BOARD OF REGENTS OF THE UNIVERSITY OF WISCONSIN SYSTEM

Education Committee

Thursday, December 5, 2024
9:15 a.m. – 10:30 a.m.

Gordon Dining & Event Center
Symphony Room 2nd floor
770 W. Dayton Street
Madison, Wisconsin
and Via Zoom Videoconference

A. Calling of the Roll

B. Declaration of Conflicts

C. Proposed Consent Agenda:
   1. Approval of the September 26, 2024 Meeting Minutes of the Education Committee
   2. UW-La Crosse: Approval of a Bachelor of Science in Data Science
   3. UW-La Crosse: Approval of a Bachelor of Science in Engineering Physics
   4. UW-Madison: Approval of a Master of Science in Animal and Dairy Sciences
   5. UW-Madison: Approval of a Doctor of Philosophy (Ph.D.) in Animal and Dairy Sciences
   6. UW-Madison: Approval of a Doctor of Philosophy (Ph.D.) in Science Communication
   7. UW-Milwaukee: Approval of a Bachelor of Science in Engineering
   8. UW-Oshkosh: Approval of a Bachelor of Business Administration (B.B.A.) in Business Analytics
   9. UW-Stout: Approval of a Master of Science in Applied Computer Science

D. University of Wisconsin School of Medicine and Public Health: The Wisconsin Partnership Program Fiscal Year 2024 Annual Report

E. Discussion: Developmental Education Campus-Level Perspectives

Education Committee
December 5, 2024

Item C.2.

NEW PROGRAM AUTHORIZATION (IMPLEMENTATION) BACHELOR OF SCIENCE IN DATA SCIENCE, UNIVERSITY OF WISCONSIN-LA CROSSE

REQUESTED ACTION

Adoption of Resolution C.2., authorizing the implementation of the Bachelor of Science in Data Science at the University of Wisconsin-La Crosse.

Resolution C.2. That, upon the recommendation of the Chancellor of the University of Wisconsin-La Crosse and the President of the University of Wisconsin System, the Chancellor is authorized to implement the Bachelor of Science in Data Science program at the University of Wisconsin-La Crosse.

SUMMARY

The University of Wisconsin (UW) – La Crosse proposes to establish a Bachelor of Science (B.S.) in Data Science. The 120-credit program will consist of 35 credits of unique general education coursework, eight credits of STEM foundation coursework, 40 credits of core and elective coursework, and an additional 37 credits to fulfill degree requirements. This program will build on the success of the UW-La Crosse Statistics and Applied Mathematics majors, creating a suite of programs within the Department of Mathematics and Statistics that robustly prepares students to enter professional employment in a wide variety of positions, such as data analysts, data engineers, database administrators, data visualization specialists, or business analysts, among many others. The program would use the standard tuition structure for undergraduates at UW-La Crosse. This program would represent a new distinct area of growth for the university, as the data science job outlook has a much faster than average growth with an increase in jobs of 22% in the state[1] and 36% nationally[2] over the next ten years. As such, the Data Science major will address the growing demand for data analytics in industry, governmental agencies, and academia at the local, national, and global levels.

[1] https://jobcenterofwisconsin.com/wisconomy/wits_info/downloads/projections/Understanding-WI-Job-Outlook-LTIP2020-2030.pdf
[2] https://www.bls.gov/ooh/math/data-scientists.htm

Presenter

- Dr. Betsy Morgan, Provost and Vice Chancellor for Academic Affairs

BACKGROUND

This proposal is presented in accord with UW System Administrative Policy 102: Policy on University of Wisconsin System Array Management: Program Planning, Delivery, Review, and Reporting (Revised August 2023), available at https://www.wisconsin.edu/uw-policies/uw-system-administrative-policies/policy-on-university-of-wisconsin-system-array-management-program-planning-delivery-review-and-reporting-2/.

Related Policies

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

- UW System Administrative Policy 102: Policy on University of Wisconsin System Array Management: Program Planning, Delivery, Review, and Reporting

ATTACHMENTS

A) Request for Authorization to Implement
B) Cost and Revenue Projections Worksheet
C) Cost and Revenue Projections Narrative
D) Provost's Letter

REQUEST FOR AUTHORIZATION TO IMPLEMENT A BACHELOR OF SCIENCE IN DATA SCIENCE AT UNIVERSITY OF WISCONSIN-LA CROSSE PREPARED BY UW-LA CROSSE

ABSTRACT

The University of Wisconsin (UW)–La Crosse proposes to establish a Bachelor of Science (B.S.) in Data Science. The 120-credit program will consist of 35 credits of unique general education coursework, eight credits of STEM foundation coursework, 40 credits of core and elective coursework, and an additional 37 credits to fulfill degree requirements. This program will build on the success of the UW-La Crosse Statistics and Applied Mathematics majors, creating a suite of programs within the Department of Mathematics and Statistics that robustly prepares students to enter professional employment in a wide variety of positions, such as data analysts, data engineers, database administrators, data visualization specialists, or business analysts, among many others. The program would use the standard tuition structure for undergraduates at UW-La Crosse. This program would represent a new distinct area of growth for the university, as the data science job outlook has been classified with a much faster than average growth with an increase in jobs of 22% in the state[1] and 36% nationally[2] over the next ten years. As such, the Data Science major will address the growing demand for data analytics in industry, governmental agencies, and academia at the local, national, and global levels.

PROGRAM IDENTIFICATION

University Name
University of Wisconsin-La Crosse

Title of Proposed Academic Program
Data Science

Degree Designation(s)
Bachelor of Science

Proposed Classification of Instructional Program (CIP) Code
30.7001 – Data Science General

[1] https://jobcenterofwisconsin.com/wisconomy/wits_info/downloads/projections/Understanding-WI-Job-Outlook-LTIP2020-2030.pdf
[2] https://www.bls.gov/ooh/math/data-scientists.htm

Mode of Delivery
Single university; in person

Department or Functional Equivalent
Department of Mathematics and Statistics

College, School, or Functional Equivalent
College of Science and Health

Proposed Date of Authorization
December 2024

Proposed Date of Implementation
July 2025

PROGRAM INFORMATION

Overview of the Program

The Data Science major is an interdisciplinary program that equips students with the skills and knowledge to analyze complex data, uncover insights, and drive decision-making across diverse fields. The program integrates core disciplines such as mathematics, statistics, computer science, and data science, ensuring students are well-equipped to tackle complex data challenges. The advanced core data science courses such as DS 420 (Supervised Learning) and DS 430 (Unsupervised Learning) will encourage deeper learning through high impact practices (HIPs). These courses will involve significant project-based learning opportunities using real-world data from local community partners as well as modern analytic techniques such as machine learning and artificial intelligence algorithms. Collaborative projects embedded in these courses will give students the ability to both hone their understanding of the application of data science principles to real business scenarios as well as to develop their ability to communicate effectively within a team, skills that have been identified by community partners as essential in new hires. As such, the Data Science major will help to expand the internship and employment pipelines that have been established between the university and local and state industry partners. Additionally, the required coursework in communication or English is crucial for developing the ability to effectively present and interpret data-driven insights, bridging technical expertise with clear, impactful communication. These skills will be incorporated into each of the core data science courses through written and oral reports to a variety of audiences. Electives in the Data Science major offer students the opportunity to further explore these core disciplines, aligned with their specific abilities and preferences.

The 120-credit program will consist of 35 credits of unique general education coursework, eight credits of STEM foundation coursework, 40 credits of core and elective

coursework, and an additional 37 credits to fulfill degree requirements. Students will be encouraged to declare a complementary minor in: Computer Science; Business Analytics; Communication Studies; Statistics; Biology; Environmental Science; or Communication, Writing, and Critical Reasoning to enhance their degree and provide additional depth in a subject area. Completion of the minor will satisfy UW-La Crosse's requirement that students earn a minor as part of the College of Science and Health core requirements.

Projected Enrollments and Graduates by Year Five

Table 1 represents enrollment and graduation projections for students entering the program over the next five years. It is anticipated that seven students in sophomore status and two students in junior status, either undeclared or from other existing UW-La Crosse programs such as Computer Science, Economics, Information Systems or Mathematics: Applied Emphasis, will switch to the new Data Science major when it is first offered in July 2025. These students are listed as continuing students in Year 1. This number is combined with five new students enrolling in the program in Year 1. It is anticipated that each year seven additional continuing students in sophomore status and two students in junior status will declare a Data Science major and that there will be moderate growth in new student enrollment over the next three years levelling off at 15 by Year 5. By Year 5, it is expected 65 students will be enrolled in the program, and by the end of Year 5, 40 students will have graduated from the program. An 85% retention rate is assumed for new students from freshman to sophomore year, based on the main campus retention rates across all majors.

Table 1: Five-Year Enrollment and Completion Projections by Headcount

Students/Year	Year 1	Year 2	Year 3	Year 4	Year 5
New Students	5	7	10	12	15
Continuing Students	9	23	36	45	50
Total Enrollment	14	30	46	57	65
Graduating Students	0	2	9	14	15

Tuition Structure

For students enrolled in the Data Science program, standard tuition and fee rates will apply. For the 2024-25 academic year, residential tuition and segregated fees total $4,948.04 per semester for a full-time student enrolled in 12 to 18 credits per semester. Of this amount, $4,166.64 is attributable to tuition and $781.40 is attributable to segregated fees. Nonresident tuition and segregated fees total $9,671.36 per semester for a full-time student enrolled in 12 to 18 credits per semester. Of this amount, $8,889.96 is attributable to tuition and $781.40 is attributable to segregated fees. Additionally, all students pay a textbook rental fee of $86.96/semester.

Special course fees may be charged in accordance with UW System Administrative Policy 825 "Special Course Fees" when appropriate and if necessary. It is estimated that $50

course fees will be placed on the three Data Science courses of which sophomore-level students will enroll in one and senior-level students will enroll in two such courses.

Student Learning Outcomes and Program Objectives

The B.S. in Data Science program aims to equip students for careers in data science, data analytics, and related fields. The curriculum focuses on building a strong foundation in four skill domains: programming, mathematics, statistics, and communication. The program will integrate these skills with practical applications across domains including biology, environmental science, business, and health professions. This will prepare students for all aspects of the data science process: data acquisition; management; processing; analysis; and communication. Graduates will be prepared for a wide range of careers in companies and organizations requiring data science expertise. Students who successfully complete the B.S. in Data Science program will:

1. Integrate foundational concepts from mathematics, computer science, and statistics to solve data science problems.
2. Demonstrate proficiency in data management, ensuring reproducibility and adherence to best practices.
3. Utilize modeling strategies to derive meaningful insights from data.
4. Demonstrate critical thinking to analyze and solve data science challenges.
5. Execute data science activities in compliance with ethical considerations.
6. Communicate effectively through oral, written, and visual means in the context of data science.

Program Requirements and Curriculum

There are no prerequisites for entry into the B.S. in Data Science program. Students will be allowed to choose this major upon matriculating to UW-La Crosse either as a first-year or transfer student.

Table 2 illustrates the curriculum for the B.S. in Data Science. UW-La Crosse students completing a baccalaureate degree are required to complete a 42-credit General Education program, of which seven credits are satisfied through courses required within the Data Science STEM foundation or core curriculum. Additionally, some students may require fewer general education credits depending on credits earned before matriculation. The B.S. in Data Science requires completion of eight credits of STEM foundation coursework, 40 credits of core and elective coursework, and an additional 37 credits to fulfill degree and minor requirements.

Table 2: Bachelor of Science in Data Science Program Curriculum

General education courses required for graduation (35 of 42 unique credits):		
FYS 100	First-Year Seminar	3 credits
ENG 110/112	College Writing	3 credits
CST 110	Communicating Effectively	3 credits

Various	Mathematics/Logical Systems (fully satisfied by STAT 145, MTH 207, and CS 120)	7 credits
Various	Minority/Multiracial	3 credits
Various	International/Multicultural Studies	6 credits
Various	Science	4 credits
Various	Self & Society	3 credits
Various	Humanistic Studies	3 credits
Various	Arts	4 credits
Various	Health & Physical Well-Being	3 credits
STEM foundation courses (8 credits):		
STAT 145 ***OR***	Elementary Statistics	
STAT 245	Probability and Statistics	4 credits
CS 120	Software Design I	4 credits
Required Core Courses (40 credits):		
DS 210	Foundations of Data Science	3 credits
MTH 207	Calculus I	5 credits
MTH 208 ***OR***	Calculus II	
MTH 225	Mathematical Models in Biology	4 credits
STAT 305	Statistical Methods	3 credits
MTH 308	Linear Algebra with Differential Equations	4 credits
STAT 345	Statistical Computing	3 credits
DS 420	Supervised Learning	3 credits
DS 430	Unsupervised Learning	3 credits
Various	Professional Communications course – select courses in CST or ENG	3 credits
Various	Select elective courses in CS, CST, ENG, PHL, STAT	9 credits
Various	Additional Electives	37 credits
Total Credits		**120 credits**

Collaborative Nature of the Program

The Data Science major is an interdisciplinary program. It requires a foundation in courses offered in a variety of different departments across the university, including Computer Science and Computer Engineering, Mathematics and Statistics, Communication Studies, and English. Students seeking a broad foundation in each aspect of data science can build upon this core by choosing from a wide variety of electives. In addition, students can select electives that emphasize areas of particular interest outside of Mathematics and Statistics. For example, students interested in the computation aspects of data science can select advanced computer science electives. Those interested in data science communication can choose electives in communication studies and English. Students interested in healthcare fields can choose elective courses in biology and public health. Several minor programs across UW-La Crosse would work well with the Data Science

major, including Computer Science, Business Analytics, Biology, Communication Studies, and Leadership Development. Community partners in industry, healthcare, and government will be contacted to share their expertise, workforce needs, and recruitment processes.

Projected Time to Degree

The proposed Data Science major is designed to facilitate graduation within eight standard semesters at UW-La Crosse, including time for general education and minor completion, provided students complete 15 credits per semester on average. Required and elective courses are offered each semester or annually, and the variety of options available within the different categories provide the ability to meet degree requirements. Transfer students enrolling in the program in their sophomore or junior year will likely have completed a subset of courses required for the degree. Advising by the College of Science and Health (CSH) Academic Services Director and the Chair of the Department of Mathematics and Statistics will determine credits eligible for transfer. The major will also include courses that apply to other majors on campus, such as Mathematics, Statistics, Computer Science, English, and Communication Studies. The interdisciplinary nature of the Data Science major also has the added benefit for students who wish to double major in Data Science and a related field such as computer science or business.

Accreditation

The proposed program will fall under UW-La Crosse's institutional accreditation by the Higher Learning Commission (HLC) and will be subject to those accreditation standards.

PROGRAM JUSTIFICATION

Rationale

The proposed Data Science major will build on existing coursework in mathematics, applied mathematics, and statistics where new coursework will focus on applying data science techniques to complex and authentic problems. Planning has included faculty members from each of these emphases as well as discussions with supporting programs of study housed in the College of Business Administration (e.g., Business Analytics, Information Systems, etc.) and the College of Science and Health (e.g., Computer Science). By incorporating a project-based learning pedagogy, students within the proposed Data Science major will be able to utilize their knowledge and expertise of data analysis tools and libraries as well as the ethical implications of how data are collected and analyzed and apply it to real-world collaboration with industry and research partners. These opportunities are uniquely aligned to both the UW-La Crosse[3] and College of Science and Health Strategic Plan Pillars.[4] Combined, this coursework will provide students with a solid

[3] https://www.uwlax.edu/info/strategic-plan/

[4] https://www.uwlax.edu/csh/about-csh/strategic-plan/

foundation to prepare them "to take their place in a constantly changing world community" (UW-La Crosse Mission Statement).[5]

Institution and Universities of Wisconsin Program Array

Students who choose careers in fields related to Data Science need strong quantitative skills and excellent attention to detail. There are several programs at UW-La Crosse that are related to data science, including Business Analytics, Information Systems, Computer Science, Computer Engineering, and Statistics. The main difference among related programs at UW-La Crosse is the context and content of how data is utilized. In particular, the proposed Data Science program will incorporate aspects of mathematics, computer programming, statistics, and machine learning/artificial intelligence to extract meaningful insight from data for prediction. Data used in courses will be drawn from real world examples across myriad disciplines, including biology, chemistry, economics, business, and health professions.

There are several other data science related bachelor-level programs within the Universities of Wisconsin. The proposed major in Data Science (CIP code 30.7001) at UW-La Crosse provides a robust curriculum that develops technical skills in mathematics, statistics, and computer science and essential skills in writing and communication. The broad array of required coursework will provide graduates with a well-rounded foundation upon which to build a career in data science. This program differs from other programs at comparable UW universities primarily in scope and lens. The Data Science major at UW-La Crosse will have a lower emphasis on software design, computer infrastructure, and information technology systems. This program is intended to be approachable from a variety of entry points and will place particular emphasis on communicating statistical and data science analyses and results to a variety of stakeholders. This program, therefore, addresses the need to develop interdisciplinary programs that provide undergraduate students with increased opportunities to work with community and industry partners.

UW universities with 30.7001 CIP code bachelor-level program:

- UW-Madison – Data Science
- UW-Milwaukee – Data Science
- UW-River Falls – Data Science
- UW-Platteville – Data Science

Other related programming:

- UW-Green Bay (CIP 11.0401) – Information Technology and Data Science
- UW-Milwaukee and UW-Stevens Point (CIP 30.7101) – Data Analytics

[5] https://www.uwlax.edu/chancellor/mission/

Need as Suggested by Student Demand

Expected enrollments in the Data Science major will surpass those in Mathematics and Applied Mathematics (2022: approximately 45 majors combined) in the first five years of the program. Additionally, UW-La Crosse has over 100 mathematics and statistics minors whose majors would benefit greatly with a double major in Data Science. These enrollment trends indicate a demand for a Data Science major by the UW-La Crosse student population. Based on growth trends in Data Science majors at UW-River Falls,[6] Winona State University,[7] and Case Western Reserve University,[8] expected enrollments will exceed 65 majors in the first five years of the program. In addition to UW-River Falls, several other UW universities have developed undergraduate Data Science programs in recent years, including UW-Madison, UW-Milwaukee, UW-Green Bay, and UW-Platteville (UW-Stevens Points offers a BS in Data Analytics through their College of Business and Economics). Those same universities did not appear to lose significant enrollments in their Mathematics or Statistics programs after implementation of the Data Science major.

There were approximately 125 colleges and universities in the U.S. in 2019 that offer undergraduate degrees in Data Science, comprising roughly 4% of all four-year universities.[9] Given the robust growth in data science careers combined with the scarcity of options for undergraduate degrees in data science, the Data Science major at UW-La Crosse will help recruit new students to UW-La Crosse (and the other UW universities) who are seeking careers in data science. Additionally, the program faculty seek to create a data science undergraduate certificate that can be added onto various other UW-La Crosse majors that would have the potential to substantially increase the number of students enrolled in the Data Science core curriculum.

[6] UW-River Falls houses their DS Major in the Computer Science and Information Systems Department within the College of Business and Economics. As of Summer 2023, the program has 55 majors. UW-River Falls total enrollment is approximately 5,400 students.

[7] Winona State: Started in 2015 (9 majors, 10 minors), growth to approximately 40 students per year (as of 2021). For reference, Statistics majors/minors dipped a bit in 2015 but have been consistent at approximately 30 majors and 40 minors, while Math majors have been consistent around 30 majors and 45 minors. Winona State has an undergraduate enrollment of about 5600 students.

[8] Case Western Reserve University began offering a DS major in 2018. They have shown consistent year-over-year growth in the program, with 40 majors in 2022. Case Western's total enrollment is approximately 5200 students.

[9] https://blog.collegevine.com/the-list-of-all-u-s-colleges-with-a-data-science-major

Need as Suggested by Market Demand

The development and implementation of this program is in response to industry demands and student interest. The field of data science is a rapidly growing career with projected growth across the U.S. and Wisconsin. According to the Occupational Outlook Handbook from the Bureau of Labor Statistics (May 2023), the data science job outlook is projected to grow by 36% from 2021 to 2031 with a projected 13,500 job openings each year, thereby being classified as “much faster than average" growth.[10] The Wisconsin Job Outlook Industry and Occupations Projections Report from the Wisconsin Department of Workforce Development (March 2023) indicates a growth in the Computer and Mathematical category from 81,839 to 99,753 jobs over the period from 2018 to 2030, an increase of approximately 22%.[11] In fact, a recent search of job postings from Indeed and Google revealed over 80 active jobs in the data science field including large Wisconsin businesses such as American Family Insurance, Kohler, Harley Davidson, and Lands’ End.

[10] https://www.bls.gov/ooh/math/data-scientists.htm

[11] https://jobcenterofwisconsin.com/wisconomy/wits_info/downloads/projections/Understanding-WI-Job-Outlook-LTIP2020-2030.pdf

University of Wisconsin - La Crosse Cost and Revenue Projections For B.S. in Data Science						
	Items	**Projections**				
		2025	**2026**	**2027**	**2028**	**2028**
		Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**
I	**Enrollment (New Student) Headcount**	5	7	10	12	15
	Enrollment (Continuing Student) Headcount	9	23	36	45	50
	Enrollment (New Student) FTE	5	7	10	12	15
	Enrollment (Continuing Student) FTE	9	23	36	45	50
II	**Total New Credit Hours**	60	84	120	144	180
	Existing Credit Hours	108	276	432	540	600
III	**FTE of New Faculty/Instructional Staff**	0	0	0	0	0
	FTE of Current Fac/IAS	0.25	0.75	1.25	1.5	1.5
	FTE of New Admin Staff	0	0	0	0	0
	FTE Current Admin Staff	0.1	0.1	0.1	0.1	0.1
IV	**Revenues**					
	Tuition	$20,833	$124,999	$191,665	$237,498	$270,832
	Additional Tuition					
	Fees (indicate type)					
	Program Revenue (Grants)					
	Program Revenue - Other					
	GPR (re)allocation					
	Total Revenue	**$20,833**	**$124,999**	**$191,665**	**$237,498**	**$270,832**
V	**Expenses**					
	Salaries plus Fringes					
	Faculty Salary	$16,875	$51,638	$87,784	$107,448	$109,596
	Instuctional Academic Staff					
	Administrative and Student Support Staff	$4,540	$4,631	$4,724	$4,818	$4,915
	Other Staff					
	Fringe Faculty and Academic Staff	$6,919	$21,171	$35,991	$44,054	$44,934
	Fringe University Staff	$2,424	$2,473	$2,522	$2,573	$2,624
	Fringe Other Staff					
	Facilities and Capital Equipment					
	University buildings and space					
	Capital Equipment					
	Operations					
	Other Expenses					
	other (computation time)	$1,650	$1,200	$1,250	$800	$1,650
	other (please list)					
	Total Expenses	**$32,408**	**$81,113**	**$132,271**	**$159,693**	**$163,719**
	Net Revenue	**-$11,575**	**$43,886**	**$59,394**	**$77,806**	**$107,112**

Provost's Signature: **Date:**

10/25/24

Chief Business Officer's Signature: **Date:**

10/25/24

COST AND REVENUE PROJECTIONS NARRATIVE
UNIVERSITY OF WISCONSIN-LA CROSSE
BACHELOR OF SCIENCE IN DATA SCIENCE

PROGRAM INTRODUCTION

The proposed B.S. in Data Science builds on the success of the UW-La Crosse Statistics and Applied Mathematics majors. Upon completion of the program, students will be prepared for careers in various fields related to data science positions, such as data analysts, data engineers, database administrators, data visualization specialists, healthcare analysts, and social media analysts, among many others. The program requirements are comprised of 120 credits including 42 credits in General Education program coursework, of which 7 credits are satisfied through courses required within the Data Science core curriculum, eight credits of STEM foundation coursework, 40 credits of core and elective coursework, and an additional 37 credits to fulfill degree requirements. The Data Science program is designed for full-time students completing primarily face-to-face courses, with all required courses being available in a face-to-face format. Many required and elective courses, except three that will be new, are currently regularly offered at UW-La Crosse. By Year 5 a total of 3.25 faculty FTE will be required to deliver the program.

COST REVENUE NARRATIVE

Section I – Enrollment

Program enrollment projection numbers are based upon anticipated interest by students who will enroll at UW-La Crosse to pursue the program, along with interest from current UW-La Crosse students who are likely to change their major to pursue the Data Science program. It is anticipated that five new students will enroll the first year, with moderate growth in new student enrollment over the next four years, and growth leveling out at Year 5. An 85% retention rate is assumed from Year 1 to Year 2 for new students, based on the main campus retention rates across all majors. In Year 1, and each year thereafter, seven students in sophomore status and two students in junior status will switch to the Data Science major. The projections are detailed in Table 1.

In Year 1, five new students are expected to enroll in the Data Science program, along with nine current UW-La Crosse students, for a total enrollment of 14 students.

In Year 2, seven new students are expected to come to UW-La Crosse and enroll in the program. In Year 2, there will be 14 students continuing in the program and nine current UW-La Crosse students switching into the Data Science program. Thus, the total enrollment for Year 2 is estimated to be 30 students. At the end of Year 2, the two students who switched into the Data Science program in Year 1 as juniors, will graduate with a B.S. in Data Science.

In Year 3, 10 new students are expected to come to UW-La Crosse and enroll in the program. In Year 3, there will be 36 continuing students comprised of 27 continuing students, and nine current UW-La Crosse students switching into the Data Science program. Thus, the total enrollment for Year 3 is estimated to be 46 students. At the end of Year 3, the seven students who switched into the Data Science program in Year 1 as sophomores and the two students who switched into the program in Year 2 as juniors, will graduate with a B.S. in Data Science.

In Year 4, 12 new students are expected to come to UW-La Crosse and enroll in the program. In Year 4, there will be 45 continuing students comprised of 36 continuing students and nine current UW-La Crosse students switching into the Data Science program. Thus, the total enrollment for Year 4 is estimated to be 57 students. At the end of Year 4, 14 students will graduate with a B.S. in Data Science.

In Year 5, 15 new students are expected to come to UW-La Crosse and enroll in the program. In Year 5, there will be 50 continuing students comprised of 41 continuing students and nine current UW-La Crosse students switching into the Data Science program. Thus, the total enrollment for Year 5 is estimated to be 65 students. At the end of Year 5, 15 students will graduate with a B.S. in Data Science.

Table 1: Five-Year Academic Degree Program Enrollment Projections

	Year 1	Year 2	Year 3	Year 4	Year 5
Freshman	5	7	10	12	15
Sophomore	7	5+7=12	6+7=13	9+7=16	10+7=17
Junior	2	7+2=9	12+2=14	13+2=15	16+2=18
Senior/Graduate		2	9	14	15
Total	14	30	46	57	65

Section II – Credit Hours

Students will complete 48 credits of STEM foundation, program core, and program elective credits within the proposed Data Science program, thus for the purposes of the credit hour estimate, 48 credits will be used. Dividing 48 credits by four years, a typical full-time student will take approximately 12 credits of foundation, core, and elective courses per year. New credit hours were calculated by multiplying the number of new students each year by 12 credits. Existing credit hours were calculated by multiplying the number of continuing students each year by 12 credits.

Section III – Faculty and Staff Appointments

Most courses, except three, that comprise the proposed Data Science program curriculum are in place, taught by existing faculty and instructional academic staff, and have initial capacity to accept the additional enrollments created by this program. The one

new data science course in Year 1 will be covered by an existing faculty member, 0.25 FTE. In Year 2, 0.75 FTE total will be needed to serve the Data Science program. This includes instruction within the three courses offered specifically for the Data Science program and the addition of a section or two beyond current course levels. As student enrollment in Years 3-5 increases in the Data Science program, it is anticipated that in addition to the regular offering of the three data science courses, additional sections of other current courses will be offered to accommodate these students. In Year 3, 1.25 FTE of current faculty/IAS will be needed and 1.5 FTE in Years 4 and 5. Current instructional lines within the Mathematics and Statistics Department will be reallocated to cover the additional instructional needs. Also, if needed, reallocation will occur from another UW-La Crosse program experiencing decreased enrollment within the department, college, or university. Administrative support will be provided by current staff.

Section IV – Program Revenues

The B.S. in Data Science will generate new revenue. No new additional UW funding will be requested for this major.

Tuition Revenues

Tuition revenue assumes that all students will be enrolled full time during the academic year and pay the 2024-25 undergraduate tuition rate of $8,333.28 per year. The five-year projection assumes no change in tuition. Since this is an on-campus program, students will incur segregated fees and textbook rental fees, but those have been excluded from the tuition revenue since those fees will ultimately go towards supporting traditional student services and/or activities.

Although some enrollment of Minnesota or non-resident students may occur, tuition revenue is calculated using the Wisconsin resident rate of $347.22 per credit for the anticipated total program credits (including new and existing). Tuition revenues are calculated for all students, including those students currently enrolled at UW-La Crosse with the exception of Year 1 continuing students.

Section V – Program Expenses

Salary and Fringe Expenses

Faculty within existing or reallocated instructional lines will deliver the proposed B.S. in Data Science. Illustrated in the cost and revenue table are current related salary expenses attributable to faculty FTEs, averaging $67,500 per year, and 0.10 FTE of noninstructional staff at $45,402 per year. All salaries are assumed to have a 2% inflationary rate applied, with fringe rates of 41% for faculty and 53.4% for university staff.

Facilities and Capital Equipment

No new facilities or capital equipment are needed to implement or sustain the proposed Data Science program.

Other Expenses

Funds will be needed to purchase computation time on cloud servers for high performance computing clusters. Course fees will cover a portion of these costs.

Program costs including standard supplies and expenses, as well as marketing expenses for program promotion are covered via a general allocation to the college and department, and thus are not a direct expense of the program. Additionally, all fixed costs needed for this new program are already covered by existing programs within the college.

Section VI – Net Revenue

By Year 5, with a full cohort of 15 new students enrolling each year, it is estimated that the program will generate net revenues of $104,112. These funds will be reinvested at the institution to support new program development, student support services to further strengthen the retention and success of current students and offset unforeseen enrollment shortfalls in other programs on campus.

UNIVERSITY OF WISCONSIN LA CROSSE

Academic Affairs
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October 11, 2024

Jay O. Rothman, President
Universities of Wisconsin
1720 Van Hise Hall
1220 Linden Drive
Madison, WI 53706

Dear President Rothman,

I am writing to support the University of Wisconsin-La Crosse's (UWL) proposed Bachelor of Science in Data Science. Our College of Science and Health has a long history offering exceptional programs meeting the needs of Wisconsin industry. The Data Science program will integrate core disciplines such as mathematics, statistics, computer science, and data science, and thus ensure students are well-equipped to tackle complex data challenges. Additionally, required coursework in communication and English will develop a student's ability to effectively present and interpret data-driven insights, bridging technical expertise with clear, impactful communication. With this curricular preparation, students will be ready to enter professional employment in a wide variety of positions, such as Data Analysts, Data Engineers, Data Visualization Specialists, Healthcare Analysts, and Social Media Analysts, among many others.

As noted in the proposal documents, the development and implementation of the Data Science program is in response to industry demands and student interest. The field of data science is a rapidly growing career with substantial, projected growth across the United States and Wisconsin. Furthermore, the Data Science program contributes to the UWL strategic plan through advancing transformational education and increasing community engagement. By incorporating a project-based learning pedagogy, students within the Data Science major will be able to apply their knowledge and expertise with data analysis tools and libraries and ethical implications of how data are collected and analyzed to real-world collaboration with industry and research partners.

There is university-wide support for the Bachelor of Science in Data Science. The program received approval from the UWL Department of Mathematics and Statistics, the College of Science and Health, the University Curriculum and Academic Planning committees, Faculty Senate, and Chancellor James Beeby. UW-La Crosse has the necessary financial and human resources in place to implement and sustain the program, including strong faculty with a long history of improving and refining curriculum and responding to trends within the field. Introductory courses provide students with foundational coursework and well-established upper-division courses facilitate depth within the data science discipline.

The Data Science program will undergo regular program review and evaluation through both college and university-wide processes that include evaluations by the Dean, Faculty Senate, and Provost. These cyclical reviews include evaluation of program curriculum, assessment of student learning,

program success metrics, potential for new initiatives, and personnel/program needs. Based on review, recommendations will be generated to facilitate continual improvement.

The Data Science program will be a valuable enhancement to the UWL program array, present an appealing opportunity for prospective students, and contribute to workforce development in Wisconsin. I am pleased to present this innovative program for your consideration and firmly believe that this program stands as a robust and important addition to the Universities of Wisconsin.

Thank you for your consideration.

Sincerely,

Besty Morgan, Ph.D.
Provost and Vice Chancellor for Academic Affairs

CC:
Tracy Davidson, Associate Vice President of Academic Programs & Faculty Advancement
Jennifer Kosiak, Chair, Department of Mathematics and Statistics
Ju Kim, Dean, College of Science and Health
Sandy Grunwald, Associate Vice Chancellor for Academic Affairs

Education Committee
December 5, 2024

Item C.3.

NEW PROGRAM AUTHORIZATION (IMPLEMENTATION) BACHELOR OF SCIENCE IN ENGINEERING PHYSICS, UNIVERSITY OF WISCONSIN-LA CROSSE

REQUESTED ACTION

Adoption of Resolution C.3., authorizing the implementation of the Bachelor of Science in Engineering Physics at the University of Wisconsin-La Crosse.

Resolution C.3. That, upon the recommendation of the Chancellor of the University of Wisconsin-La Crosse and the President of the University of Wisconsin System, the Chancellor is authorized to implement the Bachelor of Science in Engineering Physics program at the University of Wisconsin-La Crosse.

SUMMARY

The University of Wisconsin (UW)–La Crosse proposes to establish a Bachelor of Science (B.S.) in Engineering Physics. The Engineering Physics program will focus on the physical and mathematical fundamentals of mechanical, electrical, civil, optical, and materials engineering and will include a solid foundation in physics, mathematics, chemistry, and electronics. The proposed program will be a 120-credit undergraduate degree comprised of 31 credits of unique general education coursework, 51 credits of core and elective physics and engineering coursework, and 38 credits of chemistry, computer science, mathematics, and statistics support courses. Standard tuition will apply, with a program fee applied for students in junior or above status. Graduates can enter the workforce upon graduation, where they will be well prepared to tackle the cross-disciplinary engineering challenges of today or pursue graduate studies in physics or engineering.

In today's high-tech world, the boundaries between the traditional engineering disciplines are blurring, producing the need for engineers who are adaptable and have a broad knowledge base.[1] There is expected to be a rising demand for engineers in Wisconsin (as

[1] A. K. Noor, "Disruptions of Progress: There's No Slowing the Pace of Technological Change: Engineering Practice will have to Adapt and Keep Up," Mech. Eng. Mag. 127(11), 26-31 (2005)

well as nationally) to meet the needs of current employers and attract new industries to the state.[2] The new Engineering Physics program will provide a 4-year engineering track at UW-La Crosse while making use of the engineering courses, expertise, and resources already in place locally to support the dual-degree programs. The proposed program aligns with the strategic objectives of the UW Strategic Plan and the pillars of UW-La Crosse's Strategic Plan.

Presenter

- Dr. Betsy Morgan, Provost and Vice Chancellor for Academic Affairs

BACKGROUND

This proposal is presented in accord with UW System Administrative Policy 102: Policy on University of Wisconsin System Array Management: Program Planning, Delivery, Review, and Reporting (Revised August 2023), available at https://www.wisconsin.edu/uw-policies/uw-system-administrative-policies/policy-on-university-of-wisconsin-system-array-management-program-planning-delivery-review-and-reporting-2/.

Related Policies

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

- UW System Administrative Policy 102: Policy on University of Wisconsin System Array Management: Program Planning, Delivery, Review, and Reporting

ATTACHMENTS

A) Request for Authorization to Implement
B) Cost and Revenue Projections Worksheet
C) Cost and Revenue Projections Narrative
D) Provost's Letter

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https://asmedigitalcollection.asme.org/memagazineselect/article-abstract/127/11/26/378835/Disruptions-of-ProgressThere-s-No-Slowing-the-Pace?redirectedFrom=fulltext

[2] Statement based on statistics gathered for civil, electrical, materials, and mechanical engineers using CareersOneStop sponsored by the U.S. Department of Labor https://www.careeronestop.org/Toolkit/StateAndLocal/ProjectedEmployment.aspx?soccode=172131&location=Wisconsin

REQUEST FOR AUTHORIZATION TO IMPLEMENT A BACHELOR OF SCIENCE IN ENGINEERING PHYSICS AT UNIVERSITY OF WISCONSIN-LA CROSSE PREPARED BY UW-LA CROSSE

ABSTRACT

The University of Wisconsin (UW)–La Crosse proposes to establish a Bachelor of Science (B.S.) in Engineering Physics. The Engineering Physics program at UW-La Crosse will focus on the physical and mathematical fundamentals of mechanical, electrical, civil, optical, and materials engineering and will include a solid foundation in physics, mathematics, chemistry, and electronics. The proposed program will be a 120-credit undergraduate degree comprised of 31 credits of unique general education coursework, 51 credits of core and elective physics and engineering coursework, and 38 credits of chemistry, computer science, mathematics, and statistics support courses. Standard tuition will apply to this program with a program fee applied for students in junior or above status. Graduates of this program will be able to either enter the workforce upon graduation, where they will be well prepared to tackle the cross-disciplinary engineering challenges of today or pursue graduate studies in physics or engineering.

In today's high-tech world, the boundaries between the traditional engineering disciplines are blurring, producing the need for engineers who are adaptable and have a broad knowledge base.[1] There is expected to be a rising demand for engineers in Wisconsin (as well as nationally) to meet the needs of current employers and attract new industries to the state.[2] The new Engineering Physics program will provide a 4-year engineering track at UW-La Crosse while making use of the engineering courses, expertise, and resources already in place locally to support the dual-degree programs. The proposed Engineering Physics program aligns with the strategic objectives of the UW Strategic Plan and the pillars of UW-La Crosse's Strategic Plan.

[1] A. K. Noor, "Disruptions of Progress: There's No Slowing the Pace of Technological Change: Engineering Practice will have to Adapt and Keep Up," Mech. Eng. Mag. 127(11), 26-31 (2005) https://asmedigitalcollection.asme.org/memagazineselect/article-abstract/127/11/26/378835/Disruptions-of-ProgressThere-s-No-Slowing-the-Pace?redirectedFrom=fulltext

[2] Statement based on statistics gathered for civil, electrical, materials, and mechanical engineers using CareersOneStop sponsored by the U.S. Department of Labor https://www.careeronestop.org/Toolkit/StateAndLocal/ProjectedEmployment.aspx?soccode=172131&location=Wisconsin

PROGRAM IDENTIFICATION

University Name
University of Wisconsin-La Crosse

Title of Proposed Academic Program
Engineering Physics

Degree Designation(s)
Bachelor of Science

Proposed Classification of Instructional Program (CIP) Code
14.1201 - Engineering Physics

Mode of Delivery
Single university; in person

Department or Functional Equivalent
Department of Physics

College, School, or Functional Equivalent
College of Science and Health

Proposed Date of Authorization
December 2024

Proposed Date of Implementation
July 2025

PROGRAM INFORMATION

Overview of the Program

The proposed Engineering Physics program will be a 120-credit undergraduate degree. To satisfy the general education requirements of UW-La Crosse, students will take 42 credits of general education courses, 11 credits of which will satisfy requirements of the major. The program's core coursework will include courses in physics and engineering (37 credits), mathematics (24 credits), chemistry (10 credits), and computer science (four credits). In addition, students will be required to take at least eight credits of approved electives in physics and engineering and complete two capstone courses (six credits). The curriculum of the new program has been designed to meet the criteria for "Engineering Physics" programs set by the engineering accreditation commission of Accreditation Board

for Engineering and Technology (ABET)[3] and to include high impact practices (HIPs). For example, the list of approved electives will include options to receive credit for student/faculty collaborative research, to enroll in seminar courses aimed at informing students of career opportunities and the latest developments in science and engineering, and to complete an internship with a company or public agency in a physics or engineering position. Students completing the course requirements of the program will graduate with a B.S. in Engineering Physics and a minor in Mathematics, satisfying UW-La Crosse's requirement that students earn a minor as part of the College of Science and Health core requirements. The program will seek accreditation by ABET.

Projected Enrollments and Graduates by Year Five

Table 1 represents enrollment and graduation projections for students entering the program over the next five years. It is anticipated that three students in sophomore status and three students in junior status, either dual degree Physics/Engineering or Physics: Applied Emphasis students, will switch to the Engineering Physics major when it is first offered in July 2025. These students are listed as continuing students in Year 1. This number is combined with three new students enrolling in the program in Year 1. It is anticipated that each year two additional continuing students in sophomore and junior status will declare an Engineering Physics major and that there will be moderate growth in new student enrollment over the next three years levelling off at 12 by Year 5. By Year 5, it is expected 46 students will be enrolled in the program, and by the end of Year 5, 24 students will have graduated from the program. An 85% retention rate is assumed for new students from freshman to sophomore year, based on the main campus retention rates across all majors.

Table 1: Five-Year Enrollment and Completion Projections by Headcount

Students/Year	Year 1	Year 2	Year 3	Year 4	Year 5
New Students	3	6	10	12	12
Continuing Students	6	13	19	27	34
Total Enrollment	9	19	29	39	46
Graduating Students	0	3	5	7	9

Tuition Structure

For students enrolled in the Engineering Physics program, standard tuition and fee rates will apply. For the 2024-25 academic year, residential tuition and segregated fees total $4,948.04 per semester for a full-time student enrolled in 12 to 18 credits per semester. Of this amount, $4,166.64 is attributable to tuition and $781.40 is attributable to

[3] Criteria for Accrediting Engineering Programs, 2024-2025, ABET; Engineering Accreditation Commission (EAC) https://www.abet.org/accreditation/accreditation-criteria/criteria-for-accrediting-engineering-programs-2024-2025/

segregated fees. Nonresident tuition and segregated fees total $9,671.36 per semester for a full-time student enrolled in 12 to 18 credits per semester. Of this amount, $8,889.96 is attributable to tuition and $781.40 is attributable to segregated fees. Additionally, all students pay a textbook rental fee of $86.96/semester. Full-time students will be assessed an additional $731.40 per semester and part-time students a $60.95 per credit program fee in their junior and senior years, which is the same as UW-La Crosse's Computer Engineering program.

Student Learning Outcomes and Program Objectives

The proposed Engineering Physics program aims to equip students for careers in physics and engineering. Graduates of this program will have the knowledge and skills necessary to either enter the workforce upon graduation, where they will be well prepared to tackle the cross-disciplinary engineering challenges of today, or pursue graduate studies in physics or engineering. Upon completing the program, students will have attained the following outcomes defined by the Engineering Accreditation Commission of ABET. Graduates will have an ability to:

1. Identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. Apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. Communicate effectively with a range of audiences.
4. Recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. Function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. Develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. Acquire and apply new knowledge as needed, using appropriate learning strategies.

Program Requirements and Curriculum

There are no prerequisites for entry into the B.S. in Engineering Physics program. Students will be allowed to choose this major upon matriculating to UW-La Crosse either as a first-year or transfer student.

Table 2 illustrates the curriculum for the B.S. in Engineering Physics. UW-La Crosse students completing a baccalaureate degree are required to complete a 42-credit General Education program, of which 11 credits are satisfied through courses required within the Engineering Physics curriculum. Additionally, some students may require fewer general

education credits depending on credits earned before matriculation. The B.S. in Engineering Physics requires completion of 51 credits of core and elective physics and engineering coursework and 38 credits of chemistry, computer science, mathematics, and statistics support courses. Students completing the Engineering Physics curriculum will also earn a Mathematics minor.

Table 2: Bachelor of Science in Engineering Physics Program Curriculum

General education courses required for graduation (31 of 42 unique credits):		
FYS 100	First-Year Seminar	3 credits
ENG 110/112	College Writing	3 credits
CST 110	Communicating Effectively	3 credits
Various	Mathematics/Logical Systems (fully satisfied by MTH 207 and CS 120)	7 credits
Various	Minority/Multiracial	3 credits
Various	International/Multicultural Studies	6 credits
Various	Science (fully satisfied by PHY 103 or PHY 203)	4 credits
Various	Self & Society	3 credits
Various	Humanistic Studies	3 credits
Various	Arts	4 credits
Various	Health & Physical Well-Being	3 credits
Program Support Courses (38 credits):		
CHM 103	General Chemistry I	5 credits
CHM 104	General Chemistry II	5 credits
CS 120	Software Design I	4 credits
MTH 207	Calculus I	5 credits
MTH 208	Calculus II	4 credits
STAT 245	Statistics	4 credits
MTH 308	Linear Algebra with Differential Equations	4 credits
MTH 310	Calculus III	4 credits
MTH 353	Differential Equations and Dynamical Systems	3 credits
Required Physics and Engineering Core Courses (51 credits):		
PHY 103 ***OR*** PHY 203	Fundamental Physics I General Physics I	4 credits
PHY 104 ***OR*** PHY 204	Fundamental Physics II General Physics II	4 credits
PHY 305	General Physics III	3 credits
PHY 306	Modern Physics	3 credits
PHY 311	Experimental Physics	2 credits
PHY 308	Optics	3 credits
PHY 320	Statics	3 credits

PHY 321	Dynamics	3 credits
PHY 334	Circuits	3 credits
PHY 335	Electronics	4 credits
PHY 343	Engineering Thermodynamics	3 credits
CPE 481	Professionalism in Engineering	1 credit
CPE 483	Engineering Project Management	1 credit
PHY 492	Capstone in Engineering I	3 credits
PHY 493	Capstone in Engineering II	3 credits
Various	Select elective courses in CPE or PHY	8 credits
Total Credits		**120 credits**

The Engineering Physics curriculum includes a number of high-impact practices (HIPs), as defined by the American Association of Colleges and Universities (AACU).[4] Embedded in the program are opportunities for students to take part in undergraduate research, internships, seminars, collaborative assignments, writing-intensive courses, and capstone projects. For example, courses that may be applied to the required eight credits of elective coursework in physics and engineering include PHY 450 (Physics and Engineering Internship), where students can earn up to five credits towards their degree by working in a physics or engineering position with a business or public agency; PHY 497 (Physics and Engineering Seminar), which consists of a series of talks given by visiting scientists and engineers aimed at informing students of career opportunities and the latest developments in science and engineering; and PHY 498 (Physics and Engineering Research), where students can take part in student/faculty collaborative research projects. In addition, technical writing and collaborative work is emphasized in PHY 311 (Experimental Physics) and PHY 334 (Circuits), where students work in groups on the hands-on activities of the courses and gain experience writing technical documents. The Engineering Physics program will culminate with a sequence of two capstone courses PHY 492 and PHY 493), where students will work in teams to develop a solution to a technical problem through the application of the methods of science and engineering.

Collaborative Nature of the Program

The proposed program will train students in the physical and mathematical fundamentals of mechanical, electrical, civil, optical, and materials engineering, complementing UW-La Crosse's existing B.S. in Computer Engineering. The two UW-La Crosse programs combined will attract students with broad interests in engineering. In addition, while the two programs will have very different curricula overall, they will utilize some of the same general engineering courses that have already been developed for Computer Engineering, specifically, courses aimed at Professionalism in Engineering (CPE

[4] High-Impact Practices, American Association of Colleges and Universities (AAC&U) https://www.aacu.org/trending-topics/high-impact

481) and Engineering Project Management (CPE 483). Other ways the two engineering programs can work together include collaborative capstone design projects that make use of the complementary skills and knowledge of the senior students in the two programs, as well as collaborative student/faculty research projects.

The Engineering Physics program will also help facilitate collaborations between UW-La Crosse and local businesses and public agencies. There is a strong industrial presence in the La Crosse area, as well as the US Army's Fort McCoy, providing excellent opportunities for co-ops and internships as well as collaborative projects and research. For example, the proposed program will include capstone design courses for which the Physics Department will seek industrial partnerships to provide students with academic service-learning projects that both satisfy the course requirements and are valued by the partnering company or agency. UW-La Crosse is committed to forming relationships with the surrounding community and businesses, and the proposed program will create even more opportunities to reinforce existing connections and forge new ones.

Projected Time to Degree

The B.S. in Engineering Physics is designed to be completed within four years provided students complete 15 credits per semester on average.

Accreditation

The proposed program will fall under UW-La Crosse's institutional accreditation by the Higher Learning Commission (HLC) and will be subject to those accreditation standards. The program will seek accreditation by the Engineering Accreditation Commission of ABET and will be subject to ABET accreditation standards and review from that commission.

PROGRAM JUSTIFICATION

Rationale

UW-La Crosse has approximately 10,300 students, is well-known for its science programs and commitment to undergraduate research and is one of the top-ranked universities in the Universities of Wisconsin by the *US News and World Report. Y*et before the fall of 2020, it did not offer ANY engineering degrees. Currently, the only undergraduate engineering degree offered by the university is Computer Engineering. The proposed Engineering Physics program will help UW-La Crosse attract students who had previously discounted the university due to its lack of 4-year engineering degrees. All indicators from recruiters within Admissions, the Physics Department, and the Athletics Department suggest there is a strong demand for engineering degrees amongst prospective UW-La Crosse students.

UW-La Crosse's goal is to offer a unique Engineering Physics program that takes advantage of the existing courses, expertise, and facilities and differs from the few other Engineering Physics programs offered at other UWs. It will be a true hybrid of science, engineering, and mathematics while adhering to the ABET standards for accreditation. The rationale for the new program includes benefits to UW-La Crosse, the Universities of Wisconsin, and the economic prosperity of Wisconsin. Specifically, the new program will:

i. Help satisfy the demand for students wishing to pursue a 4-year engineering degree at UW-La Crosse,
ii. Help satisfy the need for engineers and scientists in Wisconsin, the Midwest, and nationwide,
iii. Produce graduates with a wide base of technical, scientific, and mathematical knowledge who can fill a wide variety of jobs in science and engineering and adapt to the ever-changing needs of industry, government labs, and academia.

The proposed program aligns with two of the four strategic objectives of the UW Strategic Plan.[5] Specifically, the proposed program will help the universities create and disseminate knowledge that contributes to innovation by facilitating collaborations between UW-La Crosse and industrial partners and advance economic prosperity by addressing the needs of employers in the state of Wisconsin. Moreover, the proposed program is in line with two of the four pillars of UW-La Crosse's Strategic Plan.[6] The Engineering Physics program will help increase community engagement by facilitating mutually beneficial relationships between the university and private/public organizations in the greater La Crosse community. The program will also help advance transformational education by providing opportunities for students to engage in high-impact practices by graduation.

The UW-La Crosse Physics Department is well positioned to offer the proposed Engineering Physics program both in terms of faculty expertise and facilities. The Physics Department has eight tenure track faculty, a teaching professor, and is one of the largest undergraduate physics programs in Wisconsin.[7] The department includes faculty with specialties in electrical engineering, optics, materials, and applied physics. It also includes state-of-the-art research facilities in the new Prairie Springs Science Center, which houses growth and materials characterization equipment (e.g., SEM, AFM, x-ray diffraction, profiler, and ellipsometer), low-temperature cryogenic equipment, spectroscopy, and a 3D printer. The UW-La Crosse Physics Department is nationally recognized for its preparation of

[5] 2023-2028 Strategic Plan of the Universities of Wisconsin https://www.wisconsin.edu/president/strategic-plan/
[6] UW-La Crosse Strategic Plan (August 2024) https://www.uwlax.edu/info/strategic-plan/
[7] Roster of Physics Departments with Enrollment and Degree Data, 2021, American Institute of Physics (AIP) Statistical Research Center (2022) https://aip.brightspotcdn.com/cc/43/3ef55c32d353b46108f2ab97b063/phyrost21.pdf

students entering the workforce[8] and has successfully prepared hundreds of students for upper-level engineering coursework in a variety of engineering fields as part of its dual-degree physics/engineering programs. The new Engineering Physics program will make use of the engineering courses, expertise, and resources already in place, and it will work with UW-La Crosse's Computer Engineering program to employ best practices in educating engineers and share courses when feasible.

Institution and Universities of Wisconsin Program Array

As a true hybrid of science, mathematics, and engineering, UW-La Crosse's proposed Engineering Physics program will provide students with a 4-year undergraduate degree track that is currently unmatched at UW-La Crosse and unique among the Universities of Wisconsin. Engineering Physics is an academic program, not a job title, and as such, the curriculum and scope of Engineering Physics programs differ broadly between universities. Currently, there are only two public universities in Wisconsin with Engineering Physics programs: UW-Madison and UW-Platteville (CIP code 14.1201). Of the two, only UW-Platteville's program is ABET accredited. UW-La Crosse's program will pursue ABET accreditation and will be distinct from UW-Platteville's program through a greater curricular focus on mathematics (UW-La Crosse 24 cr, UW-Platteville 15 cr) and chemistry (UW-La Crosse 10 cr, UW-Platteville 5 cr).

Need as Suggested by Student Demand

Historically, there has been strong student demand for engineering programs at UW-La Crosse. For over 25 years, the Physics Department has partnered with engineering programs at other universities to offer dual degrees in Physics and Engineering. In these programs, students spend their first three years at UW-La Crosse and then transfer to an engineering school for their final two years. Upon completion of the program, they receive a B.S. in Physics from UW-La Crosse and a B.S. in a specific engineering discipline (most commonly mechanical, electrical, or civil engineering) from the partnering school. At the 2014 peak enrollment, UW-La Crosse had ~160 total physics majors, ~80 of whom were in dual-degree physics/engineering programs, and ~25 students transferred per year to partnering engineering schools. At that time, many UW-La Crosse students transferred to either UW-Madison or the University of Minnesota-Twin Cities. However, around 2014 both UW-Madison and UM-Twin Cities ended their partnerships with UW-La Crosse. UW-La Crosse later resumed a partnership with UW-Madison; however, the more stringent requirements of the new articulation agreement make many students ineligible for the program. As a result, enrollment in the dual-degree programs dramatically decreased.

UW-La Crosse expects the proposed 4-year Engineering Physics degree track will attract a new set of students that previously discounted UW-La Crosse who are interested

[8] R. Czujko, K. Redmond, T. Sauncy and T. Olsen, "Equipping Physics Majors for the STEM Workforce," American Institute of Physics (AIP) Career Pathways Project (2014) https://www.spsnational.org/sites/default/files/files/career-resources/equipmajorsforstem.pdf

in a variety of career paths in engineering. This program will attract students interested in entering the workforce upon graduation as well as those wishing to pursue graduate studies in various engineering disciplines. The new program will especially help those students who cannot transfer to another university because of a variety of reasons (e.g., state residency, family obligations, military service, or employment). Moreover, by increasing the number of incoming students interested in engineering, the new degree option may bolster the number of students UW-La Crosse transfers to engineering partners (e.g. UW-Madison, UW-Platteville, UW-Milwaukee, UW-Stout, etc.) in the dual-degree programs in pursuit of specialty engineering degrees. The course curriculum of the Engineering Physics program will be closely aligned with the dual-degree tracks so that switching to a dual-degree specialization can, in general, be done without adding years to graduation.

Need as Suggested by Market Demand

The proposed Engineering Physics program will help UW-La Crosse advance economic prosperity in the La Crosse area and in the state of Wisconsin by addressing the needs of employers. Attracting job-producing industries to the state requires a talented pool of engineers and scientists to produce the devices of today and design the technologies of tomorrow. Such employees function as multipliers, not only developing the new products consumers want, but also creating new jobs in the process to facilitate their production and sales. With baby boomers leaving the workforce and a decreasing number of college-bound graduates supplied by Wisconsin's high schools, it is more important than ever that the universities in the state are producing graduates with the needed technical skills.

Graduates of the proposed Engineering Physics program will have a broad knowledge base in physics, chemistry, mathematics, and electronics, enabling them to work across lines of the traditional engineering disciplines (e.g., mechanics, electrical, civil, etc.). They will be well suited to work for small start-up companies, where employees need to be "Jacks and Jills of all trades," able to work independently on a project without the support of a large team of specialized engineers, or for large established companies, where the engineers often need to be moved from project to project or division to division to meet the needs of the company. Graduates will have the tools to work on a variety of projects, and as the technology and products of a company evolve, they will have the background to evolve with it. In the industries of today, there are countless examples of emerging technologies that at one time simply involved a mechanism, but now require electronics as well, or that simply involved basic circuitry, but now require knowledge of quantum mechanics, or that involved basic machining, but now require state of the art fabrication techniques. These are the types of technologies graduates of the proposed Engineering Physics program will be well suited to provide.

With a broad knowledge base, graduates of the proposed Engineering Physics program will make attractive candidates for both jobs in industry and graduate studies in

physics or a wide variety of specialized engineering disciplines. Data from the US Bureau of Labor Statistics, shown in Table 3, illustrate the expected rising demand for engineers nationally. Undergraduate degrees in specific engineering disciplines are available at a number of the comprehensive UW universities, while UW-Madison and UW-Milwaukee offer nationally recognized M.S. and PhD engineering programs; however, there are only two broad-based undergraduate Engineering Physics programs in the UWs, both of which are significantly different from this proposed program. Engineering Physics is an attractive alternative to the study of a specific engineering discipline for many students, and therefore the proposed program will help fill the growing demand for engineers.

Table 3: Number of US jobs (actual in 2021 and estimated in 2031) and estimated job openings due to growth from 2021-2031 from the *US Bureau of Labor Statistics, Employment Projections, 2021-2031*.

Engineering Discipline	Actual 2021	Estimates 2031	Openings 2031	Openings Growth (%)	Median Wage 2021 ($)
Aerospace	58,800	62,400	3,931	6.3	122,270
Chemical	26,900	30,700	4,267	13.9	105,550
Civil	318,300	340,400	23,488	6.9	88,050
Electrical	192,400	195,500	3,128	1.6	100,420
Electronics	111,400	118,000	7,080	6.0	104,820
Industrial	301,000	331,600	33,823	10.2	95,300
Materials	22,100	23,400	1,427	6.1	98,300
Mechanical	284,900	291,300	6,409	2.2	95,300

In the La Crosse area, there is a significant industrial presence providing local demand for graduates of the proposed Engineering Physics program. The La Crosse region is home to a variety of companies including Trane Company, Kwik Trip, Dairyland Power, Logistics Health, Fastenal, J.F. Brennan, Gundersen Health System, and City Brewing, providing excellent opportunities for local jobs. Initial discussions with several of these regional companies have shown strong support for UW-La Crosse's proposed Engineering Physics program anticipating that graduates would fill many of the organizations' engineering needs.

	University of Wisconsin - La Crosse Cost and Revenue Projections For B.S. in Engineering Physics					
	Items	**Projections**				
		2025	**2026**	**2027**	**2028**	**2029**
		Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**
I	**Enrollment (New Student) Headcount**	3	6	10	12	12
	Enrollment (Continuing Student) Headcount	6	13	19	27	34
	Enrollment (New Student) FTE	3	6	10	12	12
	Enrollment (Continuing Student) FTE	6	13	19	27	34
II	**Total New Credit Hours**	66	132	220	264	264
	Existing Credit Hours	132	286	418	594	748
III	**FTE of New Faculty/Instructional Staff**	0	0	0	0	0
	FTE of Current Fac/IAS	1	1.75	1.75	2	2
	FTE of New Admin Staff	0	0	0	0	0
	FTE Current Admin Staff	0.1	0.1	0.1	0.1	0.1
IV	**Revenues**					
	Tuition	$22,917	$145,138	$221,526	$297,915	$351,387
	Additional Tuition	$4,388	$11,702	$17,554	$23,405	$32,182
	Fees (indicate type)					
	Fees (indicate type)					
	Program Revenue (Grants)					
	Program Revenue - Other					
	GPR (re)allocation					
	Total Revenue	**$27,305**	**$156,840**	**$239,080**	**$321,320**	**$383,568**
V	**Expenses**					
	Salaries plus Fringes					
	Faculty Salary	$76,851	$137,179	$139,923	$163,110	$166,372
	Instuctional Academic Staff					
	Administrative and Student Support Staff	$3,654	$3,727	$3,801	$3,877	$3,955
	Other Staff					
	Fringe Faculty and Academic Staff	$31,509	$56,243	$57,368	$66,875	$68,213
	Fringe University Staff	$1,951	$1,990	$2,030	$2,070	$2,112
	Fringe Other Staff					
	Facilities and Capital Equipment					
	University buildings and space					
	Capital Equipment					
	Operations					
	Other Expenses					
	other (capstone course supplies/equipment)		$20,000	$6,000	$6,000	$20,000
	other (software licenses)	$10,000	$10,000	$12,000	$15,000	$15,000
	Total Expenses	**$123,965**	**$229,139**	**$221,122**	**$256,933**	**$275,651**
	Net Revenue	**-$96,660**	**-$72,299**	**$17,957**	**$64,387**	**$107,917**

Provost's Signature: **Date:**

10/25/24

Chief Business Officer's Signature: **Date:**

10/25/24

COST AND REVENUE PROJECTIONS NARRATIVE
UNIVERSITY OF WISCONSIN-LA CROSSE
BACHELOR OF SCIENCE IN ENGINEERING PHYSICS

PROGRAM INTRODUCTION

The proposed Engineering Physics program at UW-La Crosse will focus on the physical and mathematical fundamentals of mechanical, electrical, civil, optical, and materials engineering and will include a solid foundation in physics, mathematics, chemistry, and electronics. Graduates of this program will be able to either enter the workforce upon graduation, where they will be well prepared to tackle the cross-disciplinary engineering challenges of today, or pursue graduate studies in physics or engineering. The program requirements are comprised of 120 credits including 42 credits in general education program coursework, of which 11 credits are satisfied through courses required within the Engineering Physics curriculum, 38 credits of program support coursework, and 51 credits of core and elective physics and engineering coursework. The Engineering Physics program is designed for full-time students completing primarily face-to-face courses, with all required courses being available in a face-to-face format. Many required and elective courses, except four that will be new, are currently regularly offered at UW-La Crosse for the various Physics and dual degree Physics/Engineering programs. By Year 5 a total of 2.0 faculty FTE will be required to deliver the program.

COST REVENUE NARRATIVE

Section I – Enrollment

Program enrollment projection numbers are based upon anticipated interest by students who will enroll at UW-La Crosse to pursue the program, along with interest from current UW-La Crosse students who are likely to change their major to pursue the Engineering Physics program. It is anticipated that three new students will enroll in the first year, with moderate growth in new student enrollment over the next three years, and growth leveling out in Year 4. An 85% retention rate is assumed from Year 1 to Year 2 for new students, based on the main campus retention rates across all majors. In Year 1 we anticipate three students in sophomore status and three students in junior status, either dual degree Physics/Engineering or Physics: Applied Emphasis students, will switch to the new Engineering Physics major. In Years 2 through 5 we anticipate two students in sophomore status and two students in junior status will switch to the new Engineering Physics major. The above and following projections are detailed in Table 1.

In Year 1, three new students are expected to enroll in the Engineering Physics program, along with six current UW-La Crosse students, for a total enrollment of nine students.

In Year 2, six new students are expected to come to UW-La Crosse and enroll in the program. In Year 2, there will be nine continuing students in the program and four current UW-La Crosse students switching into the Engineering Physics program. Thus, the total enrollment for Year 2 is estimated to be 19 students. At the end of Year 2, the three students who switched into the Engineering Physics program in Year 1 as juniors will graduate with a B.S. in Engineering Physics.

In Year 3, 10 new students are expected to come to UW-La Crosse and enroll in the program. In Year 3, there will be 15 continuing students in the program along with four current UW-La Crosse students switching into the Engineering Physics program. Thus, the total enrollment for Year 3 is estimated to be 29 students. At the end of Year 3, five students will graduate with a B.S. in Engineering Physics.

In Year 4, 12 new students are expected to come to UW-La Crosse and enroll in the program. In Year 4, there will be 23 continuing students in the program along with four current UW-La Crosse students switching into the Engineering Physics program. Thus, the total enrollment for Year 4 is estimated to be 39 students. At the end of Year 4, seven students will graduate with a B.S. in Engineering Physics.

In Year 5, 12 new students are expected to come to UW-La Crosse and enroll in the program. In Year 5, there will be 30 continuing students in the program along with four current UW-La Crosse students switching into the Engineering Physics program. Thus, the total enrollment for Year 5 is estimated to be 46 students. At the end of Year 5, nine students will graduate with a B.S. in Engineering Physics.

Table 1: Five-Year Academic Degree Program Enrollment Projections

	Year 1	Year 2	Year 3	Year 4	Year 5
Freshman	3	6	10	12	12
Sophomore	3	3+2=5	5+2=7	9+2=11	10+2=12
Junior	3	3+2=5	5+2=7	7+2=9	11+2=13
Senior/Graduate		3	5	7	9
Total	9	19	29	39	46

Section II – Credit Hours

Students will complete 89 credits of STEM foundation, program core, and program elective credits within the proposed Engineering Physics program, thus for the purposes of the credit hour estimate, 89 credits will be used. Dividing 89 credits by four years, a typical full-time student will take approximately 22 credits of foundation, core, and elective courses per year. New credit hours were calculated by multiplying the number of new students each year by 22 credits. Existing credit hours were calculated by multiplying the number of continuing students each year by 22 credits.

Section III – Faculty and Staff Appointments

Many required and elective courses, except four that will be new, are currently regularly offered at UW-La Crosse for the various Physics and dual degree Physics/Engineering programs. The physics and engineering core courses represent 0.75 FTE in Year 1 and 1.25 FTE in Year 2. Only two new course sections in Year 1 will be needed for the proposed Engineering Physics program and will be covered by an existing faculty member (0.25 FTE). In Year 2, two additional new courses, Capstone Engineering I and II, will be offered for the program. These will be covered by 0.25 FTE of a current instructional line within the Physics Department being reallocated to serve the Engineering Physics program. In Year 4 it is anticipated that an additional 0.25 FTE new faculty/instructional staff will be needed to cover the additional core course sections to serve the increased enrollment. If needed, this program position will be a reallocation from another UW-La Crosse program experiencing decreased enrollment within the department, college, or university. Administrative support will be provided by current staff. By Year 5 a total of 2.0 faculty/instructional staff FTE will be required to deliver the program.

Section IV – Program Revenues

New revenues that will be generated as a result of the new B.S. in Engineering Physics. No new additional Universities of Wisconsin funding will be requested for this major.

<u>Tuition Revenues</u>

Tuition revenue assumes that all students will be enrolled full time during the academic year and that students at the freshman and sophomore level will pay a tuition rate of $8,333.28 per year and students in junior status or higher will pay a tuition rate of $9,796.08 per year. The additional $1,462.80 per year ($731.40 per semester) is necessary to support the additional expenses of delivering an engineering program. The five-year projection assumes no change in tuition. Since this is an on-campus program, students will incur segregated fees and textbook rental fees, but those have been excluded from the tuition revenue since those fees will ultimately go towards supporting traditional student services and/or activities.

Although some enrollment of Minnesota or non-resident students may occur, tuition revenue is calculated using the Wisconsin resident rate of $347.22 per credit for the anticipated total program credits (including new and existing). Tuition revenues are calculated for all students, including those students currently enrolled at UW-La Crosse with the exception of Year 1 continuing students. Additionally, students in junior or senior status will pay an the additional $1,462.80/year program-specific fee revenue.

Section V – Program Expenses

Salary and Fringe Expenses

Faculty within existing or reallocated instructional lines will deliver the proposed B.S. in Engineering Physics. Illustrated in the cost and revenue table are current related salary expenses attributable to faculty FTEs, averaging $76,851per year, and 0.10 FTE of noninstructional staff at $36,536 per year. All salaries are assumed to have a 2% inflationary rate applied. Fringe rates of 41% for faculty and 53.4% for university staff are used.

Facilities and Capital Equipment

No new facilities or capital equipment are needed to implement or sustain the proposed Engineering Physics program.

Other Expenses

There will be an annual cost associated with incorporating new software within core engineering courses to enhance the computer-aided design exposure for students. A cost of $10,000 in Years 1 and 2 has been assigned to this expense, increasing to $15,000 by Year 5 to account for increased student use and increased cost of software licenses. Furthermore, starting in Year 2 initial purchases of small equipment, supplies, and consumables will be necessary for the capstone courses to support the design, fabrication, and testing of capstone projects. In Years 3 and 4 this expense decreases as the necessary equipment is available. In Year 5 the expense will likely increase to cover the replacement and upgrading of smaller equipment.

Program costs including standard supplies and expenses, as well as marketing expenses for program promotion are covered via a general allocation to the college and department, and thus are not a direct expense of the program. Additionally, all fixed costs needed for this new program are already covered by existing programs within the college.

Section VI – Net Revenue

By Year 5, with a full cohort of 12 new students enrolling each year, it is estimated that the program will generate net revenues of $107,917. These funds will be reinvested at the institution to support new program development, student support services to further strengthen the retention and success of current students and offset unforeseen enrollment shortfalls in other programs on campus. Net revenue deficits in Years 1 and 2 will be covered through funds within the College of Science and Health.

UNIVERSITY OF WISCONSIN LA CROSSE

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October 11, 2024

Jay O. Rothman, President
Universities of Wisconsin
1720 Van Hise Hall
1220 Linden Drive
Madison, WI 53706

Dear President Rothman,

I am writing to support the University of Wisconsin-La Crosse's (UWL) proposed Bachelor of Science in Engineering Physics. The College of Science and Health has a long history offering exceptional programs meeting the needs of Wisconsin industry. The Engineering Physics program at UWL will focus on the physical and mathematical fundamentals of mechanical, electrical, civil, optical, and materials engineering and will include a solid foundation in physics, mathematics, chemistry, and electronics. Graduates of this program will be able to either enter the workforce upon graduation, where they will be well prepared to tackle the cross-disciplinary engineering challenges of today or pursue graduate studies in physics or engineering.

As noted in the proposal documents, historically, there has been a strong interest in engineering at UWL. For over 25 years, the Physics Department has partnered with engineering programs at other universities to offer dual degrees in Physics and Engineering. Student enrollment in these dual-degree programs has decreased over the past ten years due to a reduced commitment of partnering engineering schools and increased restrictions in the transfer process. The new Engineering Physics program will provide a 4-year engineering track at UWL while making use of the engineering courses, expertise, and resources already in place locally to support the dual-degree programs.

The Engineering Physics program is being developed, in part, from direct requests and feedback from local industry partners. Of particular note, Trane Technologies, headquartered in La Crosse, has spoken directly to me about their interest in providing educational opportunities for students in the program and enthusiasm for hiring graduates. The program will include capstone design courses for which the Physics Department will be seeking industrial partnerships to provide students with real-world projects that both satisfy the course requirements and are valued by the partnering company or agency.

There is university-wide support for the Bachelor of Science in Engineering Physics. The program received approval from the UWL Physics Department, the College of Science and Health, the University Curriculum and Academic Planning committees, Faculty Senate, and Chancellor James Beeby. UWL has the necessary financial and human resources in place to implement and sustain the program. Current UWL faculty have specialties in electrical engineering, optics, materials, and applied physics. It also includes state-of-the-art research facilities in the new Prairie Springs Science Center. The Physics Department is nationally recognized for its preparation of students entering the

workforce and has successfully prepared hundreds of students for upper-level engineering coursework in a variety of engineering fields as part of its dual-degree physics/engineering programs Finally, the Engineering Physics program will contribute to the UWL strategic plan through two of its pillars - advancing transformational education and increasing community engagement.

UW-La Crosse will seek accreditation by ABET for the Bachelor of Science in Engineering Physics program. The program will also undergo regular program evaluation through both college and university-wide review that includes evaluations by the Dean, Faculty Senate, and Provost. These cyclical reviews include evaluation of program curriculum, assessment of student learning, program success metrics, potential for new initiatives, and personnel/program needs. Based on review, recommendations will be generated to facilitate continual improvement.

The Engineering Physics program will be a complement to the UWL program array, present an appealing opportunity for prospective students, and contribute to workforce development in the region and in Wisconsin. I am pleased to present this program for your consideration and firmly believe that this program stands as an important addition to the Universities of Wisconsin.

Thank you for your consideration.

Sincerely,

Besty Morgan, Ph.D.
Provost and Vice Chancellor for Academic Affairs

CC:
Tracy Davidson, Associate Vice President of Academic Programs & Faculty Advancement
Jennifer Docktor, Chair, Department of Physics
Ju Kim, Dean, College of Science and Health
Sandy Grunwald, Associate Vice Chancellor for Academic Affairs

Education Committee
December 5, 2024

Item C.4.

NEW PROGRAM AUTHORIZATION (IMPLEMENTATION) MASTER OF SCIENCE IN ANIMAL AND DAIRY SCIENCES, UW-MADISON

REQUESTED ACTION

Adoption of Resolution C.4., authorizing the implementation of the Master of Science in Animal and Dairy Sciences program at the University of Wisconsin-Madison.

Resolution C.4. That, upon the recommendation of the Chancellor of the University of Wisconsin-Madison and the President of the University of Wisconsin System, the Chancellor is authorized to implement the Master of Science in Animal and Dairy Sciences program at the University of Wisconsin-Madison.

SUMMARY

The University of Wisconsin (UW)-Madison proposes establishing a Master of Science (M.S.) in Animal and Dairy Sciences within the College of Agricultural and Life Sciences. In 2020, the Department of Animal Sciences and the Department of Dairy Science merged into the Department of Animal and Dairy Sciences. This proposal represents a merger of the existing M.S. in Animal Sciences and M.S. in Dairy Science programs into a single M.S. in Animal and Dairy Sciences. A single M.S. program in the department will streamline administrative processes and provide greater clarity for students. The current separate M.S. in Animal Sciences and M.S. in Dairy Science will be subsequently discontinued. A proposal to merge the corresponding Ph.D. programs is submitted for authorization, concurrent to this request for authorization.

The Department of Animal and Dairy Sciences at UW-Madison offers one of the most comprehensive animal and dairy science graduate programs in the country. The M.S. in Animal and Dairy Sciences is a face-to-face program consisting of 30 credits. Students may focus on a range of research areas, such as nutrition, rumen microbiology, physiology, genetics, animal breeding, animal behavior, muscle biology, meat science, cell biology, animal health, immunity, and toxicology. Occupational demand for animal scientists is projected to grow faster than average. Graduates will be prepared to obtain careers in

academia, industry, government, and the nonprofit sector. Standard graduate tuition will apply.

Presenter

- Dr. Charles Lee Isbell, Jr., Provost and Vice Chancellor for Academic Affairs

BACKGROUND

This proposal is presented in accord with UW System Administrative Policy 102: Policy on University of Wisconsin System Array Management: Program Planning, Delivery, Review, and Reporting, available at https://www.wisconsin.edu/uw–policies/uw-system-administrative-policies/policy-on-university-of-wisconsin-system-array-management-program-planning-delivery-review-and-reporting-2/.

Related Policies

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

- UW System Administrative Policy 102: Policy on University of Wisconsin System Array Management: Program Planning, Delivery, Review, and Reporting

ATTACHMENTS

A) Request for Authorization to Implement
B) Cost and Revenue Projections Worksheet
C) Cost and Revenue Projections Narrative
D) Provost's Letter

REQUEST FOR AUTHORIZATION TO IMPLEMENT A MASTER OF SCIENCE IN ANIMAL AND DAIRY SCIENCES AT THE UNIVERSITY OF WISCONSIN-MADISON PREPARED BY UW-MADISON

ABSTRACT

The University of Wisconsin (UW)-Madison proposes establishing a Master of Science (M.S.) in Animal and Dairy Sciences within the College of Agricultural and Life Sciences. In 2020, the Department of Animal Sciences and the Department of Dairy Science merged into the Department of Animal and Dairy Sciences. This proposal represents a merger of the existing M.S. in Animal Sciences and M.S. in Dairy Science programs into a single M.S. in Animal and Dairy Sciences. A single M.S. program in the department will streamline administrative processes and provide greater clarity for students. The current separate M.S. in Animal Sciences and M.S. in Dairy Science will be subsequently discontinued. A proposal to merge the corresponding Ph.D. programs is submitted for authorization, concurrent to this request for authorization.

The Department of Animal and Dairy Sciences at UW-Madison offers one of the most comprehensive animal and dairy science graduate programs in the country. The M.S. in Animal and Dairy Sciences is a face-to-face program consisting of 30 credits. Students may focus on a range of research areas, such as nutrition, rumen microbiology, physiology, genetics, animal breeding, animal behavior, muscle biology, meat science, cell biology, animal health, immunity, and toxicology. Occupational demand for animal scientists is projected to grow faster than average. Graduates will be prepared to obtain careers in academia, industry, government, and the nonprofit sector. Standard graduate tuition will apply.

PROGRAM IDENTIFICATION

University Name
University of Wisconsin-Madison

Title of Proposed Academic Program
Animal and Dairy Sciences

Degree Designation
Master of Science (MS)

Proposed Classification of Instructional Program (CIP) Code
01.0901 Animal Sciences, General

Mode of Delivery
Single university with in-person delivery

Department or Functional Equivalent
Department of Animal and Dairy Sciences

College, School, or Functional Equivalent
College of Agricultural and Life Sciences

Proposed Date of Implementation
September 2025

PROGRAM INFORMATION

Overview of the Program

The M.S. in Animal and Dairy Sciences will require students to complete a minimum of 30 credits. Students will complete advanced coursework in research methods and design, and scientific writing and will select a research or coursework area of focus. Example areas of focus may include nutrition, rumen microbiology, physiology, genetics, animal breeding, animal behavior, muscle biology, meat science, cell biology, animal health, immunity, and toxicology. The minimum residence credit requirement for this program is 16 credits. The minimum graduate coursework requirement for this program is 15 credits. Courses must be agreed upon by the students' graduate committee members and approved by the Director of Graduate Studies. The overall graduate GPA requirement is 3.00.

The Animal and Dairy Sciences graduate seminar (DY SCI 900) features outside speakers, UW faculty, and graduate students in the department presenting their research or defending their thesis. This course is offered during the fall and spring semesters. Attendance is required at this seminar series by all graduate students in the department. Students in the proposed M.S. in Animal and Dairy Sciences program will be required to register for the seminar for credit, once. Although attendance is required, registering for the seminar for credit is done the semester a student presents their thesis.

The program requires all funded students to be enrolled full-time. For master's students, this means at least eight credits in the fall and spring terms and at least two credits in the summer term. The remainder of the course requirements for the M.S. in Animal and Dairy Sciences will be selected to meet the individual student's needs and

interests as determined through consultation with their major professor and members of their committee.

Students with a research focus must complete coursework, master's research, and final defense and examination. Students with a coursework focus must complete coursework, a review of the literature, and a final defense and examination. The focus areas are internal to the program and represent different pathways a student can follow to earn this degree. Focus area names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Projected Enrollments and Graduates by Year Five

Table 1 represents enrollment and graduation projections for students entering the program over the next five years. Fifty students will be enrolled in the program in Year 5. In total, by the end of Year 5, 89 students will have enrolled, and 50 students will have graduated from the program. The average student retention rate of new students is projected to be 88.7%, based on the master's degree completion rates for the M.S. in Animal Sciences and the M.S. in Dairy Science degree data for entrance cohorts from 2008-2016.

Table 1: Five-Year Enrollment and Completion Projections by Headcount

Students/Year	Year 1	Year 2	Year 3	Year 4	Year 5
New Students	11	12	13	14	15
Continuing Students	24	26	29	32	35
Total Enrollment	35	38	42	46	50
Graduating Students	8	9	10	11	12

Tuition Structure

For students enrolled in the M.S. in Animal and Dairy Sciences program, standard graduate tuition and fee rates will apply. For the academic year 2024-25, full-time graduate tuition and segregated fees for students enrolled in eight or more credits total $12,324.14 for Wisconsin residents and $25,651.02 for non-residents and international students. Of these totals, $798.31 per semester is attributable to segregated fees. There are no additional program or course fees associated with the proposed program. Some students will receive funding support from research assistantships.

Student Learning Outcomes and Program Objectives

The proposed M.S. in Animal and Dairy Sciences has the following program learning outcomes:

1. Identify and summarize ideas and concepts into a coherent biological model, research problem(s), and develop a research project that will go beyond the current boundaries of knowledge within Animal and Dairy sciences.

2. Create research and scholarship that makes a substantive contribution to the field of Animal and Dairy sciences.
3. Statistically analyze data, summarize the results in tables and/or graphs, and provide valid interpretation of the results.
4. Discuss and evaluate individual research findings in the field of animal and dairy sciences with a scientific audience in written and oral formats.
5. Convey complex topics in the field of animal and dairy sciences to a non-scholarly audience.
6. Demonstrate and apply skills important for professional development.
7. Apply ethical and professional conduct.

Program Requirements and Curriculum

Applicants must meet the minimum requirements of the Graduate School regarding English proficiency, letters of recommendation, prior degree, transcripts, and grades. This program will not require a student to submit GRE scores.

Table 2 illustrates the program curriculum for the proposed program. All students must enroll in the departmental graduate seminar (DY SCI 900) at least once per academic year and must present in the seminar at least once.

Table 2: Master of Science in Animal and Dairy Sciences Program Curriculum

Animal and Dairy Sciences Foundation		**Min. 2 credits**
AN SCI 366	Concepts in Genomics or	3 credits
AN SCI 610	Quantitative Genetics or	3 credits
DY SCI 824	Ruminant Nutritional Physiology I or	4 credits
DY SCI 825	Ruminant Nutritional Physiology II or	4 credits
DY SCI 434	Reproductive Physiology or	3 credits
AN SCI 515	Commercial Meat Processing or	2 credits
AN SCI 711	Food Biochemistry or	3 credits
DY SCI 378	Lactation Physiology	3 credits
Scientific Writing Requirement		**3 credits**
LSC 430	Communicating Science with Narrative or	3 credits
LSC 560	Scientific Writing or	3 credits
LSC 561	Writing Science for the Public or	3 credits
M&ENVTOX 801	Scientific Communication in Molecular & Environmental Toxicology	3 credits
Statistics Requirement		**4 credits**
STAT 571	Statistical Methods for Bioscience I or	4 credits
STAT 572	Statistical Methods for Bioscience II or	4 credits
ANS 865	Design and Analysis of Biological Studies	4 credits
Seminar Requirement		**1 Credit**
DY SCI 900	Graduate Seminar	1 credits

Research Requirement		**3 credits**
AN SCI 990	Research	3 credits
Elective Requirement		
Electives		**17 credits**
Total Credits		**30 credits**

All students enrolled in the M.S. in Animal and Dairy Science must complete at least three credits of research, one foundational course in animal and dairy sciences, a scientific writing course from the approved list of courses, and a statistics course from the approved list of courses. Additionally, students must work with their Primary Investigator (PI) and mentor committee to decide on the remaining coursework to determine the most relevant courses based on the student's interests, research project, and career aspirations.

Students are required to participate in an Annual Review of Academic Progress meeting with their PI each year. The annual progress report must be completed and submitted by the end of each academic year (i.e., June), but may occur at any time during the year. The department highly recommends the annual progress report be shared with the student's mentor and examination committee each year for review and input. This evaluation process provides a mechanism for the students to review their overall progress toward their degree and to identify areas of strength and weakness in their development as independent scientists. The annual progress report is a tool for the PI to ensure the student is making satisfactory research progress toward their completion of the degree. Additionally, students are encouraged to meet with their mentor and examination committee at least once per semester.

Success by the master's candidate in achieving these outcomes is formally assessed by the student's committee at the time of the final examination. An assessment by the committee for each of the above-mentioned outcomes is reported to both the student and the departmental graduate program using a standardized form.

Projected Time to Degree

The projected time to degree is two academic years.

Accreditation

This degree does not have any specialized accreditation requirements. The program will be reported to the Higher Learning Commission according to their requirements.

PROGRAM JUSTIFICATION

Rationale

The M.S. in Animal and Dairy Sciences will contribute directly to the mission of UW-Madison and the UWs by contributing to the Wisconsin Idea. It is integral to the research mission of the department and the university. Graduate students in the current programs directly perform much of the research work conducted in the department, under the guidance of faculty members. This research is driven by issues affecting the citizens of Wisconsin, thus contributing to the Wisconsin Idea. Students also serve as teaching assistants for undergraduate classes taught by the department, consequently contributing to the department's teaching mission. Students in the current programs receive academic training and practical experience to obtain careers in academia, industry, government, and the nonprofit sector. It is expected that graduates of the new M.S. in Animal and Dairy Sciences will go on to similarly fruitful careers that positively impact the state, nation, and the world.

The intention behind merging the programs is to streamline the application processes for prospective students, increase the marketability for students graduating with these degrees, and streamline the administrative processes for the degrees. Prospective students, enrolling students, and continuing students have reported confusion about the degrees due to the similarities between the two master's programs. These programs are already established separately and have demonstrated demand that will continue to increase after the merger of the programs. The degrees will seamlessly merge due to the similarities of the current programs, including requirements, faculty, and topics of research.

Institution and Universities of Wisconsin Program Array

The proposed program will replace the individual M.S. in Animal Sciences and M.S. in Dairy Science, combining them into one program. No other UW universities offer graduate programs in Animal or Dairy Sciences. The proposed CIP is 01.0901 Animal Sciences, General. This is the same CIP used by the existing M.S. in Animal Sciences program, but different from the current M.S. in Dairy Science CIP of 01.0905 Dairy Science. UW-Platteville and UW-River Falls offer bachelor's programs in these curricular areas.

Need as Suggested by Student Demand

When surveyed in December 2023, 100% of the current graduate students in the two distinct master's programs who responded were in support of the merger of the programs. Over the past 10 years (i.e., 2013-23), 87 master's students have completed either the M.S. in Animal Sciences or the M.S. in Dairy Science.

The UW-Madison graduate programs in Animal and Dairy Sciences are highly ranked. Admissions to the current programs are competitive due to the high number of applicants, as well as limits on faculty availability and grants to support graduate students.

The programs receive far more applications than can be accepted, and there are a significant number of international student applicants. Over the past five years, 174 prospective students have applied to the two separate master's programs, 60 students have been admitted, and 48 students have enrolled. The interest in the programs has remained steady with a slight increase over those five years.

Need as Suggested by Market Demand

Many of the graduates from the M.S. in Animal Science and M.S. in Dairy Science go on to complete a Ph.D. Other graduates from the master's programs go on to work in the industry and several graduates also work as extension agents. Students graduating from a program such as this would be well-positioned to meet the continued demand for employees with these skills. According to the Occupational Outlook Handbook (OOH) from the Bureau of Labor Statistics,[1] the job outlook in the period 2022-2023 for agricultural and food scientists is projected to grow by 8%, which is classified as "as fast as average". According to O*NET OnLine,[2] the projected growth for animal scientists is 5-10% for the next 10 years nationally and 13% for the state of Wisconsin. The education needed for a new hire to perform animal scientists' jobs is reported to be 52% doctoral degree and 26% master's degree.

[1] Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook. Retrieved at https://www.bls.gov/ooh/life-physical-and-social-science/agricultural-and-food-scientists.htm#tab-1 (April 2024)

[2] Occupational Information Network, O*NET On LIne, Retrieved at https://www.onetonline.org/link/details/19-1011.00 (April 2024)

University of Wisconsin-Madison
Cost and Revenue Projections For MS-Animal and Dairy Sciences

	Items	Projections				
		2025-26	2026-27	2027-28	2028-29	2029-30
		Year 1	Year 2	Year 3	Year 4	Year 5
I	**Enrollment (New Student) Headcount**	11	12	13	14	15
	Enrollment (Continuing Student) Headcount	24	26	29	32	35
	Enrollment (New Student) FTE	11	12	13	14	15
	Enrollment (Continuing Student) FTE	24	26	29	32	35
II	**Total New Credit Hours**					
	Existing Credit Hours	560	608	672	736	800
III	**FTE of New Faculty/Instructional Staff**					
	FTE of Current Fac/IAS	6	6	7	8	8
	FTE of New Admin Staff					
	FTE Current Admin Staff	4	4	5	5	5
IV	**Revenues**					
	Tuition and Seg Fees (based on $670.47/credit)	$ 375,463.20	$ 407,645.76	$ 450,555.84	$ 493,465.92	$ 536,376.00
	Program Revenue (grant funding for assistantships)	$720,530	$692,194	$891,551	$1,028,049	$1,008,972
	Tuition Remission Surcharge (for assistanships from gra	$95,040	$102,960	$114,840	$126,720	$138,600
	Program Revenue - Other					
	GPR (re)allocation	$287,834	$324,960	$360,105	$395,249	$430,394
	Total Revenue	**$1,478,868**	**$1,527,759**	**$1,817,051**	**$2,043,484**	**$2,114,342**
V	**Expenses**					
	Salaries plus Fringes					
	Faculty Salary	$660,000	$673,200	$801,108	$933,863	$952,540
	Instuctional Academic Staff					
	Administrative and Student Support Staff	$200,000	$204,000	$260,100	$265,302	$270,608
	Fringe Faculty and Academic Staff (36.5%)	$313,900	$320,178	$387,341	$437,695	$446,449
	Assistanships (from grants)	$209,928	$227,421	$253,662	$279,903	$306,144
	Facilities and Capital Equipment					
	University buildings and space					
	Capital Equipment					
	Operations					
	Other Expenses					
	Other (tuition remission for assistantships)	$95,040	$102,960	$114,840	$126,720	$138,600
	Other (please list)					
	Total Expenses	**$1,478,868**	**$1,527,759**	**$1,817,051**	**$2,043,484**	**$2,114,342**
	Net Revenue	**$0**	**$0**	**$0**	**$0**	**$0**

Provost's Signature: **Date: 11/01/2024**

Chief Business Officer's Signature: **Date: 11/01/2024**

COST AND REVENUE PROJECTIONS NARRATIVE
UNIVERSITY OF WISCONSIN-MADISON
MASTER OF SCIENCE DEGREE IN ANIMAL AND DAIRY SCIENCES

PROGRAM INTRODUCTION

The proposed Master of Science in Animal and Dairy Sciences is a face-to-face master's program of 30 credits. The Department of Animal and Dairy Sciences is proposing to merge two existing master's programs from the formerly separate Animal Sciences and Dairy Science departments into one under the current Department of Animal and Dairy Sciences. The Animal Sciences and Dairy Science Departments merged into one department four years ago in 2020 and this proposal is consistent with the merger of the departments.

COST REVENUE NARRATIVE

Section I – Enrollment

The program expects that students will enroll full-time. For planning purposes, the program committee is projecting a retention rate of 88.7%, which is the same as for the existing M.S. in Animal Sciences and M.S. in Dairy Science programs. The program committee expects all continuing students in the separate M.S. in Animal Sciences and M.S. in Dairy Science programs will transition into the new combined program for the first year. Furthermore, it is expected that cohorts of 11-15 incoming students will enroll in the first five years of the proposed program. This means that Year 1 will have an FTE count of 35 students (i.e., 11 new and 24 continuing), Year 2 an FTE of 38, Year 3 an FTE of 42, Year 4 an FTE of 46, and Year 5 an FTE of 50. The time to degree is expected to be four semesters (fall and spring). Students will enroll as full-time students, so the student FTEs match the student headcounts.

Section II – Credit Hours

The M.S. in Animal and Dairy Sciences program requires 30 credits, which will be distributed over two academic years for most students, and this is the assumption used in the budget model. The budget model assumes each full-time student will take 16 credits in the first year and 16 credits in the second year. These assumptions are the basis for credit calculations. Student credit hours are projected to be 560 in Year 1 and 800 by Year 5.

Section III – Faculty and Staff Appointments

There are currently six FTE of continuing faculty positions that will support this program. There are four current administrative staff FTE that will support this program. Initially, no new faculty or staff will be hired to support this program specifically, as individuals supporting the two distinct master's programs will transition to support the combined program. The budget spreadsheet shows a relatively small year-to-year increase in faculty and staff FTE dedicated to the program as enrollments and credit hours grow.

Section IV – Program Revenues

Tuition

For students enrolled in the M.S. in Animal and Dairy Sciences program, standard tuition and fee rates will apply. For graduate students, the 2024-25 academic year tuition rates for WI residents enrolled as full-time students are $5,363.76 per semester ($670.47 per credit) and $12,027.20 per semester ($1,503.40) for non-residents. Using the Wisconsin resident per credit tuition rate, the annual tuition revenue is projected to be approximately $375,463.20 in Year 1 and $536,376 by Year 5. The tuition revenues are conservative, given the global reputation of the program that draws substantive international student demand. There are no additional program or course fees associated with the proposed M.S. in Animal and Dairy Sciences.

Program Revenues and GPR

Currently, the graduate programs for Animal and Dairy Sciences are supported by approximately $2.9 million in grant funding, of which $500,000 to $1.0 million annually will be allocated to support the M.S. in Animal and Dairy Sciences. Extramural grant funding will be used to support research conducted by graduate students within the department. The program will also be funded by GPR reallocation from existing programs in the College of Agricultural and Life Sciences. The funding amounts were calculated by the Department Administrator based on the current funding structure. The reallocation assumes tuition revenues based on rates for Wisconsin residents. It is expected that a portion of student enrollments will be non-residents for tuition purposes and thus pay a higher tuition rate. Therefore, as tuition revenues increase, the proportion of GPR reallocated will be reduced.

Grants/Extramural Funding

Extramural funding to faculty research programs will be used to support graduate students in assistantships and is treated here as revenue to support the program. The budget model shows that approximately one-third of students will be granted assistantships. Grant funding is also the source for the tuition remission surcharge of $12,000 per assistantship to partially cover the tuition remission received by students with assistantships.

Section V – Program Expenses

There will be no new costs to the university associated with this program as resources supporting the two distinct master's programs will transition to support the combined program.

Salary and Fringe

The proposed M.S. in Animal and Dairy Sciences will be staffed by existing program faculty and staff. The current related salary expenses are six faculty FTEs, averaging $110,000 per year, and four FTEs of administrative staff at $50,000 per year. Salary projections apply a 2% inflationary rate. A fringe rate of 36.50% for faculty and academic staff is utilized and incorporated into the expenses illustrated in this section. Assistants will be funded from grants and that scenario is shown based on the assistantship rate of $26,506 per academic year.

Facilities and Capital Equipment

There are no additional expenses beyond what the department already spends on these distinct master's programs.

Other expenses include the tuition remissions that are provided for the assistantships.

Section VI – Net Revenue

The program is a traditional pooled tuition program and will be revenue neutral. Tuition revenues from students in this program will be pooled at the institution level and used to support student instruction and service. In addition, grant funding will be used to support personnel costs and graduate student support.

WISCONSIN
UNIVERSITY OF WISCONSIN-MADISON

Date: 3 October 2024

To: Jay O. Rothman, President, Universities of Wisconsin

CC: Johannes Britz, Interim Senior Vice President for Academic and Student Affairs
Tracy Davidson, Associate Vice President for Academic Affairs
Diane Treis, Director of Academic Programs and Student Learning Assessment

From: Charles Lee Isbell, Jr., Provost and Vice Chancellor for Academic Affairs

Subject: Request for Authorization to Implement: MS-Animal and Dairy Sciences

Submitted Via Email Only to: oaa@wisconsin.edu

In keeping with UW System and Board of Regents policy, I am sending you a Request for Authorization to Implement a new MS-Animal and Diary Sciences program at the University of Wisconsin–Madison.

The program is designed to meet UW–Madison's definition and standards of quality and will make a meaningful contribution to the university's mission, overall academic plan, and academic degree program array. There is university-wide support for the program, and all relevant and required governance bodies have completed their review processes. In addition, the necessary financial, capital, and human resources are in place and/or have been committed to implement and sustain the program. I thus send the proposal forward with broad university-wide support, governance approval, and my endorsement.

Contingent upon Board of Regents approval, the faculty plan to implement the new program in fall 2025 with first enrollments in the fall of 2025. We are requesting that this proposal be scheduled for consideration at the December 2024 Board of Regents meeting. Please contact Karen Mittelstadt (mittelstadt@wisc.edu) with any questions about these materials.

Attachments: Request for Authorization to Implement (Parts A and B), Cost and Revenue Projections, Cost and Revenue Projections Narrative

Copies:
Jennifer L. Mnookin, Chancellor, UW–Madison
Glenda Gillaspy, Dean and Director, College of Agricultural and Life Sciences
Jeri Barak, Associate Dean for Academic Affairs, College of Agricultural and Life Sciences
Megan Ackerman-Yost, Assistant Dean for Academic Programs and Policies, College of Agricultural and Life Sciences
William Karpus, Dean, Graduate School
Jenna Alsteen, Assistant Dean, Graduate School
Rob Cramer, Vice Chancellor for Finance and Administration
David Murphy, Associate Vice Chancellor for Finance and Administration
Allison La Tarte, Vice Provost, Data, Academic Planning & Institutional Research
Karen Mittelstadt, Institutional Academic Planner, Data, Academic Planning & Institutional Research

Education Committee
December 5, 2024

Item C.5.

NEW PROGRAM AUTHORIZATION (IMPLEMENTATION) DOCTOR OF PHILOSOPHY IN ANIMAL AND DAIRY SCIENCES, UW-MADISON

REQUESTED ACTION

Adoption of Resolution C.5., authorizing the implementation of the Doctor of Philosophy in Animal and Dairy Sciences program at the University of Wisconsin-Madison.

Resolution C.5. That, upon the recommendation of the Chancellor of the University of Wisconsin-Madison and the President of the University of Wisconsin System, the Chancellor is authorized to implement the Doctor of Philosophy in Animal and Dairy Sciences program at the University of Wisconsin-Madison.

SUMMARY

The University of Wisconsin (UW)-Madison proposes establishing a Doctor of Philosophy (Ph.D.) in Animal and Dairy Sciences within the College of Agricultural and Life Sciences. In 2020, the Department of Animal Sciences and the Department of Dairy Science merged into the Department of Animal and Dairy Sciences. This proposal represents a merger of the existing Ph.D. in Animal Sciences and Ph.D. Dairy Science programs into a single Ph.D. in Animal and Dairy Sciences. A single Ph.D. program in the department will streamline administrative processes and provide greater clarity for students. The current separate Ph.D. in Animal Sciences and Ph.D. in Dairy Science will be subsequently discontinued. A proposal to merge the corresponding M.S. programs is submitted for authorization, concurrent to this request for authorization.

The Department of Animal and Dairy Sciences at UW-Madison offers one of the most comprehensive animal and dairy science graduate programs in the U.S. and draws students from across the country and the globe. The Ph.D.in Animal and Dairy Sciences is a face-to-face program of 51 credits. Students may focus on a range of research areas, such as nutrition, rumen microbiology, physiology, genetics, animal breeding, animal behavior, muscle biology, meat science, cell biology, animal health, immunity, and toxicology. Occupational demand for animal scientists is projected to grow faster than average.

Graduates will be prepared to obtain careers in academia, industry, government, and the nonprofit sector. Standard graduate tuition will apply.

Presenter

- Dr. Charles Lee Isbell, Jr., Provost and Vice Chancellor for Academic Affairs

BACKGROUND

This proposal is presented in accord with UW System Administrative Policy 102: Policy on University of Wisconsin System Array Management: Program Planning, Delivery, Review, and Reporting, available at https://www.wisconsin.edu/uw–policies/uw-system-administrative-policies/policy-on-university-of-wisconsin-system-array-management-program-planning-delivery-review-and-reporting-2/.

Related Policies

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

- UW System Administrative Policy 102: Policy on University of Wisconsin System Array Management: Program Planning, Delivery, Review, and Reporting

ATTACHMENTS

A) Request for Authorization to Implement
B) Cost and Revenue Projections Worksheet
C) Cost and Revenue Projections Narrative
D) Provost's Letter

REQUEST FOR AUTHORIZATION TO IMPLEMENT A DOCTOR OF PHILOSOPHY DEGREE IN ANIMAL AND DAIRY SCIENCES AT THE UNIVERSITY OF WISCONSIN-MADISON PREPARED BY UW-MADISON

ABSTRACT

The University of Wisconsin (UW)-Madison proposes establishing a Doctor of Philosophy (Ph.D.) in Animal and Dairy Sciences within the College of Agricultural and Life Sciences. In 2020, the Department of Animal Sciences and the Department of Dairy Science merged into the Department of Animal and Dairy Sciences. This proposal represents a merger of the existing Ph.D. in Animal Sciences and Ph.D. Dairy Science programs into a single Ph.D. in Animal and Dairy Sciences. A single Ph.D. program in the department will streamline administrative processes and provide greater clarity for students. The current separate Ph.D. in Animal Sciences and Ph.D. in Dairy Science will be subsequently discontinued. A proposal to merge the corresponding M.S. programs is submitted for authorization, concurrent to this request for authorization.

The Department of Animal and Dairy Sciences at UW-Madison offers one of the most comprehensive animal and dairy science graduate programs in the U.S. and draws students from across the country and the globe. The Ph.D.in Animal and Dairy Sciences is a face-to-face program of 51 credits. Students may focus on a range of research areas, such as nutrition, rumen microbiology, physiology, genetics, animal breeding, animal behavior, muscle biology, meat science, cell biology, animal health, immunity, and toxicology. Occupational demand for animal scientists is projected to grow faster than average. Graduates will be prepared to obtain careers in academia, industry, government, and the nonprofit sector. Standard graduate tuition will apply.

PROGRAM IDENTIFICATION

University Name
University of Wisconsin-Madison

Title of Proposed Academic Program
Animal and Dairy Sciences

Degree Designation(s)
Doctor of Philosophy (Ph.D.)

Proposed Classification of Instructional Program (CIP) Code
01.0901 Animal Sciences, General

Mode of Delivery
Single university with in-person delivery.

Department or Functional Equivalent
Department of Animal and Dairy Sciences

College, School, or Functional Equivalent
College of Agricultural and Life Sciences

Proposed Date of Implementation
September 2025

PROGRAM INFORMATION

Overview of the Program

The Ph.D. in Animal and Dairy Sciences will require students to complete a minimum of 51 credits. Students will complete advanced coursework in research methods and design, scientific writing, and will select a research and coursework area of focus. Example areas of focus may include nutrition, rumen microbiology, physiology, genetics, animal breeding, animal behavior, muscle biology, meat science, cell biology, animal health, immunity, and toxicology. The minimum residence credit requirement for this program is 32 credits, and the minimum graduate coursework requirement for this program is 26 credits. Courses must be agreed upon by the student's graduate committee members and approved by the Director of Graduate Studies. The overall graduate GPA requirement is 3.00.

The program is designed to provide a core set of essential coursework, laying the foundation for academic, research, and career success, while allowing the flexibility for students to pursue their interests within the field. Students may select one course from a set of foundational coursework in animal and dairy sciences to ensure grounding in the field. The Animal and Dairy Sciences graduate seminar (DY SCI 900) features outside speakers, UW faculty, and graduate students in the department presenting their research or defending their thesis. This course is offered during the fall and spring semesters. Attendance is required at this seminar series by all graduate students in the department. Ph.D. students are required to register for the seminar for credit twice. Although attendance is required, registering for the seminar for credit is done the semester a student presents their dissertation.

Ph.D. students are required to successfully complete a minimum of 12 credits of research (AN SCI 990). All students in the Ph.D. in Animal and Dairy Sciences program will be required to complete a teaching practicum, usually AN SCI 799. Each student is also expected to work with their faculty advisor to identify an opportunity within the department for the student to engage in additional teaching opportunities. Finally, all students in the Ph.D. in Animal and Dairy Sciences program are required to complete a technical writing course, usually LSC 560.

The program requires all funded students to be enrolled full-time. For Ph.D. students, this means at least eight credits in the fall and spring terms and at least two credits in the summer term. The remainder of the course requirements for the Ph.D. in Animal and Dairy Sciences will be selected to meet the student's specific needs and to ensure breadth and depth as determined through consultation with their major professor and members of their committee.

This program requires a student to successfully complete a preliminary examination. The student must complete a written and an oral preliminary examination. The student is required to present an exit seminar on their dissertation research and subsequently defend the thesis orally during a final examination. A deposit of the doctoral dissertation to the Graduate School is required. The students are required to complete a doctoral minor or graduate/professional certificate.

Projected Enrollments and Graduates by Year Five

Table 1 represents enrollment and graduation projections for students entering the program over the next five years. In Year 5, it is expected that 65 students will be enrolled in the program. By the end of Year 5, 90 students will have enrolled, and 31 students will have graduated from the program. The average student retention rate is projected to be 88.1%, based on the doctoral degree completion rates for the separate Ph.D. in Animal Sciences and Ph.D. Dairy Science degree data for entrance cohorts from 2005-13.

Table 1: Five-Year Enrollment and Completion Projections by Headcount

Students/Year	Year 1	Year 2	Year 3	Year 4	Year 5
New Students	5	7	9	10	11
Continuing Students	48	46	48	51	54
Total Enrollment	53	53	57	61	65
Graduating Students	5	5	6	7	8

Tuition Structure

For students enrolled in the Ph.D. in Animal and Dairy Sciences program, standard graduate tuition and fee rates will apply. For the academic year 2024-25, full-time graduate tuition and segregated fees for students enrolled in eight or more credits total $12,324.14

for Wisconsin residents and $25,651.02 for non-residents and international students. Of these totals, $798.31 per semester is attributable to segregated fees. Some students will receive funding support from research assistantships. There are no additional programs or course fees associated with the proposed Ph.D. in Animal and Dairy Sciences.

Student Learning Outcomes and Program Objectives

The proposed Ph.D. in Animal and Dairy Sciences has five program learning outcomes:

1. Synthesize relevant scientific literature related to individual research in the field of animal and dairy sciences to justify and assess the purpose and impact of proposed research
2. Apply critical scientific thought to identify a research problem in the field of animal and dairy science, form a hypothesis, and deploy appropriate methods and tools to test that hypothesis
3. Implement rigorous, objective, and thorough statistical analysis methods and tools to collect, analyze, and interpret data related to an individual research topic in the field of animal and dairy sciences
4. Discuss and evaluate individual research findings in the field of animal and dairy sciences with a scientific audience in written and oral formats.
5. Convey complex topics in the field of animal and dairy sciences to a non-scholarly audience

Program Requirements and Curriculum

Applicants must meet the minimum requirements of the Graduate School regarding English proficiency, letters of recommendation, prior degree, transcripts, and grades. This program will not require a student to submit GRE scores. All students will enter already having completed a master's degree.

Table 2 illustrates the program curriculum for the proposed program. All students must enroll in the departmental graduate seminar (DY SCI 900) at least once per academic year and must present in the seminar at least twice, once before their preliminary examination and once after the examination. Ph.D. students must complete at least eight credits of research. Ph.D. students must complete an educational principles course (699 or 799) of at least three credits. Ph.D. students must complete a scientific writing course from the approved list of courses. Ph.D. students must complete a data analysis course from the approved list of courses. Additionally, students must work with their Primary Investigator (PI) and mentor committee to decide on the remaining coursework to determine the most relevant courses based on the student's interests, research project, and career aspirations.

Students are required to participate in an Annual Review of Academic Progress meeting with their PI each year. The annual progress report must be completed and submitted by the end of each academic year (i.e., June), but may occur at any time during the year. The department highly recommends the annual progress report be shared with

the student's mentor and examination committee each year for review and input. This evaluation process provides a mechanism for the student to review their overall progress towards their degree and to identify areas of strength and weakness in their development as an independent scientist. The annual progress report is a tool for the PI to ensure the student is making satisfactory research progress toward achievement of the degree. Additionally, the students are encouraged to meet with their mentor and examination committee at least once per semester.

Table 2: Ph.D. in Animal and Dairy Sciences Program Curriculum

Scientific Writing		**Min. 2 credits total**
LSC 430	Communicating Science with Narrative or	3 credits
LSC 560	Scientific Writing or	3 credits
LSC 561	Writing Science for the Public or	3 credits
M&ENVTOX 801	Scientific Communication in Molecular & Environmental Toxicology	2 credits
Statistics		**Min. 4 credits total**
STAT 571	Statistical Methods for Bioscience I or	4 credits
STAT 572	Statistical Methods for Bioscience II or	4 credits
ANS 865	Design and Analysis of Biological Studies	4 credits
Animal and Dairy Sciences Foundation		**Min. 2 credits total**
AN SCI 366	Concepts in Genomics or	3 credits
AN SCI 610	Quantitative Genetics or	3 credits
AN SCI/DY SCI 824	Ruminant Nutritional Physiology I or	4 credits
AN SCI/DY SCI 825	Ruminant Nutritional Physiology II or	4 credits
AN SCI/DY SCI 434	Reproductive Physiology or	3 credits
AN SCI/FOOD SCI 515	Commercial Meat Processing or	2 credits
AN SCI/FOOD SCI 711	Food Biochemistry	3 credits
Teaching		**Min. 3 credits total**
AN SCI 699	Extension Practicum or	3 credits
AN SCI 799	Teaching Practicum	3 credits
Seminar		**Min. 2 credits total**
AN SCI 900	Graduate Seminar	1 credit
Research		**Min. 8 credits total**
AN SCI 990	Research	1-12 credits
Electives		**21 or more credits**
Graduate School Breadth		**9 credits**
Total Credits		**51 credits**

The preliminary exam should be scheduled by the end of the student's fourth semester and completed by the end of the fifth semester. The exam consists of two components—a written examination prepared by each of the committee members and an

oral examination during which questions may be asked from any area including clarification of the written examination. Regular, at least annual, meetings with their committee are expected.

The student is required to present an exit seminar on their dissertation research and to subsequently defend the thesis orally. The thesis must be acceptable from both scientific and literary standpoints. The committee administers the thesis defense. Deposit of the doctoral dissertation to the Graduate School is required.

Projected Time to Degree

The typical time to degree for this program is approximately five years depending on the qualifications of the student at the time of admission.

Accreditation

This degree does not have any specialized accreditation requirements. The program will be reported to the Higher Learning Commission according to their requirements.

PROGRAM JUSTIFICATION

Rationale

The Ph.D. in Animal and Dairy Sciences will contribute directly to the mission of UW-Madison and the UWs by contributing to the Wisconsin Idea. The graduate program is integral to the teaching and research missions of the department and university. Graduate students in the program directly perform most of the research work conducted in the department, under the guidance of faculty members. This research is motivated by issues affecting the citizens of Wisconsin, thus contributing to the Wisconsin Idea. The graduate program expects that students will gain experience in teaching with a requirement of taking a teaching practicum for credit. As part of the practicum, students serve as teaching assistants for undergraduate classes taught by the department, consequently contributing to the department's teaching mission.

The intention behind merging the programs is to streamline the application processes for prospective students, increase the marketability for students graduating with these degrees, and streamline the administrative processes for the degrees. Prospective students, enrolling students, and continuing students have reported confusion about the degrees due to the similarities between the doctoral programs. The degrees will seamlessly merge due to the similarities of the current programs including requirements, faculty, and topics of research.

Institution and Universities of Wisconsin Program Array

The proposed academic degree program will replace the individual Ph.D. in Animal Sciences and Ph.D. Dairy Science into one combined program. No other UW universities

offer graduate programs in animal or dairy sciences. The proposed CIP is 01.0901 Animal Sciences, General. This is the same CIP used by the existing Ph.D. in Animal Sciences program, but different from the current Ph.D. in Dairy Science CIP of 01.0905 Dairy Science. UW-Platteville and UW-River Falls offer bachelor's programs in these curricular areas.

Need as Suggested by Student Demand

When surveyed in December 2023, 100% of the current graduate students in the two distinct Ph.D. programs who responded were in support of the merger of the programs. Over the past 10 years (i.e., 2013-23 academic year), 76 students have completed either the Ph.D. in Animal Sciences or the Ph.D. Dairy Science.

The UW-Madison graduate programs in animal and dairy sciences are highly ranked and admissions are competitive. Over the past five years, 129 prospective students have applied to the two separate Ph.D. programs, 57 students have been admitted, and 47 students have enrolled. The interest in the Ph.D. programs has remained steady over the past five years, with 8-10 new enrollments per year on average. A steady increase in interest is predicted over the next five years due to new faculty hires over the past year and the coming year.

Need as Suggested by Market Demand

Past graduates with Ph.D. degrees from the animal and dairy sciences departments have secured positions in academia, industry, and government, within the state, nationally, and internationally. Students graduating from a program such as this would be well-positioned to meet the continued demand for employees with these skills. According to the Occupational Outlook Handbook (OOH) from the Bureau of Labor Statistics (BLS),[1] the job outlook in the period 2023-2033 for agricultural and food scientists is projected to grow by 8%, which is classified as "as fast as average." Students graduating from a program such as this would be well positioned to meet continued demand for employees with these skills. According to O*NET OnLine,[2] the projected growth for animal scientists is 5-10% for the next 10 years nationally and 13% for the state of Wisconsin. The education needed for a new hire to perform animal scientists' jobs is reported to be 52% doctoral degree and 26% master's degree. While the occupational projections do not disaggregate by discipline, BLS data indicate that occupational projections for post-secondary teachers will continue to grow at the rate of 8% (faster than average) from 2023 to 2033.[3]

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[1] Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook. Retrieved at https://www.bls.gov/ooh/life-physical-and-social-science/agricultural-and-food-scientists.htm#tab-1 (April 2024)

[2] Occupational Information Network, O*NET On LIne, Retrieved at https://www.onetonline.org/link/details/19-1011.00 (April 2024)

[3] Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Postsecondary Teachers, at https://www.bls.gov/ooh/education-training-and-library/postsecondary-teachers.htm (visited October 23, 2024)

Education Committee Item C.5.

Attachment B

	University of Wisconsin-Madison Cost and Revenue Projections For PhD-Animal and Dairy Sciences					
	Items	**Projections**				
		2025-26	**2026-27**	**2027-28**	**2028-29**	**2029-30**
		Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**
I	**Enrollment (New Student) Headcount**	5	7	9	10	11
	Enrollment (Continuing Student) Headcount	48	46	48	51	54
	Enrollment (New Student) FTE	5	7	9	10	11
	Enrollment (Continuing Student) FTE	48	46	48	51	64
II	**Total New Credit Hours**					
	Existing Credit Hours (pre-dissertator)	424	424	456	488	520
	Existing Credit Hours (dissertator)	159	159	171	183	195
	Total Existing Credit Hours	583	583	627	671	715
III	**FTE of New Faculty/Instructional Staff**					
	FTE of Current Fac/IAS	4	4	4	5	5
	FTE of New Admin Staff					
	FTE Current Admin Staff	2	2	2	3	3
IV	**Revenues**					
	Tuition (based on $670.47/credit)	$ 390,884.01	$ 390,884.01	$ 420,384.69	$ 449,885.37	$ 479,386.05
	Program Revenue (grant funding for assistantships)	$701,909	$707,576	$923,125	$1,075,814	$1,072,930
	Tuition Remission Surcharge (for assistanships from grant	$190,080	$182,160	$190,080	$201,960	$253,440
	Program Revenue - Other					
	GPR (re)allocation	$200,662	$194,973	$56,246	$79,236	$189,507
	Total Revenue	**$1,483,535**	**$1,475,593**	**$1,589,836**	**$1,806,895**	**$1,995,263**
V	**Expenses**					
	Salaries plus Fringes					
	Faculty Salary	$440,000	$448,800	$457,776	$583,664	$595,338
	Instuctional Academic Staff					
	Administrative and Student Support Staff	$200,000	$204,000	$260,100	$265,302	$270,608
	Fringe Faculty and Academic Staff (36.5%)	$233,600	$238,272	$262,025	$309,873	$316,070
	Assistanships (from grants)	$419,855	$402,361	$419,855	$446,096	$559,807
	Facilities and Capital Equipment					
	University buildings and space					
	Capital Equipment					
	Operations					
	Other Expenses					
	Other (tuition remission for assistantships)	$190,080	$182,160	$190,080	$201,960	$253,440
	Other (please list)					
	Total Expenses	$1,483,535	$1,475,593	$1,589,836	$1,806,895	$1,995,263
	Net Revenue	**$0**	**$0**	**$0**	**$0**	**$0**

Provost's Signature: **Date:** 11/01/2024

Chief Business Officer's Signature: **Date:** 11/01/2024

COST AND REVENUE PROJECTIONS NARRATIVE
UNIVERSITY OF WISCONSIN-MADISON
Ph.D. IN ANIMAL AND DAIRY SCIENCES

PROGRAM INTRODUCTION

The University of Wisconsin (UW)-Madison proposes to establish a Doctor of Philosophy (Ph.D.) in Animal and Dairy Sciences. The proposed doctoral degree in Animal and Dairy Sciences is a face-to-face program of 51 credits. The Department of Animal and Dairy Sciences is proposing to merge two existing PhD programs from the former Department of Animal Sciences and Department of Dairy Science into one under the current Department of Animal and Dairy Sciences. These departments merged into one department four years ago in 2020 and this proposal is consistent with the merger of the departments.

COST REVENUE NARRATIVE

Section I – Enrollment

The program expects that students will enroll full-time. To be accepted into the Ph.D. in Animal and Dairy Sciences, students must have completed an M.S. For planning purposes, the program committee is projecting a retention rate of 88.1%, which is the same as for the existing Ph.D. in Animal Sciences and Ph.D. in Dairy Science programs. The program committee expects all continuing students in the separate Ph.D. in Animal Sciences and Ph.D. in Dairy Science programs will transition into the new combined program for the first year. Furthermore, the program committee expects cohorts of 5-11 incoming students in the first five years. This means that Year 1 will have an FTE count of 53 students (i.e., five new and 48 continuing), Year 2 an FTE of 53, Year 3 an FTE of 57, Year 4 an FTE of 61, and Year 5 an FTE of 65. The time to degree is expected to be five years. Students will enroll as full-time students, so the student FTEs match the student headcounts.

Section II – Credit Hours

The Ph.D. in Animal and Dairy Sciences program requires 51 credits, which will be distributed over five academic years for most students, and this is the assumption used in the budget model. The budget model assumes each full-time student will take 16 credits in the two years before their preliminary examination and 6 credits in the remaining academic years. For the budget calculation, it is assumed that 50% of enrolled students are in dissertator status each year, thus enrolling in six credits for the year. Student credit hours are projected to be 583 in Year 1 and 715 by Year 5.

Section III – Faculty and Staff Appointments

There are currently four FTE continuing faculty positions that will support this program. There are two current administrative staff FTE that will support this program. Initially, no new faculty or staff will be hired to support this program specifically, as individuals supporting the two distinct PhD programs will transition to support the combined program. The budget spreadsheet shows a relatively small year-to-year increase in faculty and staff FTE dedicated to the program as enrollments and credit hours grow.

Section IV – Program Revenues

Tuition

For students enrolled in the Ph.D. in Animal and Dairy Sciences program, standard tuition and fee rates will apply. For graduate students, the 2024-25 academic year tuition rates for WI residents enrolled as full-time students are $5,363.76 per semester ($670.47 per credit) and $12,027.20 per semester ($1,503.40 per credit) for non-residents. Using the Wisconsin resident per credit tuition rate, the annual tuition revenue is projected to be approximately $390,884.01 in Year 1 and $479,386.05 by Year 5. There are no additional program or course fees associated with the proposed Ph.D. in Animal and Dairy Sciences.

Program Revenues and GPR

Currently, the graduate programs for Animal and Dairy Sciences are supported by approximately $2.9 million in grant funding, of which $500,000 to $1.1 million annually will be allocated to support the Ph.D. in Animal and Dairy Sciences. Grant funding is used to support research conducted by graduate students within the department. The program will also be funded by GPR reallocation from existing programs in the College of Agricultural and Life Sciences. The funding amounts were calculated by the department administrator based on the current funding structure. The reallocation assumes tuition revenues based on rates for Wisconsin residents. It is expected that a portion of student enrollments will be non-residents for tuition purposes and thus pay a higher tuition rate. Therefore, as tuition revenues increase, the proportion of GPR reallocated will be reduced.

Grants/Extramural Funding

Extramural funding to faculty research programs will be used to support graduate students in assistantships and is treated here as revenue to support the program. The budget model shows that approximately one-third of students will be granted assistantships. Grant funding is also the source for the tuition remission surcharge of $12,000 per assistantship to partially cover the tuition remission received by students with assistantships.

S**ection V – Program Expenses**

There will be no new costs to the university associated with this program as resources supporting the two distinct PhD programs will transition to support the combined program.

Salary and Fringe

Existing program faculty and staff will staff the proposed Ph.D. in Animal and Dairy Sciences. The current related salary expenses are four faculty FTEs, averaging $110,000 per year and four FTEs of administrative staff at $50,000 per year. Salary projections apply a 2% inflationary rate. A fringe rate of 36.50% for faculty and academic staff is utilized and incorporated into the expenses illustrated in this section. Assistants will be funded from grants, based on the assistantship rate of $26,506 per academic year.

There are no additional expenses beyond what the department already spends on these distinct Ph.D. programs. Other expenses include the tuition remissions that are provided for the assistantships.

Section VI – Net Revenue

The program is a traditional pooled tuition program and will be revenue neutral. Tuition revenues from students in this program will be pooled at the institution level and used to support student instruction and service. In addition, grant funding will be used to support personnel costs and graduate student support.

WISCONSIN
UNIVERSITY OF WISCONSIN-MADISON

Date: 3 October 2024

To: Jay O. Rothman, President, Universities of Wisconsin

CC: Johannes Britz, Interim Senior Vice President for Academic and Student Affairs
Tracy Davidson, Associate Vice President for Academic Affairs
Diane Treis, Director of Academic Programs and Student Learning Assessment

From: Charles Lee Isbell, Jr., Provost and Vice Chancellor for Academic Affairs

Subject: Request for Authorization to Implement: PhD-Animal and Dairy Sciences

Submitted Via Email Only to: oaa@wisconsin.edu

In keeping with UW System and Board of Regents policy, I am sending you a Request for Authorization to Implement a new PhD-Animal and Diary Sciences program at the University of Wisconsin–Madison.

The program is designed to meet UW–Madison's definition and standards of quality and will make a meaningful contribution to the university's mission, overall academic plan, and academic degree program array. There is university-wide support for the program, and all relevant and required governance bodies have completed their review processes. In addition, the necessary financial, capital, and human resources are in place and/or have been committed to implement and sustain the program. I thus send the proposal forward with broad university-wide support, governance approval, and my endorsement.

Contingent upon Board of Regents approval, the faculty plan to implement the new program in fall 2025 with first enrollments in the fall of 2025. We are requesting that this proposal be scheduled for consideration at the December 2024 Board of Regents meeting. Please contact Karen Mittelstadt (mittelstadt@wisc.edu) with any questions about these materials.

Attachments: Request for Authorization to Implement (Parts A and B), Cost and Revenue Projections, Cost and Revenue Projections Narrative

Copies:
Jennifer L. Mnookin, Chancellor, UW–Madison
Glenda Gillaspy, Dean and Director, College of Agricultural and Life Sciences
Jeri Barak, Associate Dean for Academic Affairs, College of Agricultural and Life Sciences
Megan Ackerman-Yost, Assistant Dean for Academic Programs and Policies, College of Agricultural and Life Sciences
William Karpus, Dean, Graduate School
Jenna Alsteen, Assistant Dean, Graduate School
Rob Cramer, Vice Chancellor for Finance and Administration
David Murphy, Associate Vice Chancellor for Finance and Administration
Allison La Tarte, Vice Provost, Data, Academic Planning & Institutional Research
Karen Mittelstadt, Institutional Academic Planner, Data, Academic Planning & Institutional Research

Education Committee
December 5, 2024

Item C.6.

NEW PROGRAM AUTHORIZATION (IMPLEMENTATION) DOCTOR OF PHILOSOPHY IN SCIENCE COMMUNICATION, UW-MADISON

REQUESTED ACTION

Adoption of Resolution C.6., authorizing the implementation of the Doctor of Philosophy in Science Communication program at the University of Wisconsin-Madison.

Resolution C.6. That, upon the recommendation of the Chancellor of the University of Wisconsin-Madison and the President of the University of Wisconsin System, the Chancellor is authorized to implement the Doctor of Philosophy in Science Communication program at the University of Wisconsin-Madison.

SUMMARY

The University of Wisconsin (UW)-Madison proposes to establish a Doctor of Philosophy (Ph.D.) in Science Communication. The program will be housed in the Department of Life Sciences Communication (LSC) in the College of Agricultural and Life Sciences. This program represents an elevation of one of two versions of the Ph.D. in Mass Communications that is jointly offered with the School of Journalism and Mass Communication in the College of Letters & Science. The creation of the Ph.D. in Science Communication will provide a distinct doctoral program experience for students who intend to serve as researchers and leaders in scientific disciplines. Graduates will be prepared to successfully pursue policy, research, and science communication positions in multiple organizations, including academia. Occupational growth is projected to be faster than average. It is expected that student demand for the proposed Ph.D. in Science Communication will match or exceed current enrollments for the LSC version of the joint Ph.D. in Mass Communication given that the identity of the proposed program will more closely align with the global reputation and research foci. The department has existing resources invested in doctoral students and dissertators, and these resources will be reallocated from the Ph.D. in Mass Communications to the Ph.D. in Science Communication when it is implemented. The proposed 65-credit Ph.D. in Science Communication will be a fully face-to-face program featuring the standard graduate tuition rate.

Presenter

- Dr. Charles Lee Isbell, Jr., Provost and Vice Chancellor for Academic Affairs

BACKGROUND

This proposal is presented in accord with UW System Administrative Policy 102: Policy on University of Wisconsin System Array Management: Program Planning, Delivery, Review, and Reporting, available at https://www.wisconsin.edu/uw–policies/uw-system-administrative-policies/policy-on-university-of-wisconsin-system-array-management-program-planning-delivery-review-and-reporting-2/.

Related Policies

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

- UW System Administrative Policy 102: Policy on University of Wisconsin System Array Management: Program Planning, Delivery, Review, and Reporting

ATTACHMENTS

A) Request for Authorization to Implement
B) Cost and Revenue Projections Worksheet
C) Cost and Revenue Projections Narrative
D) Provost's Letter

REQUEST FOR AUTHORIZATION TO IMPLEMENT A DOCTOR OF PHILOSOPHY IN SCIENCE COMMUNICATION AT THE UNIVERSITY OF WISCONSIN-MADISON PREPARED BY UW-MADISON

ABSTRACT

The University of Wisconsin (UW)-Madison proposes to establish a Doctor of Philosophy (Ph.D.) in Science Communication. The program will be housed in the Department of Life Sciences Communication (LSC) in the College of Agricultural and Life Sciences. This program represents an elevation of one of two versions of the Ph.D. in Mass Communications that is jointly offered with the School of Journalism and Mass Communication in the College of Letters & Science. The creation of the Ph.D. in Science Communication will provide a distinct doctoral program experience for students who intend to serve as researchers and leaders in scientific disciplines. Graduates will be prepared to successfully pursue policy, research, and science communication positions in multiple organizations, including academia. Occupational growth is projected to be faster than average. It is expected that student demand for the proposed Ph.D. in Science Communication will match or exceed current enrollments for the LSC version of the joint Ph.D. in Mass Communication given that the identity of the proposed program will more closely align with the global reputation and research foci. The department has existing resources invested in doctoral students and dissertators, and these resources will be reallocated from the Ph.D. in Mass Communications to the Ph.D. in Science Communication when it is implemented. The proposed 65-credit Ph.D. in Science Communication will be a fully face-to-face program featuring the standard graduate tuition rate.

PROGRAM IDENTIFICATION

University Name
University of Wisconsin-Madison

Title of Proposed Academic Program
Science Communication

Degree Designation
Doctor of Philosophy (Ph.D)

Proposed Classification of Instructional Program (CIP) Code
09.0407 Science/Health/Environmental Journalism

Mode of Delivery
Single university; In-person

Department or Functional Equivalent
Department of Life Sciences Communication

College, School, or Functional Equivalent
College of Agricultural and Life Sciences

Proposed Date of Implementation
Fall 2025

PROGRAM INFORMATION

Overview of the Program

The Ph.D. in Science Communication program will train future researchers and leaders in the scientific disciplines. Graduates will be prepared to successfully pursue research and science communication positions in academia, policy, the nonprofit world, and industry. The program will require students to engage in a systematic search for answers to well-formulated and substantive questions in the science of science communication. The research process culminates in the discovery and reporting of new knowledge, often in research-practice partnerships with communities of practice, philanthropic partners, and collaborators in STEM fields.

The Ph.D. in Science Communication program will include 65 credits. The required coursework provides students with a foundation in research methods, statistics, and science communication theories to inform their graduate research. Students additionally participate in a colloquium with guest speakers in the field, where students reflect on different methodological approaches and theoretical perspectives that may be applied to their research. Students complete the remaining program credits through research credits and further coursework specific to their research area. Coursework is chosen in consultation with the student's graduate advisor.

To become a dissertator, students will submit a program proposal to the department's Graduate Curriculum Committee (GCC), with a list of completed and planned coursework, a research proposal with a clearly defined topic, a letter of support from their graduate advisor, and a confirmed list of doctoral (dissertation) committee members. Upon approval by the department's GCC, students complete preliminary exams under the guidance of their doctoral committee. Following successful completion of preliminary exams, students achieve dissertator status. The doctoral committee reviews the completed

dissertation and conducts a dissertation defense. Upon committee approval and signature, the student can deposit the dissertation and graduate.

Projected Enrollments and Graduates by Year Five

Table 1 represents enrollment and graduation projections for students entering the program over the next five years. This forecast is calculated based on the existing faculty count and adequate funding for all Ph.D. students. Currently, 13 students are enrolled in the Life Science Communication version of the Ph.D. in Mass Communication, three of whom are expected to graduate this academic year. In conversations with the remaining 10 Ph.D. students, all students indicated that they intend to switch to the new Ph.D. in Science Communication upon its approval and implementation.

The admission process will mirror that which is currently used for the joint Ph.D. in Mass Communications. Successful applicants will have a thesis-based master's degree in communication or related disciplines. However, the admissions committee may admit applicants with a demonstrated interest and background in communication research with evidence of suitable preparation. The application deadline will be December 15. Late applications will be considered on a rolling admission basis until April 15, though they may not be eligible for full funding consideration. A full cohort of four new students is expected in the second new cohort in Fall 2025. Estimates for subsequent years are based on historical admissions numbers, enrollment trends, graduation rates, and attrition rates for the Life Science Communication (LSC) version of the existing joint Ph.D. in Mass Communications.

Data from the UW-Madison Graduate School Office of Academic Analysis, Planning & Assessment shows that 70.5% of students from the entering cohorts of academic years 2010-11 through 2015-16 completed the Ph.D. in Mass Communications degree, 21.8% were not enrolled in the program and did not receive a degree, and 7.7% were still enrolled. The students who do leave the program tend to leave later in their doctoral careers, typically after the fourth year as the work of the dissertation escalates. Extrapolating from these numbers, it is projected that one student will leave the program each year beginning with Year 5.

Table 1: Five-Year Enrollment and Completion Projections by Headcount

Students/Year	Year 1	Year 2	Year 3	Year 4	Year 5
New Students	1	4	5	5	5
Continuing Students	10	8	9	11	11
Total Enrollment	11	12	14	16	16
Graduating Students	3	3	3	4	4

The Department of LSC has implemented several measures to diagnose what may inhibit student progress toward completion of their degree in real-time and to intervene to help students succeed. This includes annual progress reports to help track satisfactory progress so faculty can catch issues with any students early. Additionally, faculty and staff regularly communicate with students about expectations to consult with their advisors before enrolling every semester.

Finally, the department has an “All Hands'' meeting every semester. The meeting focuses on hot topics in science communication and serves as a professional development opportunity for graduate students. The Department of LSC also has offered regular social events, such as the new student orientation and the new year receptions to build community and help with retention.

Overall, the department expects total enrollment in the Ph.D. in Science Communication to start with around 11 students, reach approximately 16 students by Year 4, and hold steady at 15-17 students. In a typical year, it is expected that three students will graduate, and 3-5 new students will join the program. In sum, over the first five-year period, it is projected that 20 new students will enroll in the Ph.D. in Science Communication and 17 students will graduate with the degree.

Tuition Structure

For students enrolled in the Ph.D. in Science Communication, standard graduate tuition and fee rates will apply. For the academic year 2024-25, full-time graduate tuition and segregated fees for students enrolled in eight or more credits total $12,324.14 for Wisconsin residents and $25,651.02 for non-residents and international students. Of these totals, $798.31 per semester is attributable to segregated fees. Some students will receive funding support from research assistantships. There are no additional program or course fees associated with the proposed Ph.D. in Science Communication. Some students will receive funding support from research assistantships.

Student Learning Outcomes and Program Objectives

The proposed Ph.D. in Science Communication has seven program learning outcomes:

1. Articulate research problems, potentials, and limits with respect to theory, knowledge, or practice within science communication.
2. Formulate ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge within science communication.
3. Create research or scholarship that makes a substantive contribution.
4. Demonstrate breadth within their learning experiences.
5. Advance contributions of science communication to society.
6. Communicate complex ideas in a clear and understandable manner.
7. Apply ethical and professional conduct in research.

Upon completion of the program, it is expected that students will have comprehensive and intensive knowledge of science communication theories and research methods that will make them sought after as tenure-track faculty, postdoctoral scholars, or in other career areas, such as foundations, agencies, and private companies. Beyond their academic content training, students will gain skill sets to be effective communicators and to conduct themselves ethically and professionally.

Most graduates from the LSC version of the existing Ph.D. in Mass Communications pursue jobs in academia and many currently hold tenure-track positions at top-ranked universities. Similar outcomes are expected for graduates of the proposed Ph.D. in Science Communication program. Graduates from the existing program have typically been hired into science communication-specific positions in communication, agricultural leadership, or education; faculty positions in disciplinary clusters with aligned STEM fields; or postdoctoral positions in science and risk communication. Other graduates have gone on to careers in federal agencies, consulting, grant writing, market research, and editing. The program will prepare students for post-graduation plans by encouraging engagement in research, teaching, service, and building their portfolios during their time in the graduate program.

Program Requirements and Curriculum

Table 2 illustrates the program curriculum for the Ph.D. in Science Communication. The program requires a minimum of 65 credits in graduate-level coursework, selected in consultation with the graduate advisor and approved by the GCC through the program proposal process.

Table 2: Doctor of Philosophy in Science Communication Program Curriculum

Academic degree program course requirements:	
Colloquium	
LSC 700 Colloquium in Life Sciences Communication	**1 credit(s)**
Science Communication Theory (select one)	**3 credit(s)**
LSC 720 Introduction to Communication Theory & Research	
LSC 902 Public Opinion of Life Science Issues	
Research Methods	**3-4 credit(s)**
Course to be selected in consultation with an advisor. Examples include COM ARTS 762, ED PSYCH/COUN PSY/CURRIC/ED POL/ELPA/RP & SE 719, ED PSYCH 762, ED PSYCH/COUN PSY/CURRIC/ED POL/ELPA/RP & SE 788, ED PSYCH/ELPA 827, ED PSYCH 963, JOURN 812, JOURN/LSC 811, SOC/C&E SOC 750, SOC 751, or SOC 752.	
Graduate Level Statistics	**3-4 credit(s)**
Course to be selected in consultation with an advisor. Examples include ED PSYCH 760, ED PSYCH 761, ED PSYCH 763, ED PSYCH 773, ED PSYCH 960, ED PSYCH 964, ED PSYCH 965, LSC 660, POLI SCI 812, or POLI SCI 813.	
Electives Based on Dissertation Topic & Goals	**55 credit(s)**

Courses to be selected to meet the student's specific educational needs as determined through consultation with their advisor and members of their doctoral committee. Examples include: LSC 560, LSC 561, LSC/JOURN/COMM ARTS 617, LSC 625, LSC 660, LSC 811, LSC/JOURN 823, LSC 835, LSC 850, or LSC 912.	
Total Credits	**65 credit(s)**

Regardless of focus or committee, all Department of LSC doctoral students are required to complete at least one overview course in science communication theory, one research methods course, and one statistics course. Attendance in the department colloquia (LSC 700) is required for new graduate students. Students may count up to three colloquia (including one semester of LSC 700) toward the 65-credit requirement for the program. For the electives, students are highly recommended to take life science communication courses dedicated to various aspects of science communication, including LSC 835 Strategic Science Communication, LSC 850 Visual Science Communication, and LSC 912 Public Understanding of Politicized Science. Students can select elective courses from across the university based on their academic and career goals, such as environmental studies, statistics, political science, and educational psychology. In consultation with their advisor and members of their doctoral committee, students select the remainder of coursework needed to meet program completion requirements. Courses will be selected by students to meet specific educational needs as determined through consultation with their advisor and members of their doctoral committee.

Students must earn a cumulative grade point average of 3.5 or higher to graduate. Courses in which a student earns a grade below B do not count toward the 65-credit minimum, but they do count in the cumulative GPA. The 65 credits in the program can include coursework taken as a master's student as long as the GCC approves the courses as appropriate for the focus of the degree program. Course credit from master's programs can only be transferred as electives; students cannot use transfer credit to fulfill required statistics, theory, or methods courses.

The Department of LSC requires a program proposal where students outline the curriculum for their program at least one semester before taking preliminary exams. The program proposal contains a list of five faculty who have agreed to serve on the student's doctoral committee, the student's long-range research goals, and the coursework that has been taken and is yet to be taken in the doctoral program. Program proposals are expected to demonstrate breadth and depth, and a coherent program designed to provide substantive expertise in the student's chosen area of study in science communication and related fields. To monitor student progress and success, every Department of LSC graduate student also completes an annual progress report in consultation with their advisor. Reports are reviewed by the GCC, which provides written feedback to each student and their advisor noting areas of concern or reaffirming satisfactory progress in the program.

Students are also required to complete training in the responsible conduct of research. Additional program requirements include:

- Training in the responsible conduct of research;
- Approval of the Ph.D. program proposal by the GCC;
- Passing the preliminary examination (Note: In accordance with graduate school's rules, students are required to complete 32 credits minimum as registered graduate students on the UW-Madison campus before they achieve dissertator status); and
- Successful oral defense of a dissertation before the student's five-member doctoral committee.

Collaborative Nature of the Program

This program will not rely on internal or external collaborations, nor are inter-institutional agreements anticipated.

Projected Time to Degree

The projected time to degree is five years.

Accreditation

The proposed program does not require programmatic/specialized accreditation. The program will be included under UW-Madison's institutional accreditation through the Higher Learning Commission.

PROGRAM JUSTIFICATION

Rationale

Currently, the Ph.D. in Mass Communication is jointly administered by the Department of Life Science Communication in the College of Agriculture and Life Sciences and the School of Journalism and Mass Communication in the College of Letters and Science, with each academic unit offering a version of the program. Approximately 90 students are enrolled in the program. Both versions of the Ph.D. in Mass Communication are well regarded and have an outstanding international reputation. However, the two academic units have different identities and foci, which result in a different program experience for students depending on which departmental home they choose for the Ph.D. program. Findings of the most recent ten-year academic program review of the joint Ph.D. in Mass Communications concluded that the program should be split into two separate programs. The proposed Ph.D. in Science Communication represents a separation and elevation of the Life Communication Science version to a standalone program. With its implementation the university will offer a more specialized doctoral-level program in science communication, while maintaining the Ph.D. in Mass Communications as a distinct program.

The unique identity of science communication as a field of education and research positions the Department of LSC extremely well to expand its global leadership in training leaders in science and risk communication and to establish UW-Madison as the premier Ph.D. program in this area. With rapidly developing issues at the interface of science and society—climate change and biodiversity, new genome editing techniques, Artificial Intelligence (AI), and nanotechnology—the field of science communication is receiving increased attention not only from within academia but also from industry and the nonprofit world.

The Department of LSC has also been a global leader in curricular innovation at the center of this emergence of science communication as an independent field, particularly in the last two decades. LSC has created an undergraduate certificate in science communication and a graduate certificate in science communication. Both certificates have been met with enthusiastic student interest since their creation. The department has attracted and will continue to attract outstanding prospective Ph.D. students interested in science communication issues, broadly construed.

Institution and Universities of Wisconsin Program Array

Currently, three Ph.D. programs at UW-Madison tackle issues related to communication. These include the Ph.D. in Communication Sciences and Disorders, the Ph.D. in Communication Arts, and the Ph.D. in Mass Communications. Each has specific and distinct areas of focus from the proposed Ph.D. in Science Communication.

The Ph.D. in Communication Sciences and Disorders provides categorically different training than the proposed program. The Communication Sciences and Disorders program provides training in audiology, speech-language pathology, hearing science, language science, and speech science. This training in communication processes and communicative disorders will have little to no overlap with the Ph.D. in Science Communication.

The Ph.D. in Communication Arts program trains students for a broad range of careers in the study and research of communication and has three areas of study: communication science; film, media, and cultural studies; and rhetoric, politics, and culture. The proposed Ph.D. in Science Communication has a narrower focus on science and risk communication at the intersection of science, media, and society, and the study of how science is communicated and understood by the public.

The Ph.D. in Mass Communication will continue to serve students who wish to work on issues ranging from the changing media landscape to the role of media in politics. The proposed Ph.D. in Science Communication will focus primarily on science communications, a specific subfield within communication.

The College of Letters & Science and its School of Journalism and Mass Communication support the creation of a distinct Ph.D. in Science Communication and also

expect to hold steady enrollments in the continuing Ph.D. in Mass Communications program. Currently, 83 students are enrolled in the School of Journalism and Mass Communication version of the program.

Among the UWs, there are no undergraduate or graduate degree programs assigned the Classification of Instructional Program (CIP) code of 09.0407, Science/Health/Environmental Journalism. The only comparable program is UW-Milwaukee's Ph.D. in Communication. This program has co-existed with the UW-Madison communications-related programs for many years.

Need as Suggested by Student Demand

Given the long-standing existence of the LSC version of the Ph.D. in Mass Communications, evidence of the potential demand for the proposed program is well-established and consistent. It is expected that student demand for the Ph.D. in Science Communication will match or exceed the demand for the LSC version of the joint Ph.D. in Mass Communications. Student demand for the existing program exceeds seats and resources (e.g., faculty resources, funding sources), the department must make a conscious effort each admission cycle to balance admission offers and anticipated acceptance rates with the ability to fund the students. Student demand that is more than available seats/resources is expected to persist with the new program. It is expected the new program will continue to enroll 3-4 students per year, which is a steady state.

Although precise numbers are difficult to provide due to the joint program administrative structure, over the past five years, the LSC version of the Ph.D. in Mass Communications has enrolled approximately 12 total students in the program each year, consistently, with incoming student cohorts range from 2-5 students each year. Application numbers for the joint Ph.D. in Mass Communications have grown from 56 in 2018-19 to 99 in 2022-23. The department has rightsized its Ph.D. program over time to ensure that the department has the capacity to support all admitted students through teaching, research, and project assistantships.

Need as Suggested by Market Demand

The proposed Ph.D. in Science Communication will respond to the same market demand as the current LSC version of the joint Ph.D. in Mass Communications. It is expected that this proposed program will target this demand closely, with graduates more transparently meeting the expectations of academic institutions and industries looking to fill science and risk communication gaps.

A 2020 report titled "Science Communication Research: An Empirical Field Analysis" summarized the emergence of science communication as a field:

> The number of science communication papers in academic journals has increased significantly over the past four decades, especially research studies, and particularly in the last 15 years. The number of countries and institutions contributing papers is also increasing, and more papers are based on international and national collaborations. Many experts see both increases in the combination of a sign for Science Communication Research to have matured to a stage where it is now its own academic field.[1]

The same report acknowledged the LSC department's global scholarly leadership in the field of science communication, by noting, "Overall the University of Wisconsin-Madison in the USA topped the rankings as the most prolific contributor of all papers…including research studies and systematic reviews." The university's dominance was not surprising, said one of the experts, given it is one of the oldest and most active science communication programs in the world.

Most current doctoral graduates from the LSC version of the Ph.D. in Mass Communications pursue jobs in academia. Given the growth of the field, it is anticipated that opportunities will grow for graduates of the proposed Ph.D. in Science Communication. Past graduates hold tenure-track positions at many top-ranked universities. They are typically hired into science communication-specific positions in communication (e.g., science or risk communication), agricultural leadership or education positions, into faculty clusters with aligned STEM fields (e.g., water quality), or postdoctoral positions in science and risk communication. Graduates are currently holding or have held postdoctoral and faculty positions at many R-1 universities, including the University of Illinois-Urbana Champaign, Dartmouth College, the University of Georgia, the University of Pennsylvania, the University of Nebraska-Lincoln, the University of Utah, Colorado State University, North Carolina State University, Iowa State University, the University of Iowa, and many others. Graduates also hold faculty appointments in Singapore, Taiwan, China, and Korea. Other graduates have gone on to careers in federal agencies, consulting, grant writing, market research, and editing.

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[1] Gerber, A. et al. (2020): Science Communication Research: An Empirical Field Analysis. ISBN 978-3-947540-02-0. Retrieved from https://sciencecomm.science/app/uploads/2020/05/Research_Field_Analysis__Science_Communication__2020__public.pdf

Data from the Bureau of Labor Statistics Occupational Outlook Handbook[2] projects that overall employment for postsecondary teachers is expected to grow 8% from 2022-32, which is faster than the average for all occupations. Employment for postsecondary communications teachers is projected to grow 3%[3] from 2022-32, which is on par with the expected 3% growth for all occupations across that same period. Employment for postsecondary agricultural sciences communication teachers is projected to grow by 5% and to grow by 4% for postsecondary environmental science communication teachers. This data combined with the growth in the science communication field indicates a healthy market demand for students completing the Ph.D. in Science Communication from UW-Madison.

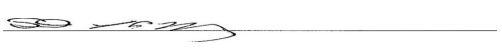
[2] Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook. Retrieved at https://www.bls.gov/ooh/education-training-and-library/postsecondary-teachers.htm#tab-1 (April 2024)

[3] Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook. Retrieved at https://www.bls.gov/ooh/education-training-and-library/postsecondary-teachers.htm#tab-6 (April 2024)

	University of Wisconsin-Madison Cost and Revenue Projections For PhD-Science Communication					
	Items	**Projections**				
		2025-26	**2026-27**	**2027-28**	**2028-29**	**2029-30**
		Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**
I	**Enrollment (New Student) Headcount**	1	4	5	5	5
	Enrollment (Continuing Student) Headcount	10	8	9	11	11
	Enrollment (New Student) FTE	1	4	5	5	5
	Enrollment (Continuing Student) FTE	10	8	9	11	11
II	**Total New Credit Hours**					
	Existing Credit Hours	156	162	194	216	206
III	**FTE of New Faculty/Instructional Staff**					
	FTE of Current Fac/IAS	3	3	3	3	3
	FTE of New Admin Staff					
	FTE Current Admin Staff	2	2	2	2	2
IV	**Revenues**					
	Tuition (based on $670.47/credit)	$ 104,593	$ 108,616	$ 130,071	$ 144,822	$ 138,117
	Program Revenue (grant funding for RA support)	$732,010	$714,737	$741,217	$782,442	$794,900
	Tuition Remission Surcharge (for RA from grants)	$120,000	$96,000	$108,000	$132,000	$132,000
	Program Revenue - Other					
	GPR (re)allocation					
	Total Revenue	**$956,603**	**$919,353**	**$979,288**	**$1,059,264**	**$1,065,017**
V	**Expenses**					
	Salaries plus Fringes					
	Faculty Salary	$330,000	$336,600	$343,332	$350,199	$357,203
	Instuctional Academic Staff					
	Administrative and Student Support Staff	$100,000	$102,000	$104,040	$106,121	$108,243
	Fringe Faculty and Academic Staff (36.5%)	$156,950	$160,089	$163,291	$166,557	$169,888
	Research Assistantships (from grants)	$265,060	$212,048	$238,554	$291,566	$291,566
	Facilities and Capital Equipment					
	University buildings and space					
	Capital Equipment					
	Operations					
	Other Expenses					
	Other (tuition remission for RA appointments)	$104,593	$108,616	$130,071	$144,822	$138,117
	Other (please list)					
	Total Expenses	**$956,603**	**$919,353**	**$979,288**	**$1,059,264**	**$1,065,016**
	Net Revenue	**$0**	**$0**	**$0**	**$0**	**$0**

Provost's Signature: **Date:** 11/01/2024

Chief Business Officer's Signature: **Date:** 11/01/2024



COST AND REVENUE PROJECTIONS NARRATIVE
UNIVERSITY OF WISCONSIN-MADISON
DOCTOR OF PHILOSOPHY IN SCIENCE COMMUNICATION

PROGRAM INTRODUCTION

The University of Wisconsin (UW)-Madison proposes to establish a Doctor of Philosophy (Ph.D.) in Science Communication. The program will be housed in the Department of Life Sciences Communication (LSC) in the College of Agricultural and Life Sciences. This program represents an elevation of one of two program versions offered as part of the Ph.D. Mass Communications program that is offered jointly with the School of Journalism and Mass Communication in the College of Letters & Science for many years. The creation of the Ph.D. in Science Communication will provide a distinct doctoral program experience for students who intend to serve as researchers and leaders in the scientific disciplines.

The program will be delivered in an in-person format. Students will pay standard graduate tuition and segregated fees. The costs and revenues of the proposed program will be managed as part of the UW–Madison instructional/tuition pool (i.e., Fund 101). Tuition revenues will be allocated from the pool to the College of Agricultural and Life Sciences to support the faculty and staff for instructional, advising, and administration within the regular budget allocation process. This program is funded and resourced by reallocating LSC staff and faculty resources from the joint Ph.D. in Mass Communications to the new Ph.D. in Science Communication.

COST REVENUE NARRATIVE

Section I – Enrollment

It is expected that total enrollment in the Ph.D. in Science Communication will start with 11 students in Year 1, reach approximately 16 students by Year 5, and hold steady at around 15-17 students each year. In a typical year, it is expected that three students will graduate, and 3-5 new students will join the program. Based on attrition rates for the existing LSC version of the joint Ph.D. in Mass Communications, it is anticipated that one student will leave the program in a five-year period. In sum, over the first five-year period, it is projected that 10 continuing students will move from the existing Ph.D. in Mass Communications to the new Ph.D. in Science Communication, 20 new students will enroll in the Ph.D. in Science Communication, and 17 students will graduate with the degree. The expected time to degree is five years. Students will enroll as full-time students, so the student FTEs match the student headcounts.

Section II – Credit Hours

The program is designed to be completed in five years and requires a minimum of 65 credits. Students will generally complete coursework during their first three years of the program and take their preliminary exam at the end of their third year. They will then complete research and writing for their dissertation during their fourth and fifth years. The credit hour projections assume students will enroll as full-time students, which is eight credits per semester during the fall and spring semesters while they are pre-dissertators, and three credits per semester once they transition to dissertator status.

It is projected that the Ph.D. in Science Communication will generate 156 student credit hours in Year 1 of the program and 206 student credit hours by Year 5. This projection assumes that pre-dissertators will generate 16 credit hours per academic year and dissertators will generate six credit hours per academic year. It is also based on the assumption that there will be nine pre-dissertators and two dissertators in Year 1 of the program, and by Year 5 there will be 11 pre-dissertators and five dissertators. Students will complete coursework from the Department of Life Sciences Communication, as well as other departments across campus.

The ten students who will join the program in Year 1 are counted as existing credit hours because these are the students assumed to move from the LSC version of the Ph.D. in Mass Communications to the new Ph.D. in Science Communication. Students who join the program in Years 2-5 are counted as new credit hours.

Section III – Faculty and Staff Appointments

Current faculty, instructors, and staff from the Department of Life Sciences Communication will teach required courses and are expected to accommodate students in the proposed program with current staffing levels for the proposed enrollment numbers. The department will contribute three FTEs of faculty and two FTEs of non-instructional staff who will directly provide services for the program's equivalent offering(s). It is not anticipated there will be a need for new faculty, instructors, or staff during the first year of the program, although new tenure lines will be needed for the program to grow beyond the projection. The College of Agricultural and Life Sciences will be able to support the new program at the proposed level by reallocating resources from the Ph.D. in Mass Communications to the proposed Ph.D. in Science Communication. However, if the number of admitted students exceeds the current capacity, the hiring of new faculty will be necessary.

Section IV – Program Revenues

Students in the proposed Ph.D. in Science Communication will pay standard graduate tuition and segregated fees. The costs and revenues of the proposed program will be managed as part of the UW–Madison instructional/tuition pool (i.e., Fund 101). Tuition revenues will be allocated from the pool to the College of Agricultural and Life

Sciences to support the faculty and staff for instruction, advising, and administration within the regular budget allocation process.

Tuition

To maintain full-time status, each student will enroll in approximately 15 to 18 credits per year during their first three years in the program and six credits per year during years four and five. Tuition revenues are estimated assuming the headcount enrollments are approximately half Wisconsin residents and half non-residents.

For pre-dissertators, the 2024-25 academic year tuition rates for WI residents enrolled as full-time students are $5,363.76 per semester ($670.47 per credit) and $12,027.20 per semester ($1,503.40 per credit) for non-residents. These do not include segregated fees. For dissertators, the 2024-25 academic year tuition rate for Wisconsin residents enrolled in three credits is $2,011.41 per semester ($670.47 per credit) and $4,510.20 per semester ($1,503.40 per credit) for non-residents.

Tuition projections are based on the mix of pre-dissertators and dissertators and are calculated at the Wisconsin resident per credit rate of tuition. Thus, the annual tuition revenue is projected to be approximately $104,593 in Year 1 and $138.117 by Year 5. It is anticipated that tuition revenue will be remitted because students will hold research assistantships. There are no course or program fees.

General Program Revenues (GPR)

It is anticipated that the program will be revenue neutral. At UW–Madison, tuition revenues are pooled with state GPR funds and certain other revenues (e.g., indirect costs, ancillary revenues) at the institution level. Funds are then apportioned to each school/college. The College of Agriculture and Life Sciences funds may be used and reallocated to fund the delivery of the program, though current budget projections indicate this will not be necessary.

Grants/Extramural Funding

Extramural funding to faculty research programs will be used to support graduate students in research assistantships (RAs) and is treated here as revenue to support the program. The budget model shows that students will be appointed as research assistantships. Grant funding is also the source for the tuition remission surcharge of $12,000 per research assistantship to partially cover the tuition remission received by students with research assistantships.

Section V – Program Expenses

Salary and Fringe

The proposed Ph.D. in Science Communication will be staffed by existing program faculty and staff. The current related salary expenses are three FTE faculty, averaging $110,000 per year, and 2 FTE of non-instructional staff at $50,000 per year. Salary projections apply a 2% inflationary rate. A fringe rate of 36.50% for faculty and academic staff is utilized and incorporated into the expenses illustrated in this section. Research assistants will be funded from grants and that scenario is shown based on the research assistantship rate of $26,506 per academic year.

Facilities and Capital Equipment

The program will use existing facilities of the university for instruction in the department's programs, which are operated and maintained through the department's budget. No additional expenses, facilities, or capital equipment are required for the program.

Other Expenses

Expenses for supplies, marketing, program materials, and charges for university services are expected to remain at the program's current level beyond the initial year. However, for Year 1, CALS will augment necessary resources for marketing and advertising the new program. Other expenses include the tuition remissions that are provided for the research assistantships.

Section VI – Net Revenue

The Ph.D. in Science Communication is a traditional pooled-tuition program and will be revenue neutral. Tuition revenues from students in this program will be pooled at the institution level and used to support student instruction and service. This program is also funded by reallocating staff and faculty resources from the LSC version of the Ph.D. in Mass Communications to the new Ph.D. in Science Communication. Graduate students have funding support via assistantships through faculty grant money and department GPR dollars. Overall, the program will be revenue neutral.

WISCONSIN
UNIVERSITY OF WISCONSIN-MADISON

Date: 3 October 2024

To: Jay O. Rothman, President, Universities of Wisconsin

CC: Johannes Britz, Interim Senior Vice President for Academic and Student Affairs
Tracy Davidson, Associate Vice President for Academic Affairs
Diane Treis, Director of Academic Programs and Student Learning Assessment

From: Charles Lee Isbell, Jr., Provost and Vice Chancellor for Academic Affairs

Subject: Request for Authorization to Implement: PhD-Science Communication

Submitted Via Email Only to: oaa@wisconsin.edu

In keeping with UW System and Board of Regents policy, I am sending you a Request for Authorization to Implement a new PhD-Science Communication program at the University of Wisconsin–Madison.

The program is designed to meet UW–Madison's definition and standards of quality and will make a meaningful contribution to the university's mission, overall academic plan, and academic degree program array. There is university-wide support for the program, and all relevant and required governance bodies have completed their review processes. In addition, the necessary financial, capital, and human resources are in place and/or have been committed to implement and sustain the program. I thus send the proposal forward with broad university-wide support, governance approval, and my endorsement.

Contingent upon Board of Regents approval, the faculty plan to implement the new program in fall 2025 with first enrollments in the fall of 2025. We are requesting that this proposal be scheduled for consideration at the December 2024 Board of Regents meeting. Please contact Karen Mittelstadt (mittelstadt@wisc.edu) with any questions about these materials.

Attachments: Request for Authorization to Implement (Parts A and B), Cost and Revenue Projections, Cost and Revenue Projections Narrative

Copies:
Jennifer L. Mnookin, Chancellor, UW–Madison
Glenda Gillaspy, Dean and Director, College of Agricultural and Life Sciences
Jeri Barak, Associate Dean for Academic Affairs, College of Agricultural and Life Sciences
Megan Ackerman-Yost, Assistant Dean for Academic Programs and Policies, College of Agricultural and Life Sciences
William Karpus, Dean, Graduate School
Jenna Alsteen, Assistant Dean, Graduate School
Rob Cramer, Vice Chancellor for Finance and Administration
David Murphy, Associate Vice Chancellor for Finance and Administration
Allison La Tarte, Vice Provost, Data, Academic Planning & Institutional Research
Karen Mittelstadt, Institutional Academic Planner, Data, Academic Planning & Institutional Research

Education Committee
December 5, 2024

Item C.7.

NEW PROGRAM AUTHORIZATION (IMPLEMENTATION) BACHELOR OF SCIENCE IN ENGINEERING, UNIVERSITY OF WISCONSIN–MILWAUKEE

REQUESTED ACTION

Adoption of Resolution C.7., authorizing the implementation of the Bachelor of Science in Engineering at the University of Wisconsin–Milwaukee.

Resolution C.7. That, upon the recommendation of the Chancellor of the University of Wisconsin–Milwaukee and the President of the University of Wisconsin System, the Chancellor is authorized to implement the Bachelor of Science in Engineering program at the University of Wisconsin–Milwaukee.

SUMMARY

The University of Wisconsin (UW)–Milwaukee proposes to establish a Bachelor of Science in Engineering (Engineering, B.S.) as a new degree program offered by the Department of Industrial and Manufacturing Engineering. The proposed Engineering, B.S. will provide a flexible engineering degree option that includes a wider range of engineering disciplines and specialized interdisciplinary tracks that students may choose based on their educational interests and career goals. These specializations may be driven by emerging cross-disciplinary technical fields (e.g., advanced manufacturing, connected systems, emerging technologies such as assistive artificial intelligence (AI), or the use of AI in manufacturing) or by the desire to have an immersive interdisciplinary experience (e.g., engineering & pre-medicine, engineering & entrepreneurship). This major is designed to attract students from three audiences: students interested in multiple areas of study; transfer students, including those with A.A.S. degrees in engineering technology; and students who have some college credit but no credential.

The proposed Engineering, B.S. will require 120 credits, consisting of 24 credits in core engineering coursework (including a 3-credit capstone), 21 credits in engineering technical electives including 12 credits in an emphasis area, 18 credits in math, 12 credits of natural science, 15 credits to meet UW-Milwaukee's GER Arts, Humanities, and Social Science distribution requirements, and 30 credits of free electives for interdisciplinary area of

study. The curriculum for this program will be built utilizing existing courses currently offered by UW-Milwaukee. Engineering, B.S. graduates will have diverse career opportunities and can pursue roles in research and development, project management, consulting, entrepreneurship, and engineering positions where interdisciplinary skills are highly valued. Occupational employment projections indicate continued demand for engineers. The U.S. Bureau of Labor Statistics predicts a faster than average growth rate for all engineering occupations (ranging 6-12%), and the Wisconsin Department of Workforce Development projects an 11.4% employment growth in engineering occupations, which is much faster than the 6.3% average growth rate for all occupations in the state.

Presenter

- Dr. Andrew P. Daire, Provost and Vice Chancellor for Academic Affairs

BACKGROUND

This proposal is presented in accord with UW System Administrative Policy 102: Policy on University of Wisconsin System Array Management: Program Planning, Delivery, Review, and Reporting (Revised August 2023), available at https://www.wisconsin.edu/uw-policies/uw-system-administrative-policies/policy-on-university-of-wisconsin-system-array-management-program-planning-delivery-review-and-reporting-2/.

Related Policies

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

- UW System Administrative Policy 102: Policy on University of Wisconsin System Array Management: Program Planning, Delivery, Review, and Reporting

ATTACHMENTS

A) Request for Authorization to Implement
B) Cost and Revenue Projections Worksheet
C) Cost and Revenue Projections Narrative
D) Provost's Letter

REQUEST FOR AUTHORIZATION TO IMPLEMENT A BACHELOR OF SCIENCE IN ENGINEERING AT UNIVERSITY OF WISCONSIN–MILWAUKEE PREPARED BY UW-MILWAUKEE

ABSTRACT

The University of Wisconsin (UW)–Milwaukee proposes to establish a Bachelor of Science in Engineering (Engineering, B.S.) as a new degree program offered by the Department of Industrial and Manufacturing Engineering. The proposed Engineering, B.S. will provide a flexible engineering degree option that includes a wider range of engineering disciplines and specialized interdisciplinary tracks that students may choose based on their educational interests and career goals. These specializations may be driven by emerging cross-disciplinary technical fields (e.g., advanced manufacturing, connected systems, emerging technologies such as assistive artificial intelligence (AI), or the use of AI in manufacturing) or by the desire to have an immersive interdisciplinary experience (e.g., engineering & pre-medicine, engineering & entrepreneurship). This major is designed to attract students from three audiences: students interested in multiple areas of study; transfer students, including those with A.A.S. degrees in engineering technology; and students who have some college credit but no credential.

The proposed Engineering, B.S. will require 120 credits, consisting of 24 credits in core engineering coursework (including a three-credit capstone), 21 credits in engineering technical electives including 12 credits in an emphasis area, 18 credits in math, 12 credits of natural science, 15 credits to meet UW-Milwaukee's GER Arts, Humanities, and Social Science distribution requirements, and 30 credits of free electives for interdisciplinary area of study. The curriculum for this program will be built utilizing existing courses currently offered by UW-Milwaukee. Engineering, B.S. graduates will have diverse career opportunities and can pursue roles in research and development, project management, consulting, entrepreneurship, and engineering positions where interdisciplinary skills are highly valued. Occupational employment projections indicate continued demand for engineers. The U.S. Bureau of Labor Statistics predicts a faster than average growth rate for all engineering occupations (ranging 6-12%), and the Wisconsin Department of Workforce Development projects an 11.4% employment growth in engineering occupations, which is much faster than the 6.3% average growth rate for all occupations in the state.

PROGRAM IDENTIFICATION

University Name
University of Wisconsin–Milwaukee

Title of Proposed Academic Program
Engineering

Degree Designation
Bachelor of Science

Proposed Classification of Instructional Programs (CIP) Code
14.0101 – Engineering, General

Mode of Delivery
Primarily in-person with some hybrid or online course options

Department
Industrial and Manufacturing Engineering

College
College of Engineering and Applied Science

Proposed Date of Authorization
December 5-6, 2024

Proposed Date of Implementation
Fall 2025

PROGRAM INFORMATION

Overview of the Program

The proposed Engineering, B.S. requires 120 credits, and consists of 24 credits of an engineering core, 21 credits of engineering technical electives including 12 credits in an engineering emphasis area, 18 credits in math, 12 credits of natural science, 15 credits to meet the GER Arts, Humanities, and Social Science distribution requirements, and 30 credits of free electives for interdisciplinary area of study in which students may personalize their degree based on their educational interests or career goals. The program meets the credit requirements in math, science, and engineering to be accredited by the Accreditation Board for Engineering and Technology (ABET).

In addition to a capstone course that students are required to complete, students are encouraged to engage in experiential learning, research projects, and internships to apply interdisciplinary knowledge in real-world contexts throughout their program of study. They gain practical skills, adaptability, and a strong problem-solving mindset that prepares them for the complex challenges of today's engineering landscape.

The program's curriculum is designed to provide students with a comprehensive understanding of fundamental engineering principles, theories, and practices across various fields, allowing them to develop a broad knowledge base and a multidisciplinary perspective. The flexible nature of the program gives students the opportunity to pursue an engineering degree, while simultaneously exploring other areas of interest at UW-Milwaukee. For the proposed Engineering, B.S., students choose an area of emphasis within engineering, as well as from over 100 minors, certificates, and pre-professional programs offered by UW-Milwaukee as part of their program of study.

Projected Enrollments and Graduates by Year Five

Table 1 represents enrollment and graduation projections for students entering the program over the next five years. The Engineering, B.S. program is anticipated to enroll 20 new students in the first year with a projected increase in enrollment over five years to 90 students enrolled in the program by the start of the fifth year. New enrollment projections are conservative and are based on historical department enrollment data and current student headcount as well as anticipated number of graduates in the pipeline from partner technical colleges. It is anticipated that 50-70% of students in this program will be students who transfer credits from their technical college associate degree to the Engineering, B.S. degree. Based on the pattern observed for transfer students in the existing engineering program in the Industrial and Manufacturing Department, the graduation rate for transfer students is anticipated to be 80-90% of these students, so students may graduate from this program as early as the second year. The average student retention rate is projected at 90%, based on the average for new students in the Industrial and Manufacturing Department for the last 10 years.

By the end of Year 5, it is expected that 150 students will have enrolled in the program and 74 students will have graduated from the program.

Table 1: Five-Year Academic Degree Program Enrollment Projections

Students/Year	Year 1	Year 2	Year 3	Year 4	Year 5
New Students	20	25	35	35	35
Continuing Students	0	18	33	48	55
Total Enrollment	20	43	68	83	90
Graduating Students	0	7	16	24	27

Tuition Structure

For students enrolled in the Engineering, B.S. program, UW-Milwaukee's standard undergraduate tuition and fees rate will apply (2024-25 tuition schedule). All undergraduate students in programs within the College of Engineering and Applied Science are also assessed an additional tuition of $60.52 per credit (maximum of $726.24), which will be included in the tuition rate per-credit. For the current academic year, residential tuition and segregated fees total $5,925.16 per semester for a full-time student enrolled in 12-18 credits per semester. Of this amount, $5,112.36 is attributable to program-specific tuition in the College of Engineering and Applied Science and $812.80 is attributable to segregated fees. It is anticipated that some resident students in this program will attend part-time. A student taking one 3-credit course will pay $1,758.49 in program-specific tuition and segregated fees, of which $1,278.09 is attributable to program-specific tuition in the College of Engineering and Applied Science and $480.40 is attributable to segregated fees.

Nonresident program-specific tuition and fees total $11,925.04 per semester for a full-time student enrolled between 12-18 credits per semester. Of this amount, $11,112.24 is attributable to program-specific tuition in the College of Engineering and Applied Science, and $812.80 is attributable to segregated fees.

Student Learning Outcomes and Program Objectives

The Engineering, B.S. will provide students with a comprehensive understanding of fundamental engineering principles, theories, and practices across various fields, allowing them to develop a broad knowledge base and a multidisciplinary perspective. They will gain practical skills, adaptability, and a strong problem-solving mindset that prepares them for the complex challenges of today's engineering landscape.

Upon completion of the Engineering, B.S., students will be able to:

1. Identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. Apply engineering concepts to produce solutions that meet specified needs with consideration of economic factors.
3. Communicate effectively with a range of audiences.
4. Recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. Function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. Develop and conduct appropriate experimentation, analyze, and interpret data, and use engineering judgment to draw conclusions.
7. Acquire and apply new knowledge as needed, using appropriate learning strategies.

Program Requirements and Curriculum

The proposed Engineering, B.S. requires 120 credits, and consists of 24 credits of an engineering core (including a three-credit capstone course), 21 credits of engineering technical electives including 12 credits in an engineering emphasis area, 18 credits in math, 12 credits of natural science, 15 credits to meet the GER Arts, Humanities, and Social Science distribution requirements,[1] and 30 credits of free electives for interdisciplinary area of study in which students may personalize their degree based on their educational interests or career goals.

Table 2: Engineering, B.S. Program Curriculum

Engineering Requirements 45 credits (includes Core Courses and Technical Electives)		
Engineering Core Courses		**24 credits**
CIV ENG 203	Introduction to Solid Mechanics	4
COMPSCI 202	Introductory Programming Using Python	3
EAS 200	Professional Seminar	1
IND ENG 111	Introduction to Engineering	3
IND ENG 112	Engineering Drawing & Computer Aided Design	3
IND ENG 360	Engineering Economic Analysis	3
MECHENG 405	Product Realization*	3
MATLENG 201	Engineering Materials	4
Engineering Technical Electives and Emphasis Area (See examples of emphases below the table [a])		**21 credits**
Select 21 credits from BME, CIV ENG, COMPSCI, EAS, ELECENG, IND ENG, MATLENG, MECHENG with at least 12 credits at the 300-level or above. It is recommended that students select an emphasis area of at least 12 credits.		21
Mathematics		**18 credits**
MATH 231	Calculus and Analytic Geometry I	4
MATH 232	Calculus and Analytic Geometry II	4
IND ENG 367	Introductory Statistics for Physical Sciences and Engineering Students	3
Select at least 7 credits from the following: COMPSCI 317, 318, ELECENG 234, MATH 115. 205, 233, 234, 240, 305, 313, 315, 341, MATHST 216, 361, 362		7
Natural Science		**12 credits**
Complete at least 12 credits, including at least one laboratory course from the following list:		
BIO SCI 150, 152, 202, 203, CHEM 102, 104, 105, PHYSICS 120, 121, 122, 123, 209, 210, 214, 215		12

[1] See UW-Milwaukee Gender Education Requirements for details: https://catalog.uwm.edu/policies/undergraduate-policies/#bachelorsdegreegeneraleducation

Free Electives - Interdisciplinary Area of Study	**30 credits**
Select 30 credits of free electives. It is recommended that students integrate a minor, certificates, or pre-profession program to personalize the degree plan that fits their individual interests/career plan.	30
GER Distribution Requirement	**15 credits**
Arts	3
Humanities	3
ENGLISH 310 (HU OWCB) Writing, Speaking, and Technoscience in the 21st Century	3
Social Science	6
Students must also satisfy Oral and Written Communication (OWC) Part A	0-6
Students must also satisfy the UWM Foreign Language Requirement	0-8
Cultural Diversity—Arts, Humanities, or Social Science course must also satisfy UW-Milwaukee Cultural Diversity Requirement	
TOTAL CREDITS	120

*Denotes capstone course.

Example Engineering Emphasis Areas	
Construction Engineering	
CIV ENG 431	Materials of Construction
CIV ENG 455	Construction Planning, Equipment, and Methods
CIV ENG 480	Software Applications for Civil Engineering
CIV ENG 590	Urban Transportation Planning
Embedded Systems	
ELECENG 140	Intro to Embedded Computing I: Digital Logic and Microprocessors
ELECENG 240	Intro to Embedded Computing II: C Programming for Embedded Applications
ELECENG 340	Embedded Systems I: C and C++ Programming for Embedded Applications
ELECENG 440	Embedded Systems II: Advanced Embedded Systems
Engineering Management	
IND ENG 360	Engineering Economic Analysis
IND ENG 370	Introduction to Operations Analysis
IND ENG 571	Quality Control
IND ENG 590	Project Management
Manufacturing	
IND ENG 350 or MATLENG 330	Manufacturing Processes or Materials and Processes in Manufacturing
IND ENG 406 or MECHENG 406	Design for Six Sigma
IND ENG 470	Methods Engineering
IND ENG 587	Lean Production Systems

Processing of Engineering Materials	
MATLENG 431	Welding Engineering
MATLENG 456	Metal Casting Engineering
MATLENG 457	Engineering Composites
MATLENG 471	Heat Treatment of Materials
Software Engineering	
COMPSCI 250	Introductory Computer Programming
COMPSCI 251	Intermediate Computer Programming
COMPSCI 351	Data Structures and Algorithms
COMPSCI 361	Introduction to Software Engineering

Collaborative Nature of the Program

The program is designed to facilitate partnerships with the over 100 minors, certificates, and pre-professional programs offered by UW-Milwaukee and with regional transfer partners (e.g., Milwaukee Area Technical College, Waukesha County Technical College, Gateway Technical College, Moraine Park Technical College). Pathways will also be created to support individuals who are already working in a technical field and need a bachelor's degree in engineering to enhance their skills and further their career. Existing partnerships with local Industry will be leveraged to find internship and employment opportunities for students in the new Engineering, B.S. program. The city of Milwaukee and its surrounding area are home to numerous major engineering firms and Fortune 500 companies, many of which are headquartered in Milwaukee. UW-Milwaukee has existing partnerships with industry members who currently serve on UW-Milwaukee's Industrial Advisory Boards (IAB) and are also very active in advising senior design projects. Finally, new partnerships and internships were recently established because of a project with the Wisconsin Department of Workforce Development (DWD); engineering students will benefit from these opportunities.

Projected Time to Degree

Full-time students taking at least 15 credits a semester can finish the 120-credit program in four years. The program can be completed on a part-time basis, with the time to degree variable based on the number of credits taken each semester. The transfer friendly curriculum for the proposed Engineering, B.S. will offer a faster time to degree for many returning students and for those individuals who hold an A.A.S. in Engineering Technology. Students with A.A.S. degrees in Engineering Technology are predicted to finish the degree in two years.

Accreditation

The program intends to meet the general criteria for engineering baccalaureate level programs and will seek accreditation by the Engineering Accreditation Commission of ABET.

PROGRAM JUSTIFICATION

Rationale

The proposed Engineering, B.S. fits well with UW-Milwaukee's "Select Mission Statement"[2] to "develop and maintain high quality undergraduate, graduate, and continuing education programs," "further academic and professional opportunities at all levels for women, minority, part-time, and financially or educationally disadvantaged students," and "provide educational leadership in meeting future social, cultural, and technological challenges." As described in a report by the UWs in May 2023, "Wisconsin is in a war for talent that extends globally."[3] The Wisconsin workforce is becoming older with fewer workers entering the workplace. It is projected that the number of high school graduates will decline due to a relatively low birth rate and an aging population. The impact of the decline in the number of high school graduates on enrollment is further exacerbated by the falling participation rate of high school graduates who go on to college. With these significant demographic challenges and projected engineering workforce shortages, it will be crucial for educational institutions to adapt and be creative to provide the educated workforce needed for Wisconsin to remain competitive. A unique and non-traditional interdisciplinary engineering program like the Engineering, B.S. has the potential to attract more students to the engineering profession and meet the growing industry demand for engineers who can effectively tackle complex challenges that require a multidimensional approach.

These fields demand engineers who can integrate knowledge from different disciplines to develop efficient and sustainable solutions. Employers seek engineers who can apply their knowledge in diverse contexts, work on interdisciplinary projects, contribute to innovation, and work effectively in cross-disciplinary teams. A new interdisciplinary engineering program can cater to these emerging areas and produce graduates with these specialized skills. The proposed Engineering, B.S. is designed to be flexible, broad based, and versatile. It is designed to attract a new student pool—a pool which has previously not been served in this way—through partnerships with partner technical colleges in southeastern Wisconsin who offer associate's degrees in different engineering technology areas. This new flexible degree will also serve an existing demand among industry partners for a new type of engineer who is hands-on, possesses project management skills, and is able to think broadly across several engineering disciplines.

Institution and Universities of Wisconsin Program Array

The proposed Engineering, B.S. program does not duplicate any existing programs at UW-Milwaukee; instead, it will complement existing engineering programs and will

[2] The UWM Vision, Values, and Mission Statement is found at https://uwm.edu/mission/

[3] Universities of Wisconsin, "Wisconsin and the UW System – Facts and Trends May 2023. Retrieved from: https://www.wisconsin.edu/president/download/UWFactsTrends_May2023.pdf.

provide students with a flexible and transfer-friendly degree option. It is anticipated that the proposed Engineering, B.S. degree will mostly enroll students from partner technical colleges in southeastern Wisconsin. In contrast, existing and more traditional specialized discipline-specific engineering programs (e.g., Industrial & Manufacturing Engineering, Mechanical Engineering, Electrical and Computer Engineering) at UW-Milwaukee typically enroll graduates directly from high schools.

This general Engineering degree (Engineering, B.S.) is unique within the UW universities. No other UW universities offer a general engineering bachelor's degree within the 14.0101—Engineering, General CIP code area. Therefore, the proposed program will contribute to the existing UWs program array. The program provides a general engineering option that will primarily serve industry needs in southeastern Wisconsin. Student pipelines for this new program will primarily flow through local partner technical colleges; therefore, it is not anticipated to impact enrollments in engineering programs at other UWs. Given that no other UW university offers a general engineering degree, this new degree is not likely to impact other UW engineering programs.

Need as Suggested by Student Demand

Student demand for the proposed Engineering, B.S. comes from three distinct populations: 1) students interested in multiple areas of study; 2) transfer students, including those with AAS degrees in engineering technology; and 3) students who have earned some college credit but no credential.

Multidisciplinary: UW-Milwaukee offers 213 degree programs, which provide a wide array of programs and options that are appealing to students. The engineering program receives many applicants who are interested in multiple areas of study; however, the traditional discipline-specific engineering majors are very sequential in nature and have very few if any free electives to allow students to pursue multiple areas of study without extending their time to degree. The strict sequence of curriculum forces students to choose only one engineering discipline or other areas in which they are interested. UW-Milwaukee also offers many pre-professional programs for students to prepare for graduate studies. There are students who would like to have a foundation in general engineering in preparation for a professional graduate degree (medicine, law, physical therapy, etc.), but they find the specific courses they need in the pre-professional program do not fit into their current engineering degree. The Engineering, B.S. program will collaborate with other programs at UW-Milwaukee to create unique interdisciplinary study plans to allow students to pursue their multiple interests. Conversations to create a pre-physical therapy concentration within the Engineering, B.S. are already ongoing with the Doctor of Physical Therapy program at UW-Milwaukee; the concentration would include courses that are not normally in an engineering program. (e.g., General Biology, Human Anatomy, Human Physiology). The Engineering B.S. will take advantage of the wide range of program

offerings offered by UW-Milwaukee to provide students with diverse skills and desired experiences.

Transfer Students: The Engineering, B.S. program will work with regional transfer partners on articulation agreements to encourage students to continue for a bachelor's degree in engineering. In January 2024, UW-Milwaukee reached new transfer agreements with four regional technical colleges that will guarantee admission for their graduates, and these agreements guarantee a seamless transfer of at least 60 credits toward a bachelor's degree at UW-Milwaukee. These agreements are with Milwaukee Area Technical College, Waukesha County Technical College, Moraine Park Technical College, and Gateway Technical College. Through detailed conversations with leadership and faculty at the department's regional technical college partners, there are between 1,000-1,500 students in engineering technology programs, and approximately 25% of these students graduate each year, providing a substantial potential pipeline for the proposed program. While there are articulation agreements in place, they are aimed at the transfer of credits of individual courses and for core general education (GER) courses, which is limiting to engineering technology students who do not typically take many GER distribution courses. The Engineering, B.S. offers students with a technology background a more transfer-friendly and flexible degree program that will allow them to graduate in two years and will complement their prior education, hands-on skills, and current employment. As a result, the program will offer a faster time-to-degree for those with an A.A.S. in Engineering Technology than currently available with traditional engineering programs.

Some College, No Degree: In the United States, approximately two million people each year enter postsecondary education for the first time. Eight years later, one-third of those who started have not earned any formal credential and are no longer enrolled. This former student population, also known as the "some college, no degree" population, is an important indicator for an economy that demands more workers with education and training beyond high school. In Wisconsin, the "some college, no degree" population was estimated at 721,678 in 2020.[4] The Engineering, B.S., with its transfer friendly curriculum, will allow these students to count more of their previous credits toward a degree, which may encourage them to return to school to finish their degree. The pay differential between a B.S. degree and "some college, no degree" has been extensively studied across the nation; the pay differential is typically far more than the differential between a technical degree and a B.S. degree—up by $50,000-$80,000 for the student with a college degree in a STEM (Science, Technology, Engineering, and Mathematics) field.

[4] U.S. Bureau of Labor Statistics, "A-Z Index: Occupational Outlook Handbook," Office of Occupational Statistics and Employment Projections, 6 September 2023. Retrieved at https://www.bls.gov/ooh/a-z-index.htm

Need as Suggested by Market Demand

The U.S. Bureau of Labor Statistics projects employment in engineering occupations to grow faster than the average (ranging 6%-12%) for all occupations from 2022 to 2032, with about 188,000 openings each year on average, due to employment growth and the need to replace workers who leave the occupation permanently.[5] The median annual wage for this group was $83,700 in May 2022, which was much higher than the median wage of all occupations of $46,310. The Wisconsin Department of Workforce Development projects employment growth in engineering occupations (Standard Occupation Classification 17-200) to be 11.4% from 2020 to 2030 with estimated employment 42,466 in 2030. This predicted growth is also faster than the projected 6.3% growth of all occupations in the state.[6]

An analysis of supply and demand (students graduated and employer need) for engineers was performed in 2022 for Wisconsin and the Midwest using data from Lightcast.[7] The Lightcast data shows there is a current shortage of engineering graduates to meet demand and indicates there is a severe shortage of engineering graduates in all fields of engineering currently offered by UW-Milwaukee (Table 3). These data show that there are more than six openings per graduating student in engineering-related occupations in Wisconsin and the Midwest. The Lightcast report also indicated a strong interest in engineers with a broad multi-disciplinary engineering background.

To ensure the program meets the needs of local engineering employers, the Industrial and Manufacturing Engineering Department will solicit and collect feedback annually from its Industrial Advisory Committee and will adjust its programming as needed.

[5] U.S. Bureau of Labor Statistics, "A-Z Index: Occupational Outlook Handbook," Office of Occupational Statistics and Employment Projections, 6 September 2023. Retrieved at https://www.bls.gov/ooh/a-z-index.htm

[6] State of Wisconsin, Department of Workforce Development, "Occupational Employment Projections." September 6, 2023. Retrieved at https://jobscenterofwisconsin/wisconomy

[7] University Marketing on Engineering. 2022. Lightcast.

Table 3: Lightcast data on degree completions and job openings for Wisconsin and the Midwest.

	Degree Completion 2022		Jobs				Need	
Engineering Program	**WI**	**Midwest**	**WI Positions**	**WI Annual Openings**	**Midwest Positions**	**Midwest Annual Openings**	**WI Job Openings/ Completions**	**Midwest Job Openings/ Completions**
Environmental Engineering	42	492	4,393	479	49,280	5,114	11.40	10.39
Computer Science	286	10,414	58,241	5,894	687,327	71,753	20.61	6.89
Mechanical Engineering	896	10,675	15,766	1,347	183,015	15,597	1.50	1.46
Electrical Engineering	419	5,079	9,436	1,019	127,851	11,625	2.43	2.29
Biomedical Engineering	312	2,550	3,507	394	41,669	4,067	1.26	1.59
Civil Engineering	357	3,911	10,715	1,058	129,616	12,084	2.96	3.09
Industrial Engineering	232	2,248	14,506	1,402	144,720	15,628	6.04	6.95
Materials Engineering	98	873	5,326	613	63,146	6,733	6.26	7.71

University of Wisconsin - Milwaukee
Cost and Revenue Projections For B.S. in Engineering

	Items	Projections				
		2026	2027	2028	2029	2030
		Year 1	Year 2	Year 3	Year 4	Year 5
I	**Enrollment (New Student) Headcount**	20	25	35	35	35
	Enrollment (Continuing Student) Headcount	0	18	33	48	55
	Enrollment (New Student) FTE	18	23	32	32	32
	Enrollment (Continuing Student) FTE	0	16	30	43	50
II	**Total New Credit Hours**	540	675	945	945	945
	Existing Credit Hours		486	891	1296	1485
III	**FTE of New Faculty/Instructional Staff**	0	0	0	0	0
	FTE of Current Fac/IAS	0	0	0.5	0.5	1
	FTE of New Admin Staff	0	0	0	0	1
	FTE Current Admin Staff	0	0	0	0	0
IV	**Revenues**					
	Program-Specific Tuition CEAS Undergrad Program	$184,045	$395,697	$625,753	$763,787	$828,202
	Fees (indicate type)					
	Fees (indicate type)					
	Program Revenue (Grants)					
	Program Revenue - Other					
	GPR (re)allocation					
	Total Revenue	**$184,045**	**$395,697**	**$625,753**	**$763,787**	**$828,202**
V	**Expenses**					
	Salaries plus Fringes					
	Faculty/IAS Salary (Avg of all faculty and IAS + Fringe)	$6,000	$6,000	$46,000	$46,000	$86,000
	Administrative and Student Support Staff (+Fringe)	$0	$0	$0	$0	$60,000
	Other Staff					
	Facilities and Capital Equipment					
	University buildings and space					
	Capital Equipment					
	Operations					
	Other Expenses					
	Marketing	$15,000	$15,000	$15,000	$15,000	$15,000
	Total Expenses	**$21,000**	**$21,000**	**$61,000**	**$61,000**	**$161,000**
	Net Revenue	**$163,045**	**$374,697**	**$564,753**	**$702,787**	**$667,202**

Provost's Signature: **Date:** 11/1/24

Chief Business Officer's Signature: **Date: 11/1/24**

COST AND REVENUE PROJECTIONS NARRATIVE
UNIVERSITY OF WISCONSIN–MILWAUKEE
BACHELOR OF SCIENCE IN ENGINEERING

PROGRAM INTRODUCTION

The University of Wisconsin (UW)–Milwaukee proposes to establish a Bachelor of Science in Engineering (Engineering, B.S.) as a new degree program offered in-person by the Department of Industrial and Manufacturing Engineering. The proposed Engineering, B.S. will require 120 credits, consisting of 24 credits in core engineering coursework (including a 3-credit capstone), 21 credits in engineering technical electives including 12 credits in an emphasis area, 18 credits in math, 12 credits of natural science, 15 credits to meet UW-Milwaukee's GER Arts, Humanities, and Social Science distribution requirements, and 30 credits of free electives for interdisciplinary area of study. The program is designed to not only prepare students for future engineering jobs, but to also attract new groups of students to the profession by creating new flexible and customizable pathways. Due to the wider range of engineering disciplines and the ability of students to tailor their program of study to their educational interests and career goals, this program will attract students from three audiences: students interested in multiple areas of study; transfer students, including those with A.A.S. degrees in engineering technology; and students who have some college credit but no credential. Students in this program will pay the undergraduate program-specific tuition for the College of Engineering and Applied Science. The Engineering, B.S. will draw heavily on existing resources and facilities on campus as well as existing curriculum; therefore, new expenses are expected to be minimal.

COST REVENUE NARRATIVE

Section I – Enrollment

The Engineering, B.S. program is anticipated to enroll 20 new students in year one with a projected increase in enrollment over five years to 90 students enrolled in the program by the start of year five. These estimates are based on enrollment trends in existing programs in the Industrial and Manufacturing Department and detailed conversations with leadership and faculty at the department's technical college partners (e.g., Waukesha County Technical College, Moraine Park Technical College) regarding the anticipated pipeline for the Engineering, B.S. In subsequent years, enrollment factors a conservative increase from students who left UW-Milwaukee and return to complete the Engineering, B.S. as well as new first-time students who major in the Engineering, B.S. program. The average student retention rate is projected at 90%, based on the average for new students in the Industrial and Manufacturing Department for the last 10 years. By the end of Year 5, it is expected that 150 students will have enrolled in the program and 74 students will have graduated from the program.

Student FTE is calculated with the assumption that 10% of students will enroll in the program part-time.

Section II – Credit Hours

Credit hours generated by this program will consist of additional enrollment in existing course sections. There is no anticipated need to develop new courses. Existing courses will be sufficient to meet demand for the foreseeable future. Transfer students from partner technical colleges are predicted to comprise the majority of enrollment for this program, and it is estimated that they will complete approximately 60 credits for the Engineering, B.S. degree. Credit hours were calculated with an assumption that 15 credits per semester will be completed per student FTE on average.

Section III – Faculty and Staff Appointments

The courses for the Engineering, B.S. exist as part of other majors. Therefore, instruction will be delivered by existing faculty and instructional academic staff as part of their normal course load. No additional hires of faculty or staff are anticipated. At present, there is sufficient capacity in classes or, where possible, the enrollment cap can be raised to accommodate the projected new students without needing new sections or faculty. As the program grows, there may be a need to increase course offerings. While additional faculty is not anticipated, should enrollment numbers increase to a level where new sections are needed, additional FTE of existing faculty in the department will be reallocated toward supporting the program. The estimated potential increase in FTE for existing faculty is shown in years three through five.

Starting in its first year, one faculty member in the Industrial and Manufacturing Engineering department or in the College of Engineering and Applied Science will be paid a temporary base supplement of $6,000 per year for overseeing the program. Assuming enrollment grows to 90-100 students as projected, a new administrative director (1 FTE) will be required to support the program. The additional staff is included in year five. Prior to the fifth year, the program will be run by existing staff members, and the cost of this (existing) individual is not included in expenses needed to implement the new degree.

Section IV – Program Revenues

<u>Program Specific Tuition (for College of Engineering and Applied Science Undergraduate Students)</u>

For students enrolled in the Engineering, B.S. program, UW-Milwaukee's standard undergraduate tuition and fees rate will apply (2024-2025 tuition schedule). All undergraduate students in programs within the College of Engineering and Applied Science are also assessed an additional tuition of $60.52 per credit, which will be included in the tuition rate per credit discussed below. For the current academic year, resident tuition and segregated fees total $5,925.16 per semester for a full-time student enrolled in 12-18 credit

range per semester. Of this amount, $5,112.36 is attributable to program-specific tuition in the College of Engineering and Applied Science and $812.80 is attributable to segregated fees. Because it is anticipated that the proposed program will enroll primarily resident students, tuition calculations were calculated using program-specific tuition for resident full-time students at an amount of $5,112.36 per semester. Students will pay an additional $30.00 per credit online course fee for any online courses taken.

Program Revenues and GPR

No non-tuition revenue is anticipated for this program.

Section V – Program Expenses

As the Engineering, B.S. utilizes existing courses and relies on existing faculty expertise, the cost to the university will be minimal.

Salary and Fringe

The Engineering, B.S. utilizes existing courses that are part of other majors. Instruction will be delivered by existing faculty and instructional academic staff as part of their typical course load. No additional hires of faculty or staff are anticipated. There is currently sufficient capacity in current course offerings or the enrollment cap can initially be raised to accommodate the projected new students without needing new sections or faculty. However, as the program grows, additional course offerings may be needed. Should enrollment numbers increase to a level where new sections are needed, additional FTE for faculty in the department will be dedicated toward supporting the program. The estimated increase in FTE for existing faculty is shown in years three through five, and the salary has been calculated using an average of $80,000 (overall average for combined faculty/IAS salaries in the department, including 36.7% fringe rate). Additionally, one faculty member in the Industrial and Manufacturing department or from the College of Engineering and Applied Science will be paid a temporary base supplement of $6,000 per year for overseeing the program.

Assuming enrollment grows to 90-100 students as projected, a new administrative director (1 FTE) will be required to support the program. The additional staff is included in year five. Prior to the fifth year, the program will be run by existing staff members, and the cost of this (existing) individual is not included in expenses needed to implement the new degree.

Facilities and Capital Equipment

Instruction will be delivered using existing facilities and capital equipment. No additional expenses are anticipated.

Other Expenses

The program will be marketed, and the expenses included are comparable to existing promotional activities for degree programs.

Section VI – Net Revenue

Net revenues will be distributed according to the UW-Milwaukee's budget model. Any portion of net revenues above expenses will be invested in strategic priorities of the program.

UNIVERSITY of WISCONSIN UWMILWAUKEE

Academic Affairs
Office of the Provost and Vice Chancellor

University of Wisconsin-Milwaukee
Chapman Hall 240
PO Box 413
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414-229-4501 office
414-229-2481 fax
uwm.edu/academicaffairs

TO: Jay Rothman, President
University of Wisconsin System

FROM: Andrew P. Daire, Provost and Vice Chancellor

DATE: September 17, 2024

RE: Authorization to Implement a Bachelor of Science in Engineering

Per UW System guidelines for new program development, I am writing in support of the proposed Bachelor of Science in Engineering put forward by UWM's College of Engineering and Applied Science (CEAS).

CEAS seeks to implement a BS in Engineering to better serve students seeking a less-traditional engineering pathway, one that preserves mathematical and scientific rigor while providing courses from a wider array of engineering disciplines. In the new program, students will thus have more flexibility and will be able to choose specialized interdisciplinary tracks based on their interests and goals and on emerging cross-disciplinary trends such as advanced manufacturing or connected systems.

The proposed degree maintains the standards of a traditional engineering program while simultaneously providing new cadres of students with access to the profession of engineering. The degree provides a pathway for students who have might have completed an associate's degree with a partner institution and/or may already be working in industry. The degree can also provide an intriguing new option for students who may previously have stopped out of a program in the College of Engineering and Applied Science.

UWM is excited about the possibilities the program can open up for students. While they are at UWM, they will have access to countless opportunities through research projects and experiential learning, and they will gain practical skills and strengths in solving problems. At graduation, they will have access to the engineering job market, among the fastest growing across all categories.

The curriculum and other aspects of the authorization document have been vetted through faculty governance processes at the department, school, and campus levels. The proposal also meets all UWM standards and expectations for quality and rigor at the undergraduate level. Upon implementation, the program will be reviewed in five years and thereafter according to our regular program review process.

Finally, the program will not require investment of additional resources; no faculty or staff appointments will be needed in order to offer the degree. Existing course sections will be utilized and existing staff in the College of Engineering and Applied Science.

I am pleased to strongly support approval of this request for authorization.

c: Johannes Britz, Vice President, Academic and Student Affairs
Tracy Davidson, Associate Vice President, Academic and Student Affairs
Diane Treis-Rusk, Director, Academic Programs and Student Learning Assessment
Brett Peters, Dean, College of Engineering and Applied Science
Dave Clark, Vice Provost for Academic Affairs

Education Committee
December 5, 2024

Item C.8.

NEW PROGRAM AUTHORIZATION (IMPLEMENTATION) BACHELOR OF BUSINESS ADMINISTRATION IN BUSINESS ANALYTICS, UNIVERSITY OF WISCONSIN-OSHKOSH

REQUESTED ACTION

Adoption of Resolution C.8., authorizing the implementation of the Bachelor of Business Administration in Business Analytics at the University of Wisconsin-Oshkosh.

Resolution C.8. That, upon the recommendation of the Chancellor of the University of Wisconsin-Oshkosh and the President of the University of Wisconsin System, the Chancellor is authorized to implement the Bachelor of Business Administration in Business Analytics program at the University of Wisconsin-Oshkosh.

SUMMARY

The University of Wisconsin (UW)-Oshkosh proposes to establish a Bachelor of Business Administration (B.B.A.) in Business Analytics. This program is an elevation of the existing Business Analytics Certificate and Analytics Minor. The proposed B.B.A. in Business Analytics will require 120 credits, consisting of at least 38 credits of general education coursework, 49 credits of Bachelor of Business Administration requirements, 21 credits of Business Analytics major core and elective requirements, and general electives. All courses are currently taught at UW-Oshkosh, and existing faculty will be utilized for the B.B.A. in Business Analytics. Through this program, students will be trained in basic statistical analysis, spreadsheet analysis, data visualization skills, basic programming knowledge in Python, database management skills in SQL, supervised learning in regression and forecasting, unsupervised learning in text analysis, and applications to business including how to communicate analytical interpretations to peers and managers in business. The new major will serve the growing demand in the Oshkosh and Fox Cities regions for trained professionals in Business Analytics as well as the long-standing demand for analytics programs by UW-Oshkosh students. The intended major will prepare students for careers in Data and Business Analytics, Quantitative Analysis, Financial Analysis, Market Research, and Operations Research. According to the Bureau of Labor Statistics, these typical occupations are expected to grow by 36% between 2023 and 2033 nationwide and by

nearly 27% in Wisconsin by 2030. Based on current demand and projections, the program is predicted to stabilize at approximately 27 students by the third year. Standard tuition and fee structure for undergraduate students at UW-Oshkosh will apply.

Presenter

- Dr. Edwin Martini, Provost and Vice Chancellor for Academic Affairs

BACKGROUND

This proposal is presented in accord with UW System Administrative Policy 102: Policy on University of Wisconsin System Array Management: Program Planning, Delivery, Review, and Reporting (Revised August 2023), available at https://www.wisconsin.edu/uw-policies/uw-system-administrative-policies/policy-on-university-of-wisconsin-system-array-management-program-planning-delivery-review-and-reporting-2/.

Related Policies

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

- UW System Administrative Policy 102: Policy on University of Wisconsin System Array Management: Program Planning, Delivery, Review, and Reporting

ATTACHMENTS

A) Request for Authorization to Implement
B) Cost and Revenue Projections Worksheet
C) Cost and Revenue Projections Narrative
D) Provost's Letter

REQUEST FOR AUTHORIZATION TO IMPLEMENT A BACHELOR OF BUSINESS ADMINISTRATION IN BUSINESS ANALYTICS AT UNIVERSITY OF WISCONSIN-OSHKOSH PREPARED BY UW-OSHKOSH

ABSTRACT

The University of Wisconsin (UW)-Oshkosh proposes to establish a Bachelor of Business Administration (B.B.A.) in Business Analytics. This program is an elevation of the existing Business Analytics Certificate and Analytics Minor. The proposed B.B.A. in Business Analytics will require 120 credits, consisting of at least 38 credits of general education coursework, 49 credits of Bachelor of Business Administration requirements, 21 credits of Business Analytics major core and elective requirements, and general electives. All courses are currently taught at UW-Oshkosh, and existing faculty will be utilized for the B.B.A. in Business Analytics. Through this program, students will be trained in basic statistical analysis, spreadsheet analysis, data visualization skills, basic programming knowledge in Python, database management skills in SQL, supervised learning in regression and forecasting, unsupervised learning in text analysis, and applications to business including how to communicate analytical interpretations to peers and managers in business. The new major will serve the growing demand in the Oshkosh and Fox Cities regions for trained professionals in Business Analytics as well as the long-standing demand for analytics programs by UW-Oshkosh students. The intended major will prepare students for careers in Data and Business Analytics, Quantitative Analysis, Financial Analysis, Market Research, and Operations Research. According to the Bureau of Labor Statistics, these typical occupations are expected to grow by 36% between 2023 and 2033 nationwide and by nearly 27% in Wisconsin by 2030. Based on current demand and projections, the program is predicted to stabilize at approximately 27 students by the third year. Standard tuition and fee structure for undergraduate students at UW-Oshkosh will apply.

PROGRAM IDENTIFICATION

University Name
University of Wisconsin-Oshkosh

Title of Proposed Academic Program
Business Analytics

Degree Designation(s)
Bachelor of Business Administration

Proposed Classification of Instructional Program (CIP) Code
30.7102 – Business Analytics

Mode of Delivery
The program will be delivered by a single institution (UW-Oshkosh); mode of delivery is in-person.

Department or Functional Equivalent
School of Business

College, School, or Functional Equivalent
College of Business, Arts, and Communication

Proposed Date of Authorization
December 5-6, 2024

Proposed Date of Implementation
September 2025

PROGRAM INFORMATION

Overview of the Program

As described by the National Center for Education Statistics, business analytics "prepares individuals to apply data science to solve business challenges. Includes instruction in machine learning, optimization methods, computer algorithms, probability and stochastic models, information economics, logistics, strategy, consumer behavior, marketing, and visual analytics." [1] Specifically, the proposed B.B.A. in Business Analytics program will train students in basic statistical analysis, spreadsheet analysis, data visualization skills, basic programming knowledge in Python, database management skills in SQL, supervised learning in regression and forecasting, unsupervised learning in text analysis, and applications to business including how to communicate analytical interpretations to peers and managers in business.

For the proposed B.B.A. in Business Analytics, students will be required to complete a minimum of 38 credits of general education coursework including nine credits of communication (writing and speaking), nine credits across the social science disciplines, nine credits across the culture and humanities disciplines, three credits of mathematics, and eight credits of laboratory science. Students will also need to complete the 49 credits of B.B.A. degree requirements including: Economics; Management; Human Resources;

[1] National Center for Education Statistics. *The Classification of Instructional Programs*. Retrieved at https://nces.ed.gov/ipeds/cipcode/cipdetail.aspx?y=56&cipid=92956 (Jan 2024).

Accounting; Finance; Information Systems; and Supply Chain Management.[2] It also includes the professional development sequence of courses (basic professional skills in business, required internship, and a course in career and life readiness); and a culminating experience course in the business curriculum featuring simulations, projects, and instruction in business strategy.

The Business Analytics major coursework is 21 total credits and consists of required courses in Python for Data Analytics, Database Systems in Business, Time Series Analysis and Forecasting, and Predictive Analytics. Students must also complete a business application course in either Marketing or Supply Chain Management to teach students targeted business applications of the major's data analysis skills. Finally, students choose two more analytics courses across four disciplines in the School of Business to further embed and strengthen the core analytics tools instructed in the major including computer and statistical programming, data communication, statistical techniques, data modeling, and business strategy.

The total number of credits is approximately 108 across the general education curriculum, B.B.A. degree, and Business Analytics major. To reach the 120-credit graduation requirement, students complete a minor, certificate, or 12 credits of general electives across the university.

Projected Enrollments and Graduates by Year Five

Table 1 represents enrollment and graduation projections for students entering the B.B.A. in Business Analytics over the next five years. New student enrollment projections are based on current demand for the existing Business Analytics Certificate and Analytics Minor. Many of the first adopters will be existing minor and certificate students who prefer to expand their training with this major. Additionally, dual-majors are popular options for B.B.A. students, and some quantitative-focused majors will choose Business Analytics as a second major. For planning purposes, enrollment projections assume that most students formally enter the program in their second year after admission to the School of Business.

The average student retention rate per year is projected to be 90%, based on existing data for UW-Oshkosh B.B.A. students. Retention for B.B.A. students is supported by the program's course sequencing and high impact practices including a required internship and a culminating experience course with embedded simulations and projects. By the end of Year 5, it is expected that 50 students will have entered into the program and 24 students will have graduated from the program. Within three years, 80% of students will complete the program.

[2] Note that some of the B.B.A. required courses overlap with the general education coursework.

Table 1: Five-Year Enrollment and Completion Projections by Headcount

Students/Year	Year 1	Year 2	Year 3	Year 4	Year 5
New Students	0	10	10	10	10
Continuing Students	10	9	17	17	17
Total Enrollment	10	19	27	27	27
Graduating Students	0	0	8	8	8

Tuition Structure

For students enrolled in the B.B.A. in Business Analytics major, residency-based standard tuition and fee rates will apply. For the current academic year (2024-25), resident tuition and segregated fees total $4,265.73 per semester for a full-time student enrolled in 12-18 credits per semester. Of this total, $3,530.40 is attributed to tuition and $735.33 is attributed to segregated fees. Nonresident tuition and segregated fees total $8,222.61 per semester for a full-time student enrolled in 12-18 credits per semester. Of this total, $7,487.28 are attributed to tuition and $735.33 are attributable to segregated fees. Other residency rates for Minnesota reciprocity, Midwest Student Exchange Program, Midwest Compact, and Return to Wisconsin are also available.

Courses offered for this major include a flat $8.00 special course fee for delivering technology-enhanced curriculum through college-specific specialized software needs and technology labs that cannot be funded by the student technology fee and, therefore, were approved as eligible expenses under UW System Administrative Policy 825 and its appendix. Students may also have other applicable costs such as textbooks.

Student Learning Outcomes and Program Objectives

Students completing the B.B.A. in Business Analytics will be able to:

1. Apply data science to solve business challenges using data inference, machine learning, optimization, probability and stochastic models, statistics, strategy, and uncertainty quantification.
2. Identify and predict trends.
3. Interact with and manage computer databases.
4. Effectively program using relevant computer programming languages.
5. Visualize and present analytic arguments to a general audience.

Student learning outcomes are also defined by the university's general education program whereby all UW-Oshkosh students will gain knowledge of human cultures as well as the physical and natural world through "study in the fine and performing arts, humanities, mathematics and science, and social science focused by engagement with big

questions, both contemporary and enduring."[3] Essential learning outcomes of the general education program also include ethical reasoning as individuals and members of communities and foundations for life-long learning.

Program Requirements and Curriculum

Table 2 illustrates the curriculum for the proposed program. The program requirements consist of 120 credits, of which a minimum of 38 are required to meet the general education requirements, a minimum of 49 credits are B.B.A. degree requirements, and 21 are major requirements.

Table 2: B.B.A. in Business Analytics Program Curriculum

University General Education Requirements*		**38 credits (min)**
Communication	*(2 Writing Courses, Public Speaking)*	9 credits
Culture and Humanities		9 credits
Social Sciences		9 credits
Math		3 credits
Laboratory Science		8 credits
B.B.A. Degree Requirements		**49 credits (min)**
ECON 210	Econ and Bus Statistics	3 credits
MHR 381	Quant Bus Analysis	3 credits
ACCT 206	Ess. of Fin. Accounting	3 credits
ACCT 207	Ess. of Man. Accounting	3 credits
BUS 240	Prof. Skills in Business	2 credits
ECON 201/209	Prin. of Macroeconomics	3 credits
ECON 202/208	Prin. of Microeconomics	3 credits
MATH 206 or 171	Calculus	3 credits
BUS 320	Ess. of Law for Business	3 credits
IS 311	Ess. of Information Systems	3 credits
FINANCE 331	Ess. of Finance	3 credits
MARKET 371	Ess. of Marketing	3 credits
MHR 351	Ess. of Org. Behavior	3 credits
MHR 361	Ess. of HR Management	3 credits
SCM 341	Ess. Ops. & Supply Chain Man	3 credits
Various	Culminating Experience Course***	3 credits
BUS 340	Internship***	1-6 credits
BUS 440	Career & Life Readiness	3 credits
Academic Major Requirements		
Core Requirements		**12 credits**
IS 301**	Python for Data Analytics	3 credits
IS 315	Database Systems in Bus	3 credits

[3] UW-Oshkosh Essential Learning Outcomes. Retrieved from https://uwosh.edu/usp/about-usp/essential-learning-outcomes/ (Jan. 2024)

ECON 472	Time Series Analysis & Forecasting	3 credits
ECON 475	Predictive Analytics	3 credits
Business Application Requirements (Choose 3 credits)		**3 credits**
MARKET 374	Marketing Research	3 credits
MARKET 418	Marketing Analytics	3 credits
MARKET 428	Digital Mark. Analytics	3 credits
SCM 342	Supply Chain Mod. & Analysis	3 credits
SCM 445	Supply Chain Strat. & Analytics	3 credits
Major Electives (Choose 6 credits)		**6 credits**
ECON 473	Econometric Methods	3 credits
ECON 476	Sports Analytics	3 credits
IS 302	Data Visualization	3 credits
IS 303	Data Modeling with Python	3 credits
MARKET 374	Marketing Research	3 credits
MARKET 418	Marketing Analytics	3 credits
MARKET 428	Digital Mark. Analytics	3 credits
SCM 342	Supply Chain Mod. & Analysis	3 credits
SCM 445	Supply Chain Strat. & Analytics	3 credits
Elective Credits *(to reach 120 credits)*		**12 credits**
Total Credits		**120 credits**

*General education coursework includes an embedded both a first-year experience and a civic engagement course; **Can be replaced with CS 221 and CS 262; ***High Impact Practice in the major.

Collaborative Nature of the Program

The economics faculty in the School of Business will manage the program by overseeing assurance of learning, providing the relevant courses, updating the curriculum as needed, and credentialling faculty to teach in the program. The interdisciplinarity of the required and elective courses necessitates collaborative engagement across several academic departments including Economics, Information Systems, Marketing, and Supply Chain Management. Additional courses from other disciplines can be added based on faculty input, relevance to the program learning objectives, and to ensure flexibility in the job market. Internship requirements for the program will leverage the infrastructure of the UW-Oshkosh Career and Professional Development office and collaborations with local businesses.

Projected Time to Degree

Full-time students will be able to complete the proposed degree in four years, assuming that they complete 15 credits per semester. The projected time to degree is identical to existing B.B.A. major programs at UW-Oshkosh.

Accreditation

The major will follow Association to Advance Collegiate Schools of Business (AACSB) standards. As a major at UW-Oshkosh, the B.B.A. in Business Analytics will also fall under the purview of the Higher Learning Commission (HLC) guidelines. The program will not require prior approval from the HLC.

PROGRAM JUSTIFICATION

Rationale

UW-Oshkosh is a regional comprehensive university with a mission to provide high-quality liberal education to all of its students and serve its local communities, businesses, and industries by increasing access to educational programs and meeting market demand.

UW-Oshkosh currently has a certificate in Business Analytics and an Analytics minor. Elevating these offerings to a B.B.A. in Business Analytics addresses a number of strategic goals and aligns to future directions. The degree adds an interdisciplinary major to the B.B.A. program array. High quality interdisciplinary degrees are a goal the new academic unit structure aiming to develop students' critical thinking skills from multiple perspectives and leveraging faculty expertise across areas. The B.B.A. in Business Analytics major adds curricular and pedagogical structure to the array of analytics-based courses in the business program. The design and learning outcomes are sequenced across the 21 credits, which include an internship and a culminating experience course. Inclusion of high impact practices is tied to student success and promotes the university's distinct experiential learning opportunities- both goals of the UWs and UW-Oshkosh.

Business Analytics degrees have an excellent outlook with a range of employment opportunities due to the increased use of data and market research across all industries. External consultants note that UW-Oshkosh has a desirable location with a diverse employer and internship base and data analytics fields are noted as having a high employer demand in a 100-mile radius of the university.

Evidence of student interest is seen through sustained enrollment in the certificate, through informal conversations with academic advisors, and through college surveys/polls. Students, faculty, and staff recognize that students are better positioned to enter the job market with the B.B.A. in Business Analytics credential as opposed to the certificate or minor. The degree has a specific additional benefit for UW-Oshkosh's (growing) international student body in that the major is eligible for the OPT STEM program which is a desirable feature for international students who would like to stay in the United States after graduation.

Finally, the proposed program is aligned with the UWs workforce development proposal to "develop more engineers, nurses, data scientists, and business and finance leaders to continue the UWs emphasis on meeting workforce needs."[4]

Institution and Universities of Wisconsin Program Array

The major will expand additional business analytics learning opportunities to the current array at UW-Oshkosh that includes the Business Analytics Certificate, Analytics Minor, Data Modeling and Visualization Certificate, Marketing Analysis & Insights Certificate, Economics with a Quantitative Emphasis Major, and Information Systems with a Business Analysis or Data Modeling Emphasis Major.

Business Analytics degrees are found across multiple UW universities. UW-La Crosse offers a B.S. in Business Analytics and UW-Whitewater offers a B.B.A. in Business Analytics in the same CIP area. In related curricular areas, UW-Superior offers a B.S. in Business Analytics (CIP Code: 52.1302- Business Statistics), and UW-Milwaukee and UW-Stevens Point each offer a B.S. in Data Analytics (CIP Code: 30.7101-Data Analytics, General) degree. Offering the degree through UW-Oshkosh helps to meet a high demand area within the region and positions high numbers of regionally recruited students for this growing employer need.

Need as Suggested by Student Demand

Student demand for the proposed B.B.A. in Business Analytics is based largely on current demand for the existing Business Analytics certificate and Analytics minor. Since Fall 2019, the average student enrollment per semester in the Business Analytics certificate was 20. No other certificate in the business program array has experienced such high demand from students for so long. The Analytics minor has averaged approximately nine students per semester in the same time period.

Informal conversations by faculty advisors with students as well as polls taken in the Economics and Business Statistics course were also used to gauge student demand in the proposed major. From these data sources, it was determined that students currently enrolled in the relevant certificate or minor program would instead choose the B.B.A. in Business Analytics major if given the opportunity. Reasons include the major being a better fit for intended future careers, a stronger indication of technical skills in the labor market, and a more valuable payoff than a certificate or minor after completing courses in students' area of interest.

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[4] Universities of Wisconsin News. *Board approves $32 million workforce proposal presented by the Universities of Wisconsin (news summary)*. Retrieved at https://www.wisconsin.edu/news/archive/board-approves-32-million-workforce-proposal-presented- by-the-universities-of-wisconsin-news-summary/ (Jan *2024*).

Need as Suggested by Market Demand

Nationally, according to the U.S. Bureau of Labor Statistics, "Data Scientists" 10-year job growth is predicted to be "36% (much faster than average)."[5] Note their typical entry level education is a bachelor's degree with a median pay of $108,020 ($51.93 per hour). In Wisconsin, the 10-year job growth for "Data Scientists" is predicted to be much faster than average with a 43% projected growth.[6] Regionally, the labor market within 100 miles of UW-Oshkosh currently contains more than 200 jobs requiring "data analysis skills", all of which have starting pay above $65,000 (Indeed.com; accessed March 15, 2024). In fact, these skills are in demand throughout the state with more than 300 high-paying jobs available[7].

[5] U.S. Bureau of Labor Statistics, *Occupational Outlook Handbook*. Retrieved at https://www.bls.gov/ooh/math/data-scientists.htm (Aug. 2024).
[6] State of Wisconsin DWD. Occupational Employment Projections. Retrieved at https://jobcenterofwisconsin.com/wisconomy/pub/occupation (Oct. 2024)
[7] https://www.indeed.com; accessed October 21, 2024.

University of Wisconsin-Oshkosh Cost and Revenue Projections For B.B.A. in Business Analytics						
	Items	**Projections**				
		2025	**2026**	**2027**	**2028**	**2029**
		Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**
I	**Enrollment (New Student) Headcount**	0	10	10	10	10
	Enrollment (Continuing Student) Headcount	10	9	17	17	17
	Enrollment (New Student) FTE	0	10	10	10	10
	Enrollment (Continuing Student) FTE	10	9	17	17	17
II	**Total New Credit Hours**	90	171	243	243	243
	Existing Credit Hours	0	0	0	0	0
III	**FTE of New Faculty/Instructional Staff**	0	0	0	0	0
	FTE of Current Fac/IAS	1.25	1.25	1.25	1.25	1.25
	FTE of New Admin Staff	0	0	0	0	0
	FTE Current Admin Staff	0	0	0	0	0
IV	**Revenues**					
	Tuition	$0	$50,308	$71,491	$71,491	$71,491
	Additional Tuition	$0	$0	$0	$0	$0
	Fees (special course fee)	$240	$456	$648	$648	$648
	Fees (indicate type)	$0	$0	$0	$0	$0
	Program Revenue (Grants)	$0	$0	$0	$0	$0
	Program Revenue - Other	$0	$0	$0	$0	$0
	GPR (re)allocation	$216,450	$170,471	$153,704	$158,208	$162,802
	Total Revenue	$216,690	$221,235	$225,843	$230,347	$234,941
V	**Expenses**					
	Salaries plus Fringes					
	Faculty Salary	$146,250	$149,175	$152,159	$155,202	$158,306
	Instuctional Academic Staff	$0	$0	$0	$0	$0
	Administrative and Student Support Staff	$0	$0	$0	$0	$0
	Other Staff	$0	$0	$0	$0	$0
	Fringe Faculty and Academic Staff	$70,200	$71,604	$73,036	$74,497	$75,987
	Fringe University Staff	$0	$0	$0	$0	$0
	Fringe Other Staff	$0	$0	$0	$0	$0
	Facilities and Capital Equipment					
	University buildings and space	$0	$0	$0	$0	$0
	Capital Equipment	$0	$0	$0	$0	$0
	Operations	$0	$0	$0	$0	$0
	Other Expenses					
	Other (technology)	$240	$456	$648	$648	$648
	Other	$0	$0	$0	$0	$0
	Total Expenses	$216,690	$221,235	$225,843	$230,347	$234,941
	Net Revenue	$0	$0	$0	$0	$0

Provost's Signature:

DocuSigned by:
Edwin Martini
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Date:
10/11/2024 | 11:10 AM CDT

Chief Business Officer's Signature:

DocuSigned by:
Robert Roberts
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Date:
10/11/2024 | 7:10 AM PDT

COST AND REVENUE PROJECTIONS NARRATIVE
UNIVERSITY OF WISCONSIN-OSHKOSH
BACHELOR OF BUSINESS ADMINISTRATION IN BUSINESS ANALYTICS

PROGRAM INTRODUCTION

The University of Wisconsin (UW)-Oshkosh proposes to establish a Bachelor of Business Administration (B.B.A.) major in Business Analytics in the School of Business. The program is a 21-credit major within the B.B.A. and is an elevation of the existing Business Analytics Certificate and Analytics Minor. All courses are currently taught at UW-Oshkosh, and existing faculty will be utilized for the B.B.A. in Business Analytics. When combined with university degree requirements and general education requirements, students will complete a minimum of 120 total credits for graduation. The proposed major is fully supported by the School of Business, College of Business, Arts, and Communication, and by UW-Oshkosh. By the third year of the program, enrollment in the major is anticipated to stabilize at approximately 27 full-time students. Standard tuition and fee structure for undergraduate students at UW-Oshkosh will apply.

COST REVENUE NARRATIVE

Section I – Enrollment

The anticipated enrollments will be classified as student headcount and full-time equivalent. New student enrollment projections are based largely on current demand for the existing Business Analytics Certificate and Analytics Minor. Enrollment in the first year will primarily draw from the existing pool of B.B.A. students currently enrolled in the corresponding certificate and minor programs and those seeking a quantitative-focused major as a double major. Anticipated enrollments follow the current expectation that 80-90% of students enrolled in the program after completing approximately 30–60 credits will graduate in two or three years-time. Each year, 10 additional students are projected to declare the major and eight students are expected to graduate. By Year 3, the program is expected to have 27 students of total enrollment. By these projections, 50 students will enter the program, and 24 students will graduate from the program in its first five years.

Section II – Credit Hours

The major curriculum consists of core and elective credits offered by the School of Business totaling 21 credits out of the total 120 credits needed for the degree/major. While many students will complete the 21 credit hours in their third and fourth years of study, some may begin as early as their second year of study. Students are anticipated to spread the credits out somewhat evenly across four to five semesters. An average of nine credits annually is used to calculate credits hours for students. Therefore, the total number of credits attributed specifically to the major, annually, is estimated to be the number of enrolled students multiplied by nine credits per year. By the fifth year of the program, as

enrollment stabilizes, the total number of credits attributed specifically to the major is projected at 243 student credit hours.

Section III – Faculty and Staff Appointments

Existing staffing levels in the School of Business are adequate to cover the necessary classes. All sections are currently offered with seat capacity to add the major's credits. Current faculty at 1.25 FTE teach current course load for this program.

Section IV – Program Revenues

The B.B.A. in Business Analytics major will draw on the existing pool of UW-Oshkosh undergraduate students, particularly those admitted into the School of Business. No new funding for this program will be necessary from the School of Business.

Tuition

Tuition for the B.B.A. in Business Analytics major will follow UW-Oshkosh's standard residency-based tuition and fee rates. Tuition revenue projections are calculated with the estimated student credit hours taken annually at $294.20 per credit tuition (excluding segregated fees). The per-credit tuition rate comes from the 2024-25 Wisconsin resident undergraduate student rate. The estimate does not account for credits taken above the 12-18 credit plateau or for non-resident tuition rates. Assuming the tuition rate remains fixed over the five-year forecast horizon, estimated tuition revenue would be $26,478 in Year 1 to $71,491 in Year 5.

Fees

Courses offered for this major include a flat $8.00 special course fee for delivering technology-enhanced curriculum through college-specific specialized software needs and technology labs that are not allowed to be funded by the student technology fee and, therefore, were approved as eligible expenses under UW System Administrative Policy 825 and its appendix. Students may also have other applicable costs such as textbooks.

Program Revenues and GPR

The course offerings needed to fulfill the major's requirements are already being offered with seat capacity within current GPR allocation to the School of Business. The estimates contained herein do not include the program's potential to eventually attract new additional students to UW-Oshkosh and the School of Business. The new B.B.A. in Business Analytics major offers UW-Oshkosh students a new major that instructs content and skills that are widely valuable in today's labor market. Importantly, the new major does not add expenses beyond the current School of Business budget.

Section V – Program Expenses

The program has been designed to build upon current course offerings. Thus, the program budget assumes faculty and staff expenditures will remain at current levels. The budget assumes an existing 1.25 faculty FTE that covers the current courses required to

teach the necessary credits in the major. Marketing and promotional materials specific to the program will be incorporated into the general marketing projects of the university. The program uses existing courses, so no course development expenses are planned at this time.

Salary and Fringe

The program's budget requires no new faculty or staff. The estimated salary of the existing 1.25 faculty uses a base salary of $117,000 with an estimated fringe rate of 48%. Base salary increases annually at an estimated 2% to accommodate possible pay plan increases.

Facilities and Capital Equipment

A computer lab is suggested, but it is not required. Therefore, no new facilities or capital equipment are required for UW-Oshkosh to offer this program.

Other Expenses

Supplies and other expenses are projected to remain at the current levels in the School of Business. Discipline-specific software and technology upgrade expenses will be covered by the special course fee revenue.

Section VI – Net Revenue

The B.B.A. in Business Analytics major will not generate net revenue for UW-Oshkosh. Tuition revenues for this program will be pooled at the university level. Instruction and support for the program will be funded from the university general program revenues.

UNIVERSITY OF WISCONSIN OSHKOSH

Date: 11 October 2024
To: Jay Rothman, President, University of Wisconsin System
From: Ed Martini, Provost and Vice Chancellor for Academic Affairs
Subject: Authorization Proposal: BBA in Business Analytics

In keeping with UW System and Board of Regents policy, I am sending you a proposal for a new BBA in Business Analytics at the University of Wisconsin Oshkosh. The proposal has broad university-wide support and my endorsement.

The program is designed to meet UW Oshkosh's definition and standards of quality and make a meaningful contribution to the university's regional comprehensive mission, overall academic plan, and academic degree program array. Students will be required to meet all the requirements and standards for a Bachelor of Business Administration degree at UW Oshkosh.

Per UW Oshkosh policy, this program proposal has been vetted through the faculty governance process- at the discipline, college, and university levels. It moved through the UW System Notice of Intent process in June of 2024.

The program faculty have established a robust plan for curriculum delivery, student success, and program review. The program is an elevation of the existing Business Analytics certificate and adds an interdisciplinary degree to our BBA program array. Due to the increased use of data and market research across all industries, students with a BBA in Business Analytics will address workforce needs that have been identified nationally and in northwest Wisconsin. As this is an elevation of an existing certificate and draws on courses already in use to support other majors, minors, and certificates, there are no new faculty or staff appointments needed to implement this degree, or other financial or capital investments. The proposal provides details on these aspects.

Contingent upon Board of Regents approval, the faculty plan to implement the new program in fall 2025 with first enrollments in the fall of 2025. We are requesting that this proposal be scheduled for consideration at the December 2024 Board of Regents meeting. Please contact Caroline Geary (gearyc@uwosh.edu) with any questions about these materials.

Attachments: Authorization Narrative, Cost and Revenue Projections, Cost and Revenue Projections Narrative

c: Johannes Britz, Vice President, Academic and Student Affairs
Tracy Davidson, Associate Vice President, Academic and Student Affairs
Sheryl Zajdowicz, Director of STEM and Applied Research Initiatives
Andrew Leavitt, Chancellor, University of Wisconsin Oshkosh
Caroline Geary, Interim Associate Vice Chancellor of Curricular Affairs, UWO Academic Affairs

OFFICE OF THE PROVOST AND VICE CHANCELLOR
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Education Committee
December 5, 2024

Item C.9.

NEW PROGRAM AUTHORIZATION (IMPLEMENTATION) MASTER OF SCIENCE IN APPLIED COMPUTER SCIENCE, UNIVERSITY OF WISCONSIN–STOUT

REQUESTED ACTION

Adoption of Resolution C.9., authorizing the implementation of the Master of Science in Applied Computer Science at the University of Wisconsin–Stout.

Resolution C.9. That, upon the recommendation of the Chancellor of the University of Wisconsin–Stout and the President of the University of Wisconsin System, the Chancellor is authorized to implement the Master of Science in Applied Computer Science program at the University of Wisconsin–Stout.

SUMMARY

The University of Wisconsin–Stout proposes to establish a Master of Science (M.S.) in Applied Computer Science. This program will add a distinct area of growth to UW-Stout's suite of B.S. programs in Applied Mathematics and Computer Science, Computer Science, Computer and Electrical Engineering, Computer Networking and Infrastructure Engineering, Cybersecurity, and Information and Communication Technologies. The proposed M.S. in Applied Computer Science program will require 30 credits, consisting of 12 credits of computer science core coursework, 8-12 credits of elective coursework allowing students to align to career goals, and 6-10 credits of a capstone experience (in either applied or traditional thesis form). This program will be offered primarily on campus with some courses offered online under a standard tuition model. To further UW-Stout's polytechnic mission, this program aims to increase the students' level of high demand skills and provide them with new employment opportunities. The program's goal will be to provide additional technical and software development skills to students who have some programming background (which must include prerequisite proficiency in object-oriented programming and data structures) but who do not necessarily have an undergraduate degree in computer science. Industry demand for workers in computing-related fields is projected to remain strong, and potential job opportunities include software developer, systems analyst, web developer, database administrator, machine learning/artificial

intelligence expert, and IoT solutions expert. The Bureau of Labor Statistics predicts 20% growth for jobs requiring a master's degree in the computer information and research scientist field over the next decade. Regionally, there is a projected 6.4% employment growth predicted from 2021-2026. Comparably, UW-Stout has experienced growth in computing-related degrees that suggests significant regional interest in a master's level program.

Presenter

- Dr. Glendalí Rodríguez, Provost and Vice Chancellor for Academic Affairs

BACKGROUND

This proposal is presented in accord with UW System Administrative Policy 102: Policy on University of Wisconsin System Array Management: Program Planning, Delivery, Review, and Reporting (Revised August 2023), available at https://www.wisconsin.edu/uw-policies/uw-system-administrative-policies/policy-on-university-of-wisconsin-system-array-management-program-planning-delivery-review-and-reporting-2/).

Related Policies

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

- UW System Administrative Policy 102: Policy on University of Wisconsin System Array Management: Program Planning, Delivery, Review, and Reporting

ATTACHMENTS

A) Request for Authorization to Implement
B) Cost and Revenue Projections Worksheet
C) Cost and Revenue Projections Narrative
D) Provost's Letter

REQUEST FOR AUTHORIZATION TO IMPLEMENT A MASTER OF SCIENCE IN APPLIED COMPUTER SCIENCE AT UNIVERSITY OF WISCONSIN–STOUT PREPARED BY UW-STOUT

ABSTRACT

The University of Wisconsin–Stout proposes to establish a Master of Science (M.S.) in Applied Computer Science. This program will add a distinct area of growth to UW-Stout's suite of B.S. programs in Applied Mathematics and Computer Science, Computer Science, Computer and Electrical Engineering, Computer Networking and Infrastructure Engineering, Cybersecurity, and Information and Communication Technologies. The proposed M.S. in Applied Computer Science program will require 30 credits, consisting of 12 credits of computer science core coursework, 8-12 credits of elective coursework allowing students to align to career goals, and 6-10 credits of a capstone experience (in either applied or traditional thesis form). This program will be offered primarily on campus with some courses offered online under a standard tuition model. To further UW-Stout's polytechnic mission, this program aims to increase the students' level of high demand skills and provide them with new employment opportunities. The program's goal will be to provide additional technical and software development skills to students who have some programming background (which must include prerequisite proficiency in object-oriented programming and data structures) but who do not necessarily have an undergraduate degree in computer science. Industry demand for workers in computing-related fields is projected to remain strong, and potential job opportunities include software developer, systems analyst, web developer, database administrator, machine learning/artificial intelligence expert, and IoT solutions expert. The Bureau of Labor Statistics predicts 20% growth for jobs requiring a master's degree in the computer information and research scientist field over the next decade. Regionally, there is a projected 6.4% employment growth predicted from 2021-2026. Comparably, UW-Stout has experienced growth in computing-related degrees that suggests significant regional interest in a master's level program.

PROGRAM IDENTIFICATION

University Name
University of Wisconsin–Stout

Title of Proposed Academic Program
Applied Computer Science

Degree Designation
Master of Science

Suggested Classification of Instructional Programs (CIP) Code:
11.0701 Computer Science

Mode of Delivery
Single institution. In-Person

Department or Functional Equivalent
Mathematics, Statistics, and Computer Science

College, School, or Functional Equivalent
College of Science, Technology, Engineering, Mathematics, and Management

Proposed Date of Authorization
December 5-6, 2024

Proposed Date of Implementation
Fall 2025

PROGRAM INFORMATION

Overview of the Program

The proposed M.S. in Applied Computer Science degree is comprised of 30 credits delivered primarily in-person. The credits are divided into required courses, electives, and a capstone experience. A total of 12 credits come from a required set of computer science core courses. Another 8-12 credits come from graduate-level electives that align with student career goals. The final 6-10 credits are from an applied capstone experience that provides a practical, real-world application of their skills or from a traditional thesis. The proposed program will provide students with a solid theoretical background alongside practical applications in computing (including topics such as algorithms, databases, and web development). It will prepare students for more technical jobs within their fields or to transition into other related fields.

Projected Enrollments and Graduates by Year Five

Table 1 represents enrollment and graduation projections for students entering the program over the next five years. Projected new enrollment of about 20 students per year is based on an estimate of 10 domestic and 10 international students per year. The projection of 10 domestic students per year is based on strong recent interest in computing-related undergraduate programs. For example, in 2022-23, there were over 200 graduates of UW-Stout's B.S. programs in Applied Mathematics and Computer Science, Computer Science, Computer and Electrical Engineering, Computer Networking and

Infrastructure Engineering, Cybersecurity, and Information and Communication Technologies. While the focus of this program is on a broader audience, 5% of that group continuing their studies would give a cohort of 10 students for this proposed program.

On the international side, for the past several years, UW-Stout has seen 10+ international students enrolling in its M.S. in Food Science and Technology program. Conversations between UW-Stout's Office of International Education and overseas partners predict equal (or greater) interest in this proposed program. Continuing student headcount is based on a second-year retention rate of 90%, which aligns with historical trends in the department's former Professional Science Master's (P.S.M.) in Industrial and Applied Mathematics. A projected 90% of second year students are anticipated to complete the program in their second year.

Enrollment in the M.S. in Applied Computer Science is predicted to grow to 38 students with an estimated 17 graduates per year by Year 5. By the end of Year 5, it is anticipated that 100 new students will have enrolled in the program and 68 will have graduated.

Table 1: Five-Year Enrollment and Completion Projections by Headcount

Students/Year	Year 1	Year 2	Year 3	Year 4	Year 5
New Students	20	20	20	20	20
Continuing Students	0	18	18	18	18
Total Enrollment	20	38	38	38	38
Graduating Students	0	17	17	17	17

Tuition Structure

For students enrolled in the M.S. in Applied Computer Science program, the standard tuition and fee rates for 2024-25 will apply. For the current academic year, the resident tuition, segregated fee, and textbook rental fee is $543.17 per credit. Of this amount, $448.37 is attributable to tuition, $75.97 is attributable to segregated fees, and $18.83 is attributable to the textbook rental fee. The tuition, segregated fee, and textbook rental for non-resident and international students totals $1,046.61 per credit with $951.81 in tuition, $75.97 in segregated fees, and $18.83 in textbook rental fee. Many international students qualify for a scholarship that results in a tuition discount of about $333.33 per credit, for an effective rate of $618.48 per credit.

Student Learning Outcomes and Program Objectives

All students who complete the M.S. in Applied Computer Science will demonstrate a solid theoretical background alongside practical applications in computing (including topics such as algorithms, databases, and web development). This program is designed for students with expertise in diverse fields other than computer science, enabling them to integrate their domain expertise with computing skills and making them competitive for more technical jobs within their fields or to transition into other, related fields. For example, a graphic designer may transition into web development, or a psychologist may

choose to specialize in human-computer interaction. This program will prepare students to succeed in the context of a changing global context by leveraging their expertise in diverse areas, increasing the value of their educational and work experience with the addition of computing skills and a theoretical foundation for their application.

Upon completion of the M.S. in Applied Computer Science, students will:

1. Apply knowledge of computing appropriate to advanced work in the discipline.
2. Analyze a problem and identify and define the computing requirements appropriate to its solution.
3. Design, implement, and evaluate a computer-based system or an empirical study.
4. Communicate effectively in a range of professional settings through presentations and/or technical writing.
5. Use current techniques, skills, and tools necessary for computing practice.
6. Apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices.
7. Apply design and development principles in the construction of software systems of varying complexity.
8. Critique technical papers, reports, or studies.

Program Requirements and Curriculum

The proposed M.S. in Applied Computer Science program requires 30 credits, consisting of 12 credits of core coursework, 8-12 credits of elective coursework allowing students to align to career goals, and 6-10 credits of a capstone experience. The capstone experience typically involves a major applied project aimed at solving an industry problem and/or the creation of software. Alternatively, a classical thesis option will be available for students who wish to do a formal independent research project. The capstone track will be uniquely set apart from similar programs at peer universities by its extensive use of project-based learning and emulation of an industry workplace. A total of six new courses (18 credits) are planned for the program: two in content areas; a seminar course; a two-semester capstone sequence; and a thesis course.

Table 2: Master of Science in Applied Computer Science Program Curriculum

Computer Science Core:		
CS-524	Database Systems Manipulation and Design	3 credits
CS-748	Survey of Web Programming	3 credits
CS-754	Advanced Algorithm Design and Analysis	3 credits
CS-790	Computer Science Seminar	3 credits
Capstone Experience:		
	Project-Based Option (6 credits)	
CS-758 AND	Computer Science Capstone I	3 credits
CS-759	Computer Science Capstone II	3 credits
OR		
	Thesis Option (9-10 credits)	

EDUC-740 OR	Research Foundations	4 credits
INMGT-700 OR	Organizational Research Methods	3 credits
PSYC-790	Research Design and Analysis I	3 credits
AND		
CS-770	Thesis* *Completed over multiple terms	6 credits
Elective Coursework: 8-12 credits from the following to reach 30 total		
	Any 5xx, 6xx, or 7xx course from the following prefixes: CNIT, CS, CYBR, GDD, MATH, MSCS, or STAT; or up to 6 credits of other coursework as approved by the program director.	8-12 credits
Total Credits		**30 credit(s)**

Collaborative Nature of the Program

The program will be housed in the Mathematics, Statistics, and Computer Science Department that has a long history of collaboration across academic disciplines in support of its unique undergraduate programs. That collaborative spirit will continue in this graduate program, being most noticeable in the choice of elective offerings students may choose from as well as in the applied capstone projects. The applied nature of the capstone projects will also necessitate collaboration across campus, potentially including areas such as science, engineering, game design, and external partners through the Office of Corporate Relations & Economic Engagement (OCREE).

Once approved as a program, partnerships with undergraduate programs to create accelerated pathways into and through this program will be established, and external partnerships with other regional universities will be explored.

Projected Time to Degree

The projected time to degree for full-time students is two years, including 30 credits at 6-9 credits per semester. The program is anticipated to be taken primarily by full-time students with little part-time enrollment. The completion rates and time to degree are calculated accordingly.

Accreditation

UW-Stout is accredited by the Higher Learning Commission (HLC). No further approval is needed from the HLC to launch the program. There is currently no discipline-specific accrediting body for master's programs in computer science in the United States.

PROGRAM JUSTIFICATION

Rationale

Planning for this proposed program was prompted by several factors including that it is complementary to UW-Stout's academic program plan, responsive to the demand of students and the labor market, and that it closely aligns with the mission and polytechnic

identity for the university. UW-Stout has had considerable success with undergraduate programs in computer science and related fields due to a steady demand for high wage jobs in the field combined with strong student interest. The need for expertise in computer science has grown beyond the relatively narrow and mathematically-based field that it was 20-30 years ago, expanding into almost every area of society, including all business areas. This program will provide another pathway into these fields by providing computer science expertise to students with a programming background that, at a minimum, includes proficiency in object-oriented programming and data structures from prior education or professional experience.

The proposed M.S. in Applied Computer Science is expected to have two main benefits. The first is that it will provide an alternative pathway into computer science careers that is separate from the standard undergraduate major. An alternate pathway at the master's level will provide an opportunity to attract a more diverse audience of students than those who typically earn a bachelor's degree in computer science. Second, many computer science applications require some field-specific knowledge outside of computer science. There will be a growing need for people who can create computer systems to automate tasks, analyze data, and create new workflows. Often, these tasks need domain experts, especially those who can do some of the programming themselves. Providing additional expertise in computer science to students from different disciplines will prepare graduates who not only know computer science but will also be able to apply computer science principles to a specific field. This proposed M.S. in Applied Computer Science would enable these domain experts to gain such skills and improve their employment opportunities. Examples of this type of change include biologists wanting to move into bioinformatics or artists transitioning into a technical artist who can write code for graphics programs. UW-Stout also needs more master's programs that are in high demand with international students and available mostly in-person. UW-Stout's international partners indicate that computer science is a high demand degree for their students.

The proposed M.S. in Applied Computer Science, with its focus on providing a career-enhancing skillset, is aligned with UW-Stout's polytechnic mission to "prepare students for careers through applied learning and research, professional experiences, and collaborative partnerships to benefit a global society."[1] This also aligns with UW-Stout's strategic plan by:

- Helping students be ready for new job opportunities and for changes within their current employment;
- Providing an innovative curriculum with skills that are directly applicable to their chosen fields;

[1] UW-Stout Mission & Values. (2024). Retrieved on 4/9/2024 from https://www.uwstout.edu/about-us/mission-values

- Training students for fields that are heavily in demand; and
- Supplying an applied learning experience where students will solve real-world problems.

Institution and Universities of Wisconsin Program Array

The proposed M.S. in Applied Computer Science program does not duplicate any existing graduate programs at UW-Stout. The addition of this program will complement the university's strong array of computing-related bachelor's level programs: Applied Mathematics and Computer Science, Computer Science, Computer and Electrical Engineering, Computer Networking and Infrastructure Engineering, Cybersecurity, and Information and Communication Technologies.

Currently, three UWsy have approval to offer an M.S. in Computer Science degree under the proposed CIP code 11.0701: UW-Milwaukee, UW-River Falls, and UW-Whitewater. UW-River Falls suspended admission into their program in January 2021. In August 2024, UW-Stout was notified that they would resume admitting students starting Fall 2025. UW-Stout will work with UW-River Falls to ensure that the programs remain distinct. As a primarily in-person program, the proposed program should not compete with the programs at UW-Milwaukee and UW-Whitewater. Indeed, there is a need for such a program in northwestern Wisconsin, and UW-Stout has identified a student market. UW-Madison has an M.S. in Computer Sciences under CIP code 11.0101 that is more focused on continuing graduate study. The proposed M.S. in Applied Computer Science program is more applied in nature and meets a different geographic need. UW-La Crosse offers a Master of Software Engineering degree under CIP code 14.0903 for which admission into the program requires a full undergraduate major in software engineering, computer science, or closely related field, which is a distinctly different target audience than this proposed program, which only requires proficiency in object-oriented programming and data structures.

Need as Suggested by Current Student Demand

UW-Stout's B.S. in Computer Science program is among the highest enrolled bachelor's level programs at UW-Stout with Fall 2023 enrollment of 450 students. The roughly 1,000 students in computing-related programs make up more than 15% of the university's undergraduate population. It is anticipated that some graduates of undergraduate programs at UW-Stout will continue (or return) to complete a master's program. As evidence of that, a recent survey was conducted with current undergraduate students in the College of Science, Technology, Engineering, Mathematics and Management asking them if they would be interested in the proposed M.S. in Applied Computer Science program. Of 265 responses, 147 said yes, with 85 of those pursuing degrees other than the B.S. in Computer Science.

The university has also received numerous inquiries of interest in such a program, especially from international students. When working with potential international students and partners for master's level programs, computer science is the degree for which UW-Stout's Office of International Education has received the most inquiries. In conjunction with strong industry need and regional master's degree completion data, this level of potential interest in an M.S. in Applied Computer Science supports the need for the proposed program.[3] The university does not expect any impact to existing master's programs because this is a distinct area from existing graduate offerings at UW-Stout.

Need as Suggested by Market Demand

Industry demand for workers in computing-related fields is projected to remain strong, and potential job opportunities include software developer, systems analyst, web developer, database administrator, machine learning/artificial intelligence expert, and IoT solutions expert. The U.S. Department of Labor is predicting strong employment growth with over 20% growth for jobs requiring a master's degree in the computer information and research scientist field over the next decade, resulting in an estimated annual opening of 3,400 jobs.[2] There is a projected 6.4% of regional job growth predicted from 2021 to 2026 with about 7700 estimated annual openings.[3] This Proposed M.S. in Applied Computer Science is designed to provide a computer science foundation to non-computer science students to prepare them for these new career opportunities. Additionally, computing and information processing have become more engrained within other career areas. In the context of UW-Stout's polytechnic mission, the applied and interdisciplinary focus of the proposed master's program will be well-equipped to serve these areas.

[2] Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, Computer and Information Research Scientists, at https://www.bls.gov/ooh/computer-and-information-technology/computer-and-information-research-scientists.htm (visited February 02, 2024).
[3] University Marketing (2024). Lightcast.

University of Wisconsin–Stout
Cost and Revenue Projections For M.S. in Applied Computer Science

	Items	Projections				
		2025	2026	2027	2028	2029
		Year 1	Year 2	Year 3	Year 4	Year 5
I	**Enrollment (New Student) Headcount**	20	20	20	20	20
	Enrollment (Continuing Student) Headcount	0	18	18	18	18
	Enrollment (New Student) FTE	20	20	20	20	20
	Enrollment (Continuing Student) FTE	0	18	18	18	18
II	**Total New Credit Hours**	300	300	300	300	300
	Existing Credit Hours	0	270	270	270	270
III	**FTE of New Faculty/Instructional Staff**	1	0.5	0	0	0
	FTE of Current Fac/IAS		1	1.5	1.5	1.5
	FTE of New Admin Staff					
	FTE Current Admin Staff					
IV	**Revenues**					
	Tuition	$166,029	$315,455	$315,455	$315,455	$315,455
	Additional Tuition					
	Fees (indicate type)					
	Fees (indicate type)					
	Program Revenue (Grants)					
	Program Revenue - Other					
	GPR (re)allocation					
	Total Revenue	$166,029	$315,455	$315,455	$315,455	$315,455
V	**Expenses**					
	Salaries plus Fringes					
	Faculty Salary	$88,500	$134,080	$136,711	$139,396	$142,134
	Instuctional Academic Staff					
	Administrative and Student Support Staff					
	Other Staff					
	Fringe Faculty and Academic Staff	$33,471	$50,709	$51,704	$52,720	$53,755
	Fringe University Staff					
	Fringe Other Staff					
	Facilities and Capital Equipment					
	University buildings and space					
	Capital Equipment					
	Operations					
	Other Expenses					
	Other (Supplies)					
	Other (Administrative Overhead)	$44,396	$84,353	$84,353	$84,353	$84,353
	Total Expenses	$166,367	$269,142	$272,768	$276,468	$280,242
	Net Revenue	-$338	$46,313	$42,687	$38,987	$35,213

Provost's Signature: **Date:**

10/11/2024

Chief Business Officer's Signature: **Date:**

10/11/2024

COST AND REVENUE PROJECTIONS NARRATIVE
UNIVERSITY OF WISCONSIN–STOUT
MASTER OF SCIENCE IN APPLIED COMPUTER SCIENCE

PROGRAM INTRODUCTION

The University of Wisconsin (UW)–Stout proposes to establish a Master of Science (M.S.) in Applied Computer Science. The proposed M.S. in Applied Computer Science program will be an on-campus program using UW-Stout's standard undergraduate tuition rates. The program will require 30 credits and will be offered primarily in-person. The program's goal will be to provide additional technical and software development skills to students with some programming background, but who do not necessarily have an undergraduate degree in computer science. UW-Stout has experienced growth in computing-related degrees that suggests significant regional interest in a master's level program. While the program will utilize existing facilities and equipment and will draw upon the expertise of the existing faculty in the Mathematics, Statistics and Computer Science Department, new expenses will come in the form of additional staffing required to support the program. The M.S. in Applied Computer Science program is expected to have positive net revenue by the end of its second year.

COST REVENUE NARRATIVE

Section I – Enrollment

Table 1 represents enrollment and graduation projections for students entering the program over the next five years. Projected new enrollment of 20 students per year is based on an estimate of 10 domestic and 10 international students per year. The projection of 10 domestic students per year is based on strong recent interest in computing-related undergraduate programs. For example, in 2022-23, there were over 200 graduates of UW-Stout's B.S. programs in Applied Mathematics and Computer Science, Computer Science, Computer and Electrical Engineering, Computer Networking and Infrastructure Engineering, Cybersecurity, and Information and Communication Technologies. While the focus of this program is on a broader audience, 5% of that group continuing their studies would give a cohort of 10 students for this proposed program. On the international side, for the past several years, UW-Stout has seen 10+ international students enrolling in its M.S. in Food Science and Technology program. Conversations between UW-Stout's Office of International Education and overseas partners predict equal (or greater) interest in this proposed program. The continuing student headcount is based on a first to second year retention rate of 90% in alignment with historical trends in the department's former P.S.M. in Industrial and Applied Mathematics, and then projecting 90% of second year students completing the program (that year).

Enrollment in the M.S. in Applied Computer Science is predicted to grow to 38 students with an estimated 17 graduates per year by Year 5. By the end of Year 5, it is

anticipated that 100 new students will have enrolled in the program and 68 will have graduated.

Table 1: Five-Year Enrollment and Completion Projections by Headcount

Students/Year	Year 1	Year 2	Year 3	Year 4	Year 5
New Students Headcount	20	20	20	20	20
Continuing Students Headcount	0	18	18	18	18
New Students FTE	20	20	20	20	20
Continuing Students FTE	0	18	18	18	18
Total Enrollment FTE	20	38	38	38	38
Graduating Students	0	17	17	17	17

Section II – Credit Hours

Credit hours in Section II were calculated by prorating the 30 program credits across the two years. The resulting 15 program credits per year were multiplied by the student FTE to determine credit hours. New credit hours correspond to those students identified as New in Table 1, and existing credit hours correspond to those students identified as Continuing in Table 1.

Section III – Faculty and Staff Appointments

The M.S. in Applied Computer Science will draw on existing expertise in the Mathematics, Statistics and Computer Science Department. Because six new courses will be developed and additional sections of existing coursework may be needed, a search is currently underway for an additional faculty member to support the coursework for the program. In the first year of the program, 0.75 faculty FTE will be needed to cover coursework. An existing faculty member will step into the role of program director for which 0.25 FTE will be allocated. In total that amounts to 1.0 new FTE. In the second year of the program, an additional 0.5 FTE of faculty will be needed to cover courses for the original cohort of students, along with the first-year allocation of 1.0 FTE for a new cohort of students and the program director reassignment. The need is anticipated to be stable at 1.5 FTE per year from then on. The yearly instructional need is summarized below, where the aforementioned program director allocation has been included as “new” in the first year and “continuing” thereafter:

Year 1: 1.0 FTE faculty (new)

Year 2: 1.5 FTE faculty (0.5 new + 1.0 continuing)

Year 3: 1.5 FTE faculty (continuing)

Year 4: 1.5 FTE faculty (continuing)

Year 5: 1.5 FTE faculty (continuing)

Section IV – Program Revenues

The sole source of program revenue will be standard tuition revenue.

Tuition

The projected program revenue has been calculated by multiplying the total student FTE times the program credit hours, times the tuition, using an average of the standard in-state tuition rate ($448.37) and a discounted international student rate ($618.48). The discounted international tuition rate is used for calculating this average because many international students qualify for a scholarship that results in a tuition discount of about $333.33 per credit, for an effective rate of $618.48 per credit. This calculation is based on a conservative estimate that at least half of the students will be international students and assumes that all of those will qualify for a discounted rate.

Year 1: 20 FTE x 15 credits x $553.43 per credit = $166,029

Year 2: 38 FTE x 15 credits x $553.43 per credit = $315,455

Year 3: 38 FTE x 15 credits x $553.43 per credit = $315,455

Year 4: 38 FTE x 15 credits x $553.43 per credit = $315,455

Year 5: 38 FTE x 15 credits x $553.43 per credit = $315,455

There will not be any additional fees for direct support of this program, or any program revenue or GPR generated or allocated from other units.

Section V – Program Expenses

The primary program expense is for faculty.

Salary and Fringe

Faculty salaries were calculated as follows: the average annual salary for faculty in the computer science discipline is anticipated to be $86,000 in Year 1. A 2% pay raise is added for each successive year. In addition to the regular salary expense, there is an additional $2,500 stipend (per year) for the faculty program director. Fringes are computed at the current campus rate of 37.82%.

Year 1: 1.0 FTE faculty x $86,000 + $2,500 = $88,500

Year 2: 1.5 FTE faculty x $87,720 + $2,500 = $134,080

Year 3: 1.5 FTE faculty x $89,474 + $2,500 = $136,711

Year 4: 1.5 FTE faculty x $91,264 + $2,500 = $139,396

Year 5: 1.5 FTE faculty x $93,089 + $2,500 = $142,134

Facilities and Capital Equipment

Classroom facilities exist for teaching additional coursework. No additional funds are needed.

Other Expenses

The only additional expense is the campus approved Administrative Overhead charge of 26.74% on tuition revenue, which covers university overhead, academic support services such as marketing, technology, and program development,

Section VI – Net Revenue

Initial projections suggest a small negative revenue in the first year, with positive net revenue thereafter. Existing university resources will be used as needed to cover any first-year deficit, which is projected to be recovered in the second year. Any net revenue will be reinvested into the program and the institution.

University of Wisconsin-Stout

October 11, 2024

Jay Rothman, President
University of Wisconsin System Administration
1720 Van Hise Hall, 1220 Linden Drive
Madison, WI 53706

Dear President Rothman:

I am writing to provide you with this Letter of Commitment in support of the University of Wisconsin-Stout's proposed M.S. in Applied Computer Science degree.

As Wisconsin's Polytechnic University, this proposed program will allow UW-Stout to continue providing leadership and innovation to prepare graduates for careers such as software developer, systems analyst, web developer, database administrator, machine learning/artificial intelligence expert, and IoT solutions expert industries as well as any other industry that requires a strong foundation in computer science.

The proposed program will follow the tenets of polytechnic education. This program aims to increase the students' level of high demand skills and provide them with new employment opportunities. The program will build on existing curriculum and faculty and staff expertise in the College of Science, Technology, Engineering, Mathematics, and Management. A financial review has been conducted to confirm that the necessary financial and human resources are available to launch this proposed program.

The proposed degree has been approved through the campus curriculum approval process. Governance groups confirmed that the design of the proposed program meets the definition and standards of quality at UW-Stout. All programs at UW-Stout participate in the biannual Assessment in the Major and the four-year Planning and Review Committee program review to support continuous improvement. Assessment of the student learning objectives will be

OFFICE OF THE PROVOST
ACADEMIC AFFAIRS
303 Administration Building
712 South Broadway, Menomonie, WI 54751

Malcolm Baldrige National Quality Award

coordinated by the program director in collaboration with the faculty, staff and the program advisory committee.

Thank you for your consideration and support of this new program.

Sincerely,

Glendalí Rodríguez
Provost and Vice Chancellor

attachments

GR/tb
Memos 2024

Education Committee **Item D.**
December 5, 2024

UNIVERSITY OF WISCONSIN SCHOOL OF MEDICINE AND PUBLIC HEALTH: THE WISCONSIN PARTNERSHIP PROGRAM FISCAL YEAR 2024 ANNUAL REPORT

REQUESTED ACTION

For information and discussion.

SUMMARY

The Wisconsin Partnership Program (WPP) presents its Fiscal Year 2024 Annual Report, covering activities and expenditures from July 1, 2023 through June 30, 2024, to the UW System Board of Regents. This report highlights the progress and achievements of the past year and marks WPP's 20th anniversary.

This year, WPP celebrates two decades of moving health forward through its grantmaking and the remarkable work of its grant partners throughout Wisconsin. To commemorate this milestone, the WPP invites the Regents to watch a video on WPP's origins and impact. Watch the video here: https://www.youtube.com/watch?v=-7aat-gVwwQ.

Presenters

- Robert N. Golden, MD, Dean, UW School of Medicine and Public Health; Robert Turell Professor in Medical Leadership; Vice Chancellor for Medical Affairs at UW-Madison
- Amy J.H. Kind, MD, PhD, Associate Dean for Social Health Sciences and Programs, UW School of Medicine and Public Health; Executive Director, Wisconsin Partnership Program
- Bret Benally Thompson, MD, Clinical Associate Professor, Division of Hematology, Medical Oncology and Palliative Care, Department of Medicine, UW School of Medicine and Public Health; Director of Indigenous Health and Cultural Guidance, Native American Center for Health Professions
- Danielle Yancey, Director, Native American Center for Health Professions, UW School of Medicine and Public Health

BACKGROUND

The University of Wisconsin School of Medicine and Public Health (SMPH) is home to the Wisconsin Partnership Program (WPP), a grantmaking program within the SMPH established as a result of a generous endowment gift from Blue Cross and Blue Shield United of Wisconsin. WPP is committed to improving health and advancing health equity through investments in community partnerships, education and research.

A true embodiment of the Wisconsin Idea, WPP has awarded more than $301 million in 636 grants that propel medical research, enhance health education and workforce development, support community health partnerships, advance health equity, and respond to the COVID-19 pandemic. WPP's work and that of its grantees span the entire state, addressing a wide range of health challenges and supporting diverse populations in rural, urban and tribal communities across Wisconsin.

The WPP operates in full accordance with the Wisconsin Insurance Commissioner's March 2000 Order (Order). The Order approved the conversion of Blue Cross and Blue Shield United of Wisconsin from a nonprofit service corporation to a stock insurance corporation and the distribution of half of the proceeds from the sale of stock to establish the WPP endowment at the SMPH.

In compliance with the Order, the Board of Regents created the Oversight and Advisory Committee (OAC) comprising four public members and four SMPH representatives appointed by the Regents upon recommendation of the Dean of the SMPH, and one member appointed by the Insurance Commissioner. The OAC is responsible for directing, approving and monitoring the allocation of funds for community-engaged public health initiatives and public health education and training. The SMPH created the Partnership Education and Research Committee (PERC), consisting of a cross-section of SMPH faculty, OAC representatives, and SMPH leaders, to direct, approve and monitor the allocation of funds for faculty-led education and research initiatives to advance health and health equity. Through WPP's annual reports, the OAC meets the Order's requirement to report on WPP's expenditures, use and evaluation of all funded programs and projects.

Since March 2004, WPP's governance committees have solicited proposals and made awards to community organizations and faculty in accordance with the Order, the Grant Agreement that transferred the funds resulting from the BCBS conversion, and WPP's five-year plans. The current Five-Year Plan (2024-2029) was presented to and approved by the Board of Regents in December 2023.

In compliance with the Order and WPP's non-supplanting policy, WPP submits to the Board of Regents each year non-supplanting attestations from the UW-Madison Vice Chancellor for Finance and Administration, the Dean of the SMPH and the Chief Financial Officer (CFO)

of the SMPH. A monitoring system is in place to ensure that WPP funds are not used to replace existing funds.

In accordance with the Order and the OAC Bylaws, the Board of Regents has the following oversight responsibilities for the Wisconsin Partnership Program:

- Reviews annual reports
- Appoints OAC members upon recommendation of the SMPH Dean
- Approves five-year plans
- Receives financial and program audits, which are required at least every five years

In compliance with the Order and following the Insurance Commissioner's approval, the required financial audit and agreed upon procedures covering July 1, 2018 through June 30, 2023 are currently in progress. Once completed, both reports will be submitted to the Office of the Board of Regents.

DISCUSSION

The Fiscal year 2024 Annual Report details WPP's activities and expenditures over the past year while commemorating 20 years of moving health forward. The report highlights WPP's commitment to advance its mission to improve health and advance health equity through a strong portfolio of grant programs that propel medical research, enhance health education and workforce development and support community partnerships.

Since WPP began making grants in 2004, it has awarded 636 grants totaling $301 million. These awards have resulted in a remarkable return on investment, with grantees leveraging more than $876.8 million in additional funding from other sources to sustain the projects.

In Fiscal Year 2024, WPP awarded 25 new grants totaling $9.5 million and supported 84 active projects and initiatives. These grants support innovative approaches to improve health and advance health equity across a wide range of health issues, communities, populations, and geographic areas. The following are a few selected examples of the impactful work led by WPP grantees to improve health across Wisconsin.

Improving Health Through Community Partnerships: The WPP community grant programs provide substantial support for community-led solutions and approaches to improve health and advance health equity in Wisconsin through the implementation of a wide range of innovative initiatives and collaborations in rural, tribal and urban communities across the state.

- **A Clinic-Community Collaboration to Improve Birth Outcomes**: Connect Rx Wisconsin is an innovative clinic-community collaboration that addresses

Wisconsin's stark maternal and infant health disparities. Their wrap-around service delivery model deploys clinic- and community-based health workers and trained doulas to support the social health needs of expectant and new mothers. Since 2022, 674 pregnant patients who were screened as high-risk were referred to ConnectRx for coordinated care, of which 600 were provided essential resources for housing, food, transportation and financial assistance.

- **Creating a Healthy, Culturally Vibrant Food System**: The Menominee Nation is working to improve health and reduce their community's risks of Type 2 diabetes and heart disease, which are disproportionately higher than the state's average. Through their WPP-funded initiative, the Menominee Tribe and its Department of Agriculture and Food Systems are renewing Native American food traditions that promote access to fresh, healthy food, agricultural best practices, Menominee cultural teachings and peer support.

- **Coordinating Access to Care for Individuals Recovering from Substance Use Disorder**: The Southwestern Wisconsin Community Action Program, through its WPP-funded Recovery Pathways Program, opened the Opportunity House to provide sober-living housing and recovery support and services for individuals early in recovery in Grant, Iowa and neighboring counties. During the grant, which concluded earlier this year, the Opportunity House housed 48 unique residents. This program improved access to treatment resources by coordinating services among county agencies, treatment agencies, local law enforcement, and social service agency partnerships across the state, solidifying Opportunity House as a cornerstone of the region's integrated care systems for individuals recovering from substance use disorder.

- **Improving Maternal and Infant Health in Southwestern Wisconsin**: The Great Rivers United Way HUB is working to improve health for families at risk for poor birth outcomes. The HUB is cross-training community health workers as doulas to create a model of holistic health care that addresses both social determinants of health and clinical issues such as prenatal care coordination. The successful program continues to expand in and beyond La Crosse County thanks to additional grant funding and collaborations with local health systems.

Preparing Wisconsin's Healthcare and Public Health Workforce: Funding from WPP plays a vital role in supporting medical and public health education initiatives and pathways and health workforce development at the SMPH.

- **Serving Wisconsin's Rural Communities**: The Wisconsin Academy for Rural Medicine (WARM), a training track in rural medicine, was started with a grant from the WPP. Since its inception in 2004, WARM has graduated 301 physicians. WPP currently supports WARMeRR, a new three-year "short track" pathway focused on

earlier transition of select WARM medical students to Wisconsin rural residency programs.

- **Creating Health Professions Pathway Programs**: A grant to the UW SMPH Native American Center for Health Professions is working to increase Indigenous representation in medicine by creating dedicated pre-college and college pathway programs and establishing a new pre-faculty development pathway as well as new American Indian/Alaska Native health courses.

- **Celebrating 20 Years of Public Health Leadership**: For two decades, the Wisconsin Population Health Service Fellowship Program has dedicated itself to improving public health in Wisconsin by building future leaders. As one of WPP's foundational education investments, the Fellowship places early-career public health professionals in Wisconsin community organizations and public health offices. The fellows play a vital role in addressing local public health challenges, while building their own skills and expertise as future leaders in the field. To date, 104 fellows have completed the program and 80% of recent graduates have continued to work right here in Wisconsin.

Driving Innovation and Scientific Discovery: The WPP research grant programs span the continuum of basic, translational, clinical and applied public health research. Grants support SMPH faculty in driving innovation and scientific discovery, with the ultimate goal to improve health and health care and advance health equity for the people of Wisconsin and beyond.

- **Engineering a Healthier Calorie to Reduce Diabetes and Obesity**: An innovative cross-disciplinary collaboration led by Dudley Lamming, PhD, associate professor, Department of Medicine and Jacob Brunkard, PhD, assistant professor, Department of Genetics, is harnessing expertise in metabolism and plant genetics to develop a source of plant-based foods that could reduce the intake of certain nutrients linked to obesity.

- **Addressing the Epidemic of Prescription Opioid Misuse**: Randall Brown, MD, PhD, professor, Department of Family Medicine and Community Health and collaborator Ben Zarzaur, MD, MPH, FACS, professor, Department of Surgery lead a multi-disciplinary collaboration to address the issue of opioid misuse among patients hospitalized for traumatic injury. Through a preventative telehealth intervention tailored to a patient's individual risk for prescription opioid misuse, the project aims to improve opioid misuse prevention strategies and enhance the care of patients with traumatic injuries.

- **Advancing Treatment for Melanoma**: Alexander Birbrair, PhD, assistant professor in the Department of Dermatology, is using a WPP grant for a research project to

better understand how signals from nerves inside melanoma tumors affect the cancer's progression. The results of this project could inform clinical testing for new medications to treat melanoma, and ultimately improve survival rates for all melanoma patients.

Evaluation and Impact: Evaluation is a key component of the work of the WPP to understand how WPP support facilitates the work of WPP grant recipients and what the ultimate impact of that work is. To do so, WPP relies on multiple strands of data:

- sustainability measures such as leveraged funding from external funders
- dissemination and knowledge-sharing tracking such as publications and presentations
- grantee progress and final reports with details on reach and impact
- long-term outcome tracking of grantees' work

Combined, these data sources help WPP answer the question at the core of its evaluation plan: what is the impact that WPP-funded work is having on the health, well-being and health equity of people across the state of Wisconsin?

WPP provides evaluation support at the start of all community grants, and for smaller community grant recipients WPP advises on the design of the evaluation plan.

In fiscal year 2024, WPP hosted learning and outreach events to promote funding opportunities, highlight grant projects and create networking opportunities for WPP grantees and potential applicants. These five in-person events and one virtual event were very well-received, with a total of more than 275 people from 28 different counties participating.

WPP writes outcome reports for each concluded project after grantees submit their final reports. The outcome reports include significant achievements of each project as well as key outcomes and are published on the Funded Projects section of the WPP website.

ATTACHMENTS

A) Wisconsin Partnership Program Annual Report, July 1, 2023-June 30, 2024
B) FY 2024 Determination of Non-Supplanting for OAC
C) FY 2024 Determination of Non-Supplanting for PERC
D) FY 2024 Determination of Non-Supplanting for SMPH
E) FY 2024 Determination of Non-Supplanting for UW System and UW-Madison

Annual Report
July 1, 2023 – June 30, 2024

MOVING HEALTH FORWARD

Since 2004

Wisconsin Partnership Program
UNIVERSITY OF WISCONSIN
SCHOOL OF MEDICINE AND PUBLIC HEALTH

The University of Wisconsin School of Medicine and Public Health (SMPH) is home to the Wisconsin Partnership Program, a grantmaking program within the SMPH established as the result of a generous endowment gift from Blue Cross Blue Shield United of Wisconsin's conversion to a stock insurance corporation.

The Wisconsin Partnership Program expresses its continued gratitude for this gift to benefit the people of Wisconsin.

OUR MISSION:

To bring about lasting improvements in health and well-being and advance health equity in Wisconsin through investments in community partnerships, education and research.

KEY

ICTR	Institute for Clinical and Translational Research
NACHP	Native American Center for Health Professions
OAC	Oversight and Advisory Committee
PERC	Partnership Education and Research Committee
SMPH	School of Medicine and Public Health
WFAA	Wisconsin Foundation and Alumni Association
WPP	Wisconsin Partnership Program

TABLE OF CONTENTS

Message to Partners

It is our privilege to present the Wisconsin Partnership Program's (WPP) Fiscal Year 2023-2024 Annual Report. This report is particularly significant: it highlights the progress and achievements of the past year, while also commemorating the Wisconsin Partnership Program's 20th anniversary. We celebrate two decades of moving health forward through our grantmaking and the remarkable work of our grant partners throughout Wisconsin.

The Wisconsin Partnership Program was established at the University of Wisconsin School of Medicine and Public Health (SMPH) as the result of a generous endowment gift from Blue Cross and Blue Shield United of Wisconsin. As responsible stewards of this gift, the SMPH and WPP have the tremendous opportunity to create partnerships, propel medical research, and enhance health education and workforce development in ways that will benefit the people of Wisconsin now and for years to come.

Since the WPP began making grants in 2004, it has awarded 636 grants totaling $301 million aimed at improving health and advancing health equity. Our vision is to reach all corners of Wisconsin in a true embodiment of the Wisconsin Idea.

This principle is evident across WPP-funded initiatives, some of which are highlighted in this annual report. These initiatives include strengthening the public health workforce to serve our state and communities, improving birth outcomes for mothers and babies, and driving innovation to tackle persistent health problems, such as diabetes and obesity. These examples represent just a fraction of the work currently supported by grants from the Wisconsin Partnership Program.

While 20 years is a milestone worth celebrating, we recognize that much work remains. The Wisconsin Partnership Program has not—and will not—shy away from the difficult health challenges that our state continues to face. Whether addressing stubborn and persistent health disparities, striving to understand and treat complex diseases, or preparing future physicians and health care leaders for an ever—changing environment—the Wisconsin Partnership Program is dedicated to the long game. If we work together, we can—and will—continue to improve health and advance health equity in Wisconsin and beyond.

Whether you are a recent collaborator or a part of our early history—thank you for the opportunity to work together over the past twenty years. It is a privilege to partner with you.

Sincerely,

Robert N. Golden, MD
Robert Turell Professor in Medical Leadership
Dean, UW School of Medicine and Public Health
Vice Chancellor of Medical Affairs
University of Wisconsin–Madison

Amy JH Kind, MD, PhD
Executive Director, Wisconsin Partnership Program
Associate Dean, Social Health Sciences and Programs,
UW School of Medicine and Public Health

Overview

The Wisconsin Partnership Program (WPP) is a grantmaking program within the University of Wisconsin School of Medicine and Public Health (SMPH) committed to improving health and advancing health equity in Wisconsin through investments in community partnerships, education and research.

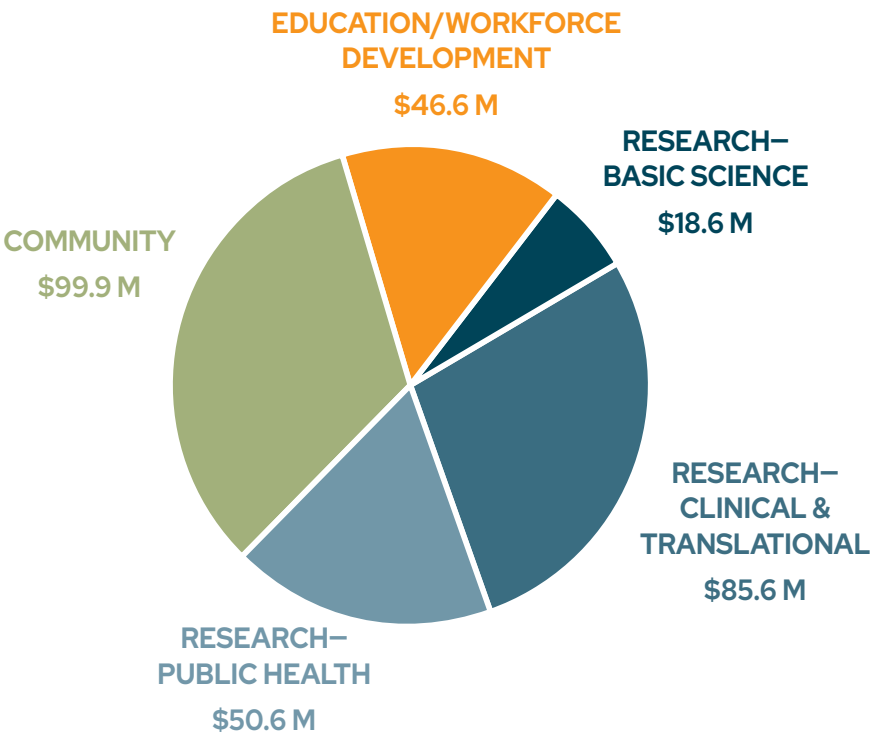
Celebrating 20 Years of Moving Health Forward

The Wisconsin Partnership Program has been moving health forward since 2004 – creating community partnerships, driving research and discovery, and enhancing medical and health education.

This year we are proud to commemorate **twenty years of grantmaking** and supporting partners, projects and achievements that are improving health and advancing health equity for the state of Wisconsin and beyond. The impact of our work and that of our grantees reaches broadly across the state, positively impacting a wide range of communities, populations and geographic areas.

Since we began making grants in 2004, the Wisconsin Partnership Program has awarded 636 grants totaling $301 million. These awards have resulted in a remarkable return on investment, with grantees leveraging more than $876.8 million in additional funding from other sources to sustain the projects. This report covers program activities and expenditures July 1, 2023 through June 30, 2024.

GRANTS AWARDED BY TYPE 2004 – JUNE 30, 2024



Two governance committees composed of community members and University of Wisconsin School of Medicine and Public Health faculty guide the work of the Wisconsin Partnership Program and its processes for reviewing and awarding grants to advance its mission. The Oversight and Advisory Committee directs and distributes funds for public health initiatives (community grants). The Partnership Education and Research Committee allocates funds for education and research initiatives to improve health and advance health equity.

Wisconsin Partnership Program By the Numbers

The Wisconsin Partnership Program (WPP) advances its mission to improve health and advance health equity through a strong portfolio of grant programs that propel medical research, enhance health education and workforce development and support community partnerships. The work of WPP and its grantees touches all corners of the state, across a wide range of health challenges, communities, populations and geographic areas.

2004 – JUNE 30, 2024

636
Total number of grants made

$301 M
Total dollar amount awarded

363 **Community grants awarded**

221 **Research grants awarded**

52 **Education grants awarded**

$876.8 MILLION

Total dollar amount leveraged in funding derived from WPP-funded projects

Wisconsin Partnership Program By the Numbers

FISCAL YEAR 2024

25
Total number of grants made

$9.5 M
Total dollar amount awarded

56
Total ongoing grants

28
Grants concluded

321
Number of articles, presentations or other dissemination of findings of WPP projects

279
Number of attendees at WPP-hosted learning and networking events

$100.3 MILLION
Amount of funds leveraged by WPP grantees from federal agencies or other organizations to sustain or expand their work

Improving Health through Community Partnerships

The Wisconsin Partnership Program's (WPP) Community Grant Programs provide substantial support for community-led solutions and approaches to improve health and advance health equity in Wisconsin through the implementation of a wide range of innovative initiatives and collaborations in rural, tribal and urban communities across the state.

Through its community grant programs, the Wisconsin Partnership Program addresses the social determinants of health, builds capacity in community organizations and targets Wisconsin's most pressing health issues. In keeping with the Wisconsin Idea, these grant programs connect the knowledge and experience of communities with the resources of the university to positively impact lives across Wisconsin.

Community grant recipients are tackling a diverse array of health challenges and infrastructure needs. Some of the current WPP-funded projects include a focus on the following. Please see the **Appendix** for a complete list of current grants.

- addressing youth mental health needs
- eliminating maternal and child health disparities
- expanding access to health care
- expanding the public safety workforce
- improving culturally competent care
- preventing opioid misuse and abuse
- promoting nutrition and access to healthy food
- reducing isolation for people living with Alzheimer's disease and related dementias
- strengthening health workforce development in rural Wisconsin

In fiscal year 2024, the Wisconsin Partnership Program offered two levels of funding through its Community Impact Grant Program to reach a wider range of organizations across the state. Grants totaling $4.23 million were awarded across the two levels.

- **View the Level One Community Impact Grant awards**.
- **View the Level Two Community Impact Grant awards**.

In addition to this year's new awards, the Wisconsin Partnership Program currently supports 37 additional active grants through its Community Impact, Community Collaboration, Maternal and Child Health and COVID-19 Response grant funding mechanisms. Please see the **Appendix** for a full list of awarded and current grants.

As part of its 20th anniversary celebration, WPP also launched a new capacity-building grant program. Grants will support projects designed to help organizations work more efficiently and effectively by strengthening their internal systems. These capacity-building grants are intended for smaller and/or newer nonprofit organizations and will be announced later in 2024.

Community Partnership Highlights

The following examples highlight just a few of the numerous initiatives led by community partners to promote health and advance health equity across Wisconsin. Visit our **Funded Projects** page to explore the full range of funded work.

Kim Ashford (left) a clinical community health worker with Connect Rx Wisconsin and new mom TyiKalia Johnson.

A Clinic-Community Collaboration to Improve Birth Outcomes

Connect Rx Wisconsin is an innovative clinic-community collaboration that addresses Wisconsin's stark maternal and infant health disparities. Their wrap-around service delivery model deploys clinic- and community-based health workers and trained doulas to support the social health needs of expectant and new mothers. Since 2022, 674 pregnant patients who were screened as high-risk were referred to ConnectRx for coordinated care, of which 600 were provided essential resources for housing, food, transportation and financial assistance. **Read the story**.

Creating a Healthy, Culturally Vibrant Food System

The Menominee Nation is working to improve health and reduce their community's risks of Type 2 diabetes and heart disease, which are disproportionately higher than the state's average. Through their WPP-funded initiative, the Menominee Tribe and its Department of Agriculture and Food Systems are renewing Native American food traditions that promote access to fresh, healthy food, agricultural best practices, Menominee cultural teachings and peer support. **Read the story**.

Pictured left to right: Stephanie Dodge (Oneida), Jen Falck (Oneida), Gary Besaw (Menominee), Dan Cornelius (Oneida) at the Indigenous Food Producers Academy.

CHW/doulas Karen Kinsman (left) and Julie Bluske of the Family and Children's Center in La Crosse, Wisconsin.

Improving Maternal and Infant Health in Southwestern Wisconsin

The Great Rivers United Way HUB is working to improve health for families at risk for poor birth outcomes. The HUB is cross-training community health workers as doulas to create a model of holistic health care that addresses both social determinants of health and clinical issues such as prenatal care coordination. The successful program continues to expand in and beyond La Crosse County thanks to additional grant funding and collaborations with local health systems. **Read the story**.

Preparing Wisconsin's Healthcare and Public Health Workforce

Funding from the Wisconsin Partnership Program (WPP) plays a vital role in supporting medical and public health education initiatives and health workforce development at the University of Wisconsin School of Medicine in Public Health (SMPH).

In fact, WPP's earliest education investments helped catalyze the transformation of the University of Wisconsin Medical School into the University of Wisconsin School of Medicine and Public Health.

Today WPP's early and current investments in education and training initiatives continue to prepare future physicians and public health leaders to positively impact health and health care for patients and populations across the state.

Public health education is deeply woven in the fabric of the SMPH thanks to WPP's early investments that helped establish the Master of Public Health Program (MPH), the Population Health Service Fellowship Program, the Preventive Residency Program and the Wisconsin Academy for Rural Medicine.

A current strategic grant to the SMPH's Native American Center for Health Professions for the initiative **Increasing Indigenous Representation in Medicine through Academics, EnGagement and American INovation** (IIMAGIN) is expanding the representation of American Indian/Alaska Native health professionals in the health sciences fields and within health care delivery settings.

In fiscal year 2024 the Wisconsin Partnership Program renewed a strategic grant to the **SMPH's Preventive Residency Program** to support the training of physician leaders in public health and preventive medicine in both communities and health systems.

Education Highlights

The Wisconsin Partnership Program has a proud history of supporting transformational education initiatives that are helping to build Wisconsin's medical and public health workforce and address the diverse health needs of patients and communities across the state. The following examples highlight the sustained impact of these investments.

Dr. Jenna Sebranek with her patients at Elroy Family Medical Center, Elroy, Wisconsin.

Serving Wisconsin's Rural Communities

For physicians like Dr. Jenna Sebranek, returning to practice medicine in her small rural community was a dream come true thanks in part to her training through the Wisconsin Academy for Rural Medicine (WARM), which was started with a grant from the Wisconsin Partnership Program. This training track in rural medicine has graduated 301 physicians since 2004. Read **WPP Celebrates 20 Years of Impact** to learn more about how WPP's education investments are positively impacting the health workforce and the patients they serve.

Driving Innovations in Medical Education

The Wisconsin Partnership Program supports education initiatives that have transformed the SMPH's medical education curriculum to fully integrate both population- and community-based perspectives throughout all phases of physician training. Recent funding supports an innovative undergraduate medical education center focusing on health equity scholarship and research and a new three-year "short track" "WARMeRR" pathway, focused on earlier transition of select WARM medical students to Wisconsin rural residency programs. Learn more about the innovative **ForWard curriculum**.

UW School of Medicine and Public Health graduates.

Celebrating 20 Years of Public Health Leadership

Current fellows pictured back row left to right: Jade Zachery, Kristie Anderson, Raphaella Torralba, Sydney Resler, Maddie Roberts, Ravyn Cruse, Grant Zastoupil; front row left to right: Mariam Sylla, Cait McCrory, Stef Bugasch Scopoline, Isabella Walters

For two decades, the Wisconsin Population Health Service Fellowship Program has dedicated itself to improving public health in Wisconsin by building future leaders. As one of WPP's foundational education investments, the Fellowship places early-career public health professionals in Wisconsin community organizations and public health offices. The fellows play a vital role in addressing local public health challenges, while building their own skills and expertise as future leaders in the field. To date, 104 fellows have completed the program and 80 percent of recent graduates have continued to work right here in Wisconsin. Read **Wisconsin Pop Health Fellowship Turns 20**.

Driving Innovation and Scientific Discovery

The Wisconsin Partnership Program (WPP) research grant programs span the continuum of basic, translational, clinical and applied public health research. Grants support UW School of Medicine and Public Health (SMPH) faculty in driving innovation and scientific discovery, with the ultimate goal to improve health and health care and advance health equity for the people of Wisconsin and beyond.

With WPP funding, researchers target a wide range of health issues including addiction, Alzheimer's disease, cancer, diabetes, heart disease, infectious diseases, maternal and child health, obesity and more.

In fiscal year (FY) 2024, WPP awarded grants to four interdisciplinary research collaborations through its Collaborative Health Sciences Program. These grants support interdisciplinary team science aimed at advancing innovative education or research approaches. They span various academic disciplines and address complex health issues. View the **FY 2024 award descriptions**. Please see the **Appendix** for a full list of awards.

WPP has maintained a strong track record of supporting the career development of SMPH faculty through its New Investigator Program. Awards support early-career faculty in initiating new, innovative research projects. In FY 2024, WPP was proud to support eight new research projects led by SMPH investigators. Please see the **Appendix** for a full list of awards. Read the **award descriptions**.

In addition, the Opportunity Grant Program supports SMPH investigators in groundbreaking research and education projects. Grants provide start-up funding to rapidly establish time-critical, high-profile, high-impact state-of-the art education and research projects.

WPP's Strategic Research Grants provide funding to SMPH investigators and teams to initiate or further enhance novel research infrastructure programs at the SMPH. Funded strategic initiatives such as grants to the Institute for Clinical and Translational Research (ICTR) develop and expand innovative research systems and services, training and professional development, and pilot projects to equip SMPH investigators to address population health, healthcare delivery and more with a health equity focus.

In FY 2024, WPP introduced a new Postdoctoral Grant Program as part of its 20th anniversary celebration. This grant program supports SMPH postdoctoral trainees, postdoctoral fellows, clinical fellows and research associates in pursuing research or education projects or a professional development opportunity to advance their career with a focus on improving health in Wisconsin. Awards will be announced later in 2024.

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Research Highlights

The following examples highlight a few of the many innovative research projects led by WPP grant recipients to address health challenges affecting Wisconsin patients and populations.

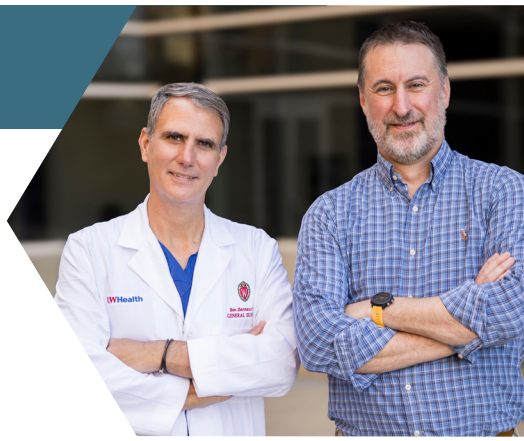
Dudley Lamming (left) and Jacob Brunkard

Engineering a Healthier Calorie to Reduce Diabetes and Obesity

An innovative cross-disciplinary collaboration led by Dudley Lamming, PhD, associate professor, Department of Medicine at the UW School of Medicine and Public Health and Jacob Brunkard, PhD, assistant professor, Department of Genetics in the UW–Madison College of Agricultural and Life Sciences, is harnessing expertise in metabolism and plant genetics to develop a source of plant-based foods that could reduce the intake of certain nutrients linked to obesity. Read **Engineering a Healthier Calorie: Metabolism Experts Leverage Plant Genetics to Tackle Twin Epidemics**.

Addressing the Epidemic of Prescription Opioid Misuse

Randall Brown, MD, PhD, professor, Department of Family Medicine and Community Health and co-collaborator Ben Zarzaur, MD, MPH, FACS, professor, Department of Surgery lead a multi-disciplinary collaboration to address the issue of opioid misuse among patients hospitalized for traumatic injury. Through a preventative telehealth intervention tailored to a patient's individual risk for prescription opioid misuse, the project aims to improve opioid misuse prevention strategies and enhance the care of patients with traumatic injuries. Read the **project description**.



Ben Zarzaur (left) and Randall Brown

Alexander Birbrair (right) with members of his research team, Brajesh Savita (left) and Debpali Sur.

Advancing Treatment for Melanoma

Alexander Birbrair, PhD, assistant professor in the Department of Dermatology, is using a WPP grant for a research project to better understand how signals from nerves inside melanoma tumors affect the cancer's progression. The results of this project could inform clinical testing for new medications to treat melanoma, and ultimately improve survival rates for all melanoma patients. Read the **project description**.

Evaluation and Impact

HOW WE EVALUATE

Evaluation is a key component of the work of the Wisconsin Partnership Program (WPP) and is designed to understand how WPP support facilitates the work of our grantees and what the ultimate impact of that work is. To do so, WPP relies on multiple strands of data, including:

- sustainability measures such as leveraged funding from external funders
- dissemination and knowledge-sharing tracking such as publications and presentations
- grantee progress and final reports with details on reach and impact
- long-term outcome tracking of grantees' work

Combined, these data sources help us answer the question at the core of the WPP evaluation plan: what is the impact that WPP-funded work is having on the health, well-being and health equity of people across the state of Wisconsin?

EVALUATION SUPPORT

Evaluation is critical for researchers and community organizations to expand or sustain their efforts. In order to be eligible for larger federal, foundation or state grants, there is often a requirement that an applicant be able to demonstrate proof-of-concept supported by past results and/or evaluation data. However, many smaller organizations lack the skills or capacity to fully evaluate their work. To bridge this gap and help promote sustainability, WPP provides evaluation support at the start of all community grants. For smaller community grant recipients, WPP advises on the design of the evaluation plan. Additionally, evaluation support for all grantees is available from WPP's evaluation staff on an as-needed basis.

SHARING OUTCOMES AND IMPACT

The Wisconsin Partnership Program writes outcome reports for each concluded project after grantees submit their final reports. The outcome reports include significant achievements of each project as well as key outcomes and are published on the **Funded Projects** section of the WPP website.

View our **Funded Projects** page for more information on WPP awards, including the results of concluded grants.

Evaluation and Impact

CONVENING AND CAPACITY-BUILDING

In fiscal year 2024, WPP continued to expand its efforts to provide learning and outreach events and networking opportunities for WPP grantees and potential applicants.

During spring 2024, WPP held six events – five in person, one virtual – across the state that were attended by 279 participants from 28 different counties. Event programming focused on health equity leadership, forming community-academic partnerships and WPP community grant funding opportunities:

- *Creating Pathways to Partnerships* was a virtual event focused on developing community-academic partnerships.
- *Lessons in Health Equity Leadership* was an in-person event that featured three grantees from Madison, Marshfield and Milwaukee who discussed their approaches to reducing health disparities in their respective communities.
- *Community Connections* outreach events were launched in 2024 to provide a forum for learning about upcoming community grant funding opportunities and connecting with local public health and nonprofit professionals in the region. WPP staff traveled to Ashland, Fennimore, River Falls and Wisconsin Rapids to host these events in partnership with local grant partners and public health, university and community partners. As a result of these outreach events, this year's Community Impact Grant Programs saw a significant increase in applications compared to previous years.

In addition, during fiscal year 2024, WPP continued to engage the online platform Catchafire for *Partnership for a Healthier Wisconsin,* in collaboration with the Advancing a Healthier Wisconsin Endowment at the Medical College of Wisconsin.

Through *Partnership for a Healthier Wisconsin,* Catchafire connects community grant applicants and recipients with talented professionals who donate their skills and expertise to help community organizations build their capacity and advance their missions. Organizations request and receive pro bono support in areas including operations, finance, web development, marketing and communications and more. In fiscal year 2024, 55 Wisconsin nonprofits received more than 2,000 hours of volunteer support through Catchafire for an estimated savings of more than $440,000.

Financial Overview

The financial resources that support the Wisconsin Partnership Program grants were provided by the conversion of Blue Cross and Blue Shield United of Wisconsin and also include funds generated from investment earnings. All funds are in the custody of and managed by the Wisconsin Foundation and Alumni Association (WFAA). Every month, funds are transferred to the School of Medicine and Public Health to reimburse expenditures in accordance with the Order of the Office of the Commissioner of Insurance and the five-year expenditure plans.

INVESTMENTS

Current investments consist of participation in the WFAA Short Term Investment Portfolio (STIP). The primary investment objective of the STIP is to preserve the capital and provide liquidity when dollars are called. The STIP is invested in high-quality, short- and medium-term fixed income securities, as well as a small portion that is invested in highly diversified equity investments. Noncurrent investments consist of participation in the WFAA Endowment portfolio. The primary investment objective of the Endowment portfolio is to maximize long-term real returns commensurate with stated risk tolerance, thereby maximizing long-term purchasing power of the funds, net of distributions for current spending needs. Endowment fund distributions to the spendable funds are based on the WFAA spending policy, which is applied to the market value of the endowment funds.

WFAA INSTITUTIONAL ADVANCEMENT FEE

The WFAA assesses an Institutional Advancement Fee (IAF) of 1 percent on all funds participating in its endowment pool, including Wisconsin Partnership Program funds, as a primary source of revenue for WFAA operations. This assessment, and its usage, is determined by the WFAA board of directors, and is not controlled by the Wisconsin Partnership Program. The IAF for fiscal years 2024 and 2023 were $3,914,948 and $3,684,912, respectively, and are shown under expenses on the Statement of Revenues, Expenses and Changes in Net Assets on page 17.

WFAA decreases the Institutional Advancement Fee to 0.7 percent on cumulative fund amounts above $250 million per qualified relationship. Partnership Program funds exceed the established level, and savings from this fee reduction are fully allocated to the Oversight and Advisory Committee for public health initiatives. These savings were $424,484 and $355,473 for fiscal years ending June 30, 2024 and 2023, respectively.

GRANTS PAYABLE

Grants payable amounts are recorded as of the date of approval by the Oversight and Advisory committee or Partnership Education and Research Committee. The liability reflects the total amount of the grant award, less any payments or adjustments made on or before June 30, 2024. Any subsequent modifications to grant awards are recorded as adjustments of grant expenses in the year the adjustment occurs.

Financial Overview

NET ASSETS

Temporarily Restricted: funds consist of interest and investment income earned by the funds invested in the STIP or endowment portfolio at WFAA and the cumulative net gains or losses related to the permanently restricted funds that are invested within the endowment portfolio. These funds are available to support program expenditures.

Permanently Restricted: The portion of the gift proceeds originally allocated to permanently endow the Wisconsin Partnership Program. These funds have been invested in the endowment portfolio of the Foundation and the corpus is not available to support program expenditures.

OAC REVIEW AND ASSESSMENT OF THE ALLOCATED PERCENTAGE OF FUNDS

As outlined in its founding documents, the Oversight and Advisory Committee (OAC) annually reviews and assesses the allocation percentage for public health initiatives and for education and research initiatives. The OAC took up this matter on October 25, 2023. It was moved to retain the allocation of 35 percent for public health initiatives and 65 percent for education and research initiatives, and the motion was unanimously passed.

SUPPLANTING POLICY

Based on the non-supplanting determination made by the School of Medicine and Public Health Finance Director, the Dean of the School of Medicine and Public Health has attested to compliance with the supplanting prohibition in this Annual Report. The UW-Madison Vice Chancellor of Finance and Administration has also attested that UW-Madison and the UW System have complied with the supplanting prohibition.

FINANCIAL STATEMENTS

The following financial reports consolidate activities of the Wisconsin Foundation and Alumni Association and the School of Medicine and Public Health for the fiscal years ending June 2024 and June 2023.

Financial Overview

STATEMENT OF NET ASSETS

		June 30, 2024		June 30, 2023
ASSETS				
UW SMPH Cash	$	(1,296,427)	$	(1,474,833)
Current Investments		19,130,816		16,874,077
Noncurrent Investments		414,655,660		384,748,419
Total Assets	**$**	**432,490,049**	**$**	**400,147,663**
LIABILITIES				
OAC Grants Payable	$	15,022,424	$	18,066,143
PERC Grants Payable		11,768,814		14,959,206
Total Liabilities		**26,791,238**		**33,025,349**
NET ASSETS				
Temporarily Restricted		122,082,544		83,506,047
Permanently Restricted		283,616,267		283,616,267
Total Net Assets		**405,698,811**		**367,122,314**
TOTAL LIABILITIES AND NET ASSETS	**$**	**432,490,049**	**$**	**400,147,663**

Financial Overview

STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET ASSETS

	Year Ended June 30, 2024	Year Ended June 30, 2023
REVENUES		
Interest Income	392,190	67,742
Change in Fair Value of Endowed Funds	51,440,406	37,929,283
Total Revenues	**51,832,596**	**37,997,025**
EXPENSES		
WFAA Institutional Advancement Fee	3,914,948	3,684,912
Less: WFAA IAF Rebate	(424,484)	(355,473)
OAC Initiatives		
Administrative Expenses	613,155	532,220
Grant Expenses	3,075,683	3,084,384
PERC Initiatives		
Administrative Expenses	1,138,715	988,409
Grant Expenses	4,938,082	6,348,839
Total Expenses	**13,256,099**	**14,283,291**
Increase/(Decrease) in Net Assets	38,576,497	23,713,734
Net Assets - Beginning of year	367,122,314	343,408,580
Net Assets - End of year	$405,698,811	$367,122,314

Financial Overview

GRANT AWARD COMMITMENTS FOR THE FISCAL YEAR ENDED JUNE 30, 2024

	Net Grant Awards(1)	Inception to date Disbursements	Outstanding Grant Commitments
Public Health Initiatives			
Grants awarded from Inception to FY2023	$ 102,663,049	$ 91,852,527	$ 10,810,522
FY2024 Awards	4,231,505	19,603	4,211,902
Subtotal	$ 106,894,554	$ 91,872,130	$ 15,022,424
Medical Education and Research Initiatives			
Grants awarded from Inception to FY2023	$ 178,686,188	$ 171,669,936	$ 7,016,252
FY2024 Awards	5,338,582	586,020	4,752,562
Subtotal	$ 184,024,770	$ 172,255,956	$ 11,768,814
Total	**$ 290,919,324**	**$ 264,128,086**	**$ 26,791,238**

(1) Reflects grants awarded less any lapsed awards returned to the Wisconsin Partnership Program

Financial Overview

STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS (UW SCHOOL OF MEDICINE AND PUBLIC HEALTH)

	FY 2024	FY 2023
BALANCE, JULY 1	**$ (1,474,833)**	**$ (1,327,208)**
CASH RECEIPTS		
Payments received from the UW Foundation	16,178,151	16,928,381
Total Receipts	**16,178,151**	**16,928,381**
CASH DISBURSEMENTS		
Public Health Initiatives	6,119,404	6,643,145
Medical Education and Research Initiatives	8,128,471	8,912,232
PROGRAM ADMINISTRATION		
Salaries	1,097,666	959,012
Fringe Benefits	388,725	341,918
Travel	29,008	1,374
Supplies and Services	72,977	100,875
Consultants and Contracts	131,311	94,584
Other Disbursements	32,183	22,866
Total Program Administration	**1,751,870**	**1,520,629**
TOTAL DISBURSEMENTS	**15,999,745**	**17,076,006**
Increase (Decrease) In Balance	**178,406**	**(147,625)**
Balance, June 30	**$ (1,296,427)**	**$ (1,474,833)**

Policies and Procedures

The Wisconsin Partnership Program and its Oversight and Advisory Committee (OAC) and Partnership Education and Research Committee (PERC) conduct their operations, grantmaking processes and stewardship responsibility in accordance with program requirements and the Insurance Commissioner's Order and Grant Agreement as well as federal, state and local laws.

OAC and PERC follow standard Request for Proposal guidelines, requirements, multistep review processes and selection criteria throughout the grantmaking process. In addition, the Wisconsin Partnership Program evaluates the progress and outcomes of funded grants using annual and final reports, financial reports, presentations and site visits.

OPEN MEETINGS AND PUBLIC RECORDS

As directed by the Insurance Commissioner's Order, the Wisconsin Partnership Program conducts its operations and processes in accordance with Wisconsin's Open Meetings and Public Records Laws. Meetings of the OAC and PERC and their subcommittees are open to the public. Committee agendas and minutes are posted on the Wisconsin Partnership Program's website.

DIVERSITY, EQUITY AND INCLUSION POLICY

The Wisconsin Partnership Program is subject to and complies with the diversity, equity, inclusion and equal opportunity policies of the University of Wisconsin System Board of Regents and UW–Madison.

A commitment to diversity and inclusion is integral to the Wisconsin Partnership Program's mission to serve the public health needs of Wisconsin and to reduce health disparities and advance health equity through community partnerships, education and research. This policy is in alignment with those of the UW System and UW–Madison to inform the Partnership Program's goals, objectives and processes.

LEARN MORE

The Wisconsin Partnership Program's website provides detailed information on our policies and procedures for applicants and grant recipients. View the **Resources and Policies webpage**.

Wisconsin Partnership Program Leadership

Two committees govern the Wisconsin Partnership Program: the Oversight and Advisory Committee (OAC) and the Partnership Education and Research Committee (PERC).

OVERSIGHT AND ADVISORY COMMITTEE

The University of Wisconsin (UW) System Board of Regents appoints four representatives from the UW School of Medicine and Public Health (SMPH) and four community health advocates representing different health categories to the nine-member Oversight and Advisory Committee.

The Wisconsin Office of the Commissioner of Insurance appoints one OAC member. Members serve four-year terms. One member of the Board of Regents and a representative of the UW–Madison Office of the Chancellor also serve as liaisons to the OAC.

The primary responsibilities of the OAC are to:

- Direct and approve available funds for community-engaged public health initiatives and public health education and training
- Provide public representation through the OAC's four health advocates
- Offer comment and advice on the PERC's grant allocations

Community Health Advocate Appointees

Cedric Johnson
OAC Vice Chair
Manager, Advocacy and Alliances, Exact Sciences

Gregory Nycz
CEO, Family Health Center of Marshfield, Inc.

Aaron Perry
Founder and President, Rebalanced-Life Wellness Association

Sue Smith, RN, MSN, CPM
OAC Secretary
Director/Health Officer, Wood County Health Department

Insurance Commissioner's Appointee

Jennifer Stegall
Executive Senior Policy Advisor, Office of Commissioner of Insurance

UW School of Medicine and Public Health Appointees

Jon Audhya, PhD
PERC Chair
Senior Associate Dean for Basic Research, Biotechnology and Graduate Studies

Elizabeth Felton, MD, PhD
Assistant Professor, Department of Neurology

Amy Kind, MD, PhD
Executive Director, Wisconsin Partnership Program
Associate Dean for Social Health Sciences and Programs

Richard L. Moss*, PhD
PERC Chair
Professor Emeritus, Department of Cell and Regenerative Biology

Manish Shah, MD, MPH
OAC Chair
Professor and Chair, Berbee Walsh Department of Emergency Medicine

* Term ended during fiscal year 2024

Wisconsin Partnership Program Leadership

PARTNERSHIP EDUCATION AND RESEARCH COMMITTEE

The Partnership Education and Research Committee (PERC) broadly represents the faculty, staff and leadership at the UW School of Medicine and Public Health and includes representatives from the Oversight and Advisory Committee (OAC).

The primary responsibilities of the PERC are to:

- Direct and approve available funds for faculty-initiated education and research initiatives to advance health and health equity
- Maintain a balanced portfolio of grant investments in population health
- Strengthen collaborations with communities and health leaders statewide

SMPH Leadership

Jon Audhya, PhD
PERC Chair
Senior Associate Dean for Basic Research, Biotechnology and Graduate Studies

Amy Kind, MD, PhD
Executive Director, Wisconsin Partnership Program
Associate Dean for Social Health Sciences and Programs

Richard L. Moss*, PhD
PERC Chair
Professor Emeritus, Department of Cell and Regenerative Biology

Elizabeth Petty, MD
Senior Associate Dean, Academic Affairs and Professor, Department of Pediatrics

Department Chairs

Beth Drolet, MD
Professor and Chair, Department of Dermatology
Representative: Clinical Science Chairs

Kathleen Shannon*, MD
Detling Professor and Chair, Department of Neurology Representative: Clinical Chairs
Representative: Clinical Science Chairs

Faculty Representatives

David Allen*, MD
Professor, Department of Pediatrics
Representative: Clinical Science Faculty

Ryan Coller, MD, MPH
Associate Professor, Pediatrics
Division Chief, Hospital Medicine and Complex Care
Representative: Clinical Science Faculty

Amy Fowler, MD, PhD
Associate Professor, Department of Radiology
Representative: Clinical Science Faculty

Christina Hull, PhD
Professor, Departments of Biomolecular Chemistry and Medical Microbiology and Immunology
Representative: Basic Science Faculty

Shigeki Miyamoto, PhD
Professor, Department of Oncology
Representative: Basic Science Faculty

Ann Sheehy, MD, MS
Associate Professor, Department of Medicine

* Term ended during fiscal year 2024

Wisconsin Partnership Program Leadership

Representative: Clinical Science Faculty

Oversight and Advisory Committee Appointees

Gregory Nycz
OAC Health Advocate
CEO, Family Health Center of Marshfield, Inc.

Manish Shah, MD, MPH
OAC Chair
Professor and Chair, BerbeeWalsh Department of Emergency Medicine

Wisconsin Partnership Program Liaisons

The UW–Madison Office of the Chancellor and University of Wisconsin System Board of Regents each appoints a liaison to advise the Wisconsin Partnership Program leadership and committees.

UW–Madison Office of the Chancellor

Norman Drinkwater, PhD

UW System Board of Regents

Joan Prince, PhD
Member, University of Wisconsin System Board of Regents

Wisconsin Partnership Program Staff

Amy Kind, MD, PhD
Executive Director, Wisconsin Partnership Program
Associate Dean for Social Health Sciences and Programs

Lindsay Barone, PhD
Evaluator

Aimee Haese
Program Officer

Kattia Jimenez
Program Officer

Nathan Kersten
Financial Specialist

Tonya Mathison
Administrative Director

Veronica Kesner
Project Assistant

Megan Miller, MPA
Administrative Executive Director, Wisconsin Partnership Program
Chief Administrative Officer, Office of the Associate Dean for Social Health Sciences and Programs

Stacey Novogoratz
Project Assistant

Anne Pankratz
Communications Manager

Haley Powell
Administrative Assistant

Jaimee Prado
Program Officer

Jonathan Thomas
Finance Associate Director

Stacie Vik
Executive Assistant

Catherine Vickerman
Project Assistant

Debbie Wu
Financial Manager

Appendix: Awarded Grants

WISCONSIN PARTNERSHIP PROGRAM GRANTMAKING ACTIVITY: FISCAL YEAR 2024

During fiscal year 2024, the Wisconsin Partnership Program awarded 25 new awards for a total of $9.5 million and supported the progress of 56 active grants and 28 concluding grants.

COMMUNITY GRANTS

Community Impact Level One Grants

The Community Impact Level One Grants are designed for small to medium-sized with annual expenses of less than $500,000. Awards are up to $250,000 for up to three years.

Name of Project	Community Lead Organization	Academic Partner (if applicable)
Advocates in Medicine Pathway 2.0: Promoting Inclusion of Rural and Underrepresented Students in the Physician Workforce	North Central Wisconsin AHEC, Inc	
Empowering African Immigrant Women's Health and Well-being: A Virtual Center for Women's Health and Mental Health in Wisconsin	Alaafia Women Corporation	Lorraine Malcoe, PhD, MPH, associate professor, UW-Milwaukee Zilber School of Public Health
Riding in the Moment: A Community-Based Program Using Equine-Assisted Services to Improve the Health and Quality of Life of People Living with Alzheimer's Disease and Related Dementias and their Families.	Three Gaits, Inc. Therapeutic Horsemanship Center	Beth Fields, PhD, assistant professor, Department of Kinesiology, UW–Madison School of Education

Appendix: Awarded Grants

Community Impact Grant Level Two

The Community Impact Level Two grants are designed for larger organizations with annual expenses of $500,000 or more and require an academic partner. Awards are up to $500,000 for up to three years.

Name of Project	Community Lead Organization	Academic Partner
Building Bridges to Health Equity in the Amani Neighborhood: Improving Healthcare Access and Quality	Children's Outing Association	David Frazer, MPH, outreach program associate director, Center for Urban Population Health, UW–Madison School of Medicine and Public Health
City of Madison Firefighter/ EMT Development Program	City of Madison Fire Department	Michael Spigner, MD, EMT-P, assistant professor, Department of Emergency Medicine, UW–Madison School of Medicine and Public Health
Engaging Communities to Change Health Outcomes (ECCHO)	Embolden WI Inc. (fmrly. Wisconsin Alliance for Women's Health)	Mary Beth Collins, JD, executive director, Center for Community and Nonprofit Studies, UW–Madison School of Human Ecology
Feeding the Whole Child, Whole Family, and Whole Community through Civic Engagement	Marshfield Clinic	Maggie Bohm-Jordan, PhD, associate professor, Department of Sociology and Social Work, UW–Stevens Point College of Letters and Science
Improving Social Determinants of Health Factors Through Utilization of a Family Coach	Lutheran Social Services of Wisconsin and Upper Michigan, Inc.	Joshua Mersky, PhD, professor, Department of Social Work, UW–Milwaukee School of Social Welfare
Leveraging Community Organizations to Support Better Overall Health Among LGBTQ+ Youth by Bridging Educators and Families	GSAFE	Mollie McQuillan, PhD, assistant professor, Department of Educational Leadership and Policy Analysis, UW–Madison School of Education
Medical Legal Partnership	Wisconsin Primary Health Care Association	Amy Washbush, PhD, associate director for engaged research, Center for Nonprofits, UW–Madison School of Human Ecology

Appendix: Awarded Grants

EDUCATION AND RESEARCH GRANTS

The Partnership Education and Research Committee allocates funds for faculty-led research and education initiatives to improve population health. These education and research grant programs address issues of health and health care and advance health equity through novel basic, clinical, translational and applied public health research as well as through innovative education and training.

New Investigator Program Grants

The New Investigator Program fosters development of early-career SMPH faculty as they initiate new, innovative pilot projects that address Wisconsin's health issues with strong potential to leverage more substantial funding from federal or other granting agencies. The following awards were made for $150,000 each over two years.

Name of Project	Principal Investigator
Defining a Neuron-pericyte Axis via the Neuropeptide Receptor PAC1 in Melanoma Development and Progression	Alexander Birbrair, PhD, assistant professor, Department of Dermatology
Determining the Mechanisms by which Common Genetic Variation Affects Molecular and Cellular Traits in Macrocephalic Autism	Justin Wolter, PhD, assistant professor, Department of Genetics
Engineering CAR T Cells to Overcome Variable Antigen Density in Acute Myeloid Leukemia	Rebecca Richards, MD, PhD, assistant professor, Department of Pediatrics
Functional and Genomic Comparison of Ovarian Cancer Cells in Ascites to Primary Tumor and Associated Cell-free DNA	Jessica Lang, PhD, assistant professor, Department of Pathology and Laboratory Medicine
Leveraging Haplotype Diversity to Study Coronary Artery Disease Risk	Valentina Lo Sardo, PhD, assistant professor, Department of Cell and Regenerative Biology
Liquid Biopsy Biomarkers of Targeted Therapy Resistance in Metastatic ER+ Breast Cancer	Marina Sharifi, MD, PhD, assistant professor, Department of Medicine
Meaningful Clinical Trial Endpoints in Gliomas: A Novel Multi-modal Approach to Patients with Incurable Brain Tumor	Ankush Bhatia, MD, assistant professor (CHS), Department of Neurology
Use of a Translational Lung on a Chip Model to Catalyze Diagnostic and Therapeutic Advances for Aspiration Pneumonia	Hilary Faust, MD, MS, assistant professor (CHS), Department of Medicine

Appendix: Awarded Grants

Collaborative Health Sciences Program Grants

The Collaborative Health Sciences Grant Program provides up to $600,000 over three years to support interdisciplinary team science to advance novel research or education approaches to target complex health problems while advancing health, health care and health equity in Wisconsin and beyond.

Name of Project	Principal Investigator	Co-principal Investigator
Effects of Puberty Blockade on Behavior, Brain and Reproductive Physiology in an Animal Model	Walid Farhat, MD, FRCSC, FACS, professor (CHS), Chief of the Division of Pediatric Urology, Department of Urology	Anthony Auger, PhD, professor, Department of Psychology, UW–Madison College of Letters & Science and Joan Jorgensen, DVM, PhD, professor, Department of Comparative Biosciences, UW School of Veterinary Medicine
Engineering a Healthier Calorie: A Cross-disciplinary Collaboration	Dudley Lamming, PhD, associate professor, Department of Medicine	Jacob Brunkard, PhD, assistant professor, Department of Genetics, UW–Madison College of Agricultural and Life Sciences
Non-Invasive Ultrasound Urodynamics to Improve Medical Care for Men with Lower Urinary Tract Symptoms in Rural Areas	Alejandro Roldán-Alzate, PhD, associate professor, Department of Mechanical Engineering, UW–Madison College of Engineering	Jennifer Franck, PhD, assistant professor, Department of Mechanical Engineering, UW–Madison College of Engineering and Wade Bushman, MD, PhD, professor emeritus, Department of Urology
Screening in Trauma for Opioid Misuse Prevention: Adaptive Intervention (STOMP-AI) Study	Randall Brown, MD, PhD, FASAM, professor, Department of Family Medicine and Community Health, director of the UW Center for Addictive Disorders	Ben Zarzaur, MD, MPH, FACS, professor, Department of Surgery

Appendix: Awarded Grants

STRATEGIC EDUCATION AND RESEARCH GRANTS

In alignment with the strategic direction of the UW School of Medicine and Public Health, the Wisconsin Partnership Program provides critical funding through the Strategic Grant Program to initiate or further enhance novel education and research programs vital to improving health and health care and advancing health equity in Wisconsin and beyond. The following strategic grants were awarded during this reporting period:

Name of Project	Principal Investigator	Amount
University of Wisconsin Institute for Clinical and Translational Research (ICTR): Biostatistics, Informatics and Research Design Support Module	Bernadette Gillick, PhD, MSPT, PT, professor, Departments of Pediatrics	$375,000
University of Wisconsin Institute for Clinical and Translational Research (ICTR): Mentoring and Professional Development Module	Elizabeth Burnside, MD, MPH, associate dean for team science and interdisciplinary research; deputy director, Institute for Clinical and Translational Research; professor, Department of Radiology	$448,590
University of Wisconsin-Madison Preventive Medicine Residency and Public Health Integration (PMR-PHI) Program	Elizabeth Salisbury Afshar, MD, MPH, clinical and teaching physician, Department of Family Medicine and Community Health	$914,992

UW Institute for Clinical and Translational Research (ICTR) Pilot Awards Program

The Wisconsin Partnership Program provides funding to the UW Institute for Clinical and Translational Research (ICTR) to support its Pilot Awards Program. Projects focus on clinical, community and patient-centered outcomes and dissemination and implementation of evidence-based, community-driven interventions. The Wisconsin Partnership Program supports the following ICTR pilot projects that were awarded in fiscal year 2024.

Name of Project	Principal Investigator (UW-Madison)	Amount	Type
Approach for Cognitive Rehabilitation of Infants Living in Rural Communities	Melisa Carrasco McCaul, MD, PhD, assistant professor, Department of Neurology	$75,000	CCOR

Appendix: Awarded Grants

UW Institute for Clinical and Translational Research (ICTR) Pilot Awards Program (Cont.)

Name of Project	Principal Investigator (UW-Madison)	Amount	Type
Clarifying Misbeliefs About Hydroxychloroquine (HCQ): Developing an Individualized Decision Aid for Diverse Patients with Lupus (HCQ-IDEAL)	Shivani Garg, MD, associate professor, Rheumatology	$150,000	D&I
Co-Developing a Communication-training Intervention to Improve Decision Making	Kristin Pecanac, PhD, RN, assistant professor, School of Nursing	$96,600	SPER
Cognitive Rehabilitation for Long COVID Patients with Brain Fog – the First Step	Aurora Pop-Vicas, MD, MPH, associate professor (CHS), Department of Internal Medicine	$74,900	CCOR
Community-engaged Adaptation of a Well-being Intervention to Support Successful Reentry following Incarceration	Daniel Grupe, PhD, associate scientist, Center for Healthy Minds	$74,900	CHER
Culturally Tailoring the Delivery of an Evidence-Based Diabetes Self-Management Program for Black Adults to Enhance its Reach, Adoption and Implementation	Olayinka Shiyanbola, PhD, associate professor, School of Pharmacy	$150,000	D&I
Developing the RAMADAN Instrument: Recognizing Access and Management Associated Diabetes Adversities in Nationwide Muslims in the US (RAMADAN)	Betty Chewning, PhD, professor, School of Pharmacy	$10,000	AHEAD

Appendix: Awarded Grants

UW Institute for Clinical and Translational Research (ICTR) Pilot Awards Program (Cont.)

Name of Project	Principal Investigator (UW-Madison)	Amount	Type
Engaging Patients with Dementia and their Care Partners	Kellia Hansmann, PhD, assistant professor, Department of Medicine and Community Health	$100,000	SPER
Feasibility and Acceptability of Congenital Heart Disease Survivor Transition Readiness	Krisjon Olson, PhD, assistant professor, Department of Pediatrics	$75,000	CHER
Healthcare Coverage in Nontraditional Families in Wisconsin: An Assessment of Needs	Lawrence Berger, PhD, professor, Institute for Research on Poverty	$10,000	AHEAD
Identifying Mechanisms Underlying Neighborhood Disadvantage-Associated Disparities in Outcomes After Complex Cancer Surgery	Syed Nabeel Zafar, MD, MPH, Department of Surgery	$10,000	AHEAD
Improving Medication Use Among Veteran Patients with Inflammatory Conditions	Amanda Margolis, PharmD, MS, associate professor, School of Pharmacy	$74,700	CCOR
Improving Mental and Physical Well Being of Children and Adults of African Descent	Abraham Olufunmilola, PhD, associate professor, School of Pharmacy	$75,000	CCOR
Linking On-Farm Occupational Exposures to Shifts in Antimicrobial Resistance and the Microbiome of Underserved Farm Workers.	Jessica Hite, PhD, assistant professor, School of Veterinary Medicine, Department of Pathobiological Sciences	$10,000	AHEAD
MAT-CHW: A Co-Designed Intervention with WI Refugees to Improve Maternal Child Health	Zoua Vang, PhD, professor, School of Human Ecology	$100,000	SPER

Appendix: Awarded Grants

UW Institute for Clinical and Translational Research (ICTR) Pilot Awards Program (Cont.)

Name of Project	Principal Investigator (UW-Madison)	Amount	Type
Improving Medication Use Among Veteran Patients with Inflammatory Conditions	Amanda Margolis, PharmD, MS, associate professor, School of Pharmacy	$74,700	CCOR
Multigenerational Medical Record Data Linkages for an Analysis of the Healthcare Use and Health Outcomes of Siblings of Stillborn Babies- A Comparative Design, Wisconsin and Utah	Kristen Sharp, MD, professor (CHS), Department of Obstetrics and Gynecology	$9,800	AHEAD
Peer-led Trauma Therapy for Re-entry	Michael Koenigs, PhD, professor (CHS), Department of Psychiatry	$74,500	CCOR
Racial and Geographic Disparities of Prenatal Care Coordination in Wisconsin	Lawrence Berger, PhD, professor, Institute for Research on Poverty	$10,000	AHEAD
Reducing Racial Disparities in Smoking: The Milwaukee Collaboration	Megan Piper, PhD, professor, Center for Tobacco Research	$100,000	SPER
Staphylococcus Aureus Bacteremia Electronic Reminder Adapted for Rural Settings: The Saberus Project	Julie Keating, PhD, scientist, Department of Medicine	$74,700	CCOR

Appendix: Awarded Grants

UW Institute for Clinical and Translational Research (ICTR) Pilot Awards Program (Cont.)

Name of Project	Principal Investigator (UW-Madison)	Amount	Type
The Digital Living Well with Atrial Fibrillation	Matthew Kalscheur, MD, electrophysiologist, Department of Medicine	$100,000	SPER
Tribal Institutional Review Boards: A Model for Indigenous Health Equity	Carey Gleason, PhD, Professor, Department of Medicine	$10,000	AHEAD
Where Do the Babies Go? Infants of Incarcerated Mothers And Their Caregivers	Jill Denson, PhD, assistant professor, Department of Pediatrics	$74,800	CHER

AHEAD: Advancing Health Equity and Diversity; CCOR: Clinical and Community Outcomes Research; D&I: Dissemination and Implementation Research; SPER: Stakeholder and Patient Engaged Research

Appendix: Concluded Grants

COMMUNITY GRANTS

Community Collaboration Grants
Creating Our Healthy Neighborhood: Reversing Disinvestment in Urban Milwaukee, Metcalfe Park Community Bridges Inc.
ROOTed to REAP: Latinx/Indigenous Women Advancing Health and Food Equity in Dane County, REAP Food Group
The Good Hood: Making Meadowood a Healthy Community, The Mellowhood Foundation

Community Impact Grants
Connecting Clinics, Campuses, and Communities to Advance Health Equity, Marshfield Clinic
First Breath Families: Helping Low-Income Moms Quit Smoking and Babies Grow Up Smoke-Free, Wisconsin Womens Health Foundation Inc.
Southwestern Wisconsin Recovery Pathways, Southwestern Wisconsin Community Action Program
Making Milwaukee a Lead Safe City - Walnut Way

COVID-19 Response Grant
PATCH Youth Advocacy Fellowship for Social and Emotional Health, Embolden WI Inc. (fmrly. Wisconsin Alliance for Women's Health)
Supporting Healthy Black Families' Workgroups, Urban Triage, Inc.
Supporting the Mental and Social-Emotional Health Needs of Black, Brown, Multiracial, Trans & Nonbinary LGBTQ+ Adolescents Impacted by COVID-19, GSAFE
Supporting Youth through the La Crosse System of Care, La Crosse County Human Services

Maternal and Infant Health Grants
Birth Outcomes Made Better (BOMB) Doula Program, City of Milwaukee
Strengthening Community Supports for Black Families in Rock County, Rock County Health Department
Strong Fathers Strong Families Project, Fathers Making Progress
Today Not Tomorrow Family Resource Center Community Based Doulas and Family Support Programming, Today Not Tomorrow, Inc.

Appendix: Concluded Grants

EDUCATION AND RESEARCH GRANTS

Collaborative Health Sciences Program
Comparison of Successful Colorectal Cancer Screening Strategies in Wisconsin Rural and Urban Settings: Achieving "80% In Every Community" Principal Investigator: Jennifer Weiss, MD, MS, associate professor, Department of Medicine Co-principal Investigators: Robert Greenlee, PhD, Marshfield Clinic and James Ford, PhD, associate professor, Department of Pharmacy, UW School of Pharmacy
Hexosamin Biosynthetic Pathway in Idiopathic Pulmonary Fibrosis Principal Investigator: Allan Braiser, senior associate dean for clinical and translational research Co-principal investigators: Nathan Sandbo, MD, PhD, associate professor, Department of Medicine; Paul Campagnola, PhD, professor, Department of Biomedical Engineering, UW–Madison College of Engineering
Towards an Integrated Understanding of Stress, Inflammation and Immune Response Principal Investigator: David Beebe, PhD, professor, Department of Pathology & Laboratory Medicine, UW–Madison School of Medicine and Public Health Co-principal Investigator: Anna Huttenlocher, MD, professor, Department of Pediatrics, UW–Madison School of Medicine and Public Health and Richard Davidson, PhD, professor, Department of Psychology, College of Letters and Science

COVID-19 Response Grant Program
Evaluating COVID-19 Response Efforts to Improve Health and Racial Equity in Milwaukee County, UW Population Health Institute
Predicting Patient Outcomes in Wisconsin and Nationwide Using the University of Wisconsin's COVID-19 EHR Cohort Database Michael Fiore, MD, MPH, MBA, professor emeritus, Department of Medicine, UW–Madison School of Medicine and Public Health

Appendix: Concluded Grants

EDUCATION AND RESEARCH GRANTS (CONT.)

New Investigator Grant Program
Non-invasive Diagnosis of Acute Kidney Injury in Premature Infants Matthew Harer, MD, associate professor, Department of Pediatrics
Quantitative Functional Biomarkers of Cervical Remodeling During Pregnancy Using Ultrasound Imaging Ivan Rosado-Mendez, PhD, assistant professor, Department of Medical Physics
Replicating the First Step of Human Vision in a Dish for Designing Effective Therapies to Cure Blindness Raunak Sinha, PhD, assistant professor, Department of Neuroscience
Vascular Effects of the Precision Interventions for Severe Asthma Matthew Tattersall, DO, MS, associate professor, Department of Medicine

UW Institute for Clinical and Translational Research (ICTR)
Accessible Transition Readiness Assessment (aTRA): Adapting an Intervention for Congenital Heart Disease Survivors with Disabilities Catherine Allen, MD, associate professor, Department of Pediatrics
Addressing Inequities in Long COVID Experiences: Implementing an Educational Intervention in Primary Care Rachel Grob, distinguished scientist, Department of Family Medicine and Community Health
Advancing the use of Academic Detailing and DICE as Ways of Enhancing the Care of Persons Living with Dementia Art Walaszek, MD, professor, Department of Psychiarty
Community Co-design and Pilot Test of Public Health Messages Addressing Pediatric Vaccine Hesitancy in Rural America Malia Jones, PhD, MPH, assistant professor, Department of Community and Environmental Sociology, UW-Madison College of Agricultural and Life Sciences
Disseminating and Implementing MedSMART Families in the Emergency Department: An Evidence-based Approach for Improving Opioid Safety Among Adolescents and Parents Olufunmilola Abraham, BPharm, MS, PhD, associate professor, UW-Madison School of Pharmacy
Understanding How the Forensic Nurse Exam can be Improved to Reduce Health Disparities Among Black, Indigenous, and LGBTQ2S Survivors of Sexual Assault Kate Walsh, PhD, professor, Department of Psychology, UW-Madison

Appendix: Concluded Grants

EDUCATION AND RESEARCH GRANTS (CONT.)

Strategic Education and Research Grants
Survey of the Health of Wisconsin (SHOW) Jomol Mathew, PhD, associate dean for informatics and information technology, SMPH Informatics and Information Technology
Understanding and Addressing Health Disparities in Wisconsin through Statewide Partnerships Maureen Smith, MD, PhD, MPH, professor, Departments of Population Health Sciences and Family Medicine and Community Health
University of Wisconsin Institute for Clinical and Translational Research (ICTR) – Community Engagement Module Jane Mahoney, MD, professor, Department of Medicine
University of Wisconsin Preventive Medicine Residency Program Jonathan Temte, MD, PhD, associate dean for public health and community engagement; professor, Department of Family Medicine and Community Health

Appendix: Active Grants

In addition to this fiscal year's awarded and concluded grants, the following active grants were also supported by the Wisconsin Partnership Program.

COMMUNITY GRANTS

Community Collaboration Grants
Increasing Capacity for MACH OneHealth to Improve Health Access, Equity, and Outcomes for Individuals Experiencing Homelessness and Housing Insecurity

Community Impact Grants
Accelerating Health Equity for Black Women in Wisconsin - Well Black Woman Institute
Addressing Stressors, Preventing Farmer Suicide: Social Connectedness and Health
Advancing Health Equity Through Legal Interventions for Low-Income Wisconsinites
Biehl Bridges to Recovery "Advancing Health Equity through Economic Stabilization within the Recovery Community
Black Men's Mental Health and Well-Being
Building Tech Skills, Opportunities, Health and Wellness for Returning Citizens
Community-Campus Partnership to Create Mental Health Support for the Latino Community
Creating a Renewed and Culturally Vibrant Healthy Food System for Kaeyas Mamaceqtawak (The Ancient Movers)
Evaluating the Effectiveness of One City Schools: Preparing Children for School Success and Healthy Lives
Food Sovereignty in the Oneida Nation: A Comprehensive Approach to Health
Health Equity for Criminal Justice-impacted Women through Access to Housing
Healthy Communities through WEESSN-Milwaukee: Supporting Quality Early Learning and Family Well-Being
Improving Birth Outcomes for Black Families through Community-Clinic Collaborations
Parenting Support Is Public Health: Reducing Health Disparities in the Child Welfare System
Preventing Early Expulsion to Promote Child Health
Reducing Health Inequity Through Promotion of Social Connectedness
Re-entry Rising MKE
Social Service Redesign
Supporting Social Emotional Health in K-12 African American Students
The Latino Dementia Health Regional Consortium
Wisconsin Rural Health & Substance Use clinical Support (RHeSUS) Program

Appendix: Active Grants

COMMUNITY GRANTS (CONT.)

Maternal and Child Health Program Grants
Bridging Community Supports to Achieve Healthy Births for Black Mothers
Development of a OB Nurse Navigator Program in a Rural Critical Access Hospital
Door County Welcome Baby Continuum Project
Gerald L. Ignace Indian Health Center: Little Seedlings Program
Improving Health Outcomes for Families: Evidence-Based Home Visiting
Improving Maternal & Child Health Outcomes through Great Rivers HUB & Community Health Worker/Doula Workforce Expansion
Improving Maternal Child Health for the Somali Community in Barron County
Jardin de Espacios (Garden of Spaces): Designing Well-Being During the Perinatal Journey
Marathon County Start Right
Milwaukee Start Right
Support for Mothers and Infants from the Amish and Mennonite (Plain) Communities
Supporting Healthy Babies through Strengthening Families

COVID-19 Response Grants
A Call to Action: Compassion Resilience Training for Parents and Family Caregivers
Restorative Justice in Schools and Communities: Facilitating Healing, Support, and Cultural Identity Affirmation for Young People
Testing and Scaling Virtual and In-person Youth Group Therapy and Guardian Support Groups

Appendix: Active Grants

RESEARCH AND EDUCATION GRANTS

Collaborative Health Sciences Grant Program
Advancing Health Equity for Lupus Patients in Wisconsin:
Evaluating a Novel Follow-up Intervention to Improve the Delivery of Follow-up Care for Low-Risk Breast Cancer Survivors in Wisconsin: How a Care Continuum and Community Stakeholders Can Inform Interventions to Close Disparities Gaps
Post-Traumatic Stress Disorder (PTSD) Therapy for Wisconsin Prison Inmates
Prevention of HPV-Associated Anogenital Cancers Using HIV Protease Inhibitors
Rediscovering Rheumatoid Factor as a Unique Antiviral Agent in COVID-19

COVID-19 Response Grant Program
Widespread Protective Immunity Screening Against COVID-19 Using Point-of-care Serology Profiling Biosensor
Responding to dual epidemics of COVID-19 and Overdose among People Who Inject Drugs in Wisconsin
Implications of COVID-19 on Service Delivery, Health, and Well-Being for People with Intellectual and Developmental Disabilities

New Investigator Grant Program
Defining Stromal Mechanisms of ER+ Breast Cancer Dissemination, Dormancy, and Metastatic Recurrence
Evaluating the Impacts of Wisconsin's Birth Cost Recovery Policy on the Health and Wellbeing of Low-Income Black Birthing Parents: A Community-Centered Approach
Improving ICU Care for Older Adults Near the End of Life through Time-limited Trials
Modulating Adipose Tissue Heme Biosynthesis to Promote Energy Expenditure in Obesity
Targeting Gene Therapy Vectors to Nuclear Sites to Improve Precision Medicine and Oncolytic Virotherapies

Appendix: Active Grants

STRATEGIC EDUCATION AND RESEARCH GRANTS

Strategic Education Grants
Increasing Indigenous Representation in Medicine through Academics EnGagement and INnovation (IIMAGIN)
Wisconsin Partnership Program Scholarship

Strategic Research Grants
UW-Institute for Clinical and Translational Research (ICTR) - Administration, Leadership and Evaluation Module
UW-Institute for Clinical and Translational Research (ICTR) - Biostatistics, Informatics and Research Design Support
UW-Institute for Clinical and Translational Research (ICTR) - Mentoring and Professional Development Module
UW-Institute for Clinical and Translational Research (ICTR) - Pilot Awards Program Module

View our Funded Projects page for grant descriptions and outcome reports.

Wisconsin Partnership Program
Determination of Non-Supplanting Fiscal Year 2024
For
Public Health Initiatives and Public Health Education and Training Initiatives
Recommended for Approval by the
Oversight and Advisory Committee

The Chief Financial Officer (CFO) of the University of Wisconsin School of Medicine and Public Health (SMPH) hereby attests to the Oversight and Advisory Committee that:

The following list of public health initiatives and public health education and training initiatives has been reviewed in detail to determine whether use of the Wisconsin Partnership Program funds for the following projects has complied with the supplanting prohibition in the Insurance Commissioner's Order of March 28, 2000, as specified in the criteria set forth in the addendum of the 2003 to 2008 Five-Year Plan, and as approved by the Wisconsin United for Health Foundation, Inc. on March 15, 2004.

The SMPH CFO has determined that financial support by the Wisconsin Partnership Program of these projects does not result in supplanting.

This determination shall be filed with the Oversight and Advisory Committee this 23rd day of October, 2024.

Community Collaboration

Fiscal Year 2020
The Good Hood: Making Meadowood a Healthy Community
Creating our healthy neighborhood: Reversing disinvestment in urban Milwaukee
Increasing Capacity for MACH OneHealth to Improve Health Access, Equity, and Outcomes for Individuals Experiencing Homelessness and Housing Insecurity
ROOTed to REAP: Latinx/Indigenous women advancing health and food equity in Dane County

Community Impact

Fiscal Year 2018
Connecting Clinics, Campuses and Communities to Advance Health Equity
First Breath Families: Helping Low-Income Moms Quit Smoking and Babies Grow Up Smoke-Free
Southwestern Wisconsin Recovery Pathways

Fiscal Year 2019
Reentry Rising MKE
Preventing Early Expulsion to Promote Child Health
Reducing Health Inequity through Promotion of Social Connectedness
Social Service Redesign

Fiscal Year 2020
Community-Campus Partnership to Create Mental Health Support for the Latino Community
Evaluating the Effectiveness of One City Schools: Preparing Children for School Success and Healthy Lives
Improving Birth Outcomes for Black Families through Community-Clinic Collaborations
Creating a Renewed and Culturally Vibrant Healthy Food System for Kaeyas Mamaceqtawak (The Ancient Movers)
Parenting Support Is Public Health: Reducing Health Disparities in the Child Welfare System

Healthy Communities through WEESSN-Milwaukee: Supporting Quality Early Learning and Family Well-Being

Fiscal Year 2021
Addressing Stressors, Preventing Farmer Suicide: Social Connectedness and Health
Building Tech Skills, Opportunities, Health and Wellness for Returning Citizens
Advancing Health Equity Through Legal Interventions for Low-Income Wisconsinites
Black Men's Mental Health and Well-Being
Supporting Social Emotional Health in K-12 African American Students
Accelerating Health Equity for Black Women in Wisconsin - Well Black Woman Institute

Fiscal Year 2022
Food Sovereignty in the Oneida Nation: A Comprehensive Approach to Health
The Latino Dementia Health Regional Consortium
Wisconsin Rural Health & Substance Use clinical Support (RHeSUS) Program
Health equity for criminal justice-impacted women through access to housing

Fiscal Year 2023
Making Milwaukee a Lead Safe City
Biehl Bridges to Recovery "Advancing Health Equity through Economic Stabilization within the Recovery Community"

Fiscal Year 2024
Advocates in Medicine Pathway 2.0: Promoting Inclusion of Rural and Underrepresented Students in the Physician Workforce
Riding in the Moment: A Community-Based Program Using Equine-Assisted Services to Improve the Health and Quality of Life of People Living with Alzheimer's Disease and Related Dementias and their Families.
Empowering African Immigrant Women's Health and Well-being: A Virtual Center for Women's Health and Mental Health in Wisconsin
Leveraging Community Organizations to Support Better Overall Health Among LGBTQ+ Youth by Bridging Educators and Families
Medical Legal Partnership
City of Madison Firefighter/EMT Development Program
Improving Social Determinants of Health Factors Through Utilization of a Family Coach
Feeding the Whole Child, Whole Family, and Whole Community through Civic Engagement
Engaging Communities to Change Health Outcomes (ECCHO)
Building Bridges to Health Equity in the Amani Neighborhood: Improving Healthcare Access and Quality

COVID-19 Response Grant Program

Fiscal Year 2022
Testing and Scaling Virtual and In-person Youth Group Therapy and Guardian Support Groups
Restorative Justice in Schools and Communities: Facilitating Healing, Support, and Cultural Identity Affirmation for Young People
Supporting Youth through the La Crosse System of Care
PATCH Youth Advocacy Fellowship for Social and Emotional Health
Supporting the mental and social-emotional health needs of Black, Brown, Multiracial, Trans & Nonbinary LGBTQ+ adolescents impacted by COVID-19.

Wisconsin Partnership Program
Determination of Non-Supplanting Fiscal Year 2024

A Call to Action: Compassion Resilience Training for Parents and Family Caregivers
Supporting Healthy Black Families' Workgroups

Maternal and Infant Health Program

Fiscal Year 2022
Strong Fathers Strong Families Project
Strengthening Community Supports for Black Families in Rock County
Today Not Tomorrow Family Resource Center Community Based Doulas and Family Support Programming
Supporting Healthy Babies through Strengthening Families
Bridging Community Supports to Achieve Healthy Births for Black Mothers
Birth Outcomes Made Better (BOMB) Doula Program

Fiscal Year 2023
Marathon County Start Right
Milwaukee Start Right
Jardin de Espacios (Garden of Spaces): Designing Well-Being During the Perinatal Journey
Gerald L. Ignace Indian Health Center: Little Seedlings Program
Improving Maternal Child Health for the Somali Community in Barron County
Support for Mothers and Infants from the Amish and Mennonite (Plain) Communities
Improving Health Outcomes for Families: Evidence-Based Home Visiting
Development of a OB Nurse Navigator Program in a Rural Critical Access Hospital
Improving Maternal & Child Health Outcomes through Great Rivers HUB & Community Health Worker/Doula Workforce Expansion
Door County Welcome Baby Continuum Project

Strategic

Fiscal Year 2023
Wisconsin Population Health Service Fellowship Program: Improving Health and Health Equity through Service and Training – OAC

By: Heidi S Conrad
Heidi Conrad
Chief Financial Officer
UW School of Medicine and Public Health

Date: 10/23/24

As accepted by the Oversight and Advisory Committee on October 23, 2024.

Wisconsin Partnership Program
Fiscal Year 2024 Determination of Non-Supplanting
For
Education and Research Initiatives
Recommended for Approval by the
Partnership Education and Research Committee

The Chief Financial Officer of the University of Wisconsin School of Medicine and Public Health (SMPH) hereby attests to the Partnership Education and Research Committee that:

The following list of education and research initiatives has been reviewed in detail to determine whether use of the Wisconsin Partnership Program funds for the following projects has complied with the supplanting prohibition in the Insurance Commissioner's Order of March 28, 2000, as specified in the criteria set forth in the addendum of the 2003 to 2008 Five-Year Plan, and as approved by the Wisconsin United for Health Foundation, Inc. on March 15, 2004.

The SMPH Chief Financial Officer has determined that financial support by the Wisconsin Partnership Program of these projects does not result in supplanting.

This determination shall be filed with the Partnership Education and Research Committee this 14th day of October 2024.

Collaborative Health Sciences Program

Fiscal Year 2019
Towards an Integrated Understanding of Stress, Inflammation and Immune Response

Fiscal Year 2020
Post-Traumatic Stress Disorder (PTSD) Therapy for Wisconsin Prison Inmates
Comparison of successful colorectal cancer screening strategies in Wisconsin rural and urban settings: Achieving "80% in every community"

Fiscal Year 2021
Advancing Health Equity for Lupus Patients in Wisconsin: how a Care Continuum and community stakeholders can inform interventions to close disparities gaps
Prevention of HPV-Associated Anogenital Cancers Using HIV Protease Inhibitors

Fiscal Year 2022
Evaluating a Novel Follow-up Intervention to Improve the Delivery of Follow-up Care for Low-Risk Breast Cancer Survivors in Wisconsin
Hexosamine Biosynthetic Pathway in Idiopathic Pulmonary Fibrosis
Rediscovering Rheumatoid Factor as a Unique Antiviral Agent in COVID-19

Fiscal Year 2024
Engineering a healthier calorie: a cross-disciplinary collaboration
Non-Invasive Ultrasound Urodynamics to Improve Medical Care for Men with Lower Urinary Tract Symptoms in Rural Areas
Screening in trauma for opioid misuse prevention: Adaptive intervention (STOMP-AI) study
Effects of puberty blockade on behavior, brain and reproductive physiology in an animal model

COVID-19 Response Grants

Wisconsin Partnership Program
Fiscal Year 2024 Determination of Non-Supplanting

Fiscal Year 2022
Widespread protective immunity screening against COVID-19 using a point-of-care serology-profiling biosensor
Responding to dual epidemics of COVID-19 and overdose among people who inject drugs in Wisconsin
Evaluating COVID-19 Response Efforts to Improve Health and Racial Equity in Milwaukee County
Implications of COVID-19 on service delivery, health, and well-being for people with intellectual and developmental disabilities
Predicting Patient Outcomes in Wisconsin and Nationwide Using the University of Wisconsin's COVID-19 EHR Cohort Database

New Investigator Program

Fiscal Year 2020
Non-invasive Diagnosis of Acute Kidney Injury in Premature Infants
Vascular Effects of the Precision Interventions for Severe Asthma (VASC-PreCISE)

Fiscal Year 2022
Quantitative Functional Biomarkers of Cervical Remodeling During Pregnancy Using Ultrasound Imaging
Evaluating the Impacts of Wisconsin's Birth Cost Recovery Policy on the Health and Wellbeing of Low-Income Black Birthing Parents: A Community-Centered Approach
Replicating the First Step of Human Vision in a Dish for Designing Effective Therapies to Cure Blindness
Targeting Gene Therapy Vectors to Nuclear Sites to Improve Precision Medicine and Oncolytic Virotherapies

Fiscal Year 2023
Defining stromal mechanisms of ER+ breast cancer dissemination, dormancy, and metastatic recurrence
Improving ICU care for older adults near the end of life through time-limited trials
Modulating adipose tissue heme biosynthesis to promote energy expenditure in obesity

Fiscal Year 2024
Functional and genomic comparison of ovarian cancer cells in ascites to primary tumor and associated cell-free DNA
Defining a neuron-pericyte axis via the neuropeptide receptor PAC1 in melanoma development and progression
Determining the mechanisms by which common genetic variation affects molecular and cellular traits in macrocephalic autism
Engineering CAR T cells to overcome variable antigen density in acute myeloid leukemia
Use of a Translational Lung on a Chip Model to Catalyze Diagnostic and Therapeutic Advances for Aspiration Pneumonia
Leveraging Haplotype Diversity to Study Coronary Atery Disease Risk
Meaningful Clinical Trial Endpoints in Gliomas: A Novel Multi-modal Approach to Patients with Incurable Brain Tumors
Liquid biopsy biomarkers of targeted therapy resistance in metastatic ER+ breast cancer

Strategic Program

Fiscal Year 2020
Wisconsin Partnership Program Scholarship

Wisconsin Partnership Program
Fiscal Year 2024 Determination of Non-Supplanting

Fiscal Year 2021
Understanding and Addressing Health Disparities in Wisconsin through Statewide Partnerships

Fiscal Year 2022
UW Institute for Clinical and Translational Research (ICTR) - Administration, Leadership and Evaluation Module
UW Institute for Clinical and Translational Research (ICTR) – Biostatistics, Informatics and Research Design Support Module
UW Institute for Clinical and Translational Research (ICTR) -Mentoring and Professional Development Module
UW Institute for Clinical and Translational Research (ICTR) -Community Engagement Module
UW Institute for Clinical and Translational Research (ICTR) -Pilot Awards Program Module

Fiscal Year 2023
Increasing Indigenous Representation in Medicine through Academics EnGagement and INnovation (IIMAGIN)
Survey of the Health of Wisconsin (SHOW)
TME 2023-2026: Building a Center for Innovation, Scholarship and Research in Undergraduate Medical Education CISR-UME
University of Wisconsin Preventive Medicine Residency Program
Wisconsin Population Health Service Fellowship Program

Fiscal Year 2024
University of Wisconsin Preventive Medicine Residency and Public Health Integration (PMR-PHI) Program

By: Heidi Conrad

Heidi Conrad
Chief Financial Officer
UW School of Medicine and Public Health

Date: 10-14-24

As accepted by the Partnership Education and Research Committee on **October 14, 2024.**

Wisconsin Partnership Program
Fiscal Year 2024 Determination of Non-Supplanting

University of Wisconsin School of Medicine and Public Health

The Dean of the UW School of Medicine and Public Health, Robert N. Golden, MD, hereby attests that:

The UW School of Medicine and Public Health has complied with the supplanting prohibition in the Insurance Commissioner's Order of March 28, 2000, as specified in the criteria set forth in the addendum of the 2003 to 2008 Five-Year Plan, and as approved by the Wisconsin United for Health Foundation, Inc. on March 15, 2004. This attestation is based on the detailed review and determination of non-supplanting by the SMPH Chief Financial Officer, Heidi Conrad, for each of the listed awards.

This attestation shall be filed with the Wisconsin Partnership Program's Fiscal Year 2024 Annual Report, which covers the period July 1, 2023-June 30, 2024.

PARTNERSHIP EDUCATION AND RESEARCH COMMITTEE:

Collaborative Health Sciences Program

Fiscal Year 2019
Towards an Integrated Understanding of Stress, Inflammation and Immune Response

Fiscal Year 2020
Post-Traumatic Stress Disorder (PTSD) Therapy for Wisconsin Prison Inmates
Comparison of successful colorectal cancer screening strategies in Wisconsin rural and urban settings: Achieving "80% in every community"

Fiscal Year 2021
Advancing Health Equity for Lupus Patients in Wisconsin: how a Care Continuum and community stakeholders can inform interventions to close disparities gaps
Prevention of HPV-Associated Anogenital Cancers Using HIV Protease Inhibitors

Fiscal Year 2022
Evaluating a Novel Follow-up Intervention to Improve the Delivery of Follow-up Care for Low-Risk Breast Cancer Survivors in Wisconsin
Hexosamine Biosynthetic Pathway in Idiopathic Pulmonary Fibrosis
Rediscovering Rheumatoid Factor as a Unique Antiviral Agent in COVID-19

Fiscal Year 2024
Engineering a healthier calorie: a cross-disciplinary collaboration
Non-Invasive Ultrasound Urodynamics to Improve Medical Care for Men with Lower Urinary Tract Symptoms in Rural Areas
Screening in trauma for opioid misuse prevention: Adaptive intervention (STOMP-AI) study
Effects of puberty blockade on behavior, brain and reproductive physiology in an animal model

COVID-19 Response Grants

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Widespread protective immunity screening against COVID-19 using a point-of-care serology-profiling biosensor

Responding to dual epidemics of COVID-19 and overdose among people who inject drugs in Wisconsin
Evaluating COVID-19 Response Efforts to Improve Health and Racial Equity in Milwaukee County
Implications of COVID-19 on service delivery, health, and well-being for people with intellectual and developmental disabilities
Predicting Patient Outcomes in Wisconsin and Nationwide Using the University of Wisconsin's COVID-19 EHR Cohort Database

New Investigator Program

Fiscal Year 2020
Non-invasive Diagnosis of Acute Kidney Injury in Premature Infants
Vascular Effects of the Precision Interventions for Severe Asthma (VASC-PreCISE)

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Quantitative Functional Biomarkers of Cervical Remodeling During Pregnancy Using Ultrasound Imaging
Evaluating the Impacts of Wisconsin's Birth Cost Recovery Policy on the Health and Wellbeing of Low-Income Black Birthing Parents: A Community-Centered Approach
Replicating the First Step of Human Vision in a Dish for Designing Effective Therapies to Cure Blindness
Targeting Gene Therapy Vectors to Nuclear Sites to Improve Precision Medicine and Oncolytic Virotherapies

Fiscal Year 2023
Defining stromal mechanisms of ER+ breast cancer dissemination, dormancy, and metastatic recurrence
Improving ICU care for older adults near the end of life through time-limited trials
Modulating adipose tissue heme biosynthesis to promote energy expenditure in obesity

Fiscal Year 2024
Functional and genomic comparison of ovarian cancer cells in ascites to primary tumor and associated cell-free DNA
Defining a neuron-pericyte axis via the neuropeptide receptor PAC1 in melanoma development and progression
Determining the mechanisms by which common genetic variation affects molecular and cellular traits in macrocephalic autism
Engineering CAR T cells to overcome variable antigen density in acute myeloid leukemia
Use of a Translational Lung on a Chip Model to Catalyze Diagnostic and Therapeutic Advances for Aspiration Pneumonia
Leveraging Haplotype Diversity to Study Coronary Atery Disease Risk
Meaningful Clinical Trial Endpoints in Gliomas: A Novel Multi-modal Approach to Patients with Incurable Brain Tumors
Liquid biopsy biomarkers of targeted therapy resistance in metastatic ER+ breast cancer

Strategic Program

Fiscal Year 2020
Wisconsin Partnership Program Scholarship

Fiscal Year 2021
Understanding and Addressing Health Disparities in Wisconsin through Statewide Partnerships

Fiscal Year 2022

UW Institute for Clinical and Translational Research (ICTR) - Administration, Leadership and Evaluation Module
UW Institute for Clinical and Translational Research (ICTR) – Biostatistics, Informatics and Research Design Support Module
UW Institute for Clinical and Translational Research (ICTR) -Mentoring and Professional Development Module
UW Institute for Clinical and Translational Research (ICTR) -Community Engagement Module
UW Institute for Clinical and Translational Research (ICTR) -Pilot Awards Program Module

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TME 2023-2026: Building a Center for Innovation, Scholarship and Research in Undergraduate Medical Education CISR-UME
University of Wisconsin Preventive Medicine Residency Program
Wisconsin Population Health Service Fellowship Program

Fiscal Year 2024
University of Wisconsin Preventive Medicine Residency and Public Health Integration (PMR-PHI) Program

OVERSIGHT AND ADVISORY COMMITTEE

Community Collaboration

Fiscal Year 2020
The Good Hood: Making Meadowood a Healthy Community
Creating our healthy neighborhood: Reversing disinvestment in urban Milwaukee
Increasing Capacity for MACH OneHealth to Improve Health Access, Equity, and Outcomes for Individuals Experiencing Homelessness and Housing Insecurity
ROOTed to REAP: Latinx/Indigenous women advancing health and food equity in Dane County

Community Impact

Fiscal Year 2018
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First Breath Families: Helping Low-Income Moms Quit Smoking and Babies Grow Up Smoke-Free
Southwestern Wisconsin Recovery Pathways

Fiscal Year 2019
Reentry Rising MKE
Preventing Early Expulsion to Promote Child Health
Reducing Health Inequity through Promotion of Social Connectedness
Social Service Redesign

Fiscal Year 2020
Community-Campus Partnership to Create Mental Health Support for the Latino Community
Evaluating the Effectiveness of One City Schools: Preparing Children for School Success and Healthy Lives
Improving Birth Outcomes for Black Families through Community-Clinic Collaborations
Creating a Renewed and Culturally Vibrant Healthy Food System for Kaeyas Mamaceqtawak (The Ancient Movers)

Parenting Support Is Public Health: Reducing Health Disparities in the Child Welfare System
Healthy Communities through WEESSN-Milwaukee: Supporting Quality Early Learning and Family Well-Being

Fiscal Year 2021
Addressing Stressors, Preventing Farmer Suicide: Social Connectedness and Health
Building Tech Skills, Opportunities, Health and Wellness for Returning Citizens
Advancing Health Equity Through Legal Interventions for Low-Income Wisconsinites
Black Men's Mental Health and Well-Being
Supporting Social Emotional Health in K-12 African American Students
Accelerating Health Equity for Black Women in Wisconsin - Well Black Woman Institute

Fiscal Year 2022
Food Sovereignty in the Oneida Nation: A Comprehensive Approach to Health
The Latino Dementia Health Regional Consortium
Wisconsin Rural Health & Substance Use clinical Support (RHeSUS) Program
Health equity for criminal justice-impacted women through access to housing

Fiscal Year 2023
Making Milwaukee a Lead Safe City
Biehl Bridges to Recovery "Advancing Health Equity through Economic Stabilization within the Recovery Community"

Fiscal Year 2024
Advocates in Medicine Pathway 2.0: Promoting Inclusion of Rural and Underrepresented Students in the Physician Workforce
Riding in the Moment: A Community-Based Program Using Equine-Assisted Services to Improve the Health and Quality of Life of People Living with Alzheimer's Disease and Related Dementias and their Families.
Empowering African Immigrant Women's Health and Well-being: A Virtual Center for Women's Health and Mental Health in Wisconsin
Leveraging Community Organizations to Support Better Overall Health Among LGBTQ+ Youth by Bridging Educators and Families
Medical Legal Partnership
City of Madison Firefighter/EMT Development Program
Improving Social Determinants of Health Factors Through Utilization of a Family Coach
Feeding the Whole Child, Whole Family, and Whole Community through Civic Engagement
Engaging Communities to Change Health Outcomes (ECCHO)
Building Bridges to Health Equity in the Amani Neighborhood: Improving Healthcare Access and Quality

COVID-19 Response Grant Program

Fiscal Year 2022
Testing and Scaling Virtual and In-person Youth Group Therapy and Guardian Support Groups
Restorative Justice in Schools and Communities: Facilitating Healing, Support, and Cultural Identity Affirmation for Young People
Supporting Youth through the La Crosse System of Care
PATCH Youth Advocacy Fellowship for Social and Emotional Health

Supporting the mental and social-emotional health needs of Black, Brown, Multiracial, Trans & Nonbinary LGBTQ+ adolescents impacted by COVID-19.
A Call to Action: Compassion Resilience Training for Parents and Family Caregivers
Supporting Healthy Black Families' Workgroups

Maternal and Infant Health Program

Fiscal Year 2022
Strong Fathers Strong Families Project
Strengthening Community Supports for Black Families in Rock County
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Supporting Healthy Babies through Strengthening Families
Bridging Community Supports to Achieve Healthy Births for Black Mothers
Birth Outcomes Made Better (BOMB) Doula Program

Fiscal Year 2023
Marathon County Start Right
Milwaukee Start Right
Jardin de Espacios (Garden of Spaces): Designing Well-Being During the Perinatal Journey
Gerald L. Ignace Indian Health Center: Little Seedlings Program
Improving Maternal Child Health for the Somali Community in Barron County
Support for Mothers and Infants from the Amish and Mennonite (Plain) Communities
Improving Health Outcomes for Families: Evidence-Based Home Visiting
Development of a OB Nurse Navigator Program in a Rural Critical Access Hospital
Improving Maternal & Child Health Outcomes through Great Rivers HUB & Community Health Worker/Doula Workforce Expansion
Door County Welcome Baby Continuum Project

Strategic

Fiscal Year 2023
Wisconsin Population Health Service Fellowship Program: Improving Health and Health Equity through Service and Training – OAC

By: Robert N. Golden

Robert N. Golden, MD
Dean, UW School of Medicine and Public Health
Date: 10/8/24

Wisconsin Partnership Program
Fiscal Year 2024 Determination of Non-supplanting
University of Wisconsin System and University of Wisconsin-Madison

The UW-Madison Vice Chancellor for Finance and Administration, Robert Cramer, hereby attests that the Universities of Wisconsin and the UW-Madison have complied with the supplanting prohibition in the Insurance Commissioner's Order of March 28, 2000, as specified in the criteria set forth in the addendum of the 2003 to 2008 Five-Year Plan, and as approved by the Wisconsin United for Health Foundation, Inc. on March 15, 2004. The basis of this attestation is the on-going monitoring by the UW-Madison Vice Chancellor for Finance and Administration of the University's budget allocation to the School of Medicine and Public Health.

This attestation shall be filed with the Wisconsin Partnership Program's Fiscal Year 2024 Annual Report for the period July 1, 2023 - June 30, 2024.

Signed by:
Robert Cramer
FB20B033B67B4AB...

By:
Robert Cramer
Vice Chancellor for Finance and Administration
University of Wisconsin-Madison

Date: 11/5/2024

Education Committee **Item E.**

December 5, 2024

DISCUSSION: DEVELOPMENTAL EDUCATION CAMPUS-LEVEL PERSPECTIVES

REQUESTED ACTION

For information, discussion, and to inform future decision-making.

SUMMARY

Following a review of quantitative data on the student need, profile, and impact of developmental education across the UWs, four UW universities will provide a qualitative look at developmental education from the campus perspective. UW faculty and campus leadership will share experience in providing both English and math courses. They will also explore how students are identified for these courses, the benefits and impact of student participation in developmental education, and the challenges in student support and the lessons learned in preparing students for college-level coursework.

Presenters

- Ben Passmore, Associate Vice President for Policy Analysis and Research, UW Administration
- Wesley Chapin, Interim Provost and Vice Chancellor for Academic Affairs, UW-River Falls provost facilitator
- Louisa Rice, Associate Vice Chancellor for Academic Affairs, UW-Eau Claire
- Nicholas Danz, Dean of Academic Affairs, UW-Superior
- Laurel Langford, Professor, Department of Mathematics, UW-River Falls
- Cynthia McCabe, Assistant Dean, School of Mathematics, Computing, Physics, and Astronomy , UW-Stevens Point

BACKGROUND

The September, 2024 Education Committee meeting shared highlights from the 2024 Developmental Education Report, along with an online dashboard.[1] The report is required every three years. It allows the Regents and public to examine the performance of different universities and of different groups of students in detail. The dashboard provides a tool for UW universities to evaluate the success of efforts with different populations on their campuses, including:

1. Students requiring and completing developmental education.
2. College level course enrollments and completion.
3. Retention and graduation outcomes by developmental education status.
4. Outcome by developmental education status and courses taken in the 1st year.
5. Institutional efforts to reduce developmental education needs and promote student success.

[1] *See* Committee meeting materials, Item F: https://www.wisconsin.edu/regents/download/meeting_materials/2024_meeting_materials/Meeting-Book---Education-Committee-(September-26,-2024).pdf#page=19 and the full dashboard: https://www.wisconsin.edu/education-reports-statistics/developmental-education/