and support to UW partner faculty and instructional staff who develop course content and provide instruction. Development of the 13 online courses will occur over a two-year period at a cost of $178,578 per year for the first two years. Thereafter, the cost to regularly maintain (prepare courses/course sections to be offered each semester) and revise existing courses (update content and instructional materials) will be $66,765 per year.

A 0.50 FTE dedicated student coordinator will support student success through extensive student services and proactive advising. In addition, a help desk will provide support to students for the learner management system and other technologies used in online coursework. The cost of providing these student engagement services per year is $45,678. Finally, UW Extended Campus will provide dedicated marketing and recruitment staff who will be assigned to the program at a cost of $45,450 per year.

Other Direct Expenses

Projected expenses related to instructional supplies and expenses are estimated to be $500 per course section taught. Curriculum software and hosting will be utilized to create a virtual lab environment that students will access to complete coursework. Each partner campus will receive $7,000 per year to locally promote and market the program. UW Extended Campus will broadly promote and market the program using search engine optimization, websites, email, direct mail, and other strategies at an estimated cost of $80,000 per year. General supplies and expenses represent costs associated with program meetings and supporting UW Extended Campus staff assigned to the program.

Section VI – Net Revenue

Program deficits, expenditures greater than revenues, will be absorbed and funded with UW Extended Campus carryforward funds. Program surpluses, revenues greater than expenditures, will be shared equally among all six partner institutions with the intent that those funds will be reinvested back into growing the program.

The collaborative partners will meet annually to review and discuss program trends and financial results. The partners will jointly develop and implement programming strategies aimed at growing the program and enabling the program to be self-supporting within three to five years of enrolling students, thus leading to revenue-sharing among the partner campuses.

[i] See UW System Administration Accountability Dashboard technical notes available at https://www.wisconsin.edu/accountability/access/.

THE UNIVERSITY OF WISCONSIN
OSHKOSH

Date: February 8, 2019

To: Karen Schmitt
Interim Vice President for Academic and Student Affairs, University of Wisconsin System

From: John Koker
Provost and Vice Chancellor for Academic Affairs, University of Wisconsin-Oshkosh

Re: Collaborative Online M.S. in Information Technology Management

As lead campus in this UW collaborative degree program and on behalf of Betsy Morgan, UW-La Crosse; Robert Ducoffe, UW-Parkside; Greg Summers, UW-Stevens Point; and Molly Smith, UW-Superior, UW-Oshkosh is requesting authorization to implement the *Master of Science in Information Technology Management*. This program represents a 37-credit, fully online degree offered jointly by the five UW academic institutions defined above. UW Extended Campus will provide administrative and financial support. Students entering the program will select an academic home institution from among the five degree-offering partner campuses.

Each of the participating institutions has strongly embraced the collaborative program model; has contributed greatly to the development of this new, innovative and exciting degree program; has made resource commitments to ensure program success to include faculty, curriculum, materials and required academic supports for students; and has secured support and approval from each of their faculty governance bodies. In addition, each Provost listed below endorses the submitted UW System budget template developed for this collaborative program offering. Finally, this program will be integrated into each institution's assessment and accreditation processes and program review procedures.

Betsy Morgan, Provost and Vice Chancellor for Academic Affairs, UW-La Crosse

Robert Ducoffe, Provost and Vice Chancellor for Academic and Student Affairs, UW-Parkside

Greg Summers, Provost and Vice Chancellor for Academic Affairs, UW-Stevens Point

Molly Smith, Provost and Vice Chancellor for Academic Affairs, UW-Superior