AGENDA

Automatic Consent
1. (1:30) Automatic consent approvals
   a. Minutes from October 4, 2019

Approvals
2. (1:35) Request to approve new degree MS in Clinical and Health Informatics effective Fall 2020 (Jim Keck, Beth Burnside)
3. (1:50) Request to approve new Doctoral Minor in Energy Analysis and Policy effective Fall 2020 (Scott Williams & Paul Wilson)
4. (2:05) Request to approve Notice of Intent to plan new degree PhD in Gender and Women’s Studies (Aili Tripp)
5. (2:20) Request to approve the following changes to the MAB in Business: Arts Administration (Russ Coff & Ella Mae Matsumura)
   a. Rename of degree MAB in Business: Arts Administration to MAB in Business: Arts and Creative Enterprise Leadership
   b. Substantial redirection of the degree with a >50% curricular change
6. (2:35) Request to suspend admissions and discontinue Doctoral Minor in Freshwater and Marine Science effective Fall 2020 (Parmesh Ramanathan)
Discussion & Approval

7. (2:45) Administrative Restructuring of Graduate Programs with Named Options (Emily Reynolds)

Request to approve new named options effective Fall 2020 for degrees as listed below:

<table>
<thead>
<tr>
<th>Name of Degree:</th>
<th>Name of New Option:</th>
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</thead>
<tbody>
<tr>
<td>Biomedical Engineering MS</td>
<td>Research</td>
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<tr>
<td>Business: Accounting, M.Acc</td>
<td>Accounting, Assurance, Advisory</td>
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<tr>
<td>Cartography and Geographical Info. Sys. MS</td>
<td>Thesis</td>
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<tr>
<td>Civil and Environmental Engineering MS</td>
<td>Research</td>
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<tr>
<td>Computer Sciences MS</td>
<td>Computer Sciences</td>
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<tr>
<td>Curriculum and Instruction MS</td>
<td>Research</td>
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<tr>
<td>Economics MS</td>
<td>Economics</td>
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<tr>
<td>Educational Psychology MS</td>
<td>Research</td>
</tr>
<tr>
<td>Engineering Mechanics MS</td>
<td>Research</td>
</tr>
<tr>
<td>French Studies MFS</td>
<td>Full-Time Academic</td>
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<tr>
<td>Human Ecology MS</td>
<td>Human Ecology</td>
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<td>Industrial Engineering MS</td>
<td>Research</td>
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<tr>
<td>Manufacturing Systems Engineering MS</td>
<td>Manufacturing Systems Engineering</td>
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<tr>
<td>Mathematics MA</td>
<td>Foundations for Research</td>
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<tr>
<td>Physics MS</td>
<td>Research</td>
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<td>Population Health MS</td>
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<td>Full Time MSW</td>
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<td>Statistics MS</td>
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Program Reviews

8. (3:00) Creative Writing MFA (Leslie Smith III)

9. (3:15) Electrical Engineering MS/PhD/Doctoral Minor (Shannon Stahl)
University of Wisconsin-Madison
Graduate Faculty Executive Committee Meeting
1:30 pm – 3:30 pm, Room 52 Bascom Hall
October 4, 2019

M I N U T E S

Members Present: Lara Collier, Alex Dressler, Yu Hen Hu, William Karpus, Steffen Lempp, Mark Mandel, Lisa Martin, Beth Meyerand, Christa Olson, Parmesh Ramanathan, Bret Shaw, Shannon Stahl, Scott Straus, Monica Turner

Members Absent: Chris Choi, Leslie Smith III, Steph Tai, Chris Walker, Earlise Ward

Guests: Tom Dubois

Staff: Jenna Alsteen, Amy Bergholz, Eileen Callahan, Meghan Chua, Laura Grotjen, Kirby Livingston, LaRuth McAfee, A.J. Meinig, Emily Reynolds, Madeline Sena

Dean William Karpus called the meeting to order.

Automatic Consent

1. The minutes of September 13, 2019 were approved as a matter of automatic consent.

Approvals:

2. Dean Karpus introduced Associate Dean Parmesh Ramanathan from the Graduate School who presented a request to discontinue the Psychology MA effective Fall 2020. The Program is not used and has no students enrolled.

   Motion: Moved and seconded to approve the discontinuation of Psychology MA effective Fall 2020. The motion passed unanimously.

3. Dean Karpus introduced Professor Tom Dubois Chair of the Department of German, Nordic and Slavic, who presented a request to reopen the Doctoral Minor in Folklore effective Fall 2020. The Folklore program was closed for reorganization and was moved to the Department of German, Nordic and Slavic. Each student will have an individual plan to define what courses will qualify for the minor based on their goals. Dubois responded to GFEC questions regarding the number of credits required and programming expectations,

   Motion: Moved and seconded to reopen the Doctoral Minor in Folklore effective Fall 2020. The motion passed with one opposition.

Program Review Response

4. Associate Dean Parmesh Ramanathan presented a program response to the MS Biotechnology Program Review. The response addressed concerns regarding the number of applicants, the need for a succession plan, and the structure of the lab experience.
Program Reviews

5. GFEC member Professor Yu Hen Hu presented the Institutional 10-Year Program Review of the MS, PhD, Doctoral Minor in Horticulture in the College of Agricultural and Life Sciences. Hu noted strengths of the program include a strong partnership with the USDA providing federally supported faculty positions, high quality research and teaching facilities, assistant professors have extension appointments, and positive climate among staff and students.

The review committee’s main concern is the small size of the program. They recommended several strategies for increasing enrollment such as finding opportunities to attract students and connect employers with future potential employees, using the quality of the facilities (Allen Centennial Garden and the DC Smith Greenhouse) as recruiting tools, developing a horticulture seminar series, and support of the Department’s plan to restructure and redesign the MS Horticulture program. GFEC discussed the possibility of discontinuing the Doctoral Minor, as it does not have any students. Hu responded to GFEC questions regarding the potential of combining PhD programs and the relationship between various graduate programs and academic departments. GFEC recommended the Graduate School request additional information from the program regarding reasons for continuing the program, given its very small enrollment and degrees awarded.

6. GFEC member Associate Professor Lara Collier presented the Institutional 10-Year Program Review of the MS, PhD in Plant Breeding and Plant Genetics in the College of Agricultural and Life Sciences. The committee did not review the Doctoral Minor. However, Professor Collier noted that there are currently no students in the Doctoral Minor and it has not been active. Collier noted strengths of the program include the enthusiasm and passion exhibited among students and faculty, engaged alumni, excellent post-graduate employment prospects, a reputation as a highly respected program, and positive student engagement through the creation of a graduate student council.

Collier discussed review committee recommendations, including the continued development of an assessment plan that creates uniformity among exams, uniform stipends among RAs, examination of low enrollment, finding opportunities to partner with other programs, and encouraging all programs to holding yearly committee meetings.

Motion: Moved and seconded to accept the Institutional 10-Year Review of the MS, PhD, Doctoral Minor in Horticulture in the College of Agricultural and Life Sciences. The motion passed with one abstention.

Motion: Moved and seconded to accept the Institutional 10-Year Review of the MS, PhD, in Plant Breeding and Plant Genetics in the College of Agricultural and Life Sciences. The motion passed unanimously.

7. GFEC member Associate Professor Christa Olson presented the Institutional 10-Year Program Review of the PhD and Doctoral Minor in Second Language Acquisition (SLA) in the College of Letters and Science. Olson noted strengths of the program include innovative and intentional learning objectives and assessment, a sense of community within the program, service as an interdisciplinary intellectual hub, and attraction of students through early faculty investment.

Olson discussed review committee recommendations, including addressing a field-wide challenge of attracting targeted minority groups and ongoing effort to support students
including funding and time-to-degree. The program does not have a department home, which causes challenges and complications. GFEC discussed recommendations from the review committee regarding different ways of funding students in the program such as encouraging the College of Letters and Science to work with other departments/programs to set aside TA slots for SLA or moving the program into Languages Sciences or other departments where TA funding is more likely to be available.

**Motion:** Moved and seconded to accept the Institutional 10-Year Review of the PhD and Doctoral Minor in Second Language Acquisition in the College of Letters and Science. The motion passed unanimously.

**Three-Year Check Ins**

8. Associate Dean Parmesh Ramanathan presented the three-year check in of the Named Option resource and Energy Demand Analysis (REDA) in MS Agricultural and Applied Economics. The GFEC noted that there have been academic enhancements to the curriculum and that REDA continues to struggle to meet enrollment expectations.

9. Associate Dean Parmesh Ramanathan presented the three-year check in for the Named Option Environmental Engineering in MEng Civil and Environmental Engineering. The GFEC noted that there have been academic enhancements to the curriculum. The program should engage its external advisory committee to develop a strategy for enrollment increases.

**Adjournment:**

Meeting adjourned by Dean William Karpus.
Program Change Request

New Program Proposal

Date Submitted: 10/03/19 11:47 am

Viewing: Clinical and Health Informatics

Last edit: 10/18/19 10:40 am

Changes proposed by: adoehei

Name of the school or college academic planner who you consulted with on this proposal:

Name: Andrea Poehling - MED

Proposal Abstract/Summary:

The UW-Madison School of Medicine and Public Health is submitting a Program Proposal to create a new 30-credit online graduate major entitled Clinical and Health Informatics (MS CHI). The major will be housed in the University of Wisconsin Institute for Clinical and Translational Research (ICTR).

The MS CHI will provide students with an interdisciplinary approach with population health, biomedical informatics, industrial systems engineering, nursing, pharmacy, and healthcare operations management expertise. Graduates will possess a strong foundation in healthcare decision making using informatics methods to create innovative solutions or improve current practices in health policy, clinical practice, security, and biomedical and health information systems.

The MS CHI will serve working professionals in the healthcare industry through a fully online curriculum. The program seeks to become Wisconsin's first master's program accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM). The program will be comprised of 30 credits, which will include online, collaborative coursework for working professionals. Students are expected to have 3-5 years of clinical or information technology-related work experience, preferably in a healthcare setting, and should have a statistics background. The MS CHI will meet the growing demand for clinical and health informatics professionals who will contribute to the quality and delivery of healthcare.

Basic Information

Type of Program: Degree/Major
UW System approval and approved NOC C&HI 5. 10_2019.pdf

Upload the Approved Notice of Intent and UW System Approval Memo.

Upload completed draft of the full Board of Regents Authorization Proposal for this program.

131 Programs Model MS CHI 20191003.xlsx
MS CHI Cost and Revenue Projections Narrative.doc
UWMedicine MOCH MS CHI New Program Authorization 105 2019.doc

Who is the audience?
Graduate or professional

Home Department: Clinical & Translational Research (ICTR)
School/College: School of Medicine and Public Health

The program will be governed by the home department/academic unit as specified. Will an additional coordinating or oversight committee be established for the program?

No

Is this in the Graduate School? Yes

Award: Master of Science

SIS Code: 

SIS Description: 

Transcript Title: Clinical and Health Informatics

Named Options:

Will this be offered as an additional major as well? No
Is this a non-admitting master's degree? No

Roles by Responsibility: List one person for each role in the drop-down list. Use the green + to create additional boxes.

<table>
<thead>
<tr>
<th>Role Type</th>
<th>Name (Last, First)</th>
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<th>Title</th>
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<tr>
<td>Faculty Director</td>
<td>Burnside, Elizabeth S</td>
<td><a href="mailto:eburnside@wisc.edu">eburnside@wisc.edu</a></td>
<td>608/265-4099</td>
<td>Deputy Executive Director, Institute for Clinical and Translational Research</td>
</tr>
<tr>
<td>Primary Dean's Office Contact</td>
<td>Poehling, Andrea D</td>
<td><a href="mailto:apoehl@wisc.edu">apoehl@wisc.edu</a></td>
<td>608/262-2628</td>
<td>Dean's Office Academic Planning</td>
</tr>
<tr>
<td>Primary Contact</td>
<td>Fontaine, Sherry Joanne</td>
<td><a href="mailto:sfontaine@wisc.edu">sfontaine@wisc.edu</a></td>
<td>608/880-3680</td>
<td>ICTR Clinical and Health Informatics Master's Degree Program Director</td>
</tr>
<tr>
<td>Department Chair</td>
<td>Brasier, Allan R</td>
<td><a href="mailto:abrasier@wisc.edu">abrasier@wisc.edu</a></td>
<td>608/263-7371</td>
<td></td>
</tr>
</tbody>
</table>

List the departments that have a vested interest in this proposal:

- Biostatistics and Medical Info (B M I)
- Industrial and Systems Engr (IND SY EGR)
- School of Nursing (NURSING)
- Population Health Sciences (POPHLTH)
- School of Business (BUSINESS)
- School of Pharmacy (PHARMACY)

Are all program reviews in the home academic unit up to date? Yes
Are all assessment plans in the home academic unit up to date? Yes
Are all assessment reports in the home academic unit up to date? Yes

Mode of Delivery: Distance Education (100% online)

Provide information on how any lab courses required for the degree will be handled.

There are no lab courses required for this degree.

Will this program be part of a consortial or collaborative arrangement with another college or university? No
Will instruction take place at a location geographically separate from UW-Madison? No
Will this program have outside accreditation? Yes

Guide Accreditation tab

The program will apply for accreditation in Spring 2023: Commission on Accreditation for Health Informatics and Information Management Education

Will graduates of this program seek licensure or certification after graduation? No

First term of student enrollment: Fall 2020 (1212)
When will the application for the first term of enrollment open? Spring 2020 (1204)

Which terms will you allow new students to enroll? What are the application deadlines for each term selected?

<table>
<thead>
<tr>
<th>Start Term</th>
<th>Application Deadline MM/DD</th>
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<tbody>
<tr>
<td>Fall</td>
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</table>

Year of three year check-in to GEC (3 years after first student enrollment): 2024
Year of first program review (5 years after first student enrollment): 2026

If this proposal is approved, describe the implementation plan and timeline:

A cross-campus curriculum planning committee has been meeting on an ongoing basis since Spring 2018. A Program Director serves as lead for accreditation and other matters; appointing a steering committee; and forming an advisory committee. We will begin marketing the degree for Fall 2020 admission in consultation with the Division of Continuing Studies (DCS) as soon as permitted. Recruitment efforts will include virtual events (e.g. webinars) and events with industry partners in the region. In Fall 2019, we will begin supporting faculty to work with instructional designers to transition courses to an online format. In early 2020, we will ensure that a high quality cohort is admitted and enrolled. In Spring 2020, we will train faculty/staff on their role as advisors. We will continue to keep all campus stakeholders informed of the marketing and recruitment strategies as we work with the Advance Your Career team on a national recruitment campaign with social media, and Google ad words. Instructors will be supported by an instructional designer when their course is taught the first two times to ensure that technical and pedagogical support is ongoing for all faculty instructors. The first cohort of students is expected to begin the program in Fall 2021. We will meet weekly on the...
Rationale and Justifications

Why is the program being proposed? What is its purpose?

The program will serve working professionals in the healthcare industry through a fully online curriculum and will become Wisconsin’s first Master’s program accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM). The program collaborates include the Schools of Medicine and Public Health, Nursing, Pharmacy, and Business, and College of Engineering. This interdisciplinary approach is essential to providing the expertise from population health, biomedical informatics, industrial systems engineering, nursing, pharmacy, and healthcare operations management needed to provide clinicians, nurses, pharmacists, researchers, administrators and health information technicians with the tools and methods to assess the effect of health innovations on policy, clinical practice, security, and biomedical and health information systems.

What is its relation to the institution’s mission? (Consider the mission broadly as a major research university with missions in teaching, research, service, and the Wisconsin Idea.) How does it contribute to the mission of the sponsoring unit(s)?

The Institute for Clinical and Translational Research (ICTR), where this program will be housed, is interdisciplinary (and interdepartmental) by design. ICTR is housed within the School of Medicine and Public Health (SMPH) and partners closely with the Schools of Nursing, Veterinary Medicine, Pharmacy, and the College of Engineering. The overarching mission of MS-CHI is to offer ICTR members and partners throughout the entire institution, as well as external professionals in the region, the knowledge on how to translate best practices in applied clinical informatics to improve clinical care. This program is poised to be a leader in clinical and health informatics with a proven record of accelerating research into applied outcomes to improve health in the United States. This program will utilize the expertise of faculty across the university to fill a growing need to leverage informatics expertise in the healthcare space where evidence-based, data-informed care are essential. Students will graduate from MS-CHI with skills to enhance their professional practices in the clinical healthcare setting and as business and informatics leaders; drawing from operational and healthcare management, health informatics, and information technology skills to solve complex problems of the social-behavioral aspects of health. This new degree is part of SMPH’s strategic vision and planning mission, creating vital connections between basic discovery and clinical/translational research, and providing programs that support the health and wellness of individuals and populations.

This program also supports the UW Madison campus strategic framework goal to “improve access (through online delivery) and “build innovative professional master’s-level degrees and other lifelong learning experiences.”

Do current students need or want the program? Provide evidence.

The MS-CHI will serve an audience outside of the traditional school structure, offering all courses online and providing the flexibility of completing the program on a part-time basis. Prospective students will include health care professionals and information technology professionals with a strong interest and/or background in health care informatics, data analytics, clinical care or research, and health information technology. Trends in academic programs for non-traditional students at University of Wisconsin-Madison demonstrate the demand for degree-granting programs for this student population with continual increases in the number of programs, enrollment, and student credit hours from 2009-2018. Similarly, distance education course enrollments for graduate and clinical degrees increased by 46.6% over the same period.

Market research conducted by the Division of Continuing Studies (DCS) determined that there was a strong demand for an online professional master’s degree in the field of clinical and health informatics. The fact that the MS-CHI program will prioritize CAHIIM accreditation will be a significant differentiator among similar degrees. DCS also determined that given the labor demand for individuals with graduate training in clinical and health informatics, students are willing to pay the $1600 per credit for this degree and prefer the flexibility of an online degree modality while working and attending to the degree as a part-time student.

What is the market, workforce, and industry need for this program? Provide evidence.

The 2017 Leadership and Workforce study conducted by the research arm of the HIMSS found that 63% of healthcare organizations and vendors are expecting to increase hiring in the upcoming few years. Epic, a Wisconsin-based company, now works with over 50 IT vendors seeking health informatics specialists in over 20 states. In Wisconsin alone that year, more than 900 job postings were looking for people with 3-5 years of clinical experience and a master’s in a data field. Additionally, information technology and healthcare clinical informatics is a growing field with more than 900 job postings in Wisconsin alone looking for a person with 3 to 5 years of clinical experience and a masters in data analytics. Local employers include Deloitte, General Electric, VITAS Healthcare, UW Health and Epic. According to the Department of Labor and Bureau of Labor Statistics, healthcare will produce more than 114,000 IT jobs through 2022 than any other industry, with a projected increase of 22%.

Because of these growing trends and opportunities in healthcare and informatics, many major universities are creating program offerings and certificates. The University of Illinois at Chicago has recently created a Master of Science in Health Informatics and a Post-Master’s Certificate in...
Health Informatics. Other institutions with health informatics programming include University of Cincinnati, Northwestern University Feinberg School of Medicine, Johns Hopkins University, University of Texas, and the University of Washington School of Nursing and School of Medicine.

Expertise in clinical and health informatics is also required in the roster of job openings that involve electronic health record analysis, database management, and clinical decision support. Health modeling, and health care data security. AMIA reports that the average salary among all its members is $133,000. The market demand according to the Educational Advisory Board Report on Health Professions was a national demand of over 35,000 job postings in 2016 among the health informatics field. Moreover, healthcare has even greater data integration, system interoperability, and reporting needs than ever before and healthcare informaticists are required to demonstrate outcomes for Medicare reimbursement and reform. The demand for these skills is driving new online programming across the country, UW Madison is poised to become a leader in this space. Within the Integrated School of Medicine and Public Health, ICTR is the hub to the Clinical and Health Informatics Institute (CHI), which is designed to foster applied clinical health informatics activities. ICTR provides links to the Schools of Nursing, Veterinary Medicine, and Pharmacy, the College of Engineering and the Department of Biostatistics and Medical Informatics. The timing is right as health care employers are actively seeking analytics in informaticists with a 37% increase in informatics jobs stipulating data analytics skills from 2013-2016. The overall projected growth in the healthcare analytics market from 2015-2020 is over $1 billion with four out five hospital systems citing value-based care as a key analytical driver. The need for data skills are increasingly becoming a necessity in the healthcare industry.

Locally, there are several potential employers for program graduates. Local employers include Deloitte, General Electric, Vital Tech Solutions, UW Health, and Epic. Recent job titles for careers in clinical healthcare informatics include Medical Informatics Project Directors, Researchers, Systems Analysts, Clinical Informatics Directors, Specialists, Coordinators, and Analysts. Conversations between Epic staff and MS Chi development team members indicated that there was interest in the online MS Chi. Epic staff suggested the degree would be a good fit for employees that need to work in a clinical setting, leadership teams that use health informatics for decision making, and technical service teams that provide customer support. The University of Wisconsin-Madison will leverage the institution’s cutting-edge work in the School of Medicine and Public Health, where medical and population health research already have a strong record in informing best practices in the clinical setting to develop and offer a M.S. in Clinical and Health Informatics that will meet the growing demand for clinical and health informatics professionals who will contribute to the quality and delivery of healthcare.

How does the program represent emerging knowledge, or new directions in professions and disciplines? There is a growing need for a clinical healthcare focus for leaders and managers to use informatics to solve complex healthcare problems. This is part of the SMPH’s strategic vision and planning mission to create vital connections between basic discovery and clinical/translational research. The overarching goal for MS Chi is to create strategic programming and research partnerships that improve public health by translating basic research discoveries into direct, practical improvements in clinical care and healthcare delivery systems.

The program learning outcomes are based on American Medical Informatics Association (AMIA) Health Informatics Core Competencies for CAPIMM accreditation. This program will seek accreditation to support the mission and vision of the next generation of informatics professionals. Accreditation is a key differentiator for our program and leverages key expertise across disciplines and expertise across faculty departments to leverage all 10 competencies in a degree program that spans expertise in data management, interprofessional practice, and data design, systems and operational management across healthcare fields.

In what ways will the program prepare students through diverse elements in the curriculum for an integrated and multicultural society (may include diversity issues in the curriculum or other approaches)? The MS-Chi advances curriculum excellence to promote diversity and equity in the following ways:

1. Disease prevention efforts as well as access to care in our nation's hospitals and clinics can vary greatly in different populations. This results in health disparities that impact the health status of vulnerable populations. The MS-Chi curriculum poses several questions across courses to critically analyze why outcomes vary so greatly by socio-economic, race, ethnicity and gender, education, age and other social determinants.

2. Data-driven health care will examine patient care across a variety of variables to analyze cost-effective measures to improve data driven decision-making to support the equitable distribution of resources.

3. Across the curriculum, social determinants of health and patient-generated data are used to analyze complex problems, support integrative solutions, and design and implement health informatics solutions across healthcare institutions and patient populations.

4. Human factors engineering skills are developed to support better understanding of the interaction between users and information technology so that organizational, social, and physical contexts are principles of good design and implementation.

5. Ethical and professional conduct are critical components of the MS-Chi and to highlight the necessity to protect biomedial and health information across all users.

The MS-Chi focuses on the professional and ethical conduct, leadership development, interprofessional teamwork, and organizational decision-making skills that ensure the ethical use of data to support the health outcomes of all people across the lifespans.
The MS-CI will actively pursue equity in student recruitment, access, and retention by working closely with the Graduate School and the Division of Continuing Studies marketing and recruitment teams to make sure students who represent all forms of diversity, including socio-economic, gender, sexuality, race, ethnicity, and religion are recruited. Marketing materials and content will show a diverse student body. Graduating students will share insights about the program with interviews, videos, and testimonials about their program experience working in interdisciplinary collaborative teams to solve real health care problems and interact with professionals who have varied experience and backgrounds.

By offering flexible schedules and removing geographic boundaries, online graduate and professional programs, such as the MS-CI program, increase access for non-traditional learners. The MS-CI program is targeted to working professionals that represent a range geographic areas, experiences, and backgrounds; adding to the richness and overall diversity of the student population as well as the student experience.

As a degree that promotes public health, recruiting students who represent the diverse needs in healthcare delivery, data-driven medicine and data informatics is the goal. Efforts will be made to develop relationships at conferences, networking events, and clinical settings that support the diversity efforts and goals of the program. Moreover, once the program has program revenue resources, scholarships targeted at under-represented groups will be awarded to promote gaps within the diversity and equity goals of the program.

Academic support is essential for the retention and success of all students. Academic support services for the MS-CI program will be designed to meet the needs of a diverse, adult student population. The Academic Director and Student Services Coordinator will be the primary contacts for all students and will help support advising as well as both academic and career resources for all learners. An online Community of Practice will provide program resources, tutorial support, peer to peer sharing, and goal setting strategies for career success. The Community of Practice will offer an inclusive, virtual environment where students from diverse backgrounds will interact and build a community of learners around common academic and professional interests. These can be shared openly with all students enrolled in the program. Webinars targeting stress, work life balance, career exploration, and effective time management and organization will be shared along with UW resources that can support and guide professional development. All students will have a faculty mentor in the program to guide and support individualized needs and goals.

What gap in the program array is it intended to fill?
There are a number of programs offered at UW-Madison and within the University of Wisconsin system that offer related content but do not have a CAHIMM accredited, online program for adult learners; aspects of the MS-CI program which differentiate it from related programs.

Within the University of Wisconsin-Madison, the SMPH offers an M.S. in Biomedical Data Science. This program prepares graduates to understand key concepts and methodologies from computer sciences and statistics to contribute to the solutions central to computational problems in biomedicine. This program is face-to-face and is for students interested in data structures and algorithms with a strong attitude for math and computer science. The program is research- and thesis-based and designed for students interested in building algorithms and simulations for population health research, statistical genetics, and biomedical informatics.

Additionally, the M.S. in Statistics named option in Biostatistics at UW Madison serves students who work in the theory, methodology, and application of statistics. This program focuses primarily on the statistics of biomedical sciences and differs from informatics in that it is focused on the computation and mathematical application of how to design experiments and survey samples in the biomedical field.

Informatics, in contrast to biomedical data science and statistics, is focused on the interaction between humans and information. Informatics, as a field, is a branch of information engineering and is about information systems and how they interface with organizations, technologies, and systems and includes statistics as a subfield. However, informatics as a whole is much more inclusive to the study of the social aspects of how information technologies are applied in the healthcare space. A strategic priority for the program MS-CI is accreditation from CAHIMM, which incorporates the AMIA accreditation standards for master's degree programs in health informatics. In addition, all courses are offered online for working healthcare professionals and are focused primarily on the application and applied tools used in a clinical or healthcare setting. MS-CI does not offer a thesis option and works with the applied skills needed to translate data science into workable processes at the healthcare system level.

Faculty and Staff Resources

List the core program faculty and staff with title and departmental affiliation(s) who are primarily involved and will participate in the delivery and oversight.

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<thead>
<tr>
<th>Name (Last, First)</th>
<th>Department</th>
<th>Title</th>
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<tbody>
<tr>
<td>Pliegenstein, Barbara J</td>
<td>School of Nursing (NURSING)</td>
<td>DN/P, RN-BC, FAAN, Clinical Professor; Richard E. Sinalik Professor in Health Care Leadership</td>
</tr>
<tr>
<td>Werner, Nicole E</td>
<td>Industrial and Systems Engr (IND SY EGR)</td>
<td>PhD, Harvey D. Spangler Assistant Professor</td>
</tr>
<tr>
<td>Temple, Jack D</td>
<td>School of Pharmacy (PHARMACY)</td>
<td>PharmD, MS, Director, Pharmacy Business Services and Informatics</td>
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</table>
What resources are available to support faculty, staff, labs, equipment, etc.? Sherry Fontaine was hired as a full-time program director on May 1, 2019. A student services director has been assigned and other CITR affiliated staff are available to support and mentor students. All faculty will be supported to teach online through the TeachOnline@UW program and through individual outreach and support from instructional designers.

Program advisor(s) with title and departmental affiliation(s).

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<th>Name (Last, First)</th>
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<th>Title</th>
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<td>Meyerand, Mary Elizabeth</td>
<td>Medical Physics (MED PHYS)</td>
<td>Professor School of Medicine and Public Health and Professor of Medical Physics and Co-Director of the Women in Science and Engineering Leadership Institute</td>
</tr>
<tr>
<td>Burnside, Elizabeth S</td>
<td>Clinical &amp; Translational Research (ICTR)</td>
<td>MD, MPH, MS, Professor; Radiology, Associate Dean of Team Science and Interdisciplinary Research, Deputy Executive Director for the Institute for Clinical and Translational Research</td>
</tr>
<tr>
<td>Steege, Linsey M</td>
<td>School of Nursing (NURSING)</td>
<td>PhD, Associate Professor and Gulbransen Chair in Health Informatics &amp; Systems Innovation</td>
</tr>
<tr>
<td>Pinehronstein, Barbara J</td>
<td>School of Nursing (NURSING)</td>
<td>DNP, RN-BC, FAMN, Clinical Professor; Richard E. Sinalieo Professor in Health Care Leadership</td>
</tr>
<tr>
<td>Siemens, Enno</td>
<td>School of Business (BUSINESS)</td>
<td>Associate Dean MBA and Masters Programs and Professor of</td>
</tr>
<tr>
<td>Butzon, Eric C</td>
<td>School of Pharmacy (PHARMACY)</td>
<td>Division Chair, Clinical Associate Professor</td>
</tr>
<tr>
<td>Smith, Maureen A</td>
<td>Population Health Sciences (POP HLTH)</td>
<td>MPH, PhD, Professor, Departments of Population Health Sciences and Family Medicine</td>
</tr>
<tr>
<td>Newton, Michael A</td>
<td>Biostatistics and Medical Info (BM I)</td>
<td>PhD, Professor, Interim Chair for the Department of Biostatistics and Medical Informatics</td>
</tr>
</tbody>
</table>

Describe how student services and advising will be supported.

The academic director and the lead student services coordinator will be the first line of contact for students. Additional student services coordinators will be added as the program grows, and support from the existing CITR student services team is also planned for certain service functions. Faculty members of the steering committee will be the primary responsible members of the academic advising team for this program. This team will also provide support to the program director for the planning of professional development, career planning and employer relations. The program will employ a career services coordinator by year 3 to focus on career development in a full-time capacity.

The Division of Continuing Studies Integrated Marketing & Communications team (IMC) and the program’s steering committee will work together with program staff on recruitment and admissions procedures. Once a student is admitted, program staff will work closely to support the MS-OL students. Program staff will lead admissions operations; ensure compliance with policies and procedures; provide student services, including provide academic guidance and career/leadership development; manage employer relations; and provide data reporting and rankings management.

Programmatic services, including connections to web and Guide Information and the Registrar’s Office, will be the responsibility of program staff. Professional development opportunities will be primarily provided through online webinars and career exploration examples in an online Community of Practice.

An online Community of Practice will provide program resources, tutoring support, peer to peer sharing, and goal setting strategies for career success. The Community of Practice will offer an inclusive, virtual environment where students from diverse backgrounds will interact and build a community of learners around common academic and professional interests. These can be shared openly with all students enrolled in the program. Webinars targeting stress, work/life balance, career exploration, and effective time management and organization will be shared along with UW resources that can support and guide professional development. All students will have a faculty mentor in the program to guide and support individualized needs and goals.

Confirm that the program advisor(s) or coordinator(s) have been consulted and reviewed this proposal.
Resources, Budget, and Finance

Is this a revenue program? Yes
What is the tuition structure for this program?
Online/Distance per-credit tuition
Select a tuition increment: $1,600/credit

What is the rationale for selecting this tuition increment?
Based on a competitive market study completed by the Division of Continuing Studies, this market-based tuition is in line with other institutions hosting similar programs at peer universities. The labor demand also suggests that students are willing to pay for this degree and prefer the flexibility of an online degree modality while working and attending to the degree as a part-time student.

Will segregated fees be charged?
No
If segregated fees will be charged, please explain.
This is a fully online program and will not need campus services typically geared for residential learners.

Provide a summary business plan.
This program is expected to be self-funded through tuition revenue within 3 years of implementation. Enrollment will begin with 25 students and increase with additional cohorts of 25 students per year until a goal of 75 new students is reached in Year 4 after launch. The program will also request an online per-credit tuition tier based on the competitive space for this discipline.

Funding for program development is supported by ICTR, the Division of Continuing Studies, and central campus. The program has MOUs stating that participating departments are fully aware of their role in providing courses, having faculty trained in online teaching, and the budget resource is prepared to support faculty buyout and teaching in participating departments.

Funding from the Division of Continuing Studies also includes market research and analysis, including a market demand study, competitive survey and plans to build out marketing strategy and execution plans for program launch in Fall 2020. The DCS Recruitment Team will create and implement programs specific recruiting plans and support development of websites and other communication materials.

Provide an overview of plans for funding the program including but not limited to program administration, instructional/curricular delivery, technology needs and program assessment.
This program is expected to be self-funded through tuition revenue within 3 years of implementation. Enrollment will begin with 25 students and increase with additional cohorts of 25 students per year until a goal of 75 new students is reached in Year 4 after launch. The program will also request an online per-credit tuition tier based on the competitive space for this discipline based on a competitive analysis of similar programs at peer institutions.

Tuition revenue will be gathered centrally at the School of Medicine and Public Health where it will be redistributed to the program partners and used directly for program administrative support.
With respect to instructional, Memorandums of Understanding (MOUs) are in place with all program partners to assess instructional activity at $600/credit per hour student. The terms of these MOUs are re-assessed every 3 years. Therefore, all program partners are compensated by the program for instruction based on total credit hours of each course.

With respect to excess program revenue, the ICTR steering committee will direct allocation among the program partners, and reinvest back into the program, and/or hold in a contingency fund for future needs. Potential partner uses for the revenue include support for additional faculty lines, professional development, and pilot funding for grants.

Program administration will be housed in ICTR. Tuition revenue will directly support relevant staff including the administrative program director, the academic director, graduate student services coordinator, career services staff and administrative support. Other direct expenses are new course development, marketing and recruitment.

The Division of Continuing Studies will support program assessment through targeted student surveys at key times in the program. The surveys will identify program deficiencies, which feed strategic session decisions on making programs improvement.

What is the marketing plan?
Marketing efforts will be led by the Division of Continuing Studies Integrated Marketing & Communications (IMC) team. IMC will develop a comprehensive learner-centric marketing strategy to build awareness of the program and generate leads.

Specific digital marketing efforts employed will likely include paid search (Google AdWords), paid social (Instagram, Snapchat) and digital display web banners. Email marketing will also be utilized by targeting specific clinical health professionals and alumni as well as targeted paid lists such as GRE (Graduate Record Exam), GMAT (Graduate Management Admission Test), hospitals, and local industry. Dedicated landing page(s) will be built using lead conversion best practices.

In the marketing phase (July 2019 – April 2020), the IMC marketing team will develop and implement a marketing plan, identify target audiences and key messages, develop landing page content, and build a marketing campaign with supporting creative materials. With a targeted campaign launch of July 2019, the marketing campaign will run for six months prior to the Spring 2020 application deadline. The IMC
managing team will continue to monitor performance and optimize the campaign for improved results.

Describe resource and fiscal considerations - A. Provide an overview of plans for funding the program including program administration, instructional/curricular delivery, academic and career advising, technology needs, marketing (if relevant), financial aid and scholarships (if relevant), capacity for student learning outcomes assessment, and program review.

Funding for program development is supported by ICTR, the Division of Continuing Studies, and central campus. Memorandums of Understanding (MOU) for participating schools and colleges to share tuition revenue with participating departments and instructors are secured.

Funding from the Division of Continuing Studies also includes market research and analysis, including a market demand study, competitive survey and plans to build out marketing strategy and execution plans for program launch in fall of 2020. The DDS Recruitment Team will create and implement program-specific recruiting plans, and support development of websites and other communication materials.

Student learning outcomes are aligned with the accreditation goals of the degree and have already been mapped accordingly. The student learning assessment has been reviewed by the ICTR curriculum steering committee and approved. Due to the accreditation goals of the program, this program has been mapped to meet high-level competencies and all faculty involved are aware of the accreditation standards and the role their course plays in the assessment mapping of the degree overall.

Describe resource and fiscal considerations - B. Are the faculty, instructional staff and key personnel existing or new faculty and staff? If they already serve existing programs, how are they able to add this workload? If new faculty and staff will be added, how will they be funded?

For program start-up (1-2 years), most faculty and staff are existing. Much of the early curriculum will make use of existing courses across all the program partners with two new courses being created to support the degree. All courses have been reviewed as part of the degree mapping for accreditation and map to the AMIA (American Medical Informatics Association). All except two courses in the degree will need full engagement in course development and instruction design support.

Adding students to these existing courses to serve an online audience is the biggest early cost to provide online resources and buy out of time. Instructional compensation ($600/credit) will assist with growth and online scaling. A new program director is being hired for the program to teach the capstone and to work with faculty across campus to leverage relationships and networks needed for this degree to be successful.

For early program years (3-4), academic capacity will be added through increased instructional appointments and the hiring of teaching assistants. A career services staff member will be hired directly as part of administrative staff growth. All of these actions are funded through tuition revenue.

For longer-term program operation (5+ years) with sustained high enrollment (160+ students/year), the hiring of additional dedicated instructional staff and dedicated support staff will be undertaken. Exact needs will be determined based on student demand for academic topics or program services. Program tuition revenue will be used to fund new hires.

Describe resource and fiscal considerations - C. What impacts will the program have on staffing needs beyond the immediate program? How are these needs being met?

The budget model provides ICTR and participating departments with adequate fiscal resources to develop services and courses to teach online sections without impact on existing programs.

Describe resource and fiscal considerations - D. For graduate programs, describe plans for funding students including but not limited to funding sources and how funding decisions will be made.

The students in this program will be primarily self-funded, often with employer reimbursement. The program steering committee will determine use of and award scholarships for underrepresented groups to attract diverse candidates once the program is self-sustaining.

LW System Administration and the Board of Regents require submission of budget information in a specific format. These forms will be completed in collaboration with AIPR after school/college approval and before submission to UWSA for Board consideration. These forms are uploaded here by AIPR.

Does the program or change require substantial new resources other than those just described? Describe the needs. Confirm that the dean is committed to providing the resources. The program requires substantial development funding. ICTR has received funding from the Division of Continuing Studies and campus to support this period of development.

Are new Library resources needed to support this program?

No

Describe plans for funding students including but not limited to funding sources and how funding decisions are made.

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**Curriculum and Requirements**

Guide Admissions/How to Get In tab

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Approved Shared Content from /shared/graduate-school-admissions/

Last Approved: Oct 16, 2019 6:46pm

Please consult the table below for key information about this degree program's admissions requirements. The program may have more detailed admissions requirements, which can be found below the table or on the program's website.

Graduate admissions is a two step process between academic programs and the Graduate School. **Applicants must meet the minimum requirements of the Graduate School as well as the program(s).** Once you have researched the graduate program(s) you are interested in, [open link].

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall Deadline</td>
<td>July 1</td>
</tr>
<tr>
<td>Spring Deadline</td>
<td>This program does not admit in spring.</td>
</tr>
<tr>
<td>Summer Deadline</td>
<td>This program does not admit in summer.</td>
</tr>
<tr>
<td>IBS Graduate Record Examination</td>
<td>Not required</td>
</tr>
</tbody>
</table>
The faculty executive committee for the program considers all aspects of each application. The applicant must meet the minimum requirements of the Graduate School plus those of the program, listed here:

- Have a focused area of interest in informatics, data analytics, clinical care or research, health information technology, or similar fields.
- Ideally have a health professional degree or a bachelor's degree in information technology, statistics, computer science, or a similar field.
- Have completed a college-level statistics course or equivalent work experience.

Describe plans for recruiting students to this program:

- Working in concert with the Division of Continuing Studies, we plan to:
  - Create pop-up events and lunch and learn at targeted universities and businesses (in this case, UW-Madison is the only visiting institution, so this would be a more intimate event with a presentation).
  - Host a series of events on UW-Madison campus targeting UW-Madison students in healthcare (Undergraduate future professionals for long-term recruitment and professionals working in healthcare within the community at evening events, examples might include: tips for your application, online learning degree, meeting faculty and having a chance to see career outlooks).
  - Work with Clinical and Health Informatics program staff to host booths at targeted conferences and career fairs to reach working professionals.
  - Call all leads within 24 hours of RFI (request for information) form submission including video conferencing as requested to answer questions.
  - One to one email and meeting with prospective students to answer questions and connect to program staff as appropriate.
  - Develop automated campaigns to move prospective students from 1) being interested and wanting to learn more to 2) starting the application to 3) finally completing the application.
  - Develop automated yield campaigns and strategies to get accepted students to enroll.
  - Coordinate many of the above marketing activities in conjunction with partner departments (e.g., partners take program brochures to conferences they attend).

What is the recruiting and admissions strategy for underrepresented students?

The MS-CII will actively pursue equity in student recruitment, access, and retention by working closely with the Graduate School and the Division of Continuing Studies marketing and recruitment teams to make sure students who represent all forms of diversity including socio-economic, gender, sexuality, race, ethnicity, and religion are recruited. Marketing materials and content will show a diverse student body. Graduating students will share insights about the program with interview, videos, and testimonials about their program experience working with interprofessional collaborative teams to solve real health care problems and interact with professionals who have varied experience and backgrounds.

By offering flexible schedules and removing geographic boundaries, online graduate and professional programs, such as the MS CII program, increase access for non-traditional learners. The MS-CII program is targeted to working professionals that represent a range of geographic areas, experiences, and backgrounds; adding to the richness and overall diversity of the student population as well as the student experience.

As a degree that promotes public health, recruiting students who represent the diverse needs in healthcare delivery, data-driven medicine, and data informatics is the goal. Efforts will be made to develop relationships at conferences, networking events, and clinical settings that support the diversity efforts and goals of the program. Moreover, once the program has program revenue resources, scholarships targeted at underrepresented groups will be awarded to promote gaps within the diversity and equity goals of the program.

Academic support is essential for the retention and success of all students. Academic support services for the MS-CII program will be designed to meet the needs of a diverse, adult student population. The Academic Director and Student Services Coordinator will be the primary contacts for all students and will help student advising as well as both academic and career resources for all learners. An online Community of Practice will provide program resources, tutoring support, peer-to-peer sharing, and goal-setting strategies for career success. The Community of Practice will offer an inclusive, virtual environment where students from diverse backgrounds will interact and build a community of learners around common academic and professional interests. These can be shared openly with all students enrolled in the program. Webinars targeting stress, work-life balance, career exploration, and effective time management will be shared along with UW resources that can support and guide professional development. All students will have a faculty mentor in the program to guide and support individualized needs and goals.

Projected Annual Enrollment:

<table>
<thead>
<tr>
<th>Year</th>
<th>Projected Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>25</td>
</tr>
<tr>
<td>Year 2</td>
<td>71</td>
</tr>
<tr>
<td>Year 3</td>
<td>104</td>
</tr>
<tr>
<td>Year 4</td>
<td>139</td>
</tr>
<tr>
<td>Year 5</td>
<td>162</td>
</tr>
</tbody>
</table>

Maximum enrollment that can be supported with existing instructional and student services resources: 50
Higher-than-expected enrollment is less likely, as student enrollment numbers can be controlled through the admissions process. However, if this were to occur, expanding instructional resources will be a first priority. New course sections will be created for required courses and any high-demand courses. High enrollment will produce high tuition revenue, and this would be applied to increasing existing instructor appointments, and/or hiring additional teaching assistants, and/or tapping private sector instructional expertise, and/or one-time faculty overload requests. Staff capacity can be rapidly increased through use of student hourly workers, overload requests and overtime if the employee labor classification. If the high enrollment levels continue, additional instructional and administrative staff will need to be hired.

Those who are not familiar with the text editor fields may upload a document with information about the curriculum for use by those who will format and edit the content that will appear in the Guide.

**Approved Shared Content from /shared/graduate-minimum-degree-requirements-and-satisfactory-progress/**

**Last Approved:** Oct 25, 2018 11:29am

**Minimum Graduate School Requirements**

Review the Graduate School minimum academic progress and degree requirements in addition to the program requirements listed below.

**Major Requirements**

**Mode of Instruction**

<table>
<thead>
<tr>
<th>Face to Face</th>
<th>Evening/Weekend</th>
<th>Online</th>
<th>Hybrid</th>
<th>Accelerated</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

**Mode of Instruction Definitions**

**Approved Shared Content from /shared/graduate-school-mode-instruction-definitions/**

**Last Approved:** Oct 25, 2018 11:30am

**Evening/Weekend:** These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

**Online:** These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

**Hybrid:** These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

**Accelerated:** These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

**Curricular Requirements**

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Credit Requirement</td>
<td>30 credits</td>
</tr>
<tr>
<td>Minimum Residence Credit Requirement</td>
<td>16 credits</td>
</tr>
<tr>
<td>Minimum Graduate Coursework Requirement</td>
<td>Half of degree coursework must be completed graduate-level coursework. Courses with the Graduate-Level Coursework attribute are identified and searchable in the university’s Course Guide <a href="https://register.wisc.edu/course-guide">https://register.wisc.edu/course-guide</a></td>
</tr>
<tr>
<td>Overall Graduate GPA Requirement</td>
<td>3.00 GPA required.</td>
</tr>
<tr>
<td>Other Graduate Requirements</td>
<td>Students must earn a B or above in all core curriculum coursework.</td>
</tr>
<tr>
<td>Language Requirements</td>
<td>No language requirements.</td>
</tr>
</tbody>
</table>

**Required Courses**

**Course List**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POP 6709</td>
<td>Translational and Outcomes Research in Health and Health Care</td>
<td>3</td>
</tr>
<tr>
<td>BM 1573</td>
<td>Fundamentals of Data-Driven Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>POP 6795</td>
<td>Principles of Population Health Sciences</td>
<td>3</td>
</tr>
<tr>
<td>I SY 601</td>
<td>Special Topics in Industrial Engineering (Human Factors Engineering for Healthcare Systems)</td>
<td>3</td>
</tr>
<tr>
<td>NURSING 702</td>
<td>Health Promotion and Disease Prevention in Diverse Communities</td>
<td>3</td>
</tr>
<tr>
<td>NURSING 715</td>
<td>Evaluation of Health Informatics Solutions</td>
<td>3</td>
</tr>
<tr>
<td>NURSING 777</td>
<td>Leadership and Organizational Decision Making in Health Care</td>
<td>3</td>
</tr>
<tr>
<td>PHM 617</td>
<td>Health System Pharmacy Data Analysis and Informatics</td>
<td>2</td>
</tr>
<tr>
<td>OTM 713</td>
<td>Healthcare Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>BM 1750</td>
<td>Cumulative Capstone in Clinical and Health Informatics</td>
<td>3</td>
</tr>
<tr>
<td>EFD 706</td>
<td>Change Management</td>
<td>1</td>
</tr>
</tbody>
</table>

Total credits required: 30

Guide Graduate Policies tab

Graduate School Policies

The Graduate School's Academic Policies and Procedures provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School is with the degree program faculty. Policies set by the academic degree program can be found below.

Major-Specific Policies

Graduate Program Handbook

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

Prior Coursework

Graduate Work from Other Institutions
If applicable to the program completing, and with program approval, students are allowed to count no more than 9 credits of graduate coursework in educational leadership from other institutions and 6 credits of graduate coursework in areas other than educational leadership from other institutions. Coursework earned five or more years prior to admission to the master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate
If applicable to the program completing and with program approval, 6 credits of coursework numbered 500 or above from a UW–Madison undergraduate degree are allowed to count toward the degree. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special
With program approval, students are allowed to count no more than 6 credits of coursework numbered 300 or above taken as a UW–Madison special student. If necessary to meet the Graduate School minimum graduate credit requirements for the degree, special student coursework may need to be converted to graduate credits. Once converted, students are assessed the difference in tuition between special and graduate tuition. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

Probation

The Graduate School regularly reviews the record of any student who earned grades of B+, C, D, F, or Incomplete in a graduate course (100 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

An advisor is assigned to incoming students and will work with students individually to ensure they are making satisfactory progress toward a degree.

CREDITS PER TERM ALLOWED

12 credits

Time Constraints

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

Other

Funding is not offered along with offers for admission.

Discuss expected progress to degree and time to degree. For undergraduate programs discuss considerations for supporting students to complete the degree in four academic years. This is a fully online program and is created to support working adults in the clinical health professions. As such, the degree expects learners to be able to complete the degree in 2-3 years depending upon if a students takes a full or part-time course load.

Program Learning Outcomes and Assessment

List the program learning outcomes.

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>ex: enter one learning outcome per box. Use the green + to create additional boxes.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Health: Describe and explain background knowledge of the history, goals, methods</td>
</tr>
<tr>
<td></td>
<td>and challenges of the major health sciences, including human biology, genomics,</td>
</tr>
<tr>
<td></td>
<td>clinical and translational science, healthcare delivery, personal health and</td>
</tr>
<tr>
<td></td>
<td>population health.</td>
</tr>
<tr>
<td>2</td>
<td>Information Science and Technology: Demonstrate background knowledge of concepts,</td>
</tr>
<tr>
<td></td>
<td>terminology, methods and tools of information science and technology for managing</td>
</tr>
<tr>
<td></td>
<td>and analyzing data, information and knowledge.</td>
</tr>
<tr>
<td>3</td>
<td>Social and Behavioral Science: Evaluate the effects of social, behavioral, legal,</td>
</tr>
<tr>
<td></td>
<td>psychological, management, cognitive, and economic theories, methods, and models</td>
</tr>
<tr>
<td></td>
<td>applicable to health informatics from multiple levels including individual, social,</td>
</tr>
<tr>
<td></td>
<td>group, and society.</td>
</tr>
<tr>
<td>4</td>
<td>Health Information Science and Technology: Determine concepts and recognize tools</td>
</tr>
<tr>
<td></td>
<td>for managing and analyzing biomedical and health data, information, and knowledge.</td>
</tr>
<tr>
<td></td>
<td>Key foci include systems design and development, standards, integration, interoperability,</td>
</tr>
<tr>
<td></td>
<td>and protection of biomedical and health information.</td>
</tr>
<tr>
<td>5</td>
<td>Human Factors and Socio-Technical Systems: Apply social behavior theories and human</td>
</tr>
<tr>
<td></td>
<td>factors engineering to better understand the interaction between users and information</td>
</tr>
<tr>
<td></td>
<td>technologies within the organizational, social, and physical contexts of their lives, and</td>
</tr>
<tr>
<td></td>
<td>apply this understanding in information system design.</td>
</tr>
<tr>
<td>6</td>
<td>Social and Behavioral Aspects of Health: Evaluate and apply social determinants of</td>
</tr>
<tr>
<td></td>
<td>health and patient generated data to analyze problems arising from health or disease, to</td>
</tr>
<tr>
<td></td>
<td>recognize the</td>
</tr>
</tbody>
</table>
Implications of these problems on daily activities, and to recognize and/or develop practical solutions to managing these problems.

Social, Behavioral, and Information Science and Technology Applied to Health: Appraise the diverse foundational concepts and facets in order to develop integrative approaches to the design, implementation, and evaluation of health informatics solutions.

Professionalism: Demonstrate conduct that reflects the aims or qualities that characterize a professional person encompassing especially a defined body of knowledge and skills and their lifelong maintenance as well as adherence to an ethical code.

Interprofessional Collaborative Practice: Exhibits behavior that reflects the foundations of values/ethics, roles/responsibilities, interprofessional communication practices, and interprofessional teamwork for team-based practice.

Leadership: Demonstrates the following characteristics: credibility, honest, competence, ability to inspire, and ability to formulate and communicate a vision.

Summarize the assessment plan.

Direct evidence is provided primarily by student work product and process in the capstone course, and is supported by post-degree student outcomes, including attainment of career objectives. The program’s capstone course will be the primary source for direct assessment of student learning outcomes. In addition, the capstone course will conclude with final presentations that will showcase student work and be evaluated by sponsoring industry partners, the program’s steering committee, program instructors, the program’s advisory board, and other relevant partners in Madison and beyond.

The Division of Continuing Studies (DCS) distributes pre- and post-program degree surveys on behalf of all non-pooled, 133 programs to support program level indirect assessment requirements. These surveys meet the university indirect assessment requirements as they 1) identify which learning outcomes were assessed, 2) outline what data was collected and how, and 3) summarize key findings and recommendations. DCS compiles the survey information into various reports that programs can use for longitudinal review.

Student evaluations of teachers and classes are an important additional source of program assessment data, which can inform program and course design, instructional strategies, and program improvement.

During the implementation phase, the program will also carefully monitor student access to courses to ensure growth of course capacity to fully meet student demand, and student engagement and success to inform program, course and instructional design.

Approved Assessment Plan: [Assessment Plan MS in Clinical and Health Informatics 20130931.pdf]

Related Programs

Provide information on related programs offered by other UW System institutions and explain the extent to which the proposed program is distinct and how it overlaps or duplicates those programs.

Currently, there is just one graduate-level health science related degree and two certificates within the UW System in this domain. These UW System programs serve students interested in learning skills related to IT management within a healthcare setting.

UW-Milwaukee offers a Master of Health Care Informatics and a Certificate in Health Care Informatics. The UW-Milwaukee master’s degree focuses on the automation of medical data and information and closely aligns with IT network design rather than clinical decision-making. The courses are face-to-face and online for working IT professionals. The Certificate in Health Care Informatics is offered as a cooperative program among the College of Health Sciences, the Department of Health Informatics Administration, and the School of Information Studies. The certificate allows students to explore the three disciplines to build foundational knowledge across fields. According to the program website neither the degree nor the certificate is accredited.

The University of Wisconsin-Oshkosh offers a Healthcare Informatics Certificate. The program serves healthcare nurses interested in integrating computer science and information science to improve patient outcomes. The program is online with a required clinical practicum. Because the program serves nurses, this certificate allows students to be eligible to take the American Nursing Credentialing Center (ANCC) Informatics Nursing Certification exam.

Commitments

Courses in the curriculum are numbered 300 or higher.
Yes

The program faculty/staff will ensure the program website, Advance Your Career materials if applicable, and other presentations are consistent with the Guide information for this program.
Yes

Credential will not be awarded retroactively to students who completed all of the requirements before the credential was approved.
Yes

Supporting Information

List name and department of those who are in support of this proposal.

Name (Last, First) | Date of contact/support letter received | School,College, or Department | Comment by contact person | On behalf of
---|---|---|---|---

https://next-guide.wisc.edu/courseleaf/approve/?role=GRAD SCH Dept Approver
If those supporting the proposal provided a letter or email of support upload here. A letter is NOT required. Upload any other explanatory information about support from other UW-Madison units.

If those supporting the proposal provided a letter or email of support upload here. A letter is NOT required. Upload any other explanatory information about support from other UW-Madison units.

**Approvals**

Department Approval - This proposal has been approved by the faculty at the departmental/college level. The program faculty confirm that the unit has the capacity and resources (financial, physical, instructional, and administrative) to meet the responsibilities associated with offering the program, including offering the necessary courses, advising students, maintaining accurate information about the program in the Guide and elsewhere, conducting student learning assessment and program review, and otherwise attend to all responsibilities related to offering this program.

Enter any notes about approval here:  

Entered by:  Sally Wedde For Allan Brasier  
Date entered:  4/11/2019

School/College Approval - This proposal has been approved at the school/college level and it is submitted with the Dean's support. The Dean and program faculty confirm that the unit has the capacity and resources (financial, physical, instructional, and administrative) to meet the responsibilities associated with offering the program, including offering the necessary courses, advising students, maintaining accurate information about the program in the Guide and elsewhere, conducting student learning assessment and program review, and otherwise attend to all responsibilities related to offering this program.

Enter any notes about approval here:  

Entered by:  SMPH/APC approved 10/16/19  
Date entered:  10/16/19

GFC Approval - This proposal has been approved by the Graduate Faculty Executive Committee and the Dean of the Graduate School.

Enter any notes about the approval here:  

Entered by:  
Date entered:  

GAPC Approval - This proposal has been approved by the University Academic Planning Council and the Provost.

Enter any notes about approval here:  

Entered by:  
Date entered:  

**For Administrative Use**

Admin Notes:

Guide URL:

Effective date:

Career:

SIS Program Code:

SIS Short Description:

Other plan codes associated with this program:

Diploma Type:

Diploma Type 2:

Degree:

Field of Study:
<table>
<thead>
<tr>
<th>Date</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>04/11/19</td>
<td>Andrea D Poehling (adpoehl) (04/11/19 3:00 pm): Rollback: See 4/11/19 email.</td>
</tr>
<tr>
<td>06/20/19</td>
<td>Sally E Wedde (sewedde) (06/20/19 10:55 am): Rollback: Sending back so you can add the MOU</td>
</tr>
<tr>
<td>10/04/19</td>
<td>Regina Ann Lowery (lowery3) (10/04/19 9:07 am): Learning outcomes: Editorial: #7, “Appraise and apply...” #9 change to “Exhibit” and #10 change to “Demonstrate” to match other statements. Format accounts after changes.</td>
</tr>
<tr>
<td>10/04/19</td>
<td>Regina Ann Lowery (lowery3) (10/04/19 9:09 am): Assessment plan: Accepted.</td>
</tr>
<tr>
<td>10/09/19</td>
<td>Andrea D Poehling (adpoehl) (10/09/19 2:40 pm): Replaced “BOR_MS_CHI_New Program Authorization” with Miller’s edited 10_5_2019 version.</td>
</tr>
<tr>
<td>10/15/19</td>
<td>Karen E Mittelstadt (mittelstadt) (10/15/19 5:25 pm): The School of Nursing is in support of this MS-Chi proposal and has partnered with the SMPH/ITR/DCI developers to consider ways nursing can help advance and benefit from this new program.</td>
</tr>
<tr>
<td>10/16/19</td>
<td>Ella Mae Matsumura (emmatsum) (10/16/19 8:14 pm): 1. Enno Siemens is listed as a program advisor but his department is missing from his professor title. His description should be: Associate Dean MBA and Masters Programs and Professor of Operations &amp; Information Management. 2. Professor Robert Batt is listed as one of the core program faculty. He will help with oversight of the course offered by his department but does not plan to teach it.</td>
</tr>
<tr>
<td>10/22/19</td>
<td>Quinn H Fullenkamp (qfullen) (10/22/19 9:07 am): The Population Health Sciences Curriculum Committee supports this proposal. The Curriculum Committee has not been informed of any movement to have the two PhD classes change to an online format at this time. 10/16/19.</td>
</tr>
</tbody>
</table>
May 10, 2019

TO: Sarah Mangelsdorf, Provost and Vice Chancellor for Academic Affairs
   UW-Madison

FROM: Carleen Vande Zande, Associate Vice President

RE: Approval to Plan an M.S. in Clinical and Health Informatics

In an email dated April 19, 2019, your office invited all of the UW System institutions and the Office of Academic Programs and Educational Innovation to comment on your proposal to plan an M.S. in Clinical and Health Informatics. On May 4, 2019, your office forwarded a compilation of the responses to our office and to the Provosts at all UW institutions. The responses indicated there were no objections to the program.

As part of our review, we note that one UW institution offers a similar degree or program. UW-Milwaukee offers an M.S. in Health Care Informatics. Because 50% or fewer of the institutions offer the proposed program, it does not fall under the definition of “unnecessary duplication” as defined by SYS 102. I am pleased to grant your request for approval to plan this program that will be offered exclusively via distance delivery.

After you have reviewed the Request for Authorization to implement document, the Cost and Revenue Projections spreadsheet, and the Cost and Revenue Projections narrative, please submit them along with your Letter of Commitment to apei@uwsa.edu. Templates are located at https://www.wisconsin.edu/program-planning/. Request for Authorization documents need to be sent at least eight weeks in advance of the Board of Regents meeting at which you would like the program to be considered for approval.

This approval to plan will expire three years after the date of this memo if the Board of Regents has not authorized this program prior to that date.

Please contact Diane Treis Rusk at dtreisrsk@uwsa.edu or 608.261.1115 if you would like assistance with the development of the authorization documents.

C: Rebecca Blank, Chancellor, UW-Madison
   Provosts and Vice Chancellors for Academic Affairs
   Jocelyn Milner, Vice Provost, UW-Madison
   UW Institution Program Planning Liaisons
   UWSA Program Planning, Review, and Array Management Team
Notice of Intent

University of Wisconsin-Madison
Master of Science in Clinical and Health Informatics

Degree/Plan Name: Master of Science in Clinical and Health Informatics
Academic Home: Institute for Clinical and Translational Research
School/College: School of Medicine and Public Health (SMPH)
Delivery: Online
Program Contact: Elizabeth Burnside, Associate Dean, School of Medicine and Public Health
UW-Madison Contact: Jocelyn Milner, Vice Provost for Academic Affairs (Jocelyn.milner@wisc.edu)

Summary

The proposed MS-Clinical and Health Informatics will be housed in the Institute for Clinical and Translational Research (ICTR) in the School of Medicine and Public Health. The program will serve working professionals in the healthcare industry through a fully online curriculum, and seek to become Wisconsin’s first Master’s program accredited by the Commission on Accreditation for Health Informatics and Information Management (CAHIIM). The program collaborators include the School of Medicine and Public Health, College of Engineering, School of Nursing, School of Pharmacy and School of Business. This interdisciplinary approach is essential to providing the expertise from population health, biomedical informatics, industrial systems engineering, nursing, pharmacy, and healthcare operations management needed to provide clinicians, nurses, pharmacists, researchers, administrators and health information technologists the tools and methods to assess the effect of health innovations on policy, clinical practice, security, and biomedical and health information systems.

Need for the Program

The 2017 Leadership and Workforce study conducted by the research arm of the Healthcare Information and Management Systems Society (HIMSS) found that 61% of healthcare organizations and vendors are expecting to increase hiring in the upcoming few years,\(^1\) with a projected increase of 21%\(^2\). In Wisconsin alone that year, more than 900 job postings were looking for people with 3-5 years of clinical experience and a master’s in a data field.\(^3\) Expertise in clinical and health informatics is also required in the top tier of job openings that involve electronic health record analysis, database design and clinical operational management, health modeling and health care data security. The market demand according to the Educational Advisory Board Report on Health Professions saw a national demand of over 35,000 job postings in 2016 asking for the informatics skills listed.\(^4\)

Local employers include Deloitte, General Electric, Vital Tech solutions, UW Health and Epic. Recent job titles for careers in clinical healthcare informatics include Medical Informatics Project Directors,

\(^3\) [https://laborinsight.burning-glass.com/jobs/us#/snapshots/display2018](https://laborinsight.burning-glass.com/jobs/us#/snapshots/display2018)
Researchers, and Systems Analysts, along with Clinical Informatics Directors, Specialists, Coordinators and Analysts. The need for data skills is also increasingly becoming a necessity in the healthcare industry. Given the growing demand, the University of Wisconsin-Madison will leverage our institution’s cutting-edge work in the School of Medicine and Public health, where medical and population health research already have a strong record to inform best practices in the clinical setting. This program will leverage the expertise of faculty across the university to build upon a growing need to leverage informatics expertise in the healthcare space where evidence-based decision-making and data-informed care are essential. Students will leave this program with skills to enhance their professional practices in the clinical healthcare setting and as business and informatics leaders drawing from operational and healthcare management, health informatics, and information technology skills to solve complex problems of the social-behavioral aspects of health.

The program expects to enroll 100 clinicians and healthcare information technology professionals per year by the fourth year after implementation. Scale is possible with cohorts starting in multiple terms. Students will be able to complete the program in 2-3 years depending upon if they attend full time (2 years) or part time (3 years).

Context within UW-Madison and UW System Program Array

Currently there is just one graduate-level health science related degree and two certificates within the UW System in this domain. These UW System programs serve students interested in learning skills related to IT management within a healthcare setting. UW-Milwaukee offers a Masters in Health Care Informatics and a Certificate in Health Care Informatics. This UW-Milwaukee master’s degree focuses on the automation of medical data and information and closely aligns with IT network design than clinical healthcare decision-making. Courses are face-to-face and online for working IT professionals. The Certificate in Health Care Informatics is offered as a cooperative program among the College of Health Sciences, the Department of Health Informatics Administration, and the School of Information Studies. The certificate allows students to explore the three disciplines to build foundational knowledge across fields. According to the program website neither the degree nor the certificate is accredited. Additionally, the University of Wisconsin-Oshkosh offers a Healthcare Informatics Certificate. The program serves healthcare nurses interested in integrating computer science and information science to improve patient outcomes. The program is online with a required clinical practicum. Because the program serves nurses, this certificate allows students to be eligible to take the ANCC Informatics nursing certification exam.

The proposed UW-Madison program will serve a different audience including healthcare professionals with clinical experience interested in managing large healthcare enterprise solutions and implementing system-based solutions to improve patient outcomes. Students will be required to have work experience in clinical healthcare or a degree in a clinical discipline (M.D., R.N., PharmD, etc.) and proficiency with basic statistics. Within the University of Wisconsin-Madison, the School of Medicine and Public Health offers an on-campus full-time M.S. Degree in Biomedical Data Science. The program is research and thesis-based. MS students study methodologies from computer sciences and statistics to contribute to

the solutions central to computational problems in biomedicine through building algorithms and coding simulations for population health research, statistical genetics and biomedical informatics.

Additionally, the on-campus full-time MS in Statistics named option in biostatics at UW-Madison serves research and thesis-based students who work in the theory, methodology, and application of statistics. The program focuses primarily on the statistics of biomedical sciences and differs from informatics with a focus on the computation and mathematical application of designing experiments and survey samples. Informatics in contrast focuses on the interaction between humans and information.

The proposed degree also differs in that will be accredited and all courses will be offered online for working healthcare professionals. The curriculum focuses on application and applied tools used in a clinical or healthcare setting and will not offer a thesis option. Faculty in the Institute for Clinical and Translational Research, the program’s academic home, are working to create new online courses focused more on data-driven medicine and system-based decision making with an informatics focus to serve practicing professionals that wish to expand their leadership roles through data-based decision making. This is part of the School of Medicine and Public Health’s strategic vision and planning mission⁶, creating vital connections between basic discovery and clinical/translational research, and providing programs that support the health and wellness of individuals and populations.

This program also supports the UW-Madison campus strategic framework⁷ goal to improve access (through online delivery) and “build innovative professional master’s-level degrees and other lifeline learning experiences.”

Curriculum and Learning Outcomes

The program learning outcomes are based on AMIA Health Informatics Core Competencies for CAHIIM Accreditation. This program will seek accreditation to support the mission and vision of next generation of informatics professionals. Accreditation is key differentiator for our program and leverages key expertise across disciplines and expertise across faculty departments to leverage all 10 competencies in a degree program that spans expertise in data management, interprofessional practice, and data design, systems and operational management across healthcare fields.

The program learning outcomes/competencies are:

1. **Health**: The background knowledge of the history, goals, methods and challenges of the major health sciences, including human biology, genomics, clinical and translational science, healthcare delivery, personal health and population health.
2. **Information Science and Technology**: The background knowledge of concepts, terminology, methods and tools of information science and technology for managing and analyzing data, information and knowledge.
3. **Social and Behavioral Science**: The background knowledge of the effects of social, behavioral, legal, psychological, management, cognitive, and economic theories, methods, and models applicable to health informatics from multiple levels including individual, social group, and society.
4. **Health Information Science and Technology**: The knowledge, skills, and attitudes to use concepts and tools for managing and analyzing biomedical and health data, information, and

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⁷ https://chancellor.wisc.edu/strategicplan2/ed_experience.html
knowledge. Key foci include systems design and development, standards, integration, interoperability, and protection of biomedical and health information.

5. **Human Factors and Socio-technical Systems**: The knowledge, skills and attitudes to apply social behavioral theories and human factors engineering to better understand the interaction between users and information technologies within the organizational, social, and physical contexts of their lives, and apply this understanding in information system design.

6. **Social and Behavioral Aspects of Health**: The knowledge, skills, and attitudes to use social determinants of health and patient-generated data to analyze problems arising from health or disease, to recognize the implications of these problems on daily activities, and to recognize and/or develop practical solutions to managing these problems.

7. **Social, Behavioral, and Information Science and Technology Applied to Health**: The knowledge, skills and attitudes to apply the diverse foundation concepts and facets in order to develop integrative approaches to the design, implementation, and evaluation of health informatics solutions.

8. **Professionalism**: The conduct that reflects the aims or qualities that characterize a professional person encompassing especially a defined body of knowledge and skills and their lifelong maintenance as well as adherence to an ethical code.

9. **Interprofessional Collaborative Practice**: Behavior that reflects the foundations of values/ethics, roles/responsibilities, interprofessional communication practices, and interprofessional teamwork for team-based practice.

10. **Leadership**: Behavior that demonstrates the following characteristics: credibility, honest, competence, ability to inspire, and ability to formulate and communicate a vision.

This 30-credit master’s degree is designed as a 2 year full-time or 3 year part-time online program for adults working in either clinical healthcare or who have a strong analytical background in science and statistics related to healthcare. The majority of the courses are currently available and will be converted to an online platform to serve this new body of students. There are also several new courses in development.

The curriculum outline is as follows (30 credits):

- Health Informatics Systems: Knowledge of Healthcare
- Data Driven Medicine
- Healthcare Quality Improvements
- Human Factors Engineering Design and Evaluation
- Core Principles of Population Health Sciences
- Healthcare Operations Management
- Organizational Communication for Healthcare Professionals
- Regulatory Practice and Compliance
- Translational and Outcomes Research in Health and Health Care
- Clinical and Health Informatics Capstone

The MS in Clinical and Health Informatics will leverage expertise across several schools and departments across the University of Wisconsin-Madison. The expertise and variety of interdisciplinary coursework will make our program competitive to solve challenging problems in the healthcare arena.
Faculty and Staff

The core faculty and staff supporting development of this program include:

- Elizabeth Meyerand, Professor School of Medicine and Public Health and Professor of Medical Physics and Co-Director of the Women in Science and Engineering Leadership Institute
- Elizabeth Burnside, Deputy Executive Director of the Institute for Clinical and Translational Research (ICTR) and Associate Dean in the School of Medicine and Public Health
- Enno Seimsen, Associate Dean of the MBA and Master’s Programs, Executive Director of the Erdman Center for Operations and Technology Management
- Jack Temple, Clinical Associate Professor, School of Pharmacy Manager, Information Technology and Medication Use Systems, UW Health
- Maureen Smith, Professor in the Departments of Population Health Sciences, and Family Medicine and Community Health, School of Medicine and Public Health
- Barbara Pinekenstein, Clinical Professor, School of Nursing
- Linsey Steege, Associate Professor, School of Nursing

The master’s program will be housed within the UW Institute for Clinical and Translational Research (ICTR), administered by the School of Medicine and Public Health (SMPH), and supported by an oversight board with members from the School of Nursing, School of Pharmacy, School of Veterinary Medicine and the College of Engineering. ICTR is designated an administrative body for educational programs under the academic authority of the School of Medicine and Public Health. The new MS program will be governed by a faculty executive committee and a curriculum subcommittee. The executive committee is led by a faculty chair and includes the ICTR Training Director as a non-voting member. The curriculum subcommittee votes on recommendations, which are presented to the executive committee for approval.

A Faculty Director will be hired. Laura Ladick is the Assistant Program Director for Biomedical Informatics and will serve as the Administrative Lead for Student Services and support and coordinate student recruitment efforts. A Program Director will be hired to facilitate the incorporation and maintenance of curricular offerings, create a marketing, recruitment, and admission plan, and manage appropriate budgets. Students will be academically advised by faculty and staff members from ICTR and its strong interdisciplinary team approach. Student and career services will be provided through ICTR.

Funding

This program is expected to be self-funded through tuition revenue within 3 years of implementation. Enrollment will begin with 25 students and increase with additional cohorts of at least 25 students per year until a goal of 100 students is reached in Year 4 after launch. The program will also request an online per credit tuition tier based on the competitive space for this discipline, which will be decided by the time of the development of the full proposal.

Table 1: Enrollment and Direct Revenue Projections

<table>
<thead>
<tr>
<th></th>
<th>Development</th>
<th>Launch and Grow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrollment</td>
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<td>0</td>
</tr>
<tr>
<td>Credits taught</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Funding for program development is supported by the Schools and Colleges participating in program development, along with additional support from the Division of Continuing Studies.

**Additional Approvals**

No additional approvals are required beyond the Board of Regents. We will seek accreditation related to this program from the Commission on Accreditation for Health Informatics and Information Management (CAHIIM).
Assessment Plan

MASTERS OF SCIENCE IN CLINICAL HEALTH INFORMATICS

Identifying Information
School/College: School of Medicine and Public Health
Graduate Degree/Major Program Name: Clinical and Health Informatics
Graduate Degree Level (M.S., M.A., Ph.D., DMA, etc.): M.S.
Faculty Director Contact/Title: Elizabeth Burnside, MD, MPH, MS, Professor, Radiology, Associate Dean of Team Science and Interdisciplinary Research, Deputy Executive Director for the Institute for Clinical and Translational Research
Beth Meyerand, PhD, Associate Chair of Graduate Advising and Professor
Primary Contact Information: Sherry Fontaine

Student Learning Outcomes
*Please note that all learning outcomes for this program are from the AMIA accreditation body which this program will be accredited through.

1. **Health:** Describe and explain background knowledge of the history, goals, methods and challenges of the major health sciences, including human biology, genomics, clinical and translational science, healthcare delivery, personal health and population health.

2. **Information Science and Technology:** Demonstrate background knowledge of concepts, terminology, methods and tools of information science and technology for managing and analyzing data, information and knowledge.

3. **Social and Behavioral Science:** Evaluate the effects of social, behavioral, legal, psychological, management, cognitive, and economic theories, methods, and models applicable to health informatics from multiple levels including individual, social group, and society.

4. **Health Information Science and Technology:** Determine concepts and recognize tools for managing and analyzing biomedical and health data, information, and knowledge. Key foci include systems design and development, standards, integration, interoperability, and protection of biomedical and health information.
5. **Human Factors and Socio-technical Systems**: Apply social behavioral theories and human factors engineering to better understand the interaction between users and information technologies within the organizational, social, and physical contexts of their lives, and apply this understanding in information system design.

6. **Social and Behavioral Aspects of Health**: Evaluate and apply social determinants of health and patient-generated data to analyze problems arising from health or disease, to recognize the implications of these problems on daily activities, and to recognize and/or develop practical solutions to managing these problems.

7. **Social, Behavioral, and Information Science and Technology Applied to Health**: Appraise diverse foundation concepts and facets in order to develop integrative approaches to the design, implementation, and evaluation of health informatics solutions.

8. **Professionalism**: Demonstrates conduct that reflects the aims or qualities that characterize a professional person encompassing especially a defined body of knowledge and skills and their lifelong maintenance as well as adherence to an ethical code.

9. **Interprofessional Collaborative Practice**: Exhibits behavior that reflects the foundations of values/ethics, roles/responsibilities, interprofessional communication practices, and interprofessional teamwork for team-based practice.

10. **Leadership**: Demonstrates the following characteristics: credibility, honest, competence, ability to inspire, and ability to formulate and communicate a vision as an emerging leader in clinical health informatics.

**Plan for Assessing Each Student Learning Outcome**

For each of the degree major/program student learning outcomes, indicate how the program plans to assess whether or not students are meeting the expectation, as well as when each learning outcome will be assessed. Keep in mind that each academic degree program is expected to engage in at least one assessment activity per year and assessment activities, in total, must include one direct assessment method. While programs do not need to assess each learning outcome every year, all learning outcomes must be assessed within a period of three years.
### MS Clinical and Health Informatics

<table>
<thead>
<tr>
<th>PLO</th>
<th>1. Describe and explain background knowledge of the history, goals, methods and challenges of the major health sciences, including human biology, genomics, clinical and translational science, healthcare delivery, personal health and population health.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Demonstrate background knowledge of concepts, terminology, methods and tools of information science and technology for managing and analyzing data, information and knowledge.</td>
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<tr>
<td>3. Evaluate the effects of social, behavioral, legal, psychological, management, cognitive, and economic theories, methods, and models applicable to health informatics from multiple levels including individual, social group, and society.</td>
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<tr>
<td>4. Determine concepts and recognize tools for managing and analyzing biomedical and health data, information, and knowledge. Key foci include systems design and development, standards, integration, interoperability, and protection of biomedical and health information.</td>
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<tr>
<td>5. Apply social behavioral theories and human factors engineering to better understand the interaction between users and information technologies within the organizational, social, and physical contexts of their lives, and apply this understanding in information system design.</td>
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<tr>
<td>6. Evaluate and apply social determinants of health and patient-generated data to analyze problems arising from health or disease, to recognize the implications of these problems on daily activities, and to recognize and/or develop practical solutions to managing these problems.</td>
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<tr>
<td>7. Appraise diverse foundation concepts and facets in order to develop integrative approaches to the design, implementation, and evaluation of health informatics solutions.</td>
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<td>8. Demonstrates conduct that reflects the aims or qualities that characterize a professional person encompassing especially a defined body of knowledge and skills and their lifelong maintainence as well as adherence to an ethical code.</td>
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<tr>
<td>9. Exhibits behavior that reflects the foundations of values/ethics, roles/responsibilities, interpersonal communication practices, and interpersonal teamwork for team-based practice.</td>
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<tr>
<td>10. Demonstrates the following characteristics: credibility, honest, competence, ability to inspire, and ability to formulate and communicate a vision as an emerging leader in clinical health informatics.</td>
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</tbody>
</table>

**Method for assessing learning (at least one)**

Indirect: Pre-Degree survey will assess familiarity and prior experience with this learning outcome, and Post-Degree assessment will assess students’ self-reported level of preparation on each learning outcome. This will occur for every enrollment and graduation term to track student learning at the program level, learning goals and expectations as well as how the program is preparing students for their degree goals/needs.
<table>
<thead>
<tr>
<th>Direct method required</th>
<th>Direct: Rigorous evaluations of the Capstone projects at the end of the Fall and Spring semesters, as well as formative assessments in the form of case study presentations, strategic planning across interprofessional teams for data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timetable for assessment activity (at least one activity each year; all outcomes reviewed in a 3-year cycle)</td>
<td>Due to the online-part-time learners expected to enroll in this MS program, the summative view of the learning outcomes will be assessed at the end of the program once per year within the Capstone course – beginning in the spring for and eventually giving students two times per year to complete all course for the end of the program with the capstone occurring at the end of Fall semester and Spring semester respectively. Students will complete the indirect assessments (pre-degree and post-degree survey) when they begin and end the program.</td>
</tr>
</tbody>
</table>
Also provide answers to the following questions as part of your assessment plan.

**Who is responsible for assessment?** The MS Design + Innovation Program Director, will coordinate the implementation of the assessment plan annually. They will work with the Division of Continuing Studies to conduct the pre- and post-survey indirect assessments, as well as work with faculty and staff advisors to complete all direct assessments. Assessment data will be forwarded to the steering committee for evaluation and further dissemination.

**What is the plan for review of the assessment information?** Annually, at the September meeting of the steering committee, assessment results (compiled by Laura Ladick) will be reviewed. The steering committee will produce an initial summary to be presented at the “All Faculty” department meeting held early in the Fall (usually scheduled in October) of each academic year.

**What is the plan for production of an annual summary report?** After reviewing the assessment summary and comments from the “All Faculty” department meeting, the degree program’s executive committee will decide which (if any) items are actionable and provide a report of those plans, along with the initial assessment summary, to the Provost office by October 1st.

**How will recommendations be implemented?** Any actionable items will be discussed during steering committee meetings held in the late Fall semester. Proposals will be developed and go through the appropriate governance steps at that time. If approved, any curricular/programmatic/co-curricular changes will be implemented the following Summer semester or thereafter. The department will monitor all new implementations annually, with a more comprehensive report being compiled during the appropriate student learning outcome assessment year (within the 3-year timeline).

- **Degree/Major Program Courses/Experiences** – List all degree requirements (in some cases co-curricular experiences may also be included). Feel free to add rows as needed.
- Indicate with a check (X) where the course or learning experience contributes to each of the learning outcomes. Courses may contribute to multiple learning outcomes.
### MS Clinical and Health Informatics

- Because LO's are accreditation-based and long—we have a short hand description label for each one listed below

<table>
<thead>
<tr>
<th>Degree Program Required Courses or Experiences</th>
<th>Learning Outcome #1 Health</th>
<th>Learning Outcome #2 Information Science and Technology:</th>
<th>Learning Outcome #3 Social and Behavioral Science:</th>
<th>Learning Outcome #4 Health Information Science and Technology</th>
<th>Learning Outcome #5 Human Factors and Socio-technical Systems:</th>
<th>Learning Outcome #6 Social and Behavioral Aspects of Health:</th>
<th>Learning Outcome #7 Social, Behavioral, and Information Science and Technology Applied to Health</th>
<th>Learning Outcome #8 Professionalism:</th>
<th>Learning Outcome #9 Interprofessional Collaborative Practice</th>
<th>Learning Outcome #10 Leadership</th>
</tr>
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<tbody>
<tr>
<td>Course #1 POPHLTH 709 Translational and Outcomes Research in Health and Health Care Maureen Smith</td>
<td>X</td>
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<tr>
<td>Course #2 PHM PRAC 617 Health System Pharmacy Data Analysis and Informatics Jack Temple</td>
<td></td>
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<td>Course #3 BMIS73 Foundations of Data-Driven Healthcare Mark Craven</td>
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<td>Course #4</td>
<td>NURSING 715 Evaluation of Health Informatics Solutions Linsey Steege</td>
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<td>Course #5</td>
<td>I SY E601 Special Topics: Human Factors Engineering for Healthcare Systems Nicole Werner</td>
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<td>Course #6</td>
<td>POPHLTH 795 Principles of Population Health Sciences Maureen Smith</td>
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<td>Course #7</td>
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<td>Course #8</td>
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<td>Course #9</td>
<td>NURSING 702 Health Promotion and Disease Prevention Pamela Mcgranahan</td>
<td></td>
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<td>Course #11</td>
<td>BMI 750 Cumulative Capstone in Clinical and Health Informatics Program Director/Elizabeth Burnside</td>
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<td>X</td>
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</tbody>
</table>

Please email your program’s Assessment Plan Template and Curriculum Map Worksheet to regina.lowery@wisc.edu by July 1, 2016.

If you have questions, please contact regina.lowery@wisc.edu (v. 08-11-17)
For Undergraduate Degree Program Assessment Plan Template, see the UW Madison Assessment website.

https://assessment.provost.wisc.edu
Dear Dr. Brasier:

Thank you for sharing the Notice of Intent to develop a new online, interdisciplinary degree program in Clinical and Health Informatics. This growing field is critically important for health care improvement, and we are pleased to provide our support for this innovative program.

We look forward to contributing as needed to the program’s development over the next two years. With your support, we would be interested in exploring course offerings that would benefit the curriculum and call upon the expertise of our faculty in pharmacy’s expertise in health system pharmacy data analysis and informatics. We understand that our faculty would receive funding and instructional design support through the Division of Continuing Studies to participate in this planning effort, and that any instruction in the future would be compensated through program revenue and a signed Memorandum of Agreement with the School of Medicine and Public Health.

We look forward to supporting your efforts in this exciting new program area with you in the future.

Sincerely,

Steven M. Swanson, PhD
Dean and Professor

Allan Brasier, Executive Director
UW Institute for Clinical and Translational Research
School of Medicine and Public Health
University of Wisconsin-Madison
January 18, 2019

Allan Brasier, Executive Director
UW Institute for Clinical and Translational Research
School of Medicine and Public Health
University of Wisconsin-Madison

Dear Dr. Brasier,

The College of Engineering supports the creation of a new online MS degree program in Clinical and Health Informatics. Our College offers educational and research opportunities for students with interests in health care and we feel that this program complements our offerings. We are pleased to be a part of this program and look forward to contributing to the curriculum.

Sincerely,

James P. Blanchard
Executive Associate Dean
blanchard@engr.wisc.edu
January 18, 2019

Allan Brasier, MD
Executive Director
Institute for Clinical and Translational Research
School of Medicine and Public Health
University of Wisconsin-Madison

Dear Dr. Brasier,

Thank you for sharing the Notice of Intent to develop a new online, interdisciplinary degree program in Clinical and Health Informatics. This growing field is critically important for health care improvement, and we are pleased to provide support from the Department of Biostatistics and Medical Informatics (BMI) for this innovative program.

As you know, BMI has a strong and successful history of being a world-leader in applying statistical and informatics methods to solve difficult health-care problems. Our department looks forward to collaborating and contributing as needed for your program’s development. Specifically, we are interested in exploring course offerings to benefit the Clinical and Health Informatics degree program that draw upon the specific research and teaching expertise of BMI’s faculty. In fact, we already have classes that I believe could add significant value to your curriculum.

We understand that BMI faculty may receive funding and instructional design support through the Division of Continuing Studies to participate in this planning effort, and that BMI will receive compensation from program revenue for any teaching done by our faculty in support of the Clinical and Health Informatics degree program.

We look forward to supporting your efforts in this exciting new program area with you in the future.

Sincerely,

Michael A. Newton, PhD
Professor and Interim Chair
Monday, December 10, 2018

Allan Brasier, Executive Director
UW Institute for Clinical and Translational Research
School of Medicine and Public Health
University of Wisconsin-Madison

Dear Dr. Brasier,

Thank you for sharing the Notice of Intent to develop a new online, interdisciplinary degree program in Clinical and Health Informatics. This growing field is critically important for health care improvement, and we are pleased to provide our support for this innovative program.

We look forward to contributing as needed to the program’s development over the next two years. With your support, we would be interested in exploring course offerings that would benefit the curriculum and call upon the expertise of the Department of Population Health Sciences. We understand that our faculty would receive funding and instructional design support through the Division of Continuing Studies to participate in this planning effort, and that any instruction in the future would be compensated through program revenue and a signed Memorandum of Agreement with the School of Medicine and Public Health.

We look forward to supporting your efforts in this exciting new program area with you in the future.

Sincerely,

Maureen Durkin, PhD, DrPH
Evan and Marion Helfaer Professor of Public Health
Chair, Department of Population Health Sciences
University of Wisconsin School of Medicine and Public Health
January 14, 2019

Allan Brasier, Executive Director
UW Institute for Clinical and Translational Research
School of Medicine and Public Health
University of Wisconsin-Madison

Dear Dr. Brasier,

Thank you for sharing the Notice of Intent to develop a new online, interdisciplinary degree program in Clinical and Health Informatics. This growing field is critically important for health care improvement, and we are pleased to provide support from the Department of Industrial and Systems Engineering (ISyE) for this innovative program.

As you know, ISyE has a strong and successful history of being a world-leader in applying engineering principles to solve difficult health-care problems. Our department looks forward to collaborating and contributing as needed for your program’s development. Specifically, we would be interested in exploring course offerings to benefit the Clinical and Health Informatics degree program that draw upon our department’s specific research and teaching expertise. In fact, we already have classes that I believe could add significant value to your curriculum.

We understand that our faculty would receive funding and instructional design support through the Division of Continuing Studies to participate in this planning effort, and that any instruction in the future would be compensated through program revenue and a signed Memorandum of Agreement between the School of Medicine and Public Health and the College of Engineering.

We look forward to supporting your efforts in this exciting new program area with you in the future.

Sincerely,

Jeff Linderoth
Harvey D. Spangler Professor and Department Chair
Department of Industrial and Systems Engineering
University of Wisconsin-Madison
January 7, 2019

Allan Brasier, Executive Director  
UW Institute for Clinical and Translational Research  
School of Medicine and Public Health  
University of Wisconsin-Madison

Dear Dr. Brasier,

Thank you for sharing the Notice of Intent to develop a new online, interdisciplinary degree program in Clinical and Health Informatics. This growing field is critically important for health care improvement. In principle and philosophy, we are pleased to provide our support for this innovative program.

We look forward to contributing as needed to the program’s development over the next two years. With your support, we would be interested in exploring course offerings that would benefit the curriculum and call upon our faculty expertise in health and health care systems leadership and organizational decision-making. We understand that our faculty would receive funding and instructional design support through the Division of Continuing Studies to participate in this planning effort, and that any instruction in the future would be compensated through program revenue and a signed Memorandum of Agreement with the School of Medicine and Public Health.

We look forward to supporting your efforts in this exciting new program area with you in the future.

Sincerely,

Linda D. Scott, PhD, RN, NEA-BC, FAAN  
Dean and Professor  
University of Wisconsin-Madison School of Nursing

Danny G. Willis, DNS, RN, PMHCNS-BC, FAAN  
Associate Dean for Academic Affairs  
University of Wisconsin-Madison School of Nursing
MEMORANDUM

Date: December 14, 2018

To: Allan Brasier, Executive Director, UW Institute for Clinical and Translational Research, School of Medicine and Public Health, UW-Madison

From: Barry Gerhart, Interim Albert O. Nicholas Dean, Wisconsin School of Business

Re: Support for intent to create online degree program in Clinical and Health Informatics

Thank you for sharing the Notice of Intent to develop a new online, interdisciplinary degree program in Clinical and Health Informatics. This growing field is critically important for health care improvement, and we are pleased to provide our support for this innovative program.

We look forward to discussing how we might contribute to the program’s development over the next two years. With your support, we would be interested in exploring course offerings that would benefit the curriculum and call upon our expertise in health informatics, health operations, and related areas. We understand that our faculty would receive funding and instructional design support through the Division of Continuing Studies to participate in this planning effort, and that any instruction in the future would be compensated through program revenue and a signed Memorandum of Agreement with the School of Medicine and Public Health.

We look forward to supporting your efforts in this exciting new program area with you in the future.

Copies:
Enno Siemsen, Associate Dean of Masters Programs, WSB
Ella Mae Matsumura, Senior Associate Dean of Academic Programs, WSB
Mary Thompson, Division of Continuing Studies
<table>
<thead>
<tr>
<th>Fiscal year</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
<th>2025</th>
<th>2026</th>
<th>2027</th>
<th>2028</th>
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<tbody>
<tr>
<td>Tuition Revenue $</td>
<td>- $ 504,000 $ 1,424,000 $ 2,064,000 $ 2,720,000 $ 3,168,000 $ 3,344,000 $ 3,344,000 $ 3,344,000 $ 3,344,000</td>
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<tr>
<td>Campus Share $</td>
<td>- $ 45,360 $ 128,160 $ 185,760 $ 244,800 $ 285,120 $ 300,960 $ 300,960 $ 300,960 $ 300,960</td>
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<td>School / College Share $</td>
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<tr>
<td>Instructional cost per credit $</td>
<td>10,000 $ 209,000 $ 564,000 $ 814,000 $ 1,060,000 $ 1,228,000 $ 1,294,000 $ 1,294,000 $ 1,294,000 $ 1,294,000</td>
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<td>Support Cost $</td>
<td>- $ 92,500 $ 168,743 $ 451,218 $ 541,867 $ 551,833 $ 547,939 $ 555,186 $ 560,779 $ 575,119</td>
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<tr>
<td>Total Program Investments $</td>
<td>16,830 $ 378,983 $ 173,538 $ 166,000 $ - $ - $ - $ - $ - $ -</td>
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<tr>
<td>Total Operating Margin $</td>
<td>(119,330) $ (513,486) $ (129,816) $ 23,932 $ 290,280 $ 487,986 $ 556,212 $ 549,510 $ 534,037 $ 530,192</td>
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<td>Payback (unit investment)</td>
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<tr>
<td>Investment Margin - Department $</td>
<td>(102,500) $ (134,503) $ 43,722 $ 189,932 $ 290,280 $ 487,986 $ 556,212 $ 549,510 $ 534,037 $ 530,192</td>
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### Department Investments (using the margin) - notional example

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<tr>
<th>Department</th>
<th>2019</th>
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<th>2025</th>
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<tr>
<td>Salaries $</td>
<td>- $ - $ - $ - $ - $ 75,000 $ 100,000 $ 150,000 $ 150,000 $ 150,000 $ 175,000</td>
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<td>New Faculty Lines $</td>
<td>- $ - $ - $ - $ - $ - $ - $ - $ - $ -</td>
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<td>Additional TA Positions or Scholarships $</td>
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<td>Development $</td>
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<td>Other $</td>
<td>- $ - $ - $ - $ - $ 14,000 $ 16,000 $ 19,000 $ 19,000 $ 19,000 $ 22,000</td>
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<tr>
<td>Surplus $</td>
<td>(102,500) $ (134,503) $ 43,722 $ 189,932 $ 290,280 $ 487,986 $ 556,212 $ 549,510 $ 534,037 $ 530,192</td>
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<tr>
<td>Total Enrollment (Credits)</td>
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<td>690</td>
<td>1,290</td>
<td>1,700</td>
<td>1,980</td>
<td>2,090</td>
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### Instructions & Notes

- Data should be entered only in the cells shaded in green.
- Incremental margin reflects new margin above prior year.
- Program development costs should reflect the investment from campus and Division of Continuing Studies.
- Marketing cost to acquire new students should be $3,000 or more.
Introduction

The proposed Master of Science in Clinical and Health Informatics (MS-CHI) is an entirely online program with courses offered in fall, spring, and summer. The program is designed for working professionals who have clinical or technical expertise working in a health care setting. Students can complete the program in two years if they are full time or in three years if they are part-time. Our expectation is that the majority or all of the students will be part-time students. The program is comprised of 30 credits and offers an interdisciplinary approach integrating courses from five schools and college: the School of Medicine and Public Health (SMPH), School of Pharmacy, College of Engineering, School of Nursing, and School of Business.

The MS-CHI will be supported by tuition revenue in keeping with the University of Wisconsin System online tuition policy (SYS 130 Appendix C: Principles for Pricing Distance Education Credit Courses, Degree and Certificate Programs). The Division of Continuing Studies (DCS) and Campus will provide seed funding for the first two years of the program. Within three years, the MS-CHI will be in a self-sustaining, revenue-positive position.

Section I- Enrollment

All of the students are expected to be enrolled as part-time students because the program is designed for working professionals, with few exceptions. The curriculum is offered in the fall, spring, and summer terms with continuous enrollment expected in each of the semesters. Students can expect to complete the program in two to three years. Annual enrollments after Year 1 include both continuing and new students. The average student retention rate is projected to be 95%, which is consistent with other professional degrees where the drop rate is minimal due to the part-time pacing of the program. The first year of enrollment is projected at 25 students with additional cohorts of 25 students per year. The enrollment goals is to have 75 new students four years after the program launch and continue to enroll 75 new students per year in subsequent years. The enrollment goals represent a conservative estimate of the enrollment, but there is not an enrollment limit.

Section II- Credit Hours

The program requires 30 credits, which consists of 11 required courses including a capstone course. Students, based on a part-time course load, are expected to take 4-6 credits per semester including summer term. Most students are expected to complete the program in 2-3 years. All except two of the courses are existing courses. Two new courses are being developed for the program. Course development costs in FY 2020 and 2021 reflect new course development and conversion of courses to an online format. Course development costs in the subsequent years reflect course maintenance/renewal of the online courses.

Students will typically enroll in six credits in the fall and spring semesters and 3-5 credits in the summer semester. We assume students will complete 12 credits per year, which is slightly more than the campus minimum, complete 95% of credits enrolled, and finish the degree in three years.
Section III- Faculty and Staff Appointments

The MS-CHI is an interdisciplinary program that will use existing courses (two new courses) and existing faculty/instructors based in the participating schools and colleges. The department chairs from each of the partnering programs will assign instructors for each course. With the exception of a full-time instructor/advisor for the MS-CHI, instructional costs are based on a revenue-sharing agreement with the deans of the partnering schools and colleges. The revenue-sharing agreements provide $600 per credit per student.

Instructional costs are calculated on a per credit basis and projected annually to be:

- Year 1: $20,000
- Year 2: $30,000
- Year 3: $40,000

Staff support will be as follows (costs include annual salary and fringe benefits):

- An academic director who will allocate 0.5 FTE to the academic director role at $175,568.
- A program director who will allocate 1.0 FTE to the program director role at $105,060.
- A program coordinator who will allocate 0.5 FTE to the program coordinator/student services coordinator role at $98,373.
- A support staff member who will allocate .25 FTE to the support staff role at $11,250.
- An instructor/advisor who will allocate 0.5 FTE to the instructor/advisor role at $53,724.
- A marketing relations specialist who will allocate 0.5 FTE to the marketing relations role at $52,291.

Section IV- Program Revenues

Tuition will generate program revenue for the MS-CHI. We propose an online tuition rate of $1,600/credit, which market evidence supports. The labor demand research, commissioned by the DCS, suggests that students are willing to pay for this degree and prefer the flexibility of an online modality while working and attending the program as a part-time student. Tuition revenues for new and continuing students is based on projected credit enrollment per student multiplied by the student head count. Tuition revenue is calculated by multiplying the number of credits per year by $1,600.

Section V- Program Expenses

In addition to faculty/instructional, administrative, and support staff, the program expenses include a 10% campus assessment on gross revenue. Program development costs attributable to start-up costs will be funded by the DCS and central campus. The continued maintenance and course renewal costs are included in the program development expenses and will be funded by the DCS. If new courses are added in subsequent years, the MS-CHI will fund those course development expenses. Marketing expenses will also be funded by the DCS until 2022 and then the expense will transition to the MS-CHI. Continuing program expenses for instructional and administrative staff will be funded through the MS-CHI. Course development costs totaling $259,250 for the first five years, which include instructional designer labor, stipend for the TeachOnline@UW program, and additional month of buy-out for faculty will be funded through DCS.

Section VI- Net Revenue
As a 131-program, we project that tuition revenue will fund our programs operational costs by calendar year ending 2023 and will provide a surplus of reinvestment revenue of $290,280 by the end of year 2023. By the end of Year 5, the program is projected to generate more than $487,988 in net revenue. The net revenue is a pool of funds for reinvestment. Planning for reinvestment of the margin will be overseen by ICTR leadership (Executive Directors) with input from partnering schools and colleges. The reinvestment pool will consider funding for professional development, which will include travel and attendance at conferences and workshops relevant to clinical and health informatics, the development of an alumni network, support for additional faculty lines, and pilot grant funding.
REQUEST FOR AUTHORIZATION TO IMPLEMENT A
MASTER OF SCIENCE
IN CLINICAL AND HEALTH INFORMATICS
AT UNIVERSITY OF WISCONSIN-MADISON

The University of Wisconsin-Madison proposes to establish a Master of Science in Clinical and Health Informatics (MS-CHI). The development of the program responds to the 2017 Leadership and Workforce study conducted by the research arm of the Healthcare Information and Management Systems Society (HIMSS) that found that 61% of healthcare organizations and vendors are expecting to expand their workforce in the upcoming few years. The MS-CHI will provide students with an interdisciplinary approach with population health, biomedical informatics, industrial systems engineering, nursing, pharmacy, and healthcare operations management expertise. Graduates will possess a strong foundation in healthcare decision-making using informatics methods to create innovative solutions or improve current practices in health policy, clinical practice, security, and biomedical and health information systems.

The MS-CHI will serve working professionals in the healthcare industry through a fully-online curriculum. The program seeks to become Wisconsin’s first master’s program accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM). The program will be comprised of 30 credits, which will include online, collaborative coursework for working professionals. Students are expected to have 3-5 years of clinical or information technology-related work experience, preferably in a health care setting, and should have a statistics background.

PROGRAM IDENTIFICATION

Institution Name: University of Wisconsin-Madison
Title of Proposed Program: Master of Science in Clinical and Health Informatics
Degree/Major Designations: Master of Science
Mode of Delivery: Single institution; 100% distance delivery

Projected Enrollments and Graduates by Year 5

Table 1 represents enrollment and graduation projections for students entering the program over the next five years. For the purposes of this estimate students are projected to be enrolled 15 credits each year (6 credits in the fall, 6 credits in the spring, 3 credits in the summer) and complete in two full years. However, some students may take credits at a slower pace for three-year completion. The retention rate is projected to be 95%, which is similar to other UW-Madison online programs for professional audiences. By the end of Year 5, an estimated 146

students will be enrolled annually and more than 150 students will have graduated from the program.

Table 1: Five-Year Degree Program Enrollment Projections

<table>
<thead>
<tr>
<th>Students/Year</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Students</td>
<td>25</td>
<td>50</td>
<td>50</td>
<td>75</td>
<td>75</td>
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<tr>
<td>Continuing Students</td>
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<td>24</td>
<td>48</td>
<td>48</td>
<td>71</td>
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<td>Total Enrollment</td>
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<td>74</td>
<td>98</td>
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<tr>
<td>Graduating</td>
<td>0</td>
<td>24</td>
<td>48</td>
<td>48</td>
<td>71</td>
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</table>

Tuition Structure

For students enrolled in the MS-CHI program, per-credit tuition of $1600 under the distance delivered pricing tuition policy (SYS 102) is proposed, which has been determined based on a market analysis of similar programs. The total annual tuition costs for the 30-credit hour program will be $48,000. No additional required fees will be charged.

Department or Functional Equivalent: Institute for Clinical and Translational Research

College, School, or Functional Equivalent: School of Medicine and Public Health

Proposed Date of Implementation: Fall 2020

DESCRIPTION OF PROGRAM

Overview of the Program

This 30-credit MS-CHI is designed as an entirely online program for working professionals. The program offers the flexibility to complete the program in 2-3 years on a part-time basis. The MS-CHI is focused on meeting the educational and professional development needs of two types of learners: (1) healthcare professionals who want to further their knowledge and training in health informatics and its use in clinical practice and healthcare operations, and (2) non-healthcare professionals seeking to gain knowledge about the healthcare system and the application of informatics in a healthcare setting to improve patient care and population health.

Student Learning Outcomes and Program Objectives

The MS-CHI program learning outcomes are based on the American Medical Informatics Association (AMIA) Health Informatics Core Competencies for the CAHIIM:

1. **Health**: Describe and explain background knowledge of the history, goals, methods and challenges of the major health sciences, including human biology, genomics, clinical and translational science, healthcare delivery, personal health and population health.

2. **Information Science and Technology**: Demonstrate background knowledge of concepts, terminology, methods and tools of information science and technology for managing and analyzing data, information and knowledge.

3. **Social and Behavioral Science**: Evaluate the effects of social, behavioral, legal, psychological, management, cognitive, and economic theories, methods, and models
applicable to health informatics from multiple levels including individual, social group, and society.

4. **Health Information Science and Technology:** Determine concepts and recognize tools for managing and analyzing biomedical and health data, information, and knowledge. Key foci include systems design and development, standards, integration, interoperability, and protection of biomedical and health information.

5. **Human Factors and Socio-technical Systems:** Apply social behavioral theories and human factors engineering to better understand the interaction between users and information technologies within the organizational, social, and physical contexts of their lives, and apply this understanding in information system design.

6. **Social and Behavioral Aspects of Health:** Evaluate and apply social determinants of health and patient-generated data to analyze problems arising from health or disease, to recognize the implications of these problems on daily activities, and to recognize and/or develop practical solutions to managing these problems.

7. **Social, Behavioral, and Information Science and Technology Applied to Health:** Appraise diverse foundation concepts and facets in order to develop integrative approaches to the design, implementation, and evaluation of health informatics solutions.

8. **Professionalism:** Demonstrate conduct that reflects the aims or qualities that characterize a professional person encompassing especially a defined body of knowledge and skills and their lifelong maintenance as well as adherence to an ethical code.

9. **Interprofessional Collaborative Practice:** Exhibit behavior that reflects the foundations of values/ethics, roles/responsibilities, interprofessional communication practices, and interprofessional teamwork for team-based practice.

10. **Leadership:** Demonstrates the following characteristics: credibility, honest, competence, ability to inspire, and ability to formulate and communicate a vision.

**Program Requirements and Curriculum**

Applicants must meet the minimum requirements of the University of Wisconsin-Madison Graduate School, which include an undergraduate degree with a GPA of 3.0 in the last 60-semester hour or a master’s degree with a minimum cumulative GPA of 3.00. Standardized entrance exams or scores are not required for admission into the program (i.e. GRE, GMAT, or other). Applicants must meet the following program requirements for admission:

- Focused area of interest in informatics, data analytics, clinical care, research, health information technology, or similar fields.
- Health professional degree or bachelor’s degree in information technology, statistics, computer science, or similar field.
- 3-5 years of clinical or information technology work experience, preferably in a healthcare setting.
- Completed a college-level statistics course or equivalent work.

The Faculty Admissions Committee, comprised of MS-CHI program faculty, will consider all aspects of each application.
Table 2: MS in Clinical and Health Informatics Program Curriculum

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Department/School or College</th>
<th>Number of Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POPHLTH 709 Translational and Outcomes Research in Health and Health Care</td>
<td>Department of Population Health Sciences /School of Medicine and Public Heath (SMPH)</td>
<td>3 credits</td>
</tr>
<tr>
<td>PHM PRAC 617 Health System Pharmacy and Data Analysis and Informatics</td>
<td>School of Pharmacy</td>
<td>2 credits</td>
</tr>
<tr>
<td>EPD 706 Change Management</td>
<td>Engineering Professional Development/ School of Engineering</td>
<td>1 credit</td>
</tr>
<tr>
<td>POPHLTH 795 Principles of Population Health Science</td>
<td>Department of Population Health Sciences/ SMPH</td>
<td>3 credits</td>
</tr>
<tr>
<td>NURSING 772 Leadership and Organizational Decision Making in Health Care</td>
<td>School of Nursing</td>
<td>3 credits</td>
</tr>
<tr>
<td>I SY E 601 Special Topics: Human Factors Engineering for Healthcare Systems</td>
<td>Department of Industrial and Systems Engineering/ College of Engineering</td>
<td>3 credits</td>
</tr>
<tr>
<td>BMI 573 Foundations of Data-Driven Healthcare</td>
<td>Department of Biostatistics and Medical Informatics/ SMPH</td>
<td>3 credits</td>
</tr>
<tr>
<td>NURSING 702 Health Promotion and Disease Prevention</td>
<td>School of Nursing</td>
<td>3 credits</td>
</tr>
<tr>
<td>OTM 753 Healthcare Operations Management</td>
<td>Wisconsin School of Business</td>
<td>3 credits</td>
</tr>
<tr>
<td>NURSING 715 Evaluation of Health Informatics Solutions</td>
<td>School of Nursing</td>
<td>3 credits</td>
</tr>
<tr>
<td>BMI 750 Cumulative Capstone in Clinical and Health Informatics</td>
<td>Department of Biostatistics and Medical Informatics/ SMPH</td>
<td>3 credits</td>
</tr>
<tr>
<td><strong>Total credits</strong></td>
<td></td>
<td><strong>30 credits</strong></td>
</tr>
</tbody>
</table>

Assessment of Outcomes and Objectives

Indirect: A pre-degree survey will assess familiarity and prior experience with the learning outcomes. The Academic Director will work with the Division of Continuing Studies to conduct the pre- and post-survey indirect assessments. Similarly, a post-degree assessment will assess students’ self-reported level of preparation on each learning outcome. This will occur for every enrollment and graduation term to track student learning at the program level, learning goals and expectations, and how the program is preparing students for their degree goals/needs.

Direct: The MS-CHI Capstone course will be the primary source for direct assessment of student learning outcomes. In addition, the Capstone will conclude with final presentations that showcase student work and are evaluated by sponsoring industry partners, the capstone project stakeholders, the capstone project mentors, and other instructors for the program.

Comprehensive evaluations of the Capstone projects will occur at the end of the fall and spring semesters. In addition, formative assessments in the form of case study presentations, strategic planning, and decision-making across interprofessional teams will be evaluated. Feedback will be provided to the students. Due to the online-part-time learners expected to enroll
in this MS-CHI, the summative view of the learning outcomes will be assessed at the end of the program once per year within the Capstone, beginning Spring 2022.

The MS-CHI Academic Director will coordinate the implementation of the assessment plan annually and work with faculty and staff advisors to complete all direct assessments. Assessment data will be forwarded to the Steering Committee for evaluation and further dissemination.

The annual September Steering Committee meeting will review assessment results, compiled by the Student Services Coordinator. The Steering Committee will produce an assessment summary to be presented at the All Faculty Department meeting held early in the fall (usually scheduled in October) of each academic year.

After reviewing the assessment summary and comments from the All Faculty Department meeting, the MS-CHI Steering Committee will decide which, if any, items are actionable. The Executive will provide a report of those plans and the assessment summary to the Office of the Provost.

Any actionable items will be discussed during Steering Committee meetings held in late fall of the semester. Proposals will be developed and follow governance steps at that time. If approved, any curricular/ programmatic/ co-curricular changes will be implemented by the following summer semester. The MS-CHI Academic Director will monitor all new implementations annually, with a more comprehensive report being compiled during the appropriate student learning outcome assessment year (within the 3-year timeline).

Additional Assessment Measures: Student evaluations of teachers and classes are an important source of program assessment data, which can inform program and course design, instructional strategies, and program improvement.

During the implementation phase, the MS-CHI will also carefully monitor student access to courses to ensure growth of course capacity meet student demand, as well as student engagement and success to inform program, course, and instructional design.

**Diversity**

The MS-CHI advances curriculum excellence to promote diversity and equity in the following ways:

1. Disease prevention efforts as well as access to care in our nation’s hospitals and clinics can vary greatly in different populations groups; resulting in health disparities that impact the health status of vulnerable populations. The MS-CHI curriculum poses several questions across courses to critically analyze why outcomes vary so greatly by socio-economics, race, ethnicity and gender, age and other social determinants.
2. Data-driven health care will examine patient care across a variety of variables to analyze cost-effective measures to improve data driven decision-making to support the equitable distribution of resources.
3. Across the curriculum, social determinants of health and patient-generated data are used to analyze complex problems, support integrative solutions, and design and implement health informatics solutions across healthcare institutions and patient populations.
4. Human factors engineering skills are developed to support better understanding of the interaction between users and information technology so that organizational, social, and physical contexts are principles of good design and implementation.
5. Ethical and professional conduct are critical components of the MS-CHI and to highlight the necessity to protect biomedical and health information across all users.
The MS-CHI focuses on the professional and ethical conduct, leadership development, interprofessional teamwork, and organizational decision-making skills that ensure the ethical use of data to support the health outcomes of all people across the lifespans.

The MS-CHI will actively pursue equity in student recruitment, access, and retention by working closely with the Graduate School and the Division of Continuing Studies marketing and recruitment teams to make sure students who represent all forms of diversity including socio-economic, gender, sexuality, race, ethnicity and religion are recruited. Marketing materials and content will show a diverse student body. Graduating students will share insights about the program with interviews, videos, and testimonials about their program experience working in interprofessional collaborative teams to solve real health care problems and interact with professionals who have varied experience and backgrounds.

By offering flexible schedules and removing geographic boundaries, online graduate and professional programs, such as the MS-CHI, increase access for non-traditional learners. The MS-CHI is targeted to working professionals that represent a range geographic areas, experiences, and backgrounds; adding to the richness and overall diversity of the student population as well as the student experience.

As a degree that promotes public health, recruiting students who represent the diverse needs in healthcare delivery, data driven medicine and data informatics is the goal. Efforts will be made to develop relationships at conferences, networking events, and clinical settings that support the diversity efforts and goals of the program. Moreover, once the program has program revenue resources, scholarships targeted at underrepresented groups will be awarded to promote gaps within the diversity and equity goals of the program.

Academic support is essential for the retention and success of all students. Academic support services for the MS-CHI will be designed to meet the needs of a diverse, adult student population. The Academic Director and Student Services Coordinator will be the primary contacts for all students and will help support advising as well as both academic and career resources for all learners. An online Community of Practice will provide program resources, tutoring support, peer to peer sharing, and goal setting strategies for career success. The Community of Practice will offer an inclusive, virtual environment where students from diverse backgrounds will interact and build a community of learners around common academic and professional interests. These can be shared openly with all students enrolled in the program. Webinars targeting stress, work-life balance, career exploration, and effective time management and organization will be shared along with UW resources that can support and guide professional development. All students will have a faculty mentor in the program to guide and support individualized needs and goals.

While the program does intend to support the hiring of new faculty in participating departments, it does not anticipate adding a significant number of faculty or staff. The program will be committed to recruiting culturally diverse faculty, lecturers, and staff.

**Collaborative Nature of the Program**

The MS-CHI leverages cross-disciplinary expertise across five schools including the Schools of Medicine and Public Health, Nursing, Pharmacy, and Business, and the College of Engineering that are contributing courses. There are no collaborations with other University of Wisconsin Schools or Colleges for this program.

**Projected Time to Degree**

Based on market research most students will work and attend the program part-time and take an average of 4-6 courses per year. At this rate, the majority of students will complete the
program in 2-3 years. Students will only be able to enter the program in the fall and will take courses in sequence. The Capstone course can only be taken in the final semester of study. The Capstone course will initially be offered in the Year 2 of the program and subsequently be offered annually to accommodate students on both a 2-year and 3-year cycle.

Program Review

The MS-CHI will follow the Academic Program Review Guidelines established for all new UW-Madison graduate programs. Three years following program implementation, MS-CHI will complete a Three-Year Check-In document that will be reviewed by the Graduate Faculty Executive Committee. A full program review will be conducted five years after implementation. Subsequently, the program will be reviewed at least once every ten years. The MS-CHI Steering Committee will review and recommendations of these periodic reviews and will work with the Academic Director and participating department chairs to implement the changes resulting from these recommendations.

Accreditation

This program will seek accreditation to support the mission and vision of next generation of informatics professionals. The CAHIIM guidelines for accreditation require that a program does not apply earlier than six months before the first graduating class. The target date for applying for accreditation for the MS-CHI will be the Spring Semester of Year 3. The CAHIIM accreditation process will take 1-2 years from the time of first application for consideration, through candidacy, a self-assessment, a site visit, and final determination.

JUSTIFICATION

Rationale and Relation to Mission

The Institute for Clinical and Translational Research (ICTR), where this program will be housed, is interdisciplinary (and interdepartmental) by design. ICTR is housed within the SMPH and partners closely with the Schools of Nursing, Veterinary Medicine, and Pharmacy, and the College of Engineering. The overarching mission of MS-CHI is to offer ICTR members and partners throughout the entire institution, as well as external professionals in the region, to translate best practices in applied clinical informatics to improve clinical care. This program is poised to be a leader in clinical and health informatics with a proven record of accelerating research into applied outcomes to improve health in the United States. This program will utilize the expertise of faculty across the university to fill a growing need to leverage informatics expertise in the healthcare space where evidence-based, data-informed care are essential. Students will graduate from MS-CHI with skills to enhance their professional practices in the clinical healthcare setting and as business and informatics leaders; drawing from operational and healthcare management, health informatics, and information technology skills to solve complex problems of the social-behavioral aspects of health. This new degree is part of SMPH’s strategic vision and planning mission, creating vital connections between basic discovery and clinical/translational research, and providing programs that support the health and wellness of individuals and populations.

This program also supports the UW-Madison campus strategic framework goal to improve access (through online delivery) and “build innovative professional master’s-level degrees and other lifelong learning experiences.”

Institutional Program Array
There are a number of programs offered at UW-Madison and within the University of Wisconsin system that offer related content, but do not have a CAHIIM accredited, online program for adult learners.

UW-Madison offers an M.S. in Biomedical Data Science. This program prepares graduates to understand key concepts and methodologies from computer sciences and statistics to contribute to the solutions central to computational problems in biomedicine. This program is face-to-face and is for students interested in data structures and algorithms with a strong aptitude for math and computer science. The program is research- and thesis-based and designed for students interested in building algorithms and simulations for population health research, statistical genetics, and biomedical informatics.

Additionally, the M.S. in Statistics named option in Biostatistics at UW-Madison serves students who work in the theory, methodology, and application of statistics. This program focuses primarily on the statistics of biomedical sciences and differs from informatics in that it focuses on the computation and mathematical application of how to design experiments and survey samples in the biomedical field.

Informatics, in contrast to biomedical data science and statistics, focuses on the interaction between humans and information. Informatics as a field is a branch of information engineering and is about information systems and how they interface with organizations, technologies, systems and statistics as a subfield. However, informatics as a whole is much more inclusive to the study of the social aspects of how information technologies are applied in the healthcare space. MS-CHI also differs in that receiving accreditation from CAHIIM, which incorporates the AMIA accreditation standards for master’s degree programs in health informatics, is a strategic priority for the program. In addition, all courses are offered online for working healthcare professionals and are focused primarily on the application and applied tools used in a clinical or healthcare setting. MS-CHI does not offer a thesis option and works with the applied skills needed to translate data science into workable processes at the healthcare system level.

There is a growing need for a clinical healthcare focus for leaders and managers to use informatics to solve complex healthcare problems. This is part of the SMPH’s strategic vision and planning mission to create vital connections between basic discovery and clinical/translational research. The overarching goal for MS-CHI is to create strategic programing and research partnerships that improve public health by translating basic research discoveries into direct, practical improvements in clinical care and healthcare delivery systems.

Other Programs in the University of Wisconsin System

Currently, there is just one graduate-level health science related degree and two certificates within the UW System in this domain. These UW System programs serve students interested in learning skills related to IT management within a healthcare setting.

UW-Milwaukee offers a Masters in Health Care Informatics and a Certificate in Health Care Informatics. The UW-Milwaukee master’s degree focuses on the automation of medical data and information and closely aligns with IT network design rather than clinical decision-making. The courses are face-to-face and online for working IT professionals. The Certificate in Health Care Informatics is offered as a cooperative program among the College of Health Sciences, the Department of Health Informatics Administration, and the School of Information Studies. The certificate allows students to explore the three disciples to build foundational knowledge across fields. According to the program website neither the degree nor the certificate is accredited.
The University of Wisconsin-Oshkosh offers a Healthcare Informatics Certificate. The program serves healthcare nurses interested in integrating computer science and information science to improve patient outcomes. The program is online with a required clinical practicum. Because the program serves nurses, this certificate allows students to be eligible to take the American Nursing Credentialing Center (ANCC) Informatics Nursing Certification exam.

As potentially the only CAHIIM accredited master’s program in Wisconsin, the proposed program will serve a different audience including healthcare professionals with clinical or information technology experience interested in managing healthcare enterprise solutions and implementing system-based solutions to improve patient outcomes. Students are required to have work experience in clinical healthcare or an information technology/management area. They are also required to have a degree in a clinical discipline (M.D., R.N., PharmD, etc.) or a degree in information technology (other areas such as computer science, statistics, etc. will also be considered) and proficiency with basic statistics.

Need as Suggested by Current Student Demand

The MS-CHI will serve an audience outside of the traditional school structure, offering all courses online and providing the flexibility of completing the program on a part-time basis. Prospective students will include health care professionals and information technology professionals with a strong interest and/or background in health care informatics, data analytics, clinical care or research, and health information technology. Trends in academic programs for non-traditional students at University of Wisconsin-Madison demonstrate the demand for degree-granting programs for this student population with continual increases in the number of programs, enrollment, and student credit hours from 2009-2018. Similarly, distance education course enrollments for graduate and clinical degrees increased by 46.6% over the same period.8

Market research conducted by the Division of Continuing Studies (DCS) determined that there was a strong demand for an online professional master’s degree in the field of clinical and health informatics. The fact that the MS-CHI will prioritize CAHIIM accreditation which will be a significant differentiator among similar degrees. DCS also determined that given the labor demand for individuals with graduate training in clinical and health informatics students are willing to pay the $1600 per credit for this degree and prefer the flexibility of an online degree modality while working and attending to the degree as a part-time student.

Need as Suggested by Market Demand

The 2017 Leadership and Workforce study conducted by the research arm of the HIMSS found that 61% of healthcare organizations and vendors are expecting to increase hiring in the upcoming few years.9 Epic, a Wisconsin-based company, now works with over 50 IT vendors seeking health informatics specialists in over 20 states. In Wisconsin alone that year, more than 900 job postings were looking for people with 3-5 years of clinical experience and a master’s in a data field.

Additionally, informational technology and healthcare clinical informatics is a growing field with more than 900 job postings in Wisconsin alone looking for a person with 3 to 5 years of clinical experience and a masters in data analytics.10 Local employers include Deloitte,
General Electric, Vital Tech solutions, UW Health and Epic. According to the Department of Labor and Bureau of Labor Statistics, healthcare will produce more new IT jobs through 2020 than any other industry, with a projected increase of 21%.11

Because of these growing trends and opportunities in healthcare and informatics, many major universities are creating program offerings and certificates. The University of Illinois at Chicago has recently created a Master of Science in Health Informatics and a Post-Master’s Certificate in Health Informatics. Other institutions with health informatics programming include University of Cincinnati, Northwestern University-Feinberg School of Medicine, Johns Hopkins University, University of Texas, and the University of Washington School of Nursing and School of Medicine.

Expertise in clinical and health informatics is also required in the top tier of job openings that involve electronic health record analysis, database design and clinical operational management, health modeling, and health care data security AMIA reports that the average salary among all its members is $181,174.12 The market demand according to the Educational Advisory Board Report on Health Professions saw a national demand of over 35,000 job postings in 2016 asking for the informatics skills.13 Moreover, healthcare has even greater data integration, system interoperability, and reporting needs than ever before and healthcare clinical informatics skills are required to demonstrate outcomes for Medicare reimbursement and reform. The demand for these skills is driving new online programming across the country. UW-Madison is poised to become a leader in this space. Within the integrated School of Medicine and Public Health, ICTR is the home to the Clinical and Health Informatics Institute (CHI), which is designed to foster applied clinical health informatics activities. ICTR provides links to the Schools of Nursing, Veterinary Medicine, and Pharmacy, the College of Engineering and Department of Biostatistics and Medical Informatics. The timing is right as health care employers are actively seeking analytics in informaticists with a 37% increase in informatics jobs stipulating data analytics skills from 2013-2016. The overall projected growth in the healthcare analytics market from 2015-2020 is over 11 billion with four out five hospital systems citing value-base care as a key analytical driver. The need for data skills are increasingly becoming a necessity in the healthcare industry.14

Locally, there are several potential employers for program graduates. Local employers include Deloitte, General Electric, Vital Tech Solutions, UW Health, and Epic. Recent job titles for careers in clinical healthcare informatics include Medical Informatics Project Directors, Researchers, Systems Analysts, Clinical Informatics Directors, Specialists, Coordinators, and Analysts. Conversations between Epic staff and MS-CHI development team members indicated that there was interest in the online MS-CHI. Epic staff suggested the degree would be a good fit for employees that need to work in a clinical setting, leadership teams that use health informatics for decision-making, and technical service teams that provide customer support.

The University of Wisconsin-Madison will leverage the institution’s cutting-edge work in the School of Medicine and Public Health, where medical and population health research already

have a strong record to inform best practices in the clinical setting to develop and offer a M.S. in Clinical and Health Informatics that will meet the growing demand for clinical and health informatics professionals who will contribute to the quality and delivery of healthcare.
Program Change Request

New Program Proposal

Date Submitted: 10/02/19 3:01 pm

Viewing: Energy Analysis and Policy

Last edit: 10/15/19 2:49 pm

Changes proposed by: sowilliams

Name of the school or college academic planner who you consulted with on this proposal:

<table>
<thead>
<tr>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tara Mohan - IES</td>
</tr>
<tr>
<td>Paul Zeidler - IES</td>
</tr>
</tbody>
</table>

Proposal Abstract/Summary:

This is a proposal to create a doctoral minor in Energy Analysis and Policy. This minor would nearly mimic the graduate certificate in Energy Analysis and Policy, but would serve as an option for PhD students whose degree program's breadth requirements would be better fulfilled with a PhD minor as opposed to a certificate. Students would have the option to pursue either the minor or the certificate (but not both) depending on their situation. This is similar to other programs that have both a PhD minor and a certificate option, such as "Culture, History, and Environment."

Basic Information

Type of Program: Minor (PhD and BSE only)

Who is the audience?

Graduate or professional

Home Department: Inst. for Environmental Studies (ENVIR ST)

School/College: Gaylord Nelson Institute for Environmental Studies

The program will be governed by the home department/academic unit as specified. Will an additional coordinating or oversight committee be established for the program?

No

Is this in the Graduate School? Yes

SIS Code:

SIS Description:

Transcript Title: Energy Analysis and Policy

Roles by Responsibility: List one person for each role in the drop down list. Use the green + to create additional boxes.

<table>
<thead>
<tr>
<th>Role Type</th>
<th>Name (Last, First)</th>
<th>Email</th>
<th>Phone</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>Department Chair</td>
<td>Robbins, Paul P</td>
<td><a href="mailto:pfrobbins@wisc.edu">pfrobbins@wisc.edu</a></td>
<td>608/265-5296</td>
<td></td>
</tr>
<tr>
<td>Faculty Director</td>
<td>Wilson, Paul P</td>
<td><a href="mailto:pwillson@wisc.edu">pwillson@wisc.edu</a></td>
<td>608/263-0807</td>
<td></td>
</tr>
<tr>
<td>Primary Contact</td>
<td>Williams, Scott Patrick</td>
<td><a href="mailto:sowilliams@wisc.edu">sowilliams@wisc.edu</a></td>
<td>608/890-2199</td>
<td></td>
</tr>
<tr>
<td>Primary Dean’s Office Contact</td>
<td>Zeidler, Paul H</td>
<td><a href="mailto:pzeidler@wisc.edu">pzeidler@wisc.edu</a></td>
<td>608/265-8018</td>
<td></td>
</tr>
</tbody>
</table>

List the departments that have a vested interest in this proposal:

- Departments
- College of Engineering (ENGINEERG)
- Agricultural and Applied Econ (A A E)
- Planning & Landscape Architect (PLAN&LA)
- LaFollette Sch Public Affairs (PUB AFFR)

Are all program reviews in the home academic unit up to date? Yes
Are all assessment plans in the home academic unit up to date? Yes
Are all assessment reports in the home academic unit up to date? Yes
Will this program be part of a consensual or collaborative arrangement with another college/university? No
Will instruction take place at a location geographically separate from UW-Madison? No
First term of student enrollment: Fall 2020 (1212)
Year of three year check-in to GEC (3 years after first student enrollment): 2024
Year of first program review (5 years after first student enrollment): 2026

If this proposal is approved, describe the implementation plan and timeline.
Because the curriculum of the PhD minor is nearly identical to the certificate, there is very little that needs to be implemented once approved. Changes would immediately be made to the EAP website, handbook, and application form to reflect the option of choosing either the certificate or the PhD minor and the differences between the two. Advising appointments would help PhD students understand the two options and decide which is better for their situation.

Rationale and Justifications

Why is the program being proposed? What is its purpose?
This doctoral minor is being proposed to give PhD students another option to fulfill their breadth requirements with a focus in Energy Analysis and Policy. It is intended for PhD students whose degree program's breadth requirements would be better fulfilled with a doctoral minor as opposed to a certificate. This additional option would also make the EAP program more visible and more accessible to a greater number of graduate students across campus.

More generally about Energy Analysis and Policy (language taken from the existing certificate program):
Energy plays a crucial role in modern civilization, yet energy production and consumption pose serious risks to the environment and international security. Decision makers in industry, government, and environmental organizations are increasingly challenged with balancing tradeoffs among these multifaceted energy issues.

For the most part, professionals working in energy—from engineers to lawyers, researchers to business leaders—have been trained in a single specialization, whether technical, scientific, or social science. The Energy Analysis and Policy program offers a powerful option to add value to disciplinary graduate degrees.

The EAP program gives students the knowledge and skills needed to become leaders in industry, government, consulting, non-profits, and other roles in the energy field. EAP's interdisciplinary curriculum considers scientific, technical, economic, political, and social factors that shape energy policy formulation and decision-making.

Faculty and Staff Resources

List the core program faculty and staff with title and departmental affiliation(s) who are primarily involved and will participate in the delivery and oversight.

<table>
<thead>
<tr>
<th>Name (Last, First)</th>
<th>Department</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Williams, Scott Patrick</td>
<td>Graduate School (GRAD SCH)</td>
<td>Research and Education Coordinator</td>
</tr>
<tr>
<td>Wilson, Paul P</td>
<td>Engineering Physics (EGR PHYS)</td>
<td>Grainger Professor of Nuclear Engineering</td>
</tr>
<tr>
<td>Holloway, Teresa A</td>
<td>Inst for Environmental Studies (ENV IR ST)</td>
<td>Gaylord Nelson Distinguished Professor</td>
</tr>
<tr>
<td>Nemet, Gregory F</td>
<td>LaFollette Sch Public Affairs (PUB AFFR)</td>
<td>Professor</td>
</tr>
<tr>
<td>Leslie, Bernard C</td>
<td>Electrical and Computer Eng (ELEC C EGR)</td>
<td>Professor</td>
</tr>
</tbody>
</table>

What resources are available to support faculty, staff, labs, equipment, etc.?
The Nelson Institute for Environmental Studies and the Wisconsin Energy Institute already provide support for the Energy Analysis and Policy certificate program, and the resources that currently support the certificate would be available for the PhD minor. For example, the salary of Scott Williams is supported by the Wisconsin Energy Institute to serve as academic coordinator for the certificate, and the PhD minor would be incorporated into his existing duties. Likewise, the EAP program chair (Paul Wilson) receives salary support from the Nelson Institute for Environmental Studies. The Wisconsin Energy Institute also provides space (when available) for EAP students and faculty to hold meetings and events.

Resources, Budget, and Finance

What is the tuition structure for this program?
Standard resident/MN/non-resident graduate tuition

Does the program or change require substantial new resources other than those just described? Describe the needs. Confirm that the dean is committed to providing the resources.
The program does not require substantial new resources. The PhD minor would be incorporated into the activities and duties already being carried out for the EAP certificate.
Are new Library resources needed to support this program?

No

Describe plans for funding students including but not limited to funding sources and how funding decisions are made.

Most decisions for funding students will be under the purview of their degree program and not the certificate or PhD minor. However, the EAP Certificate program has given out fellowships and scholarships in the past at the request of donors, including the Bunn Distinguished Graduate Fellowship and the Wes and Anke Feil International Student Scholarship. Students who formally apply and are accepted into the EAP program are considered eligible for these funding opportunities, depending on the criteria set by each fund. A subset of faculty members from the EAP program committee will select recipients for each fellowship or scholarship based on a review of student applications.

Curriculum and Requirements

Guide Admissions/How to Get In Tab

EAP welcomes applications from students in any doctoral degree program at UW Madison. Students may apply to the EAP program concurrently with their graduate school application or once they have matriculated at UW-Madison.

While there are no prerequisites to the program, it is recommended that EAP applicants have completed at least one college-level course in each of the following five subject areas: physics, chemistry, biology, environmental science, and economics.

How to Apply

To apply for the EAP doctoral minor, students must complete the online Energy Analysis and Policy (EAP) application form, which includes the following elements:

Information on prior educational attainment
Information on degree program being pursued
A brief statement of interest in the EAP program

Deadlines

Applications to EAP may be submitted at any time, but applicants are encouraged to apply early in their graduate career to ensure timely completion of doctoral minor requirements and to access additional benefits (e.g., funding, networking events) available exclusively to students in the EAP program. Students may take courses that meet the minor requirements prior to completing their application.

Describe plans for recruiting students to this program.

Recruitment toward the doctoral minor will be incorporated into existing recruitment activities for the EAP certificate. Because EAP is not a standalone degree, recruitment primarily involves collaborating with faculty and program coordinators in several degree programs whose students are most likely to pursue the EAP Certificate or minor. This includes applying these faculty and coordinators with appropriate handouts, flyers, and email messages that they can share with prospective, admitted, and enrolled students at various points in their own recruitment processes. Additionally, the EAP program has maintained a social media presence to highlight the accomplishments of EAP students, faculty, and alumni, and has engaged in some web advertising as well.

Projected Annual Enrollment:

<table>
<thead>
<tr>
<th>Year</th>
<th>Projected Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>3</td>
</tr>
<tr>
<td>Year 2</td>
<td>7</td>
</tr>
<tr>
<td>Year 3</td>
<td>10</td>
</tr>
<tr>
<td>Year 4</td>
<td>12</td>
</tr>
<tr>
<td>Year 5</td>
<td>14</td>
</tr>
</tbody>
</table>

Maximum enrollment that can be supported with existing instructional and student services resources: 25

Those who are not familiar with using the HTML editor fields may upload a document with information about the curriculum for use by those who will format and edit the content that will appear in the Guide.

Guide Requirements Tab

Each EAP student must complete four courses (12 credits), including an introductory course, a capstone course, and one course from each of two categories: Energy Analysis and Energy Policy. Courses in the Energy Analysis category involve quantitative analysis of the technical and economic factors that shape society's use of energy resources. Courses in the Energy Policy category involve the social, political, and environmental factors that underly decisions making around energy choices.

Some courses listed in the Energy Analysis category may have some overlap with the Energy Policy category, and vice versa. Students who wish to use a course for the opposite category that is listed in should submit a written request to the EAP Academic Coordinator or Faculty Chair. Students should provide a course syllabus and a written justification for why the course should qualify for the other category in the context of their overall course of study, with the EAP Chair making the final decision on whether to accept the request.

The following courses are offered regularly, though other courses (with approval by the EAP faculty program committee) may fulfill one of the requirements below (see note under Other Qualifying Courses).

Course List

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVR 17/PUB AFF 415/URB R PL 809</td>
<td>Introduction to Energy Analysis and Policy</td>
</tr>
<tr>
<td>ENVR 17/PUB AFF 415/URB R PL 810</td>
<td>Energy Analysis and Policy Capstone</td>
</tr>
</tbody>
</table>

Energy Analysis

Choose one of the following:

AAS/ECON 371

Energy, Resources and Economics

https://next-guide.wisc.edu/courseleaf/choosepropriate/role=GRAD SCH Dept. Approver
Energy Policy
Choose one of the following:

- ENVR ST 349
- ENVR ST ATM OCN 355
- ENVR ST POP HLTH 473
- ENVR ST POP HLTH 502
- ENVR ST POP HLTH 560
- GEOL/ENVR ST 411

**Total Credits**
2

**OTHER QUALIFYING COURSES**

Because the scheduling of the preceding courses is coordinated with the needs of their home departments, EAP cannot guarantee that specific courses will always be offered at specific times or rotations. Each semester, the EAP program faculty will consider other qualifying courses for the upcoming semester that fulfill one of the categories above. Once approved, the EAP Academic Coordinator will distribute a list of course offerings for the upcoming semester to students in the EAP program.

**COURSE SUBSTITUTIONS**

Students may propose course substitutions by contacting the Academic Coordinator or the Faculty Chair. The EAP Chair makes the final decision. Students should provide a course syllabus and a letter of endorsement from the faculty member teaching the course, preferably before the start of the course. The substitution proposal will be considered based upon the following criteria:

- The extent to which the course content is devoted to energy
- The rigor of methodology applied to the course material
- The context of the class with respect to the student’s study plan

**Total credits required:**
12

Guide Graduate Policies tab

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**Program Learning Outcomes and Assessment**

List the program learning outcomes.

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Demonstrate an awareness of the variety of energy sources and energy conversion technologies and master the language required to engage in the analysis of energy topics.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Analyze and compare the sustainability of different energy sources/technologies from the perspective of economics, environmental impacts and security of supply.</td>
</tr>
<tr>
<td>2</td>
<td>Demonstrate an awareness of the socio-political institutions that govern the energy industry.</td>
</tr>
<tr>
<td>3</td>
<td>Prepare for energy-related career pathways in industry, government, academia, NGOs, regulatory agencies, and energy consulting. Gain experience by participating in “real-life” projects for actual clients in multidisciplinary student groups.</td>
</tr>
</tbody>
</table>

**Summary of the Assessment Plan:**

- **Assessment for the minor will be conducted in conjunction with the existing certificate assessment plan (uploaded below).**
- **A.** The EAP program will conduct an annual focus group each May, composed of students recruited from the current enrollment in the ENVR ST 830 Capstone seminar. These students are at the end of their EAP curriculum. The focus group will be facilitated by a faculty or staff member who is not the program chair, academic coordinator, or the instructor of the seminar.
- **B.** The EAP program faculty will develop a simple online assessment that evaluates a student’s progress in achieving the learning objectives. Students will complete the survey upon entrance to the minor and at their completion of the minor. Results will be compared to assess the impact of their experience earning the EAP minor.

**Approved Assessment Plan:**

Courses in the curriculum are numbered 300 or higher.
Yes

The program faculty/staff will ensure the program website, Advance Your Career materials if applicable, and other presentations are consistent with the Guide information for this program.
Yes

Credential will not be awarded retroactively to students who completed all of the requirements before the credential was approved.
Yes

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**Approvals**

Department Approval - This proposal has been approved by the faculty at the department/academic unit level. The program faculty confirm that the unit has the capacity and resources (financial, physical, instructional, and administrative) to meet the responsibilities associated with offering the program, including offering the necessary courses, advising students, maintaining accurate information about the program in the Guide and elsewhere, conducting student learning assessment and program review, and otherwise attend to all responsibilities related to offering this program.

Enter any notes about approval here:

Approved by Nelson Institute Instructional Committee on October 14, 2019.

Entered by: Tara Mohan
Date entered: October 15, 2019

School/College Approval - This proposal has been approved at the school/college level and it is submitted with the Dean’s support. The Dean and program faculty confirm that the unit has the capacity and resources (financial, physical, instructional, and administrative) to meet the responsibilities associated with offering the program, including offering the necessary courses, advising students, maintaining accurate information about the program in the Guide and elsewhere, conducting student learning assessment and program review, and otherwise attend to all responsibilities related to offering this program.

Enter any notes about approval here:

Approved by Nelson Institute Instructional Committee on October 14, 2019.

Entered by and date: Tara Mohan
Date entered: October 15, 2019

GFEC Approval - This proposal has been approved by the Graduate Faculty Executive Committee and the Dean of the Graduate School.

Enter any notes about the approval here:

GFAC Approval - This proposal has been approved by the University Academic Planning Council and the Provost.

Enter any notes about approval here:

For Administrative Use

Admin Notes:

Guide URL:

Effective date:

Career:

SIS Program Code:

SIS Short Description:

Other plan codes associated with this program:

Field of Study:

Plan Group:

CIP Code:

Reviewer:

Comments

Rev: 1.07
Student Learning Outcomes

1. Students demonstrate an awareness of the variety of energy sources and energy conversion technologies and master the language required to engage in the analysis of energy topics.

2. Students analyze and compare the sustainability of different energy sources/technologies from the perspective of economics, environmental impacts and security of supply.

3. Students demonstrate an awareness of the socio-political institutions that govern the energy industry.

4. Students prepare for energy-related career pathways in industry, government, academia, NGOs, regulatory agencies and energy consulting. They gain experience by participating in “real-life” projects for actual clients in multidisciplinary student groups.

Curriculum Map

<table>
<thead>
<tr>
<th>Courses</th>
<th>Outcome #1</th>
<th>Outcome # 2</th>
<th>Outcome # 3</th>
<th>Outcome #4</th>
</tr>
</thead>
<tbody>
<tr>
<td>EnvSt/PubAff/URPL 809</td>
<td>Introductory Class</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Policy (choice)</td>
<td></td>
<td></td>
<td></td>
<td>Policy Analysis</td>
</tr>
<tr>
<td>PubAff 881</td>
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<tr>
<td>Pub Aff 866</td>
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<tr>
<td>Law 940</td>
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<tr>
<td>EnvSt 449</td>
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<td></td>
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<tr>
<td>Economics/Business (choice)</td>
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<td></td>
<td>Economic Analysis</td>
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<tr>
<td>EnvSt 561</td>
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<tr>
<td>AAE 671</td>
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<td></td>
</tr>
<tr>
<td>PubAff 881</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental (choice)</td>
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<td></td>
<td></td>
<td>Environmental Analysis</td>
</tr>
<tr>
<td>EnvSt 502</td>
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<tr>
<td>CEE 423</td>
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<tr>
<td>EnvSt 471</td>
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<tr>
<td>EnvSt 740</td>
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<tr>
<td>Technical (choice)</td>
<td></td>
<td></td>
<td></td>
<td>Technical Analysis</td>
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<tr>
<td>Geology 411</td>
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<tr>
<td>BSE 367</td>
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<tr>
<td>NE 571</td>
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<tr>
<td>ME 567</td>
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<tr>
<td>ECE 427</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Capstone 810</td>
<td></td>
<td></td>
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<td>Capstone Project</td>
</tr>
<tr>
<td>Elective Seminar</td>
<td></td>
<td></td>
<td></td>
<td>Career seminar</td>
</tr>
<tr>
<td>Professional Guidance</td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
### Assessment Planning

<table>
<thead>
<tr>
<th>Assessment Plan</th>
<th>Learning Outcome #1</th>
<th>Learning Outcome #2</th>
<th>Learning Outcome #3</th>
<th>Learning Outcome #4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Method for assessing learning</td>
<td>Course syllabi state outcomes and align assessments</td>
<td>Course syllabi state outcomes and align assessments</td>
<td>Course syllabi state outcomes and align assessments</td>
<td>Review of Capstone Reports and survey of Capstone clients</td>
</tr>
<tr>
<td>Timetable for Assessment Activity</td>
<td>Every semester</td>
<td>Every semester</td>
<td>Every semester</td>
<td>Every year in May</td>
</tr>
</tbody>
</table>

### Assessment Review and Reporting

1. **Who is responsible (ID a 3-member team)**
   
   A team of faculty representing the “Energy Cluster Hire” and other core program faculty.

2. **What is the plan for review of assessment information?**
   
   A. The EAP program will conduct an annual focus group each May, composed of students recruited from the current enrollment in the 810 Capstone seminar. These students are at the end of their EAP curriculum. The focus group will be facilitated by a faculty or staff member who is not the program chair, academic coordinator or the instructor of the seminar.
   
   B. The EAP program faculty will develop a simple online assessment that evaluates a student’s progress in achieving the learning objectives. Students will complete the survey upon entrance to the certificate and at their completion of the certificate. Results will be compared to assess the impact of their experience earning the EAP certificate.

3. **What is the plan for production of annual summary report?**
   
   Every year the EAP program coordinator will report the following data:
   
   - Number of applicants
   - Number of new enrollments
   - Total number of students enrolled
     - Breakdown by graduate major
     - Breakdown by standard demographic categories
   - Number of students earning the certificate
New Proposal

Viewing: Doctor of Philosophy - Gender and Women's Studies

Last edit: 10/28/19 3:24 p.m

Changes proposed by: johple

Request Type: Notice of Intent (new degree/major)

Home Department: Gender and Women's Studies (GEN WO ST)

School/College: College of Letters and Science

Title: Doctor of Philosophy - Gender and Women's Studies

Request Details: Department of Gender and Women's Studies proposes to offer a doctoral degree in that area of study. This interdisciplinary program will be supported by the active engagement of at least 20 faculty members (and another dozen graduate faculty affiliates). The program of study will connect to "traditional" disciplinary study, and will encourage students to:

- engage with wide-ranging and multi-disciplinary feminist theory and research associated with gender and women's studies;
- explore research on gender around the globe and how gender intersects with local and national identities, as well as how gender intersects with other social categories such as race/ethnicity, nationality, sexuality, class, caste, and religion;
- develop expertise in an area of concentration; and
- engage with a variety of disciplinary and interdisciplinary methods including, for example, fieldwork, ethnography, critical analysis, and archival, statistical, experimental, and meta-analytic methods.

GWS currently offers a master's degree; if this request is approved, resources supporting that program will be redirected, and the master's program will be modified to be a non-admitting degree.

GOVERNANCE APPROVAL

It was approved by the U&S Academic Planning Council on October 1, 2019. (Entered by Elaine M. Klein, Associate Dean for Academic Planning)

CONSULTATION WITH OTHER SCHOOLS/COLLEGES:

Due to the interdisciplinary nature of GWS, U&S sought comment (and ideally support) from other UW Madison schools and colleges. Three units took advantage of this opportunity, as noted below:

College of Agricultural and Life Sciences: Dean Kate VandenBosch sent a message noting CALS' support on 10/23/2019 (memo available if needed).

Gaylord Nelson Institute for Environmental Studies: Dean Paul Robbins sent a message (10/15/2019) stating that "in a meeting of our Division’s Instructional committee, there was a unanimous vote of enthusiastic endorsement for doctoral program." (He also offered to provide a more formal memorandum if needed.)

Graduate School: Dean William Karus sent a message (10/9/2019) to Dean Wilcots indicating his hope that as the new program makes its way through the approval process he "would like to see added to the resources/funding description an explicit description of a 5-year funding guarantee for the PhD students." This feedback has been incorporated into the revised NOI and will be incorporated into the Request for Authorization to Implement the new program.

Upload Form: Notice of Intent PhD 08 31 19 submitted 8 31 19 rev 10 28 2019.pdf

Supporting Documents:

- English PhD 05 19.pdf
- PsyC PhD 05 19.pdf
- Asian American PhD 05 30 19.pdf
- History PhD 06 19.pdf
- PoC PhD 09 19.pdf
- Request for Support - Proposal to Offer PhD in Gender and Women's Studies - Sent on behalf of U&S Interim Dean Eric Wilcots.pdf

https://next-guide.wisc.edu/courseleaf/approve/?role=GRAD SCH Dept. Approver
May 8, 2019

Professor Aili Tripp, Chair
Department of Gender & Women’s Studies

Dear Aili:

I write to express the support of the Department of English for your plans to develop a PhD program in Gender & Women’s Studies. The growth of the department in the last two years and the planned growth for the next two years is exciting! I know that you are fully ready to launch a PhD program.

English and GWS share many methodological overlaps that suggests rich zone of future collaboration at the PhD level. The Department of English has historic strength in research on women and gender and is committed to that area. Leslie Bow, Ramzi Fawaz, Karen Britland, and Cherene Sherard-Johnson all publish and teach on issues related to gender, sexuality, and feminist criticism. I believe that the new PhD program will strengthen intellectual and interdisciplinary exchange among our departments.

Your PhD program will benefit graduate students in English, because they will have a richer array of course offerings, for those earning graduate certificates or wanting to augment the courses we offer in our department. And vice versa, as English’s robust PhD program is sure to attract PhD students from GWS just as it currently attracts graduate students from other departments across campus. The degree and the enhanced course offerings will also help recruit topnotch graduate students to our program, who are interested in research on women and gender.

We offer our enthusiastic support.

Sincerely,

Russ Castronovo
Professor and Chair
May 14, 2019

Professor Aili Tripp, Chair
Department of Gender & Women’s Studies

Dear Aili:

I am writing to indicate the Department of Psychology’s enthusiastic support for the proposed multidisciplinary PhD program in Gender & Women’s Studies. This sounds like an exciting program. Moreover, this program appears to be a natural outcome of your department’s success over the years.

Our department is an obvious partner for your proposed doctoral program, given our current ties. This includes the fact that one of our faculty, Professor Janet Hyde, has a joint appointment with your department. Professor Hyde is a national/international leader in sexual science and gender studies. Additionally, many of our faculty study gender differences in behavior and health (Professors Alibali, Auger, Berridge, Ryff). Given this, it seems clear your proposed PhD program is likely to strengthen collaborations between our departments.

Additionally, your PhD program will benefit graduate students in our department, by expanding and diversifying graduate course offerings relevant to gender and women. Lastly, your proposed PhD program is likely to help our department recruit high caliber graduate students interested in research on women and gender.

I look forward to the establishment of a PhD program in Gender & Women Studies.

Sincerely,

Craig Berridge, Ph.D.
Professor & Chair, Department of Psychology
University of Wisconsin-Madison
Patricia Goldman-Rakic Professor of Psychology
Mark and Ilene Laufman Family Professor
May 13, 2019

Professor Aili Tripp, Chair
Department of Gender & Women’s Studies

Dear Aili:

I write to express the support of the Asian American Studies Program for your plans to develop a PhD program in Gender & Women’s Studies. The growth of the department in the last two years and the planned growth for the next two years is exciting! I know that you are fully ready to launch a PhD program.

The Asian American Studies Program has strength in research on women and gender and is committed to that area. Some noteworthy faculty in the Asian American Studies Program whose research centers the study of gender includes: Professor Leslie Bow, who is among the leading Asian American Studies feminist scholars in the nation; Professor Cindy I-Fen Cheng whose work highlights the inner workings among race, gender, and nation in U.S. Cold War culture; and Associate Professor Lori Kido Lopez whose research centers the study of race, gender and media studies and is also a faculty affiliate of the Department of Gender and Women’s Studies. Notably, the Asian American Studies Program has recently partnered with GWS for a 50-50 budgetary hire and successfully recruited two new assistant professors, James McMaster and LiLi Johnson, to start fall 2019. Without a doubt, the new PhD program in GWS will strengthen collaborations between our units.

Your PhD program will benefit graduate students whose research advances intersectional analysis of race, gender, and sexuality, because they will have a richer array of course offerings, for those earning graduate certificates or wanting to augment the courses we offer in our department. The degree and the enhanced course offerings will also help attract topnotch graduate students to our program, who are interested in research on women and gender.

We offer our enthusiastic support.

Sincerely,

Cindy I-Fen Cheng
Professor of History and Asian American Studies
Director, Asian American Studies Program
June 13, 2019

Professor Aili Tripp, Chair
Department of Gender & Women’s Studies
CAMPUS

Dear Aili,

The Department of History writes to express its enthusiastic support for the proposed PhD in Gender and Women’s Studies.

The History Department is home to the second ranked program in gender and women’s history in the United States. Faculty and graduate students in the Program in Gender and Women’s History (PGWH), founded by Gerda Lerner in 1980, will surely benefit from expanded graduate level offerings in women’s studies on this campus. A richer array of graduate course offerings at the UW will help us attract the best applicants to our graduate program.

Three of our faculty members hold joint appointments in History and Gender and Women’s Studies (Finn Enke, Pernille Ipsen, and Judith Houck), and I expect that they will play a key role in developing close collaborations between the History and GWS PhD programs. The Program in Gender and Women’s History is at the core of the History Department’s priorities, and our impressive strength in this area will benefit the new PhD program in GWS. Our faculty have research and teaching expertise in gender and women’s history across broad chronological (from ancient Greece to twentieth century United States) and geographical fields (from the African continent, to the Chinese diaspora, Europe, and the United States).

The establishment of a PhD in Gender and Women’s Studies will strengthen collaboration between History and GWS. I anticipate that we will offer co-taught graduate seminars, and that History would likely employ GWS PhD students as Teaching Assistants and vice versa.

The History Department strongly supports this initiative.

Sincerely,

Laird Boswell
Professor & Chair
History Faculty specializing in Gender and Women’s History:

1. Emily Callaci, Associate Professor (African history, history of family planning)
2. Shelly Chan, Associate Professor (China & Chinese Diaspora)
3. Cindy I-Fen Cheng, Professor (Asian American history)
4. Suzanne Desan, Professor (Early Modern Europe)
5. Finn Enke, Professor (sexuality and gender)
6. Nan Enstad, Professor (American and transnational history)
7. April Haynes, Associate Professor (Early American History)
8. Judith Houck, Associate Professor (Medical History)
9. Pernille Ipsen, Associate Professor (Atlantic World; Scandinavia)
10. Steve Kantrowitz, Professor (19th Century US; Civil War)
11. Leonora Neville, Professor (Byzantine)
12. Mary Louise Roberts, Professor (Modern European Gender History)
13. Claire Taylor, Associate Professor (Ancient Greece)
14. Gloria Whiting, Assistant Professor (Early American History)
September 19, 2019

Date

Professor Aili Tripp, Chair
Department of Gender & Women’s Studies

Dear Aili:

On September 18, 2019, the faculty of the Department of Political Science voted enthusiastically in support of your plans to develop a PhD program in Gender & Women’s Studies. We have been very pleased to see your department add new faculty in recent years, and we look forward to great things to come for Gender & Women’s Studies. This is clearly an appropriate and exciting time for the creation of a Ph.D. program in the department.

As you know, multiple faculty have shared appointments in our department and do important work on gender and politics. This includes your work on women and politics in Africa, Keisha Lindsay’s work on the intersection of race and gender, and Marwa Shalaby’s work on authoritarianism and women in politics. A new Ph.D. program will both build on and strengthen these connections.

We anticipate many graduate students in all fields of Political Science taking courses offered in your new Ph.D. program, complementing their work in our department. The degree and the enhanced course offerings will also help attract excellent graduate students interested in studying women, gender and politics to our program, and we look forward to having Ph.D. students from Gender & Women’s studies bringing their perspectives and insights to our Political Science graduate seminars.

We offer our enthusiastic support.

Sincerely,

John Zumbrunnen
Professor and Chair
Notice of Intent

a. Name of the proposed degree/major
Ph.D. in Gender and Women’s Studies

b. Home department/department-like unit and School/College
Department of Gender and Women’s Studies, College of Letters & Science

c. Mode of delivery (face-to-face, online, other-specify)
Face-to-face

d. Primary faculty contact person
Janet S. Hyde, Helen Thompson Woolley Professor of Gender & Women’s Studies,
jshyde@wisc.edu

e. A description of the new program
Gender and Women’s Studies (GWS) is a vibrant and influential field of scholarship, in which GWS scholars excavate the past and present experiences of women as well as gender minorities and sexual minorities; demonstrate the influences of gender on society and in the world; examine the meanings of gendered representations; contribute to human rights policies concerning women and gender in the U.S. and around the globe; and bring scholarly analysis to major social movements such as #MeToo. Professors at UW-Madison conduct cutting-edge research that illuminates and influences the experiences of women and the construction of gender. The proposed program is designed to leverage the strength of the UW-Madison GWS faculty and their connections to methods and topics studied in “traditional” disciplines, requiring students to build a firm foundation in GWS, which is complemented by a substantive thematic concentration rooted in a discipline. This interdisciplinary program design will encourage students to:

- engage with wide-ranging and multi-disciplinary feminist theory and research associated with gender and women’s studies;
- explore research on gender around the globe and how gender intersects with local and national identities, as well as how gender intersects with other social categories such as race/ethnicity, nationality, sexuality, class, caste, and religion;
- develop expertise in an area of concentration; and
- engage with a variety of disciplinary and interdisciplinary methods including, for example, fieldwork, ethnography, critical analysis, and archival, statistical, experimental, and meta-analytic methods.

Students who complete this program will:

1. Demonstrate a broad understanding of major theories, methods, and research findings in the GWS literature, and develop critical thinking skills that empower them to analyze strengths
and weaknesses in existing research, identify knowledge gaps and needs for new research, evaluate and synthesize evidence, and form conclusions. Attain the skills necessary to teach and conduct research with intellectual and ethical rigor and creativity.

2. Create individualized research programs to match their specific interests and goals, connecting GWS to a traditional discipline. Formulate research questions, design feasible research projects, use appropriate research methods, analyze and interpret the resulting data, formulate well-justified conclusions, and identify avenues for further research. Students’ original research will expand the current boundaries of knowledge in the field.

3. Write seminar papers and conduct dissertation research, prepare and submit manuscripts resulting from their research for publication in respected journals, and submit papers for presentation at professional conferences.

4. Advance the contributions of GWS scholarship to society by conducting research that explores complex ideas, analyzes quantitative and qualitative data, and disseminates new knowledge. That research will contribute to the vast body of scholarship and applied work that leads to the improvement of people’s lives. Share theory, methodology, and the results of research with the undergraduate students whom they teach and thereby foster an understanding of how gender affects both individuals’ experiences and human societies.

5. Communicate complex ideas in a clear, organized, engaging manner to diverse audiences. Craft effective grant proposals; gather, manage, and analyze data; write papers that are well-conceptualized and thought-provoking; present research informatively; listen with care and patience; and give and receive feedback orally and in writing.

6. Foster ethical and professional conduct by demonstrating respect for and having positive interactions with faculty members and staff, graduate student colleagues, and undergraduate students. Foster such conduct by the rigor and honesty with which they design research, collect and analyze data, and interpret and report results.

7. Prepare for a range of careers in academia as well as government, private business, and the nonprofit sector. Develop flexibility, leadership, and broadly applicable skills in critical thinking, problem solving, project management, collaboration, and communication.

f. Program content and level

The curriculum will be based on 55 credit hours of coursework that will include (1) completion of three required core courses in GWS covering theory, methodology, and an overview of research content in gender and women’s studies; (2) a 15 credit-hour concentration, which will give students expertise in questions, methods, and literatures in a traditional discipline; (3) a written qualifying exam; (4) a dissertation; and (5) elective courses and dissertation credit to achieve the minimum credit-hour requirement. Consistent with UW-Madison policy, students will be required to complete at least 50% of their credits in graduate-level, graduate-focused courses. The program can be completed in 5 years.

Regarding the concentration, this innovative, interdisciplinary PhD includes a required, 15-credit subject-matter concentration, including methodology courses, in a focal area outside GWS. This concentration allows the student to connect what they learn in GWS to deep knowledge of a specific discipline, creating constructive dialogue between the discipline and GWS. Preliminary disciplinary partners and topical concentrations include History; Political Science;
g. Resources required to deliver the program

The Department of GWS will administer the degree program. GWS has strong connections to and support from several departments that will be involved in offering the various subject matter concentrations that are part of the program. GWS currently offers an MA program, resources from which will be reallocated to support the doctoral program. The MA will be reformulated as a non-admitting program that will be retained to serve students who may not complete the PhD but who meet minimum requirements for a master’s degree.

GWS has a sufficient graduate faculty (18 faculty, 11.75 FTE) to offer the program. With more than 50 GWS faculty affiliates in departments across the university, students in the program will be able to pursue a wide range of concentrations that will benefit from GWS scholarship and insights into the influence of gender on those fields.

GWS plans to admit 4-5 new students per year, and as a general principle, GWS will not admit students who cannot be funded with 5-year support packages. Modeling and past experience with curricular administration suggests that 4-5 students could be funded through any combination of the following: University Fellowships; Advanced Opportunity Fellowships (AOF); Teaching Assistantships associated with large enrollment undergraduate GWS courses (GWS 101, 102, 103, and 200); faculty research grants; external fellowships; and lecturer positions within GWS. Students interested in gender and health also have access to a fund dedicated to support Reproductive Health, Rights, and Justice.

GWS has the administrative resources to support the program. Staff support for graduate program administration will be redirected from the current MA program to the PhD program (that is, the staff person who handles MA applications will be able to shift that effort to PhD applications.) The current Director of Graduate Studies will also shift their effort to the PhD program. More generally GWS has sufficient support staff (graduate program staff member plus a 50% staff member and department administrator) to help manage the workload.

h. If relevant, information on other required approvals to offer the program beyond the Board of Regents (such as accreditation bodies, including the Higher Learning Commission [HLC])

Not relevant

i. Evidence of how the new program aligns with the institutional mission, strategic plan, and existing academic degree program array

According to its Mission Statement, one of UW-Madison’s goals is to “Achieve leadership in each discipline, strengthen interdisciplinary studies, and pioneer new fields of learning.” UW-Madison achieves those aspirations in part because “pioneering new fields of learning” is supported by advanced graduate study and its dynamic effect on scholarly excellence, pushing boundaries forward, and leading new generations to new areas of study. Established in 1975 initially as a program, the Department of GWS at UW-Madison has grown steadily to become one of the most

English; Health; Sociology; Psychology; Communications; LGBT Studies; Asian American Studies; and Disability Studies.
respected GWS departments in the country, earning high rankings for scholarly articles produced and for federal grants awarded. This record supports the department’s capacity to join the 16 other U.S. institutions that offer doctoral study in GWS, to help create the next generation of GWS scholars who will go on to shape the field, and to add to the University’s prestige. A PhD program in GWS at UW-Madison is fitting if not imperative given both the stature of the department and the stature of the university.

A PhD program will foster interdisciplinary study at UW-Madison, because GWS is a profoundly interdisciplinary field. The program is designed to build upon the department’s ties to other departments, contributing both to the vibrancy and breadth of the GWS program, as well as to the vibrancy of the other departments. With respect to pioneering new fields of learning, GWS has, since its inception, been a pathbreaking discipline. For example, transgender studies is a cutting-edge topic today, and several UW-Madison faculty in GWS are engaged in research in this area.

A strong PhD program in GWS will enhance the reputation of UW-Madison as an institution deeply dedicated to gender studies, gender equality, women’s health, and LGBTQ concerns. The program itself will complete the suite of academic program options available to students who want to pursue focused study in this area – from undergraduate certificate programs and majors, through doctoral study. Students will benefit from the rich learning environment that graduate students bring to the community of learners. (Undergraduates, in particular, will benefit from being taught by high caliber TAs with multiple years of experience.) The faculty will also benefit from the ability to mentor a new generation of scholars in this arena.

j. A link to the institution’s academic strategic plan

https://chancellor.wisc.edu/strategicplan2/

k. Need for the new program

Although many undergraduate programs across the UW System focus on women, gender, and/or LGBTQ+ studies, none of the programs offers a doctorate. There is therefore no risk of program duplication at the doctoral level.

Across the nation, 16 universities (including several of UW-Madison’s peers) offer a PhD in Gender & Women’s Studies. A 2018 special issue of Feminist Studies found these programs to have healthy enrollments and a good rate of student completion, with students entering academic and professional positions.

Finally, GWS has fielded multiple inquiries from students enrolled in the MA program seeking pathways to completion of doctoral study in GWS. Although it is possible for students to transfer to other disciplinary programs at UW-Madison (where they may apply GWS expertise to focused study in that discipline), students who want to focus on GWS transfer to other institutions (UC Berkeley, University of Michigan, and University of Minnesota are recent examples).
1. A list of the program faculty who are central to the planning process

Faculty with Budgeted Appointments in Gender & Women’s Studies (joint department)
1. Barcelos, Chris
2. Campbell, Anna
3. Casid, Jill (Art History)
4. Enke, Finn (History)
5. Garlough, Christine
6. Higgins, Jenny (Obstetrics & Gynecology)
7. Houck, Judy (History of Science & History of Medicine)
8. Hyde, Janet (Psychology)
9. Ipsen, Pernille (History)
10. Johnson, LiLi (Asian American Studies)
11. Lepowsky, Maria (Anthropology)
12. Lindsay, Keisha (Political Science)
13. McMaster, James (Asian American Studies)
14. Menzel, Annie
15. Samuels, Ellen (English)
16. Schalk, Sami
17. Shalaby, Marwa (Political Science)
18. Tripp, Aili (Political Science)

Tentative, beginning in Fall 2020:
19. Faculty hired on the Reproductive Equity Cluster
20. Faculty hired on the Sexual Violence Cluster

Affiliated Faculty Who May Supervise Graduate Students (all have agreed in principle)

Leslie Bow (English and Asian American Studies)
Jane Collins (Community and Environmental Sociology)
Nevine El Nossery (French & Italian, and Middle East Studies)
Nan Enstad (History)
Lara Gerassi (Social Work)
Christina Greene (Afro-American Studies)
Nancy Kendall (Education)
Lori Kido Lopez (Communication Arts)
Sara McKinnon (Communication Arts)
Ethelene Whitmire (The Information School)
Rachelle Winkle-Wagner (Education)

m. Letters of support or concurrence

History Department
English Department
Psychology Department
Asian American Studies Program

n. Items 1 to 11 are required for the UW System Notice of Intent process and should not exceed 5 pages as a standalone document.
Program Change Request

Date Submitted: 09/09/19 11:17 pm

Viewing: MAB 091BUS : Business: Arts and Creative Enterprise Leadership Arts Administration

Last approved: 09/20/18 5:26 pm

Last edit: 10/29/19 12:46 pm

Changes proposed by: emmittum

Catalog Pages Using this Program

Business: Arts Administration, M.A.

Final Catalog

Rationale for Inaction

Name of the school or college academic planner who you consulted with on this proposal.

<table>
<thead>
<tr>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ella Mae Matsumura - BUS</td>
</tr>
</tbody>
</table>

Proposal Abstract/Summary:

The arts and cultural sector has long placed a high value on experience. The M.B.A. in arts administration offered through the world-renowned Bozarth Center for Arts Administration in the School of Business responds to that position by recruiting students with substantial relevant work experience. However, the sector is coming to value and reward relevant business expertise more and more, which means that less experienced students with appropriate training are attractive hires. This doesn’t diminish the need for experienced masters graduates, but it does mean there is an opportunity for a degree that prepares students for arts-related jobs that need business training. This includes positions in the arts/cultural sector such as fundraising and advancement, business and start-up development, project management/consulting, financial management, communications, alumni relations, education, exhibit and performance programming—the list goes on—making a graduate degree from the Bozarth Center a highly visible, reputable and valuable indicator of success and diversity in the field.

This program is positioned as a degree that is tailored to two on-campus populations: BBA students and arts/creative majors. Secondary and tertiary audiences may include working professionals seeking a graduate degree and access to business/entrepreneurial training, as well as undergraduates of other institutions with similar attributes to UW-Madison applicants.

BBA graduates will learn how to, experience and practice translating their strong business expertise to the arts & cultural sector. Arts/creative majors will gain and practice business fundamentals and their application to the arts/creative sector, offering them a valuable and competitive advantage as they begin their careers.

If approved, what term should the proposed change be effective?

Fall 2020 (2012)

Select yes if this proposal is only to add, remove, or rearrange curricular requirements, and will change less than 50% of the curriculum.

No

Basic Information

Program State: Active
Type of Program: Degree/Major
Parent Program:
Upload the Approved Notice of Intent and UW System Approval Memo.
Upload completed draft of the full Board of Regents Authorization Proposal for this program.

**Parent Audience:**
- Graduate or professional

**Parent Home Department:**
- MHR

**Parent School/College:**
- School of Business

The program will be governed by the home department/academic unit as specified. Will an additional coordinating or oversight committee be established for the program?
- No

Describe procedures under which the coordinating/oversight committee will operate, including how the committee chair is appointed, to whom the chair reports, how participating faculty and staff are identified, provisions for transitions in the committee, and processes for interaction with the home department.

Parent is in the Graduate School:
- Yes

**Award:**
- Master of Arts

**Other Award Name:**

**SIS Code:**
- MAB 0918US

**SIS Code (BS):**

**SIS Description:**
- Bus. Arts Administration MAB

**SIS Description (BS):**

**Transcript Title:**
- Business: Arts and Creative Enterprise Leadership: Arts Administration

Will this name change apply to all enrolled students in the same term (turn-key)?
- Yes

**Named Options:**
- Does the parent program offer this as an additional major as well?
  - No

Explain the program’s process for reviewing joint degree proposals from students.

Describe the reason for offering the program as an additional major. Include evidence of student interest and demand, how the additional major benefits the students' learning experience, and describe how the program has capacity in course offerings and advising to support the additional major.

Provide information on which degree/majors it will likely be combined with most frequently and provide evidence that such combinations will not extend student time to degree beyond the standard four academic years.

Briefly describe the process the student follows to get permissions to declare the additional major from the primary degree/major and the additional major offering unit.

Will a doctoral minor be required?
- Yes

Explain the rationale for the decision.

Describe the alternate breadth training resources that will be made available to/required of students.

**Is this a non-admitting master’s degree?**
- No

**Suspension and Discontinuation**

What is the date by which you will submit a plan to resolve the suspended status, if approved?

What is the last term that a student could declare this program?

What is the last term that students may be enrolled in or complete the program?

What is the timeline and advance communication plan?

Explain the precipitating circumstances, or rationale for the proposal.

What is the potential impact on enrolled students?
What is the potential impact on faculty and staff?

Explain and provide evidence of efforts made to confer with and to notify faculty and staff.

Explain and provide evidence of efforts made to confer with and to notify current students.

Explain and provide evidence of efforts made to confer with and to notify alumni and other stakeholders.

Teach-out plan: How will program quality be maintained during the suspended period or the teach-out period for discontinued programs?

Teach-out plan: A) For currently enrolled students, how will required courses, curricular elements, advising and other student services be provided?

Teach-out plan: B) For prospective students in the admissions pipeline, how are any commitments being met or needs to notify them that their program of interest will not be available?

Teach-out plan: C) For stopped out students, what provisions are made for their re-entry? What program(s) will they be re-entered into?

Teach-out plan: D) Provide any other information relevant to teach-out planning.

Roles by Responsibility: List one person for each role in the drop-down list. Use the green + to create additional boxes.

<table>
<thead>
<tr>
<th>Role Type</th>
<th>Name (Last, First)</th>
<th>Email</th>
<th>Phone</th>
<th>Admin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Contact</td>
<td>Wagner, Sherry</td>
<td><a href="mailto:wagner@wisc.edu">wagner@wisc.edu</a></td>
<td>608/263-4561</td>
<td></td>
</tr>
<tr>
<td>Faculty Director</td>
<td>Coff, Russell Wayne</td>
<td><a href="mailto:rcoff@wisc.edu">rcoff@wisc.edu</a></td>
<td>608/263-5437</td>
<td>Faculty</td>
</tr>
<tr>
<td>Department Chair</td>
<td>Coff, Russell Wayne</td>
<td><a href="mailto:rcoff@wisc.edu">rcoff@wisc.edu</a></td>
<td>608/263-5437</td>
<td></td>
</tr>
</tbody>
</table>

List the departments that have a vested interest in this proposal.

<table>
<thead>
<tr>
<th>Departments</th>
</tr>
</thead>
<tbody>
<tr>
<td>College of Letters &amp; Science (L&amp;S)</td>
</tr>
<tr>
<td>School of Human Ecology (HUM ECO)</td>
</tr>
</tbody>
</table>

Are all program reviews in the home academic unit up to date? Yes
Please explain.

Are all assessment plans in the home academic unit up to date? Yes
Please explain.

Are all assessment reports in the home academic unit up to date? Yes
Please explain.

Mode of Delivery: Face-to-face (majority face-to-face courses)
Provide information on how any lab courses required for the degree will be handled.

Will this program be part of a consortial or collaborative arrangement with another college or university? No
Upload proposal.

Will instruction take place at a location geographically separate from UW-Madison? No
Upload proposal.

Parent has outside accreditation:

Will this program have outside accreditation? Yes
Parent Guide Accreditation tab
Guide Accreditation tab

**Accreditation**

AACSB International—The Association to Advance Collegiate Schools of Business

Will graduates of this program seek licensure or certification after graduation? No
Graduates of parent program seek licensure or certification after graduation.
First term of student enrollment:
When will the application for the first term of enrollment open?
Which terms will you allow new students to enroll? What are the application deadlines for each term selected?

Year of three year check-in to GFEC (3 years after first student enrollment):
2023

Year of first program review (5 years after first student enrollment):
2025

If this proposal is approved, describe the implementation plan and timeline.
The courses and administrative infrastructure which already exist for the current MBA in Arts Administration program delivered by the BBA Center would be used for the MAB in Arts and Creative Enterprise Leadership program, thus a very significant proportion of what would have to be implemented for a new program is already complete.

Work has already begun on a draft marketing plan which would be executed immediately upon program approval to communicate the MAB program’s existence to prospective students.

Admissions to this and other WSBI MA and MS programs will be managed centrally by the MBA Program Office (likely to be re-named). Plans are in place to have an online application and admissions process ready immediately upon program approval.

Rationale and Justifications

How does the named option relate to the major and to other named options in the major, if relevant?

Why is the program being proposed? What is its purpose?

How is the certificate program designed to complement the degree/major of participating students?

What is its relation to the institution’s mission? (Consider the mission broadly as a major research university with missions in teaching, research, service, and the Wisconsin Idea.) How does it contribute to the mission of the sponsoring unit(s)?

Do current students need or want the program? Provide evidence.

What is the market, workforce, and industry need for this program? Provide evidence.

How does the program represent emerging knowledge, or new directions in professions and disciplines?

In what ways will the program prepare students through diverse elements in the curriculum for an integrated and multicultural society (may include diversity issues in the curriculum or other approaches)?

What gap in the program array is it intended to fill?

What is the rationale for this change?
The proposed MAB program represents a reactivation and redesign of the MA in Arts Administration that originated in 1988. The program would complement the existing active program by offering the market a middle choice between undergraduates and more experienced MBAs, with anticipated starting salaries in the $45,000-$65,000 range. By increasing the scope of the BBA Center’s offerings, the proposed program will not only help the Center serve more students, it also should help enhance the Center’s visibility, reputation and attractiveness to hiring companies — which would in turn benefit the Center’s existing program.

A second rationale, or impact, is an equity in the field of arts administration and leadership. Underrepresented groups and students are often times challenged by the current admissions standards that surround an MBA degree program, whereby standardized tests, like the GMAT and GRE, artificially prevent emerging arts leaders from gaining entry into a degree program where they could otherwise be highly successful. Admission into this new program will remove those barriers to entry and make admissions more equitable for all.

What evidence do you have that these changes will have the desired impact?

The UW Division of Continuing Studies market research identified about 1500 job postings annually that could have some relevance for our graduates. There are at least that many MA/MS graduates annually, but we are and will be distinguished by high, non-traditional selectivity and a foundation of business education that is only possible through a business school degree. There are also two additional avenues for placement for our students: (1) Students who are interested in community and nonprofit perspectives on traditional business practices. These students will find jobs in the new areas of arts-based community development, social and corporate responsibility, and local/regional and statewide government entities that are using the arts and social sectors for economic development purposes. (2) Students who want to launch their own creative enterprises.
Faculty and Staff Resources

List the core program faculty and staff with title and departmental affiliation(s) who are primarily involved and will participate in the delivery and oversight.

What resources are available to support faculty, staff, labs, equipment, etc.?

Program advisor(s) with title and departmental affiliation(s).

How will the resource load for the additional advising be met?

Describe how student services and advising will be supported.

Describe the advising and mentoring practices that will be used in this program, including how annual assessment of student progress will be communicated.

Confirm that the program advisor(s) or coordinator(s) have been consulted and reviewed this proposal.

Select the Graduate Research Scholars Community for this program.

Business Graduate Research Scholars

Resources, Budget, and Finance

Is this a revenue program? Yes

What is the tuition structure for this program?

Professional-specific tuition, Regent-approved

Select a tuition increment:

What is the rationale for selecting this tuition increment?

Will segregated fees be charged?

If segregated fees will not be charged, please explain.

Upload the proposal for market-based tuition.

Provide a summary business plan.

Provide an overview of plans for funding the program including but not limited to program administration, instructional/curricular delivery, technology needs and program assessment.

What is the marketing plan?

Describe resource and fiscal considerations - A. Provide an overview of plans for funding the program including program administration, instructional/curricular delivery, academic and career advising, technology needs, marketing (if relevant), financial aid and scholarships (if relevant), capacity for student learning outcomes assessment and program review.

Describe resource and fiscal considerations - B. Are the faculty, instructional staff and key personnel existing or new faculty and staff? If they already serve existing programs, how are they able to add this workload? If new faculty and staff will be added, how will they be funded?

Describe resource and fiscal considerations - C. What impacts will the program have on staffing needs beyond the immediate program? How are those needs being met?

Describe resource and fiscal considerations - D. For graduate programs, describe plans for funding students including but not limited to funding sources and how funding decisions will be made.

UW System Administration and the Board of Regents require submission of budget information in a specific format. These forms will be completed in collaboration with AIPR after school/college approval and before submission to UWSA for Board consideration. These forms are uploaded here by AIPR.
Given that the MAB will leverage existing infrastructure (detailed below), at enrollments up to approximately 10-15, no startup costs beyond some marketing costs are expected:

- All required courses are already being taught, and there is enrollment capacity in these courses.
- Staff, funding, APC, and community of the Bulu Center for Arts Administration already exist.
- Much of the effort required by staff is fixed in the sense that Applied Learning and other Bulu Center events planned for existing programs do not require significant incremental effort to support incremental enrollment. Guest speakers, site visits, advisory board events, professional development events, and trips, for example, require a similar amount of planning effort for five students or 45 students. Incremental effort would be required for academic and career student advising as well as student support services. At moderate enrollment levels, this could be absorbed by current resources, with relative time spent on full-time MBA vs. MAB advising mirroring fluctuations over time in relative enrollments in the two programs.
- There are no new technology needs for this program.
- Program assessment will be conducted along with assessments of the existing MBA degree, with no new processes required.

Does the program or change require substantial new resources other than those just described? Describe the needs. Confirm that the dean is committed to providing the resources.

The program will not require new resources at enrollment levels of 10-20 students/year. At higher enrollments, new administrative and teaching resources would be required. The WSB Dean's office is committed to providing those resources.

Are new Library resources needed to support this program?

Provide a summary of the requirements.

Memo from the Libraries confirming that the needs can be addressed.

Describe plans for funding students including but not limited to funding sources and how funding decisions are made.

Will you be seeking federal financial aid eligibility for this Capstone program?

Capstone program students are eligible for federal financial aid (using criteria if the participate in Gainful Employment (GE) requirements, that is, the prepare U.S. Department of Education (DOE) for information about gainful employment requirements visit: https://studentaid.gov/loans/basics/aid-official/summary)

Identify the SOC codes most closely associated with the occupational preparation the Capstone provides.

What program-specific financial aid, if any, is available for this program?

What is the period of time that this program is designed to be completed in by the typical student?

Gainful Employment requirements come with the need to track employment of graduates and provide additional reports – does the program have the capacity to complete these requirements?

---

### Curriculum and Requirements

If you are proposing a change to the curriculum, what percentage of the curriculum is changing? More than 50% of the curriculum will change

Provide an explanation of the reasons for such a substantial curricular change, the potential impact on students, availability of courses, and plan for transition.

Since this degree has not been conferred for many years, it currently does not have a required curriculum. As we begin to admit students to the MA Business program, we want a curriculum and target audience that aligns to market need as discussed in the Rationale section above.

There are no students currently enrolled in the MA Business program, therefore there is no impact.

Which students are eligible for the certificate?

List the specific schools and colleges.

Provide justification for the limits.

Is this certificate available to University Special non-degree seeking students? Which University Special students are eligible for the certificate?

Describe certificate program procedures to advise students who do not complete the certificate to notify the program advisor if they re-enroll as a University Special student to complete the certificate.

Describe certificate program procedures to notify Adult Career and Special Student Services (ACSES) of those University Special students who are formerly unaffiliated with the program who intend to complete a certificate.

Describe certificate program procedures to report to the Registrar's Office when a University Special student has completed the certificate and supply a list of courses that student used to fulfill certificate requirements. (Note that SIS eDeclaration and DARS are not available for University Special students.)
The following will be required for admission:

1. Undergraduate degree, or expected completion of such a degree prior to starting the MA Business program.
2. Demonstrated knowledge of business fundamentals (or specific plan for acquiring prior to the start of the program); some possible ways of satisfying this include:
   - Undergraduate degree with business major or minor
   - Completion of Certificate in Business or Certificate of Entrepreneurship at UW-Madison

Earning GPA >= 3.0 in intermediate college course work covering at least two core business disciplines (marketing, operations, finance, accounting, management); completion of GEN BUS 310 or GEN BUS 311 satisfies this requirement taken online during the summer prior to the start of the program.

Undergraduate transcript GPA >= 3.0.

One letter of recommendation, preferably addressing the applicant's professional skills.

Resume.

Response to essay question.

An interview may be requested.

Additional international student requirements:

TOEFL score of at least 90 (or TOEFL paper-based test score of 600 or IELTS score of 7.0). Applicants are exempt from this requirement if:

- English is the exclusive language of instruction at the undergraduate institution; or
- You have earned a degree from a regionally accredited U.S. college or university and have more than 5 years prior to the anticipated semester of enrollment; or
- You have completed at least two full time semesters of graded course work, exclusive of ESL courses, in a U.S. college or university, or at an institution outside the U.S. where English is the exclusive language of instruction. Or course work cannot be more than five years prior to the anticipated semester of enrollment.

Students may not apply directly for the master's and should instead use the admissions information for the Ph.D.

Describe plans for recruiting students to this program.

What is the recruiting and admissions strategy for underrepresented students?

Will students be declared in an intended major while completing the admission requirements?

Describe how the students will be advised and the transition to other degree granting program if they are not admitted.

Projected Annual Enrollment:

Maximum enrollment that can be supported with existing instructional and student services resources.

Describe plans for supporting enrollments that are much higher or much lower than the anticipated enrollment.

Are international students permitted to enroll in this program?

Those who are not familiar with the University of Wisconsin-Madison. html editor fields may upload a document with information about the curriculum for use by those who will format and edit the content that will appear in the Guide.

Select the school or college degree requirements that will be used.

Will this program have Honors in the Major?

Parent

Requirements

Guide Requirements tab

---

Approved Shared Content from /shared/graduate-minimum-degree-requirements-and-satisfactory-progress/
Last Approved: Oct 25, 2018 11:29am

Minimum Graduate School Requirements

Review the Graduate School minimum academic progress and degree requirements, in addition to the program requirements listed below.

Major Requirements

### MODE OF INSTRUCTION

<table>
<thead>
<tr>
<th>Mode of Instruction</th>
<th>Face to Face</th>
<th>Evening/Weekend</th>
<th>Online</th>
<th>Hybrid</th>
<th>Accelerated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

**Mode of Instruction Definitions**

- **Face to Face**: These programs are offered primarily in a face-to-face format.
- **Evening/Weekend**: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

---


7/10
**CURRICULAR REQUIREMENTS**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Credit Requirement</td>
<td>30 credits</td>
</tr>
<tr>
<td>Minimum Residence Credit Requirement</td>
<td>16 credits</td>
</tr>
<tr>
<td>Minimum Graduate Coursework Requirement</td>
<td>Half degree coursework (15 credits out of 30 total credits) must be completed. Graduate-level coursework courses with the Graduate Level Coursework attribute are identified by the MHR Course Guide <a href="https://bursary.wisc.edu/course_guide/">here</a>.</td>
</tr>
<tr>
<td>Overall Graduate GPA Requirement</td>
<td>3.00 GPA required</td>
</tr>
<tr>
<td>Other Grade Requirements</td>
<td>The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for prerequisites are met. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.</td>
</tr>
<tr>
<td>Assessments and Examinations</td>
<td>All students must pass the impact consulting courses, MHR 746 and 747.</td>
</tr>
<tr>
<td>Language Requirements</td>
<td>No language requirements</td>
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### Required COURSES

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<tr>
<th>Code</th>
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<tbody>
<tr>
<td>MHR 632</td>
<td>Introduction to Arts Entrepreneurship and Entrepreneurship in Arts &amp; Cultural Organizations</td>
</tr>
<tr>
<td>MHR 773</td>
<td>Seminar-Arts Administration and Seminar-Arts Administration</td>
</tr>
<tr>
<td>MHR 724</td>
<td>Business Strategy</td>
</tr>
<tr>
<td>MHR 743</td>
<td>Nonprofit Board Leadership Development I</td>
</tr>
<tr>
<td>MHR 745</td>
<td>Impact Consulting for Arts-Based Organizations and Communities I</td>
</tr>
<tr>
<td>MHR 747</td>
<td>Reading and Research Management</td>
</tr>
<tr>
<td>MHR 759</td>
<td></td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
</tr>
</tbody>
</table>

### Elective Courses

Due to the interdisciplinary nature of arts management, any course with a way of thinking the graduate course attribute offered by the School of Business (including departments: BIS, ACT15, ACT2, FINANCE, GENBUS, INFO SYS, INTL BUS, MHR, MARKETING, OTM, REAL EST, or R M I) can be used to complete the required elective outside of the School of Business will be considered on a case-by-case basis. Students in this program may find these elective courses particularly relevant:

<table>
<thead>
<tr>
<th>Code</th>
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<tbody>
<tr>
<td>DSS 641</td>
<td>Advanced Design Thinking for Transformation</td>
</tr>
<tr>
<td>OTM 760</td>
<td>Managing by Design</td>
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<tr>
<td>MHR 715</td>
<td>Entrepreneurial Management</td>
</tr>
<tr>
<td>MHR 724</td>
<td>Venture Creation</td>
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<tr>
<td>MHR 741</td>
<td>Technology Entrepreneurship</td>
</tr>
<tr>
<td>MHR 743</td>
<td>Strategic Management of Innovation</td>
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<td>MHR 745</td>
<td>Entrepreneurial Finance</td>
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<tr>
<td>FINANCE 757</td>
<td>Creating Breakthrough New Products</td>
</tr>
<tr>
<td>MARKETING 737</td>
<td>Introduction to Planning</td>
</tr>
<tr>
<td>URB R PL 720</td>
<td>Negotiations</td>
</tr>
<tr>
<td>MHR 628</td>
<td>Urban Economics</td>
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<tr>
<td>REAL EST/BUR R PL 720</td>
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<tr>
<td>MHR 611</td>
<td>Personnel Staffing and Evaluation</td>
</tr>
<tr>
<td>ACCT 1 710</td>
<td>Managerial Accounting</td>
</tr>
<tr>
<td>MARKETING 736</td>
<td>Marketing in a Digital Age</td>
</tr>
<tr>
<td>MARKETING 736</td>
<td>Marketing Communications</td>
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<tr>
<td>CICS 400</td>
<td>Philanthropy and Civic Engagement</td>
</tr>
<tr>
<td>CICS 460</td>
<td>Civil Society and Community Leadership</td>
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<td>CICS 501</td>
<td>Special Topics</td>
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<td>PUB AFFR 820</td>
<td>Community Economic Analysis</td>
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<td>URB R PUCSOC/SOC 617</td>
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<tr>
<td>Fall</td>
<td>Foundation Course (Option 1 or 2)</td>
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<tr>
<td>Spring</td>
<td>3</td>
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<tr>
<td>Credits</td>
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<td>Spring</td>
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</tr>
<tr>
<td>Credits</td>
<td>1</td>
</tr>
<tr>
<td>Elective 1</td>
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<tr>
<td>Credits</td>
<td>2</td>
</tr>
<tr>
<td>Elective 2</td>
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<tr>
<td>Credits</td>
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</tr>
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<td>Elective 3</td>
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<tr>
<td>Credits</td>
<td>3</td>
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<td>Elective 4</td>
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<tr>
<td>Credits</td>
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</table>

Total credits required: 30

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https://next-guide.wisc.edu/courseleaf/approve/?role=GRAD SCH Dept. Approver
Semesters to completion:

Parent Plan Graduate Policies

Guide Graduate Policies tab

Approved Shared Content from /shared/graduate-school-policies/

Last Approved: Oct 25, 2018 11:30am

Graduate School Policies

The Graduate School’s Academic Policies and Procedures provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the faculty. Policies set by the academic degree program can be found below.

Major-Specific Policies

Graduate Program Handbook

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

Prior Coursework

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed.

UW-Madison Undergraduate

Up to 7 No more than 7 credits numbered 300 or above of required or elective coursework from the UW-Madison undergraduate work completed at UW-Madison towards fulfillment of minimum degree and minor credit requirement toward the degree. However, this work would not be allowed to count toward the 30% graduate coursework minimum unless taken at the 700 level or above.

UW-Madison University Special

With program approval and payment of the difference in tuition (between special and graduate tuition), students are allowed to count no more than 9 credits of coursework numbered 700 or above taken as a UW-Madison University Special student. Coursework earned five or more years prior to the master's degree is not allowed to satisfy requirements.

Probation

The Graduate School regularly reviews the record of any student who earns grades of D, F, or incomplete or who has been on probation or has been suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis. An advisor generally oversees the student’s progress. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, from the major department responsible for providing advice regarding graduate studies.

A committee often accompanies advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

Time Constraints

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to this meeting program requirements; that coursework may not count toward Graduate School credit requirements.

Other

Students must be enrolled full-time.

Parent Guide Four Year Plan tab

Guide Four Year Plan tab

Discuss expected progress to degree and time to degree. For undergraduate programs discuss considerations for supporting students to complete the degree in four academic years.

Provide detail on how breadth will be achieved.

Describe part-time format (<8 credits fall and spring semesters < 4 credits summer term) here.

Describe full-time, time-compressed, intensive format here.

Describe other format here.

Program Learning Outcomes and Assessment

Parent Program

Learning Outcomes

List the program learning outcomes.

Outcomes – enter one learning outcome per box. Use “+” icon to create additional boxes.

https://next-guide.wisc.edu/courseleaf/approve/?role=GRAD SCH Dept Approver
<table>
<thead>
<tr>
<th></th>
<th>Apply foundational knowledge in arts and core business topics to arts and non-profit contexts that include evidence-based analysis, cultural sensitivity, artistic integrity, and appreciation for the research foundations of their work.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Create, communicate, and execute a strategic plan with mission-based outcomes that relies on research-based evidence, a historical context of past future trends, and stakeholder engagement.</td>
</tr>
<tr>
<td>3</td>
<td>Actively develop and manage the necessary resources in a mission-based organizational context to create sustainable systems that meet the needs of diverse stakeholders and honor the culture of the communities served.</td>
</tr>
<tr>
<td>4</td>
<td>Successfully articulate their ideas to a diverse set of constituents and stakeholders via multiple methods so as to be informative, persuasive and inspiring.</td>
</tr>
<tr>
<td>5</td>
<td>Make significant contributions to the thought leadership and industry insight that strengthens and provides service to the field, informs learning, and career development.</td>
</tr>
<tr>
<td>6</td>
<td>Develop self-awareness and leadership skills necessary to utilize creativity and art to articulate a vision, to engage/move a diverse group of colleagues, to evaluate the immediate and long-term ethical impacts of one action on stakeholders, and influence and promote progress in a variety of professional roles and contexts.</td>
</tr>
<tr>
<td>7</td>
<td>Engage and sustain a dynamic cross-functional network of professionals.</td>
</tr>
</tbody>
</table>

**1.** Explore and apply foundational knowledge in arts and business topics in non-profit and entrepreneurial contexts that include evidence-based decision-making, cultural sensitivity and artistic integrity.

**2.** Demonstrate knowledge of strategic frameworks and their use in mission-based organizations and agencies to interpret data and execute on evidence-based plans.

**3.** Lead and manage teams effectively in a variety of cross-sector cultural settings, using the tools of organizational analysis, community development and placemaking and program evaluation.

**4.** Engage in ethical decision-making that is sensitive to and informed by a diverse group of stakeholders, when developing and advancing plans of strategy, fund development, entrepreneurial action and evaluation.

**5.** Successfully share their ideas with a diverse set of constituents and stakeholders through group facilitation methodologies, as well as employing frameworks for informative, persuasive and inspired communications.

**6.** Build cross-sector professional networks by providing volunteer service to the field and
August 30, 2019

Sherry Wagner-Henry, MBA
Director, Bolz Center for Arts Administration
Wisconsin School of Business – UW Madison

Dear Sherry,

Thank you for the opportunity to review the proposed Arts and Creative Enterprise (ACE) Leadership program. I have consulted with our Graduate Program Council and other faculty/staff in SoHE’s Master’s program.

The ACE Leadership program is designed to provide critical business training for students pursuing careers in the arts/cultural sector that involve marketing, fundraising and advancement and communication. In particular the program appears to have the potential to allow the Wisconsin School of Business to reach and engage with a broader and more diverse array of students. On that note, we believe your proposed one-year applied MA program has many strengths and thus wish to extend our support.

However, we do have a slight concern about some potential duplications with existing graduate programs on campus. For instance, it would intersect with the SoHE master’s degree in Human Ecology (F101 program), and the Design + Innovation program (F131 program), which is a 1-year master’s program that will be launched in Summer 2020 by the Wisconsin School of Business, SoHE, Engineering, the Information School, and the Art Department within the School of Education. While we believe that these intersections can be an asset to all programs in leveraging resources and creating opportunities for students from diverse disciplinary perspectives to learn together, we are wondering if the ACE Leadership program may have some duplications.

That said, we realize that these programs are different in focus, theoretical/disciplinary nature, and training, and perhaps all three programs have a place on campus and are set up to serve different career paths. Therefore, if the ACE program were to be launched, it is important for clarity in program descriptions and marketing the differences between the programs so that students, parents, and advisors are able to find the best fitting program. A couple of other minor points to consider: (1) The Inter-HE 815 Professional Skills Courses, offered in a 1-credit, 4-week evening class format, could be of relevance as listed/suggested electives for the ACE Leadership program, and (2) the course MHR 799 is listed under fall courses but not under required courses.

I hope our assessment and support will be helpful in finalizing your ACE Leadership Program.

Sincerely,

[Signed]

Soyeon Shim
Dean

Cc: Sigan Hartley, Graduate Faculty Director, SoHE
Mary Beth Collins, Executive Director, Center for Community and Nonprofit Studies
Michelle Kwasny, Co-Director, Design + Innovation Master’s Program
September 4, 2019

Dear Professor Coff,

I am writing on behalf of the La Follette School of Public Affairs to support the relaunching of an MA in Arts Administration degree through the Bolz Center at the Wisconsin School of Business. I understand that the degree will have a focus on leadership and entrepreneurship, which is likely to be an important complement the other degrees provided at the Business School.

I understand that one of the electives in the proposal, Public Affairs 820, is listed in the proposal. At present, UW-Madison’s Department of Agriculture and Applied Economics (AAE) is the owner of this course, and it is generally being taught as a high-level undergraduate course by AAE. If the La Follette School offers the course in the near future, then we would welcome students from your relaunched program.

We believe the Business School’s program will be a complement to the MPA and MIPA graduate training programs currently being offered at the La Follette School, which is focused on public policy and public management issues in the United States and abroad.

My best,

{signed electronically}

Susan Webb Yackee
Collins-Bascom Professor
Director of the La Follette School of Public Affairs
UW-Madison
September 23, 2019

Dear Jocelyn, Parmesh, and Emily,

Having signed on in my role as Interim Director of the Division of the Arts to the L&S memo communicating the L&S APC support for this proposal, I write to underscore that the Division of the Arts has been consulted about the proposed name change for the MA in Business Arts Administration. While the Division does not have an Academic Planning Council, the proposal was reviewed by Division faculty and staff involved in arts-related curricula and programs. All are supportive and enthusiastic about the proposal.

Best wishes,
Sue

Susan Zaeske

Interim Director of the Division of the Arts, University of Wisconsin-Madison
Associate Dean for Arts and Humanities, College of Letters & Science
Professor of Rhetoric and Public Culture, Department of Communication Arts
Division of the Arts Office: Lathrop, B136; phone: 608-890-2718
L&S office: South Hall, room 301; phone: 608-263-7221
https://artsdivision.wisc.edu - https://artsdivision.wisc.edu
http://ls.wisc.edu/areas-of-study/arts-humanities
September 27, 2019

TO: Ella Mae Matsumura, Senior Associate Dean for Academic Programs, WSOB
FROM: Diana Hess, Dean, School of Education
RE: Proposed Name Change for MA Business: Arts Administration to Arts and Creative Enterprise Leadership

The School of Education has reviewed your proposal to relaunch the MA in Arts Administration as an MA in Arts and Creative Enterprise Leadership. We are pleased to support your proposal. Our undergraduate students in Art, Dance, and Theatre & Drama are terrific candidates for the relaunched program, and we look forward to continuing our partnership with the Business School to provide opportunities for advanced leadership training in arts entrepreneurship and administration for our Arts-related graduates.

cc: Kate Corby, Chair, Dance Department  Doug Rosenberg, Chair, Art Department  Dan Lisowski, Chair, Theatre and Drama Department  Elizabeth Jach, Policy and Planning Analyst, School of Education
18 September 2019

TO: Ella Mae Matsumura, Senior Associate Dean for Academic Programs, WSOB  
Sherry Wagner-Henry, Director, Bolz Center for Arts Administration

FROM: Eric Wilcots, Interim Dean, L&S

RE: Proposed Name Change for MA-Business, “Arts and Creative Enterprise Leadership”

CC: Elaine M. Klein, Associate Dean for Academic Planning, L&S  
Jocelyn Milner, Vice Provost and Director, Academic Planning and Institutional Research  
Parmesh Ramanathan, Associate Dean, Graduate School  
Emily Reynolds, Academic Planning Specialist, Graduate School  
Susan Zaeske, Associate Dean for the Arts and Humanities, Interim Director, Arts Division

I am pleased to inform you that on September 18, 2018, the L&S Academic Planning Council reviewed plans to rename and revise the School of Business master’s program in Arts Administration, which will become the MA-Business in Arts and Creative Enterprise Leadership. The rationale provided and program revisions seem sound. Further, opening the program for students seeking out the master’s program as a terminal degree (vs. a degree awarded along the way to completion of doctoral study), and updating the name to better reflects a broader vision of the program, makes good sense.

The council recommended that we go on record noting that L&S supports this endeavor, and we wish you all success in it.
<table>
<thead>
<tr>
<th></th>
<th>Summer</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Artist</td>
<td>Internship / Incubator Stipend WORKSHOP Creative Placemaking MHR 746 Impact Consulting (3 cr)</td>
<td>MHR 632 Intro Arts Eship (3 cr) OR MHR 773 Arts Seminar I (3 cr) MHR 747 Impact Consulting (2 cr)</td>
<td>MHR 636 E'ship in Arts Orgs (3 cr) OR MHR 774 Arts Seminar II (3 cr)</td>
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<td>Pre-work</td>
<td>GB 310 Fund. Acctg. &amp; Finance OR GB 311 Marketing &amp; Mgm't</td>
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<td>BBA</td>
<td>Internship / Incubator Stipend WORKSHOP Creative Placemaking MHR 746 Impact Consulting (3 cr)</td>
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<td>MHR 742 Board (2 cr) ELECTIVE #1 (3 cr)</td>
<td>MHR 743 Board (1 cr) ELECTIVE #3 (3 cr)</td>
<td>MHR 723 Strategy (3 cr) ELECTIVE #4 (3 cr)</td>
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<td>MHR 799 Applied Learning (1 cr) ELECTIVE #2 (3 cr)</td>
<td>MHR 723 Strategy (3 cr) ELECTIVE #4 (3 cr)</td>
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<td>MHR 632 (Fall)</td>
<td>Explore and apply foundational knowledge in arts and business topics in non-profit and entrepreneurial contexts that include evidence-based decision-making, cultural sensitivity and artistic integrity.</td>
<td>Demonstrate knowledge of strategic frameworks and their use in mission-based organizations and agencies to interpret data and execute on evidence-based plans.</td>
<td>Lead and manage teams effectively in a variety of cross-sector cultural settings, using the tools of organizational analysis, community development and placemaking and program evaluation.</td>
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<td>MHR 636 (Spring)</td>
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<td>MHR 774 (Spring)</td>
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<tr>
<td>Program Learning Goal #4</td>
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<td>Program Learning Goal #6</td>
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<tr>
<td>Ethical decision-making that is sensitive to a diverse group of constituents and stakeholders through group facilitation methodologies, as well as employing frameworks for informative, persuasive and inspired communications.</td>
<td>Successfully share their ideas with a diverse set of constituents and stakeholders through group facilitation methodologies, as well as employing frameworks for informative, persuasive and inspired communications.</td>
<td>Build cross-sector professional networks by providing volunteer service to the field and working within and across arts/creative enterprises and/or relevant communities.</td>
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<tr>
<td>NP board meeting facilitation</td>
<td>NP board practicum and case analysis</td>
<td>NP board meeting facilitation</td>
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<tr>
<td>NP board meeting facilitation</td>
<td>NP board meeting facilitation</td>
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<tr>
<td>NP board governance</td>
<td>Spring 23</td>
<td>Fall 22</td>
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Bolz Center, MA- ACE Leadership Learning Assessment Plans

Last Reviewed March 2019

This document responds to the questions posed by the Provost Office regarding plans for the Bolz Center to assess student learning on an annual basis after program launch (anticipated Fall 2020 start), estimated first assessment to occur Fall 2021.

1. **Who will be responsible for assessment?**

   The Center Director will be responsible for coordinating the assessment activities.

2. **What is the plan for review of assessment information?**

   Please see spreadsheet ARTS CREATIVE ENTERPRISE LEADERSHIP _Learning Outcomes for assessment methods and timing of assessments. During the three-year cycle, beginning Fall 2021, the Center Director will draft a summary report and submit to the Faculty Director and Bolz Center APC for discussion, review, and consideration of recommendations.

3. **What is the plan for production of an annual summary report?**

   During the three-year cycle, beginning Fall 2021, the Center Director will draft a summary report and submit to the Faculty Director and Bolz Center APC for discussion, review, and consideration of recommendations.

4. **How will the recommendations be implemented?**

   Recommendations made by the Center Director, in consultation with the Faculty Director and APC, will be reviewed by the Center staff and relevant program instructors, faculty and staff. As appropriate, they will discuss potential changes to course curricula with others in an appropriate timeframe, ideally such that the changes can be implemented the next time the course(s) are offered.
October 14, 2019

To: Graduate Faculty Executive Committee (GFEC)
From: Russell Coff, Department Chair, Management and Human Resources
RE: MA in Arts and Creative Leadership

The MA in Arts and Creative Enterprise Leadership program is designed to provide critical business training for students pursuing careers in the arts/cultural sector that involve marketing, fundraising and advancement and communication. In particular, the program has the potential to allow the Wisconsin School of Business to reach and engage with a broader and more diverse array of students interested in the intersection of business and the arts.

The program may intersect with the SoHE master’s degree in Human Ecology but is more narrowly focused on arts and non-profit contexts where the existing degree includes a broad array of topics in Human Ecology.

It may also intersect with the Design + Innovation program (a 1-year master’s program that will be launched in Summer 2020 by the Wisconsin School of Business, SoHE, Engineering, the Information School, and the Art Department within the School of Education). However, these programs are distinct in that the Design + Innovation program will be much more oriented toward product development and design. While the MA in Arts and Creative leadership includes an option to gain some knowledge of entrepreneurship, it does not focus on product development and design.

We believe these intersections will be an asset to all programs in leveraging resources and creating opportunities for students from diverse disciplinary perspectives to learn together. We realize that these programs are different in focus, theoretical/disciplinary nature, and training, and all three programs have a place on campus and are set up to serve different career paths.
**Program Change Request**

Date Submitted: 09/23/19 8:57 pm

**Viewing:** GMIN617 : Freshwater and Marine Science

Last approved: 09/25/18 9:01 pm

Last edit: 10/21/19 10:13 am

Changes proposed by: estanley

Catalog Pages Using this Program:

- Freshwater Marine Science, Doctoral Minor

### Name of the school or college academic planner who you consulted with on this proposal:

<table>
<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Elaine M Klein - L&amp;S</td>
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</table>

**Proposal Abstract/Summary:**

Following advice the Letters & Science Academic Planning Office, we seek to terminate the Freshwater and Marine Sciences Minor program offered for non-FMS students. This option has not been pursued by any student in the past several years, and because FMS is an interdisciplinary program that lacks its own courses/curriculum, we are not logistically able to offer such a minor.

If approved, what term should the proposed change be effective?

Spring 2021 (12.14)

If yes if this proposal is only to add, remove, or rearrange curricular requirements, and will change less than 50% of the curriculum.

Yes

### Basic Information

<table>
<thead>
<tr>
<th>Program State:</th>
<th>Active Suspend, will be discontinued</th>
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<tbody>
<tr>
<td>Type of Program:</td>
<td>Minor (PhD and BSE only)</td>
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<tr>
<td>Who is the audience?</td>
<td>Graduate or professional</td>
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<tr>
<td>Home Department:</td>
<td>Integrative Biology (I BIO) L&amp;S</td>
</tr>
<tr>
<td>School/College:</td>
<td>College of Letters and Science</td>
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</table>

The program will be governed by the home department/academic unit as specified. Will an additional coordinating or oversight committee be established for the program?

No

Is this in the Graduate School? Yes

SIS Code: GMIN617

SIS Description: Freshwater & Marine Science MIN

Transcript Title: Freshwater and Marine Science

### Suspension and Discontinuation

What is the last term that a student could declare this program? Fall 2019 (1202)

What is the last term that students may be enrolled in or complete the program? Summer 2020 (1206)

What is the timeline and advance communication plan?

We would like to terminate this minor program as soon as is practicable.

Because no students are currently pursuing this minor program, there is no communication plan. Freshwater and Marine Sciences (FMS) faculty are informed of this action, and support
the decision.

Explain the precipitating circumstances or rationale for the proposal.

This proposal resulted from the FMS program moving its administrative home from the College of Engineering to Letters and Sciences followed by the 10-year review of the program. Through this process, it became apparent that FMS offering a minor program was not being used, nor was actively supported by the FMS program. It appears to be a historical remnant. FMS is an interdisciplinary program; as such, there are no FMS-specific courses (students pursuing an FMS degree take classes offered by many different departments). Thus, FMS is not positioned to offer a minor based on FMS coursework.

What is the potential impact on enrolled students?

There is no impact on current students since no (non-FMS) students are pursuing a minor in FMS.

What is the potential impact on faculty and staff?

There will be no impact on faculty. The removal of the minor program will eliminate confusion, and thus it will have a positive impact on staff.

Explain and provide evidence of efforts made to confer with and to notify faculty and staff.

FMS faculty and staff have been informed of the suggestion to eliminate the FMS minor offering for students outside of FMS. This was done via email prior to the start of the semester, and comments—particularly related to any possible downsides associated with ending the minor—were invited. No concerns were raised.

Explain and provide evidence of efforts made to confer with and to notify current students.

No actions were taken to notify current students pursuing the FMS minor because no students are currently pursuing the FMS minor.

Explain and provide evidence of efforts made to confer with and to notify alumni and other stakeholders.

No efforts were made to notify/confer with alumni or other stakeholders, again because there have been no students who have pursued this minor over the past several years, and we are unaware of any other stakeholders for the minor program.

Teach-out plan - How will program quality be maintained during the suspended period or the teach-out period for discontinued programs?

Because there are no FMS classes, and because no students are pursuing this minor, there is no teach-out plan accompanying this request.

Teach-out plan: A) For currently enrolled students, how will required courses, curricular elements, advising, and other student services be provided?

please see above

Teach-out plan: B) For prospective students in the admission pipeline, how are any commitments being met or needs to notify them that their program of interest will not be available?

One student contacted us earlier this year about adding the FMS minor to his Ph.D. program of study. We explained that we have requested that this minor be terminated, and alternative options were discussed with this student.

Teach-out plan: C) For stopped out students, what provisions are made for their re-entry? What program(s) will they be re-entered into?

please see above

Teach-out plan: D) Provide any other information relevant to teach-out planning.

please see above

Roles by Responsibility: List one person for each role in the drop-down list. Use the green + to create additional boxes.

<table>
<thead>
<tr>
<th>Role Type</th>
<th>Name (Last, First)</th>
<th>Email</th>
<th>Phone</th>
<th>Title</th>
</tr>
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<tr>
<td>Faculty Director</td>
<td>Stanley, Emily H</td>
<td>eht <a href="mailto:stanley@wisc.edu">stanley@wisc.edu</a></td>
<td>608/263-2567</td>
<td>Professor</td>
</tr>
<tr>
<td>Primary Contact</td>
<td>Boldis, Kellin Marisko</td>
<td><a href="mailto:boldis@wisc.edu">boldis@wisc.edu</a></td>
<td></td>
<td>Program Coordinator</td>
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</table>

List the departments that have a vested interest in this proposal.

<table>
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<tr>
<th>Departments</th>
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<td>Integrative Biology (I BIO)</td>
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Are all program reviews in the home academic unit up to date? Yes

Are all assessment plans in the home academic unit up to date?

Are all assessment reports in the home academic unit up to date?

Will this program be part of a consortial or collaborative arrangement with another college or university? No

Will instruction take place at a location geographically separate from UW-Madison? No

---

**Faculty and Staff Resources**

**Curriculum and Requirements**

If you are proposing a change to the curriculum, what percentage of the curriculum is changing? No change

Guide Admissions/How to Get In tab
Those who are not familiar with using the html editor fields may upload a document with information about the curriculum for use by those who will format and edit the content that will appear in the Guide.

Guide Requirements tab

Requirements

Students working toward a Ph.D. degree with a major in another department may elect to minor in freshwater and marine sciences. A minor program of at least 12 credits, developed individually for each student, should strike a reasonable balance of physical and biological courses and include at least one semester of the limnology and marine sciences seminar. The proposed minor must be approved by the limnology and marine sciences graduate committee.

Total credits required:

Guide Graduate Policies tab

Program Learning Outcomes and Assessment

List the program learning outcomes.

Summarize the assessment plan.

Approved Assessment Plan:

Commitments

Courses in the curriculum are numbered 300 or higher.

The program faculty/staff will ensure the program website, Advance Your Career materials if applicable, and other presentations are consistent with the Guide information for this program.

Approvals

Department Approval - This proposal has been approved by the faculty at the department/academic unit level. The program faculty confirm that the unit has the capacity and resources (financial, physical, instructional, and administrative) to meet the responsibilities associated with offering the program, including offering the necessary courses, advising students, maintaining accurate information about the program in the Guide and elsewhere, conducting student learning assessment and program review, and otherwise attend to all responsibilities related to offering this program.

Enter any notes about approval here: 

Elaine M. Klein, on behalf of Prof’s Hardin and Stanley  Date entered:  10/1/2019

School/College Approval - This proposal has been approved at the school/college level and it is submitted with the Dean’s support. The Dean and program faculty confirm that the unit has the capacity and resources (financial, physical, instructional, and administrative) to meet the responsibilities associated with offering the program, including offering the necessary courses, advising students, maintaining accurate information about the program in the Guide and elsewhere, conducting student learning assessment and program review, and otherwise attend to all responsibilities related to offering this program.

Enter any notes about approval here: 

Elaine M. Klein, Associate Dean for Academic Planning  Date entered:  10/1/2019

GEC Approval - This proposal has been approved by the Graduate Faculty Executive Committee and the Dean of the Graduate School.

Enter any notes about the approval here: 

Date entered:  

UAC Approval - This proposal has been approved by the University Academic Planning Council and the Provost.

Enter any notes about approval here: 

Date entered:  

For Administrative Use

Admin Notes:

Guide URL:

Effective date:

Career:  Graduate
<table>
<thead>
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<td>Field of Study:</td>
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<td>CIP Code:</td>
<td>40.0607 - Oceanography, Chemical and Physical.</td>
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</table>

**Reviewer:** Elaine M Klein (emklein)  
**Comments:** [09/23/19 10:23 pm]: L&S Admin approval to allow others to see this proposal. Discontinuation of the program recommended arising from recently completed program review and other factors. We hope lack of assessment plan for this program will not impede approval...
11 June 2019

TO: Russ Castronovo, Professor and Chair, Department of English
Amy Quan Barry, Professor and Director, Creative Writing Program

FROM: John Karl Scholz, Dean

RE: Completion of the Review of the MFA-Creative Writing

CC: Elaine M. Klein, Associate Dean for Academic Planning
Jocelyn Milner, Vice Provost for Academic Affairs
Parmesh Ramanathan, Associate Dean, Graduate School
Emily Reynolds, Graduate School
Nicole Wiessinger, Academic Planning & Institutional Research
Susan Zaeske, Associate Dean for Arts and Humanities

Attachment: Review Committee Report, MFA Creative Writing

On May 7, 2019, the L&S Academic Planning Council considered materials submitted with the decennial review of the MFA-Creative Writing. In the course of the council’s deliberations, members were provided with the self-study you and your colleagues prepared. They also reviewed the laudatory report submitted by the faculty committee that used the self-study as the foundation for discussions with faculty, staff and students. We also provided the APC with your response to the report. Associate Dean Susan Zaeske led discussion of these materials, which she observed reflected a thorough and useful review, and an excellent assessment of an excellent program.

Council members noted that the long history of the program preceded formal approval of the MFA in 2002; they were impressed that in the years since the degree was formally established, the program has risen in prominence to be among the top three programs in Creative Writing. Dean Zaeske noted that the program admits small cohorts from an exceptionally large pool of applicants, and that this affords you opportunities to craft a coherent class that will work together, and work well.

Council members agreed that small artistically oriented programs do encounter challenges with assessment of student learning. In addition, highly successful programs have trouble teasing out areas for improvement. In this case, the APC noted that the MFA-CW program assessment strategies (evaluation of instruction in courses taught by your students, post-graduation awards and publications, and student surveys) connect well to program learning...
outcomes and make sense in that context. It also appears that these allow you to draw general conclusions about program quality. In particular, the council found the example you offered (evaluation of the expectation that MFA-CW students learn to teach effectively), to be heartening, modeling a practice that could be replicated in other programs. If you were to consider how to further improve assessment, you might look to other sources of information about the program: you could, for example, review courses actually taken to see if the ratio of standard coursework to independent/thesis work is appropriate. It might be useful to know if your students gravitate toward particular electives to complement their studies, or if there are gaps in what they could be taking. You might find, too, that focused discussion with graduates would provide more detail than the surveys you conduct. In general, however, the council, like the review committee, was supportive of your work to continually evaluate and improve the program, wherever improvement may be needed.

Council members noted that we can expect to see a number of action items to be pursued in the coming year. Please consult Associate Dean Elaine Klein about procedures for taking these actions. These include (a) discontinuing the largely unused PhD minor in Creative Writing, and (b) formally establishing the Creative Writing Institute, so it may be included among the recognized UW-Madison centers and institutes.

Another matter that will require your attention is the recommendation that program graduates be awarded additional support after graduation. Once students have graduated, they are ineligible for positions as Teaching, Program, or Research Assistants, but of course they should not extend their time as students in order to retain status as graduate assistants. The APC agrees that there is value in offering some sort of formal post-degree teaching appointment to eligible graduates – but we want to be sure any such program conforms to guidelines for such appointments. Please work with Associate Deans Zaeske and Malekpour as you proceed with plans to formalize this post-degree program.

I’m pleased to report that the L&S Academic Planning Council approved a motion to accept the review committee report without reservation or any requirements for follow-up action or report. This completes the L&S portion of the review, which will be followed by discussion of the Graduate Faculty Executive Committee. We hope that this work (and its successful outcome) will provide some insights into the new process, since the Department of English will be charged next to review its other academic majors and degree programs (BA/BS English major, MA-English, and doctoral program). Thank you for all the work you have done – and continue to do – for this program.
RE: Review of MFA-Creative Writing Program, Department of English.

TO: Deans John Karl Scholz, Sue Zaeske, Elaine M. Klein.

FROM: Program Review Committee: Leslie Blasius, Toma Longinovic, Rubén Medina, Leslie Smith III.

DATE: April 15, 2019

In his letter dated January 20, 2019, Dean Scholz appointed an external committee, consisting of Leslie Blasius (Mead Wittier School of Music), Toma Longinovic (German, Nordic and Slavic), Leslie Smith III (Art, GFEC Representative), with Rubén Medina (Spanish & Portuguese) as chair, to perform a review of the MFA-Creative Writing, which is required to occur five years after degree programs are created. At our first meeting (February 20, 2019) the committee met with the Deans Sue Zaeske and Elaine Klein to receive instructions on procedures, responsibilities and timeline for the report. The committee held several meetings: on March 1st, the committee met to discuss the Self-study for the MFA Program in Creative Writing and general and specific interviews questions; on March 11th, the committee met with all faculty and academic staff in the MFA-Creative Writing program, the Department chair, Russ Castronovo, as well as a group of six current graduate students in the program, both in the first and second year in poetry and fiction. The Review Committee met again on March 29th to discuss the assessment of the program after the interviews and a series of recommendations for each section of the report. The Review Committee’s report was divided into four sections and written by each member, however the whole report was discussed and edited collectively. We are grateful to the current chair, Amy Quan Barry, for coordinating the interviews and supplying us with all of the information we requested in a timely manner.

Overview

Established in 2002, the MFA Program in Creative Writing in the Department of English, has been nationally ranked as number three, both in 2008 and 2013 Top Ten MFA Programs by Poets and Writers. In 2018, the MFA program held that ranking in the Insider’s Guide to Graduate Degrees in Creative Writing. This ranking is a significant achievement in becoming one of the best MFA programs in the nation in a short time. This national and deserved recognition is due to the fine, rigorous, and dedicated work of the faculty and staff in the program, who have paid special attention to implementing its guiding principles, practices and learning goals hereby insuring over the years the excellent quality of the program. The MFA program attracts the nation’s most talented writers in both fiction and poetry; and has developed a fine admission process that is standardized yet flexible to allow for the necessary collaborative efforts of faculty to be performed. The program attracts a wide and diverse candidate pool and uses the most of their resources and fellowships to secure a cohort of six students annually. Using their resource wisely, they are able to fully support their students over the two academic years of the program as well as to offer them other awards and writing prizes opportunities during their stay.
Diversity is arguably one of the top strengths of the program, as the makeup of the faculty and the student body is fully diverse. Thus, in the last five years, in each of the cohort of six new students, the MFA program has admitted at least one minority student, having in various workshops multiple minority or underrepresented students. One of two new faculty hires just made in this spring 2019, is both a female and minority, as well as the 2010 American Book Award recipient. Professional preparation is well structured within the program, including a series of events and professional contacts. Additionally, the program conducts a “Life After the MFA” seminar each year, which seems to be a rather comprehensive and cogent presentation of the resources available and the expectations that need be met “in the real world.” Graduation rates for a two-year program is at 100%. Every student (with two exceptions for medical reasons over the life of the program) finishes in two years, and this speaks to more than the caliber of the students admitted, it speaks closely to the advising, mentoring and the program effective practices. Students in the program fully appreciate the work of faculty and staff, as well as the positive environment to learn and complete their degree. Equally important, faculty in the MFA Creative Writing program are fully aware that their program is one of the graduate programs housed in the Department of English, and therefore have to share resources, as well as maintain a productive and respectful relationship with chair and faculty in the entire department.

I. Curricular and Program Practices

Requirements. Students enrolled in the MFA programs are required to complete thirty-six credit hours of graduate level work in the program. Students are required to take nine credit hours of workshop in their primary genre of choice (poetry or fiction), while being able to choose to take workshops in other genres as electives. In addition, the precious writing time is covered by the ability of students to take fifteen hours of thesis hours from the very beginning of the program, which represents an innovation in comparison with other programs in creative writing, which introduce the category of thesis hours only in the final year of the program. The remaining twelve credit hours are covered by courses across campus that are previously approved by the MFA candidate’s mentor. The only course that is required within this last sequence is the Graduate Creative Writing Pedagogy Seminar, which has been developed to teach specific methods of poetry and fiction craft. This requirement structure is well thought out and works well to serve the educational needs of both faculty and students.

Advising. While there is no formal advising structure for students enrolled in the MFA in Creative Writing program, the participants work close with their faculty mentors to inform themselves about relevant aspects of the program relating to their successful completion of the degree, including requirements, funding opportunities, professional development and creative decisions related to their writing. It is important to stress that there has been a successful effort to incorporate a professional development component into the advising process, which includes mock job interviews, information sessions about the potential publishing venues for poetry and fiction and bringing literary agents to campus, which is useful for fiction writers. Poetry students rely on their faculty mentors to develop working relationships with editors and journals in the field. This specific form of advising is very well developed and both faculty and students are professionally involved in the process and benefit from it in a positive manner.
Workshops. The program and its academic foundations are modeled on the Iowa Writers’ Workshop prototype, which is not surprising, considering that most of the original UW-Madison creative writing faculty were awarded their degrees at that institution. The Iowa program started in 1936 as the first of its kind in the United States and has now grown into more than a hundred programs around the country. However, in addition to the weekly workshops, the students are free to take a variety of literature courses across campus, which represents a great improvement over the Iowa model, which had trouble creating the amount of credits required by the graduate school. This process often forced creative writing faculty to teach literature courses to their student without the proper training in critical literary studies. The Madison model is much more open, since it allows prospective writers to tailor their coursework in accordance with their particular creative interests. The already mentioned flexibility in electing to take workshops outside of participants’ primary genre is also a very successful pedagogical strategy, since it compels the poets to encounter the fundamentals of narrative techniques, character development and various points of view, while the fiction writers gain more insight in developing metaphors, rhythm and tone while writing poetry. This cross-fertilization between genres is an advancement in the area of creative writing teaching and represents a considerable improvement of the original Iowa Writers’ Workshop model.

Thesis. As already mentioned, the students in the UW-Madison program are able to begin formulating their thesis topics from the very beginning of the program, which allows for a holistic view of the creative process over the entire course of the program. Poetry students are working on their (most often) first collection of poetry, while the fiction students work on the collections of short stories or a novel. The gradual approach to thesis development allows the instructors and students to work on rewriting and selection over a longer period of time, developing familiarity with specific issues of individual poetics of both prose and poetry that are unique to each student. The excellent publication record of the UW-Madison graduates in Creative writing demonstrates that this “gradualist” approach to thesis development and writing is a real winner.

II. Admissions and Funding

The Creative Writing MFA program is a glowing example of what it means to be greater than the sum of one’s parts. Its admissions process, which sits at the heart of the program, embodies the strengths found in the overall program. The program attracts the nations most talented writers in both Fiction and Poetry. They attract a wide and diverse candidate pool and use the most of their resources to secure a cohort of six students annually. Most excitedly is how successful the program is in developing the abilities of each cohort, elevating their skills while providing support along the way to foster the type of learning environment needed to produce great alumni.

Admissions. The Creative Writing MFA program admits six students annually in a single genre between fiction writers and poets. This approach guarantees full funding for all students and ensures six students in each genre receive the full-undivided attention of faculty throughout their entire two years on campus. It is important to highlight that
guaranteed full funding for each student creates an equitable environment amongst each year’s cohort. While talking with current MFA candidates, it was apparent that support with the absence of competition fosters positive moral within the department. Additionally, limiting each cohort to six creates the type of exclusivity that attracts great talent. This is easily deduced when evaluating the programs national and international visibility, the competitiveness of both the applicant pool and the programs ranking amongst peer institutions. Throughout this report you will find how, striving for equity is at the root of most all aspects of this program.

The admissions process is standardized yet flexible to allow for the necessary collaborative efforts of faculty to be performed. Biannually, Creative Writing receives upwards of 700 fiction writer applications. Five to seven post Creative Writing Fellows from the Wisconsin Institute of Creative Writing are hired to assist in the initial application screening. Evaluating up to sixty applications each, the demand of screening the first round is shared amongst the fellows and creative writing faculty. The second and final rounds are conducted by faculty alone and consist of three recommended applications from each of the first-round screeners. On opposing years creative writing receives upward of 200 poetry writer applications. As a result of a smaller applicant pool the process does not require outside reviewers.

With much respect to Creative Writing’s initiatives in constructing a diverse faculty body, it is great to see it reflected in their applicant pools. As a result, every year over the past five-years they have admitted at least one minority candidate and/or underrepresented students. In several classes of cohorts there have been multiple minority students admitted.

2018: 1 African-American student;
2017: 2 African-American students; 1 transgender student; 1 foreign-born Asian student
2016: 1 African-American student; 2 LatinX students; 1 Native American Student;
2015: 1 African-American student; 1 LatinX student;
2014: 2 foreign-born Asian students

To this effect Creative Writing manages every year to use their resources effectively in taking advantage of university tools to achieve full funding for their students.

Creative Writing’s admissions process is fair, equitable and attracts the high caliber student that strives within the rigorous parameters of the program. In doing so making the most of University of Wisconsin’s abundant academic resources.

Funding. Impart to Creative Writing’s boutique scale program they are able to fully support their students over the two academic years of the program. With a delicate balance of funding from the Kemper Knapp fellowship, the HEAF Fellowship, the Sally Mead Hands fund and the AOF, they create a non-competitive learning environment for their terminal degree-candidates. The programs aspiration to maintain upward growth and a competitive edge amongst other nationally leading creative writing programs, they are looking to the English Department for assistance in achieving parity within funding streams and administrative support. It is important to highlight how supportive the English Department is of Creative Writing. However, it is also important to understand how a program as
successful as Creative Writing has much invested in reaching its fullest potential. Creative Writing has identified, Summer funding, third year funding and more AOF support, to name a few initiatives, as future assets needed to do so.

Currently, Creative Writing’s offer-of-admission to all incoming MFAs includes a guarantee of $24,000 in financial support in each of two continuous academic years, for a total of $48,000. These funds are paid in the form of teaching assistantships ($14,680.00 per year) and scholarships ($9,320) made possible by the Sally Mead Hands fund. From 2015 -2018 funding has increased from $15,000 to $24,000. This upward trend coincides with the programs efforts to remain competitive with peer institutions in attracting potential MFA candidates. To this end, their faculty-student ratios and generous funding packages are ways they are attracting creative writers seeking MFA Programs.

Creative Writing now applies for Kemper Knapp University Fellowship, the AOF in concert with HEAF Fellowships to offer funding to their MFA’s. Unfortunately, when funding comparable are directly pared next to one another it is evident that the programs most notable competitors offer greater funding in addition to an array of supplementary support in the form of summer funding and third year fellowships and/or teaching support. Creative Writing is aware that looking only at numbers can be misleading. Furthermore, there are numerous contributing factors to their success in staying competitive, ranking number three nationally in 2018. However, they have ambitions to elevating the program in the future, looking to include summer and third year funding.

Creative Writing is looking to achieve parity within the English Department with respect to summer funding opportunities. At the moment summer funding is awarded only to PhD students. This delineation between the PhD and the MFA is bothersome. It precludes MFA candidates the security of support between their entry year and their final year. This is an important time for any student invested in their terminal degree. Creative Writing students would greatly benefit by this support while Creative Writing more effectively compete with other top-ranked institutions.

English receives 2 AOF’s. Over the past 5 years Creative Writing has received two to use for two accepted applicants. They have recommended in their self-study that they would like to work with English regarding dedicating one AOF annually to the Creative Writing program in support of their history of bringing diverse and underrepresented students to campus.

“We routinely have minority students among our top finalists, a designated AOF could keep our top minority prospects from choosing a better funded institution over us. In the past, we have lost several of our top minority students to both Michigan and Cornell.

“Quote from Self Study

Attaining diversity is arguably one of their strengths. However, it seems odd for a program a fraction of the size of the English Department to acquire 50% of the allocated AOF’s. Supporting a joint initiative with the English Department, for the purpose of the department as a whole to receive a third AOF’s through L&S on a regular basis would support the work being done already. Based on an annual evaluation of need, this additional AOF
would be allocated to Creative Writing. In doing so, offering sustainable support at the nexus of funding, diversity and retaining admitted talent.

Third year funding is another initiative reflected in the self-study as a means to becoming more competitive. As described by director Amy Quan Barry “The period after attending an MFA program and before first book publication is a time when many students are vulnerable to the pressures of making a living.” This common scenario is often a defining factor for students when selecting a highly ranked program. Prospective students will frequently attend better-funded programs that offer support in their third year. In part, Creative Writing suggests working with their colleagues in Composition Rhetoric to offer a third year in teaching support. English Department Chair, Russ Castronovo spoke enthusiastically during our review committee interview about the prospects of a collaboration were third year Creative Writing fellows would teach courses in Composition Rhetoric. He also linked the feasibility of this to the Sally Mead Hands Fund that English uses to support graduate research. Additionally, Castronovo mentioned the Mendota Postdoctoral Teaching Fellowship an opportunity for third year support. Meanwhile it is a great idea to support Creative Writing in working with UW Foundation to help create a strategy for adding a second third year HEAF Fellowship to accompany Creative Writing’s recently attained funds that currently fund a third-year MFA fellow housed in UW’s existing Institute for Creative Writing.

Furthermore, after speaking with Castronovo it is evident that English uses large amounts of resources for Creative Writing as a small program. Obviously, this makes for tough conversations and even tougher decisions regarding equitable funding. To this end, their scale is partly why they are so successful. They’re an extremely diverse faculty and student body and manage to compete with programs larger in scale. This is a moment where scale of effort and impact tips the scales.

III. Learning Goals and Assessment

In line with L&S policy, the program set down a statement of learning goals and methods of assessment in 2016: this document (parts of which are incorporated into the 2018 self-study) called for periodic reappraisals from the program’s Steering Committee. The five learning goals put forward are cogent—though as the faculty would (perhaps ruefully admit), this was required exercise, and to codify creativity seems counterintuitive.

Students are expected to develop the creative and technical skills necessary to conceive, execute, and revise original literary work in their chosen genre (fiction or poetry).

Students are expected to demonstrate sensitivity to language and style on both the artistic and technical levels.

Students are expected to develop the critical, analytical, and editing skills necessary to evaluate literary works in progress, both the student’s own work in progress and that of the student’s peers.
Students are expected to develop the ability to read literary works not only for their social, historical, intellectual, formal, and interpretive value, but for their capacity to inspire and generate new work, and to see in a finished work the process of its being made.

Students are expected to develop through study and practice the pedagogical skills necessary to teach creative writing courses to undergraduate students.

Given the workshop format of the teaching, methods of direct student assessment are necessarily subjective. Students enroll in workshops through their first three semesters; the fourth semester is devoted to the preparation of a major document (a collection of poetry or short prose pieces, a novel) under the auspices of an advisor, with another faculty member joining the reading committee. It was not clear whether individual faculty articulated particular learning goals for their workshops. Nor, though, did this seem a necessity. In fact, each of the faculty with which we spoke articulated clear expectations for their workshops, particularly in regard to the productivity they expected: no student can fall under the radar in this program. (These expectations were different for each faculty member.) Perhaps what was most telling was what seemed all too obvious. Every student (with two exceptions for medical reasons over the life of the program) finishes in two years, and this speaks to more than the caliber of the students admitted, speaks closely to the mentoring. As to quality of work, this level of faculty and peer scrutiny provides some guarantee, and students spoke also of the informal input of the Fellows of the Wisconsin Institute of Creative Writing, and also of that of visiting writers and (particularly) literary agents. There is no global rubric for what is expected of students in their two years of study (as there is in some departments). That said, when asked about this, the students were ambivalent at best, with most not seeing the need for such. The general feeling was that (first) that the program is strongly invested in mentorship and (second) the existence of such a global rubric would be counterproductive, encouraging a culture of “meeting marks” rather than one of risk-taking. Nor did they seem to feel the need for some more formal capstone function akin to a thesis defense: the sense was that everyone in the program already knew what they were doing.

What in their statement they termed indirect assessment (student surveys, data on outcomes, etc.) is perhaps more properly applicable to a self-assessment of the program as a whole. The exception to this was for the fifth learning goal (pedagogy), where a quantitative assessment was available in the form of student evaluations. The exit survey they have constructed seems in particular to invite comment on ways in which the program as a whole might be improved. (Some of these suggestions will be covered elsewhere in this report.) The 2016 statement also called for the collection of data on publications, positions held, etc. To an extent this was done in the 2017 review; it is more thoroughly covered in the 2018 self-study. What is apparent is that alumni of the program are publishing at a robust pace, and although the program itself is not intended specifically to channel students into academic careers, many of these same alumni have gone on to teach.
Professional Preparation. To a large degree, professional preparation is baked into the structure of the program. Students are in regular contact with outside writers—visiting guests, the Wisconsin Institute fellows—and (for those on the prose side) with agents. More specifically, the program conducts a “Life After the MFA” seminar each year, which seems a rather comprehensive and cogent presentation of the resources available and the expectations that need be met “in the real world.” The topics covered include online resources, fellowship opportunities, PhD programs in creative writing, the mechanics of job and fellowship searches, expectations in regard to cover letters and CVs, reference letters, philosophy statements, and sample syllabi. These topics are fleshed out with extensive examples from previous students.

Mock Interviews. All of this is certainly impressive, and we have not substantive recommendations. That said, given that professional preparation is increasingly important to graduate programs, there are always ways in which this might be augmented. Particularly for those who would slide into an academic career, such things as mock interviews and preparation of teaching videos are worth consideration.

IV. Faculty and Staff

Faculty. The MFA program has a group of dedicated faculty who teaches the graduate workshops, advises and mentor students, serves as thesis director, works in conjunction with a group of outside screeners in the annual selection of students, and reads hundreds of manuscripts annually for fellowships. In AY 2018-2019, the CR program was reduced to a total of three faculty, due to two retirements and the departure of one assistant professor at the end of AY 2017-2018. Of the current three faculty, two work on the area of poetry, and one on both poetry and fiction:

<table>
<thead>
<tr>
<th>Faculty Name</th>
<th>Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jesse Kercheval</td>
<td>poetry and fiction</td>
</tr>
<tr>
<td>Amy Quan Barry</td>
<td>poetry</td>
</tr>
<tr>
<td>Amaud Johnson</td>
<td>poetry</td>
</tr>
</tbody>
</table>

The fact that the program has been implemented well and maintained its rigor during this academic year in spite of 50% of faculty reduction, attests to the remarkable work and commitment of the faculty and staff. This current spring of 2019, the Department of English was able to hire two faculty in the area of fiction, making the total number of faculty to five, which is still below the number of faculty of six that successfully developed the program and has achieved recognition and number three in the ranking of top ten MFA programs in the nation. Beginning in fall 2019, the faculty composition is as follows:

<table>
<thead>
<tr>
<th>Faculty Name</th>
<th>Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bich Minh Nguyen</td>
<td>fiction and non-fiction (new hire)</td>
</tr>
<tr>
<td>Porter Shreve</td>
<td>fiction (new hire)</td>
</tr>
<tr>
<td>Jesse Kercheval</td>
<td>poetry and fiction</td>
</tr>
<tr>
<td>Amy Quan Barry</td>
<td>poetry</td>
</tr>
<tr>
<td>Amaud Johnson</td>
<td>poetry</td>
</tr>
</tbody>
</table>
The Review Committee understands well that having five faculty doing the work of six, with Prof. Kercheval teaching both poetry and fiction, might allow the program to temporally keep functioning, but the committee is concerned that in the long run this workload will be unsustainable, particularly for Prof. Kercheval despite the fact she teaches one course less per year than other faculty.

**Directorship.** Currently the MFA program directors serve for a three-year period and faculty receive one course release. Directorship of the program places a heavy load of work on the director despite the course release, as work includes supervising admissions, teachings, poetry series, awards, workshops, UW press, guest writers, assessment, and at the same time be able to be a stabilizing force in the program. While the program is considering adopting a one-year term and a more consistent rotation, a one-year directorship is not enough time for a faculty to learn the calendar of activities and above all the singular and precise aspects of each activity unless the director has done it before.

**Staff.** Along with faculty, two faculty associates (Ron Kuka and Sean Bishop) provide a remarkable work in the administration of the MFA program. Sean Bishop, who has been unanimously praised by the students in the program, and whose position is as program administrator, assists the faculty director in the MFA admissions process, contacting nationwide outside screeners, in the implementation of the writing awards and poetry series, in the coordination of the visiting fellows, the annual visits of literary agents, as well as teaching a key course for the MFA program, English 783 – Creative Writing Pedagogy, which introduces teaching assistants to the theory and practice of teaching college level creative writing courses. To his heavy load of activities, he is often asked to do additional office work for the Department which is not in his job description.

V. **Recommendations for future directions**

**Faculty.** The Review Committee recommends allowing time for the two new faculty hires to get settled in the program, and then discuss faculty needs and negotiate in the department the hiring of an additional faculty to be six again.

**Directorship.** The committee recommends that a director serves for a two-year period, in order to benefit from the initial year of experience and to avoid the burden of serving three years.

**Program Integration.** The Review Committee noted that Faculty in the MFA Creative Writing program has not been fully integrated into the governmental bodies of the department. We recommend that at least one faculty of the program be a member of the chair’s advisory committee. Additionally, Creative Writing faculty should also participate in other departmental committees such as budget and fellowship committees. It is vital for all faculty in the department to understand the resources it receives, the resources it creates collectively, the importance of each graduate and undergraduate programs in the department, and therefore the allocation of resources and responsibilities.
Staff. The Review Committee recommends that the Department of English look into the overload work situation of current staff in order to avoid expecting a Faculty Associate in the MFA program to do extra managerial tasks in the department.

Advising. While the Review Committee feels that the curricular design is to the large extent in tune with the needs and desires of the MFA students, there are some areas that may be worth rethinking and exploring to further improve the already excellent quality of this unique program. One such area would be a more active role of faculty in advising the students in the area of electives they are taking during their coursework, namely, pointing the students towards the humanities courses that would fit into their particular poetic needs as they decide on their coursework. Since the instructors have the best view of the students’ needs, the committee feels they could take a more active role in this process.

Ph.D. Minor. The Committee Review observed little support and enthusiasm by both English Chair and Creative Writing director and faculty therefore we recommend they discontinue their Doctorial Minor.

Student Handbook. In response to the Review Committee’s observations made during our time with current students, we recommend that Creative Writing assemble a student handbook. It can be an appendix to the English department website, essentially a reference to the program’s standard operating procedures. Where students can see when stipends arrive and where international students can find essential information regarding their funding.

Funding. The Committee Review recommends to follow-up with a meeting with the department chair, Castronovo, to explore support about a third-year teaching with Composition Rhetoric.

Fellowships, AOF. Out of respect for the significance, importance, and limits of the AOF the Committee Review understands how complicated the decisions are surrounding the allocation of AOF’s. Within L&S, English is in good standing. They receive an AOF for the Literary side and Composition Rhetoric side. Giving them two AOF’s regularly. The Committee Review recommends that Creative Writing with the support of the English department regularly submit/request additional AOF nominations for Creative Writing. This means ranking the needs of Creative Writing to reflect their history and continued commitment to bringing diverse and underrepresented students to the English Department. Although it is not guaranteed by L&S that extra nominations will be approved for funding, L&S encourages Departments to submit requests for additional nominations. Brian Bubenzer, Assistant Dean, College of L&S explained that additional requests can be made using the same form as filled out for the original request with the departmental ranked list. A repetitive gesture of solidarity overtime speaks volumes and intern creates a narrative of the important role the AOF plays in the growth of the Creative Writing program and the Universities diversity initiatives. Although this might require more administrative work it is a way to utilize the mechanisms in place to represent the needs and priorities of the department.
Assessment. In discussion, the Review Committee arrived at two suggestions (though this seems a rather more forceful formulation than we would like; perhaps better, we arrived at two points on which to think). First, it would be worth considering having some sort of formal evaluation of student work at the completion of the degree by assessing the thesis. This might (as is the case in some departments) include a rubric with quantitative rating, particularly in regard to the first two learning goals. More important would be a qualitative summary from the readers—the sort of material which would go into letters of recommendation. Currently, assessment of the MFA program is done by considering documentation on the undergraduate evaluation of ENG 207, regarding teaching, publication and awards of graduates, and Exit surveys. Given that records of publications and awards are based on alumni responses, this procedure is clearly limited, and, in some case, alumni have not achieved a list of publications. Second, we would urge the use of the Graduate School exit survey (which has now become mandatory) so as to feed the continuing self-assessment of the program as a whole.
Greetings!

Two small things I noticed in the report. One, it says on page two under “requirements” that we are a 36 credit hour degree program—it should be 42 credit hours—page 2 of our original report details the breakdown in credit hours. And secondly, we now offer $25,000 per year of funding and not $24,000 as stated on page 5 under “funding.” The TA ship now pays $16k and the other $9k is awarded as scholarships.

Just some small things, but thanks!
Aqb

On Apr 17, 2019, at 10:50 AM, ELAINE M KLEIN <elaine.klein@wisc.edu> wrote:

Thank you, Russ – we’ll see that this is included in the materials reviewed by the council.

Elaine

From: Russ Castronovo <rcastronovo@wisc.edu>
Sent: Tuesday, April 16, 2019 9:18 AM
To: ELAINE M KLEIN <elaine.klein@wisc.edu>; AMY QUAN BARRY <aqbarry@wisc.edu>
Cc: Susan Zaeske <susan.zaeske@wisc.edu>; Emily Reynolds <emily.reynolds@wisc.edu>; Lisa Tew <lisa.tew@wisc.edu>
Subject: Re: Report of the Committee convened to review the MFA Creative Writing

Dear Elaine,

On behalf of Creative Writing and English as a whole, I want to express my appreciation to the review committee for the time and effort in developing this report. It will be useful in ensuring that Creative Writing’s stellar reputation continues into the future.

I have one correction. The report states: “The Review Committee noted that Faculty in the MFA Creative Writing program has not been fully integrated into the governmental bodies of the department. We recommend that at least one faculty of the program be a member of the chair’s advisory committee. Additionally, Creative Writing faculty should also participate in other departmental committees such as budget and fellowship committees.” Creative Writing has representation on the Advisory Committee, which also serves as our budget committee.

Amy Quan Barry may have responses/emendations to offer as well.

Best,

Russ

Russ Castronovo
Dear Russ and Amy,

I’m pleased to share with you the report of the committee convened to review the MFA creative writing; I’m sharing it with you at this point, to give you an opportunity to correct any errors of fact prior to the APC discussion. The council will be able to review the self study you prepared, the report, and your corrections when they discuss the review. That discussion could take place as soon as May 7, if I could have your response to the review by April 29. Fortunately, corrections tend to be minor things- this is not a full exegesis of the report, or an opportunity to engage in lengthy rebuttal. A short email is a fine response, as is a response using Adobe Acrobat to add comments in the margins.

Many thanks,

Elaine

Elaine M. Klein
Associate Dean for Academic Planning, L&S
elaine.klein@wisc.edu | 608-265-8484

Please note that there are two “Elaine Kleins” on campus; are you sending your messages to the right one?
June 18, 2019

TO: James Henderson, Interim Provost
    William Karpus, Dean, Graduate School

FROM: James P. Blanchard, Executive Associate Dean

RE: Review of the MS and PhD Programs in Electrical Engineering

The Electrical Engineering (EE) Graduate Program review was completed by a review committee chaired by: Michael Arnold, Professor, Dept. of Materials Science & Engineering (Chair of the Program Review Committee); Greg Nellis, Professor, Dept. of Mechanical Engineering; Paul Terry, Professor, Dept. of Physics; and Shannon Stahl, Professor, Chemistry.

On May 15, 2019, the College of Engineering Academic Planning Council (APC) unanimously recommended for approval the attached review and self-study of the MS and PhD Programs in Electrical Engineering.

The review committee found the Electrical Engineering graduate programs are meeting the prescribed student learning objectives and leading to positive student outcomes. The curriculum, including the new introductory courses of ECE 610/611, support the programs’ student learning goals.

We have two recommendations that would align EE graduate programs with College priorities. First, the department should monitor and address the impact on the five year funding guarantee to ensure that it does not have a negative effect on the quality or quantity of admitted Ph.D. students and promotes a diverse student body. Second, the department should assess teaching assistant workloads to ensure that the workload is commensurate with the TA appointment. Addressing these two areas should help the department create an environment that fosters student learning.

On behalf of the College of Engineering, I accept the APC’s recommendation to approve this program review.

Attachments: ECE Graduate Programs Self-Study Report for the 10-Year Review of the Electrical and Computer Engineering Graduate Program
cc: Jocelyn Milner, APIR
Parmesh Ramanathan, Graduate School
Susan Hagness, Chair, Department of Electrical & Computer Engineering
Michael Arnold, Professor, Department of Materials Science & Engineering and Chair of the Program Review Committee
Laura Albert, Assistant Dean for Graduate Affairs, College of Engineering
Self-Study of Graduate Programs
Electrical and Computer Engineering Department

This self-study is based on instructions from Vice Provost Jocelyn Milner to Dean Laura Albert and focuses on recent changes to the program, the student experience, and near future plans. It does not reproduce data from campus.

A. Introduction

The Electrical and Computer Engineering Department (ECE) has a long and distinguished history of graduate education. Master of Science and Doctor of Philosophy degrees have been awarded for the majority of the department’s 127-year history. There have been significant changes to the M.S. programs in the department in the past few years to increase opportunities for students seeking accelerated options for professional preparation.

Effective Fall 2019 ECE will offer four named option M.S. programs:

1. Signal Processing and Machine Learning (SPML), a 12 to 16 month course-only program designed to prepare students for rapid entry into advanced careers in industry. The first cohort of students entered the SPML program in Fall of 2017.

2. Professional, a 16-month course-only program designed for students that seek advanced training in any area of electrical and computer engineering. The Professional program was recently approved and will be available to new students Fall of 2019.

3. Power Engineering Online, a course-only program for working professionals seeking advanced degrees in power engineering. This program began in the early 1980s. Its success is driven by the reputation and deep industry connections of ECE in this area.

4. Research, the traditional research-based M.S. program for students interested in a research career.

The course-only M.S. program is being phased out and will not accept new students beginning in Fall 2019.

ECE has a robust Ph.D. program and also offers a doctoral minor.

The M.S. degree learning outcomes are:

1. Demonstrate a strong understanding of mathematical, scientific, and engineering principles in the field
2. Demonstrate an ability to formulate, analyze, and independently solve advanced engineering problems
3. Apply the relevant scientific and technological advancements, techniques, and engineering tools to address these problems
4. Recognize and apply principles of ethical and professional conduct

The Ph.D. degree learning outcomes are:

1. Demonstrate an extraordinary, deep understanding of mathematical, scientific, and engineering principles in the field
2. Demonstrate an ability to formulate, analyze, and independently solve advanced engineering problems
3. Apply the relevant scientific and technological advancements, techniques, and engineering tools to address these problems
4. Recognize and apply principles of ethical and professional conduct
5. Demonstrate an ability to synthesize knowledge from a subset of the biological, physical, and/or social sciences to help frame problems critical to the future of their discipline
6. Demonstrate an ability to conduct original research and communicate it to their peers

B. Administrative Structure

The relatively large size of the program (typically 300-400 students) results in a significant administrative burden. Historically the program was led by multiple faculty committees with staff support. However, this model was found less than optimal due to the increasing complexity of the program and graduate education in general. Also, growing complexity in the department chair’s role, increasing fund-raising/alumni relations, limits their time for day-to-day involvement in the graduate program. The department addressed these challenges in August of 2018 by creating an associate chair position to provide unified, department-chair level leadership and oversight of the ECE graduate program.

The Associate Chair for Graduate and Online Studies either chairs or works directly with the chairs of faculty committees relating to ECE graduate programs. The Graduate Recruiting, Admissions, and Fellowship Committee focusses on recruiting and admission of prospective students and stewards fellowship resources. The Graduate Curriculum Committee oversees all curriculum matters, including creation of named options and approval of course proposals. The Graduate Committee evaluates student petitions, organizes the Ph.D. qualifying exam and assesses Ph.D. student progress toward the degree.

The Associate Chair for Graduate and Online Studies also serves as the primary point of contact for student problem solving and advocacy.

A full-time Graduate Student Services Coordinator serves both prospective and current graduate students navigate the process of being admitted and ultimately satisfying graduation requirements. The ECE Payroll and Benefits Coordinator manages student appointments and assists graduate students manage their benefits. The ECE Communications Specialist helps with outward-facing content representing the program. The Department Administrator and Assistant Department Administrator support fiscal and other varied aspects of the graduate program.

C. Admissions

The ECE graduate student services coordinator is the first point of staff contact for prospective students. The Graduate Recruiting, Admissions, and Fellowship (GRAF) Committee makes admissions decisions for all M.S. programs. ECE is seeking to grow the new SPML and Professional named option M.S. degree programs to as many as 100 students total. These programs were actively marketed to ECE undergraduates during Fall 2018 as a realistic, one-year M.S. degree option, due to the ability to apply up to seven undergraduate credits to the 30 credits required. The Division of Continuing Studies is marketing these programs to external audiences. The Professional application did not go live until December 1, 2018 due to only receiving final approval in October, so growth in this program is likely to occur in future years. However, applications to SPML have been very robust. Our projection as of December 2018 is that we will admit 100 students for Fall 2019 with the expectation that about a third of admitted students will enroll.
We anticipate students that historically chose the discontinued course-only M.S. program will make up some of the desired growth in the SPML and Professional named options. However, a very significant portion of the desired growth is expected from new student populations. Hence our net graduate student population should increase. Program revenue will be used to support additional sections of classes and administrative services to ensure this population of students is successful.

The Power Engineering Online program has had relatively stable enrollment in the 25-30 student range. No significant changes are planned while the SPML and Professional programs are being launched and grown.

We have made significant changes to the Ph.D. admissions process Spring 2019. Ph.D. students will not be admitted without a financial support commitment from a research advisor. Coupling of admissions and financial support was implemented to improve our recruiting competitiveness, facilitate long-term funding guarantees for all Ph.D. students (see G. Funding), and ensure every incoming student has a clear advocate/advisor from their first day on campus. Qualified Ph.D. applicants that do not have a long-term funding guarantee from a faculty member will be admitted to the M.S. research program and waitlisted for the Ph.D. program. Some of these may choose to enter the M.S. research program in hopes of securing long-term funding for the Ph.D. before completing the M.S.

ECE hosts an open house each March for recruiting purposes. Historically this event has served to facilitate match making between students and faculty. The relatively late timing of this match-making event resulted in our financial offers to prospective students being later than those of our peers and put us at a competitive disadvantage recruiting the best students. Now that we have changed to coupling admissions and financial support decisions, the open house is designed to convince students that ECE is the right place for their graduate studies. We expect this change to both improve our recruiting success and student success in the Ph.D. program.

Data from the US News and World Report rankings of colleges of engineering indicate that our peer (top 20 colleges of engineering) institutions have 4-5 Ph.D. students per faculty member. This is consistent with current enrollment in ECE (~44 faculty, ~220 Ph.D. students), so we are seeking to maintain a stable level of Ph.D. students.

D. Program Information

The ECE Graduate Student Handbook is the definitive source for program requirements, processes, and information to help graduate student succeed. (A substantial portion of program information is also available in Guide (guide.wisc.edu).) Current and recent past handbooks are available on a web site in pdf format for students, faculty, and staff. The handbook underwent a major revision during Fall of 2018 to reflect the changing structure of the M.S. programs and to expand the types of information provided to students. For example, the newest version (published in January 2019) has added sections on professional development and health/wellness. The handbook is updated approximately annually to reflect changes in requirements and procedures.

E. Assessment
Multiple methods are employed to assess the ECE graduate program and improve student experience.

Every graduate student is assessed on the program learning outcomes prior to graduation. Ph.D. students are assessed on each learning outcome by their committee immediately following their final defense. M.S. research students are assessed by their research advisor in their last semester. Students in course-only M.S. degree programs (SPML, Professional, and course-only Power Engineering) choose a 700- or higher level ECE course with their advisor and the advisor insures that the instructor of the course fills out the assessment form. The assessment data are reviewed and discussed annually in a faculty meeting. Compliance with completing the assessment form was irregular in the past. However, after a concentrated effort to increase awareness of the importance of this process, every graduating student has been assessed in the most recent reporting period.

The department’s external advisory board has 20-30 members, typically from industry, and holds an annual three-day meeting in Madison to evaluate and advise the department. They are provided information about the state and direction of the department, meet with faculty and hold confidential discussion sessions with graduate students. One outcome of the visit is a series of recommendations. These are initially presented to the department’s leadership team orally and later in writing to the department and the dean. Their feedback has been very helpful in identifying issues with and strategic direction for the graduate program.

In Spring of 2019 the College of Engineering is rolling out an online tool for annual academic progress assessment of all degree seeking Ph.D. students. The academic progress assessment follows this process:
2. A review prepared by the faculty advisor to focus on an assessment of degree progress and student strengths and areas of growth. A copy of this review will be given to the student.
3. The student will have the opportunity to discuss this review in person with their faculty advisor.

The ECE Department wholeheartedly endorses this initiative and expects that a required annual progress assessment will be of great value to our Ph.D. students.

F. Diversity and Climate

The ECE Department has pursued multiple initiatives to foster an inclusive climate and community for all students. Each fall we hold a welcome and orientation event for all new students to introduce them to key faculty and staff and ease the transition to graduate school at UW-Madison. Several years ago, ECE created a new one-credit course (ECE610) that all graduate students are required to take in their first semester. They are introduced to faculty research areas, learn skills that will foster success in graduate school, and begin to form community through shared experience. A subsequent two-credit course (ECE611) is required for all Ph.D. students in their first spring semester. In ECE611 they continue to form community while learning key research and communication skills required to succeed as a Ph.D. student.
A student-led graduate student association (GSA) was formed about five years ago. The GSA initiates social activities and assists with various department events. For example, the GSA assisted with our fall new student welcome and recruiting events.

ECE adopted a parental leave policy to reduce academic and financial hardships for female graduate students during pregnancy, childbirth, and postpartum periods, and for any graduate student who is a new parent providing care for an infant.

ECE has actively sought out faculty role models for underrepresented groups in engineering. We have been very successful hiring female faculty, and as of Fall 2018 had one of the highest percentages of women faculty of any ECE department in the country. We are hopeful that our success recruiting women faculty will lead to a significant increase in women graduate students. We are also actively working on our outward facing messaging to create the impression of a welcoming climate for all underrepresented student groups.

The Department recently held a distinguished seminar series to celebrate its 125th anniversary. The series featured several prominent female and minority alumni as role models for current students.

The department hosted the WISELI workshop “Breaking the Bias Habit” on May 9, 2017 for faculty and staff. Approximately 75% of faculty and staff participated and learned how unconscious biases can create problematic climate. All faculty on search committees (we are currently leading or participating in six searches) are expected to participate in the WISELI “Searching for Excellence and Diversity” training.

The department is an active participant in College of Engineering supported programs designed to recruit and support targeted minority students. One program is the OPPS Conference held every November. College staff work with selected schools to identify students, match those students with the appropriate department, and then organize the two-day event. We are also active participants in the College of Engineering’s Graduate Engineering Research Scholars (GERS) program. GERS provides partial fellowship support for minority students. More importantly, GERS provides the supportive community that has been proven to help underrepresented students persist to graduation. Participation in minority recruiting and advising is widespread throughout the department – more than one third of our current faculty have made tangible contributions to advising or recruiting minority students.

The department’s priority is successful graduation of all students. Hence, we focus support systems that promote student success and on recruiting students that have the academic preparation for a rigorous graduate program. Our approach produces alumni that become leaders, role models, and that partner with us to identify/recruit new students. For example, Shakti Davis earned her ECE Ph.D. in 2006 as a GERS participant and was named “Most Promising Engineer or Scientist for 2010” at the U.S. Black Engineer of the Year Awards. Shakti regularly assists with our recruiting. She has been a keynote speaker at the OPPS Conference and during the Fall 2018 OPPS Conference spent an hour talking (via teleconference) with seven minority undergraduate students considering graduate studies in ECE.

Juan Fernando Castillo is a current ECE Ph.D. student that travels each fall to the University of Texas El Paso (UTEP – a minority serving institution) to present the GERS program and ECE research to undergraduate students. As part of this initiative with UTEP, ECE invited and hosted
Professor Raymond Rumpf of UTEP in Madison to meet with our faculty to explore research and education collaborations. We are expecting to create an exchange where some of our undergraduates go to UTEP and UTEP undergraduates come to UW through the OPPS Conference and SURE program, and ultimately enroll in graduate studies. Daniel Cheverez is another former GERS program ECE Ph.D. that has sent his students (University of Puerto Rico) to UW.

Our approach of building reputation and strategic relationships requires substantial effort. Recruiting underrepresented students is a significant challenge due to many factors, including regional demographics and the relatively small number of minority undergraduates pursuing electrical engineering. However, the department is not content with the status quo and is committed to ongoing focus on recruiting and mentoring underrepresented graduate students. Some of our faculty are also working on increasing the pipeline of available students with outreach to elementary, middle, and high school students. Such efforts are critical even though they take a long time to make a difference at the graduate level.

G. Funding

ECE Department funding for graduate students is primarily based on a combination of teaching assistantships, research assistantships, and fellowships. With relatively few exceptions Ph.D. students are funded for the duration of their degrees. Many M.S. students are also funded. Historically some students had funding promised during the recruiting phase, while others chose to attend without up-front funding and attempted to secure funding once they arrived on campus. Ph.D. students arriving on campus without a research advising/funding commitment have sometimes experienced slow initial progress toward degree goals.

We instituted a major change to our funding policy for Ph.D. students in fall of 2018 to improve our recruiting competitiveness and ensure funding/advising uncertainty does not hinder student progress to degree. Beginning with the current recruiting cycle (Spring 2019) Ph.D. students will not be admitted to the program without a faculty commitment to provide long-term funding and advise the student. Hence all Ph.D. students matriculating in Fall 2019 will have both a long-term funding guarantee and an advisor committed to their success from the day they arrive on campus. Ph.D. students arriving with a B.S. degree receive a five-year funding guarantee, while those arriving with a M.S. degree receive a three-year guarantee. The support guarantee is at the 50% level and may consist of a combination of fellowship, research assistantship, teaching assistantship, and/or external funds such as NSF Fellowships. A significant fraction of our students are/will be supported through research assistantships associated with external grants secured by the advisor. If premature termination or nonrenewal of a grant causes loss of funds for a research assistant, the Ph.D. student will be shifted to a teaching assistant appointment until the advisor has secured funding for the student. If timing is such that a teaching assistantship is not possible, e.g., a mid-semester loss of funding, the student will be supported initially as a research assistant using departmental discretionary funding until it is practical to appoint them as a teaching assistant.

Income from our non-pooled tuition accelerated M.S. programs is being set aside to help support students that encounter unexpected loss of funding.
We are explaining the funding guarantee as part of our financial offer to admitted Ph.D. students as a reason why they should choose Wisconsin. Most of our peers do not have explicit funding guarantees and we believe our guarantee will be a recruiting advantage.

Students in the online M.S. Power Engineering program, and the accelerated M.S. SPML and Professional programs are not eligible for ECE Department financial support of any form. The students in the online program are not local and are typically employed in an industry position. Financial support for students in the SPML and Professional programs is inconsistent with the accelerated and terminal nature of these programs. Such students need to focus full time on their studies and not be distracted with teaching or research duties in order to finish in a 12- to 16-month time frame.

Students in the Research M.S. program are eligible for departmental financial support. This group has lower priority than Ph.D. students for fellowship and teaching assistantship funds. Teaching assistantships and research assistantships are awarded when there is a match between student expertise and departmental needs in teaching or faculty needs in research.

Grader positions are also available for graduate students and typically used by students that have not secured other departmental support. Project assistantships are also available on occasion, but do not constitute a significant source funding.

**H. Retention and Time to Degree**

The ECE Department has implemented multiple initiatives in the past few years to improve retention and reduce time to degree:

1. We have initiated a comprehensive orientation program. It begins with an orientation event at the start of each fall semester. Then all incoming students are required to take ECE610 (1 credit) in their first semester. ECE610 introduces students to faculty and other departmental resources and teaches skills they will need to be successful in graduate school. All Ph.D. students are required to take the follow up course, ECE611 (2 credits) in their second semester. ECE611 teaches students research skills, such as reading papers and writing proposals. We fully expect that this systematic on-boarding process will improve student success as the initial cohorts continue to progress through our program.

2. Expected timelines for Ph.D. program milestones (coursework, qualifying and preliminary examinations) are explicitly articulated in the Graduate Student Handbook. In spring 2018 the department added a requirement that the preliminary exam be completed within three semesters of achieving advanced graduate standing, i.e., passing the qualifying exam. This change was motivated by the observation that some students were delaying their preliminary exam until the majority of their research was complete, and then scheduling their final defense within several months of the preliminary exam.

3. All assistant professors are now encouraged in mentor meetings and written annual feedback to schedule their student’s preliminary examinations as soon as possible. This advice serves the dual purpose of helping their record for tenure and shifting the department culture in a way that reduces time to degree.

4. Long times to degree for Ph.D. students often correlate with difficulty finding a research advisor once students arrive on campus. Our new policy of requiring a funded advising
commitment prior to admission should improve retention and eliminate delays in time to degree due to student difficulty finding a research advisor.

5. A parental leave policy was recently adopted by the department to reduce academic and financial hardships for women and their partners who choose to have children during their graduate studies.

6. We have been actively monitoring and adapting our accelerated M.S. programs to ensure students complete the programs in an appropriate time frame. For example, SPML was initially set up to require completion within twelve months. However, experience with the first two cohorts of students showed that completing 30 graduate credits in twelve months is unrealistic for the professionally oriented, terminal M.S. students the program attracts, especially foreign students with additional ESL requirements. We modified the program requirements to reduce the number of credits required per semester consistent with a 16-month completion time frame (three semesters plus summer) and now advertise the program as a 12- to 16-month degree. UW-Madison undergrads that transfer six credits into the program can realistically complete the program in 12 months. We also requested and received approval from the Graduate School to count up to seven credits of undergraduate work completed at ABET-accredited undergraduate institutions in order to expand the set of students that can realistically complete all degree requirements in 12 months. Finally, we are in process of setting up and advising system that will efficiently serve the expected growing enrollment in the SPML program. This will involve a combination of written materials, mandatory group advising sessions, and individual consultations as needed.

7. We expect the annual assessment process being rolled out by the College of Engineering in Spring 2019 (see E. Assessment) will improve retention and reduce time to degree and are enthusiastically participating in this new program.

8. Finally, restructuring of the program leadership model – establishing the Associate Chair for Graduate and Online Studies – was also motivated by desires to improve retention and reduce time to degree. The Associate Chair is responsible for strategic analysis of the graduate program with the goal of improving student outcomes. Many examples of program changes are described elsewhere in this self-study. Another example of the Associate Chairs proactive activity is promoting awareness of mental health issues and resources. The Associate Chair periodically emails faculty and students concerning mental health issues, and has arranged for UHS counselors to lead a discussion at the February 2019 faculty meeting to raise awareness of the prevalence of mental health issues amongst the graduate student population and inform faculty how to better support mental health in our students. The Associate Chair is also the dedicated point of contact for advocacy and problem solving to help students with challenges that arise during their studies, including health related issues, or problems with faculty. Improved student support and timely resolution of problems is expected to improve retention and reduce time to degree.

I. Professional Development

The department’s graduate program supports professional development of ECE graduate students via a diverse range of mechanisms. Professional development beyond that provided by advisor mentoring has received increasing emphasis in the past several years. The Associate Chair now periodically emails all students to make them aware of the wide variety of campus resources that are available to them and encourages their use. The Associate Chair also communicates with
faculty periodically in both meetings and via email to remind them to encourage their students to undertake professional development activities. The latest version of the Graduate Student Handbook has a section devoted to professional development. The ECE610 and 611 courses required for all M.S. (610) and Ph.D. (610 and 611) students develop skills that not only help them succeed in their graduate careers, but also as professionals, such as engineering/technical communications, writing, ethics, and project management.

Recently we made a decision to provide teaching assistantship support of at least two semesters for any Ph.D. student that desires to obtain teaching experience. ECE offers the majority of its required undergraduate classes in active learning formats, many in WisCEL, so teaching assistants have the opportunity to apply research-proven best practices and obtain experience that prepares them to be innovative educators in their careers. We are currently investigating the possibility of requiring some sort of teaching experience of all Ph.D. students.

Most Ph.D. students are supported by their advisors to present their research at conferences and network with their external professional community. All dissertators are also eligible for department-administered travel funds to support conference travel.

A wide range of career outcomes are supported by the ECE graduate program. Ph.D. graduates typically establish careers in academia, private industry, or government laboratories. Our M.S. graduates typically take positions in industry, although some pursue Ph.D. or M.D. degrees. We recently responded to increasing industry need for engineers with advanced skills by creating the course-only SPML and Professional accelerated M.S. programs. The remarkable rate of technological advancement in the field has made it difficult to receive sufficient training for many industry positions in a four-year degree. Our accelerated M.S. programs are designed to provide students with these needed advanced skills in a short time frame. Our two programs are very new – the first cohort of SPML students graduated in August of 2018; we will accept the first Professional program students in Fall 2019.

Engineering Career Services provides extensive job-search support for our students, including: coordination of co-op and internship opportunities; hosting of career fairs and on-campus interviews; advice on resumes, cover letters, interviewing, and offers/negotiation skills.

J. Doctoral Minor

The Electrical Engineering Doctoral Minor continues to provide a valuable educational option for Ph.D. students in other departments. Our minor has served 113 students over the past 11 years (2007-2018). Mechanical Engineering (45 students), Computer Sciences (25 students) and Physics (22 students) make greatest use of this program. This is expected, as the disciplines of mechanical engineering, computer sciences, and physics have natural connections with electrical engineering.
Report for the 10-Year Review of the Electrical and Computer Engineering Graduate Program

May 1, 2019

Review Committee Members

- Michael Arnold, Professor, Materials Science and Engineering (Chair)
- Gregory Nellis, Professor, Mechanical Engineering
- Shannon Stahl, Professor, Chemistry (Graduate Faculty Executive Committee Representative)
- Paul Terry, Professor, Physics

Review Process

The committee was formed on March 9 and was charged to “analyze program quality and student learning, affirm ways that the program is working well, and implement improvements.” The charge asked the committee to “focus on evaluating the quality and function of the academic programs”, focusing on “academic programs and the student experience.” The committee began by reviewing the Electrical and Computer Engineering (ECE) Graduate Program Self-Study, in addition to the Graduate Handbook. The committee gathered additional information by:

- Performing one-on-one interviews with at least half of the Faculty in the department;
- Meeting as a committee with the ECE Administrators including the Chair (Prof. Susan Hagness), Graduate Associate Chair (Prof. Barry Van Veen), and Operations Associate Chair (Prof. John Gubner);
- Meeting as a committee with ECE Graduate Student Services Coordinators (Hannah Roberg and Daryl Harrison);
- Meeting as a committee with ECE Graduate Students; and,
- Reviewing ECE program statistics collected and published online by the Graduate School.

The Student Services Coordinators are College of Engineering staff who coordinate with ECE Graduate Students on matters including advising, policy, and degree progression. The two Coordinators, Hannah Roberg and Daryl Harrison, serve on-campus and off-campus online Graduate Students, respectively.

The Graduate Students who were interviewed were 3 Ph.D. students in their 2nd, 3rd, and 7th years of study, encompassing international versus domestic and gender diversity. The students were selected by the ECE Department because of their leadership roles in the ECE Graduate Student Association. The ECE Department did not provide students currently enrolled in a M.S. program; however, the 3 students who were interviewed did their best to provide a broad perspective representative of all students.
After reviewing the Self-Study, Handbook, and Graduate School data, the committee generated a detailed list of questions and topics that were used to guide discussion with the Administrators, Coordinators, Faculty, and Students. A total of 24 Faculty were interviewed including the Chair and Associate Chairs. The particular faculty members who were interviewed were determined by the ECE Department. The one-on-one interviews with Faculty were conducted for 20 minutes each over the course of April 17 to April 25, depending on the committee availability. The committee met with the Chair for 30 minutes, Graduate Associate Chair for 60 minutes, Operations Associate Chair for 30 minutes, Student Services Coordinators for 30 minutes, and Students for 30 minutes, on April 18.

**Data**

The ECE Department offers a Ph.D. program, a Research M.S. program, and 3 course-only M.S. programs including a Professional M.S. program (on-campus); an M.S. program specifically in Signal Processing and Machine Learning (on-campus); and an M.S. program specifically in Power Engineering (online). The Ph.D., Research M.S., and Powering Engineering M.S. programs have long histories whereas the Signal Processing and Machine Learning and Professional M.S. programs are relatively new (created in 2017 and 2019, respectively).

**Size.** The *ECE Graduate Program is the largest Program in the Physical Sciences Division on campus* with an enrollment of 359 students, averaged over the last ten years, compared to 315 in Computer Science and 318 in Chemistry. The ECE Ph.D. Program is the 2nd largest in the Physical Sciences Division with an average enrollment of 218 Ph.D. students (2nd only to Chemistry with 306 Ph.D. students). The ECE Department is attempting to increase the size of its M.S. Programs, in part to access new potential revenue streams associated with non-pooled tuition in the Named Option M.S. Programs.

**Time to Completion (M.S.).** The time to degree for an M.S. in ECE is on par with the typical time to degree in the Physical Sciences Division over the last 10 years. 48.1% and 81.0% of ECE students have completed M.S. degrees in ≤ 2 and ≤ 3 years, respectively, compared to 56.0% and 85.0%, respectively, in Physical Sciences.

**Time to Completion (Ph.D.).** The time to degree for a Ph.D. in ECE is marginally longer than the typical time to degree in the Physical Sciences Division over the last 10 years. 34.9% of ECE Ph.D. students leave with an M.S. or no degree, compared to the 30.7% in Physical Sciences. Of the remaining fraction that do complete their Ph.D. degree, 28.8% and 74.9% of ECE students have completed their Ph.D. degrees in ≤ 5 and ≤ 7 years, respectively, compared to 35.2% and 84.5%, respectively, in Physical Sciences. The ECE data are similar to data from ECE AAU Peer Institutions (characteristic time to Ph.D. degree of 5.24 years in the UW-Madison ECE Department compared to 5.10 years for AAU Peer Institution ECE Departments, averaged over the last five years).

**Career Outcomes.** The career outcomes for Ph.D. graduates in ECE are comparable to the rest of the Physical Sciences Division and are generally very good, with only 15% of Ph.D. graduates
not yet employed at the time of graduation in ECE compared to 18% in the Physical Sciences. Data for M.S. graduates were unavailable.

**Ph.D. Student Support.** In Fall of 2018, 69% (144 of 210) of ECE Ph.D. students were supported on Research Assistantships or by Fellowships (versus 60% in the Physical Sciences Division). However, 14.2% had no or insufficient support. The remainder of students were supported by Teaching and Project Assistantships (some in ECE; others outside of ECE).

**Faculty.** There are currently 42 tenure-track faculty in the ECE department (15 assistant, 2 associate, 25 full). 7/42 faculty are women. 4/17 assistant and associate faculty are women, showing improved gender diversity in recent hiring.

**Graduate Program Rankings.** #12 nationally in Computer Engineering. #16 nationally in Electrical Engineering. (2020 rankings; College of Engineering website)

**Staffing and Administration.** The Associate Chair for Graduate and Online Studies (currently Prof. Barry Van Veen) provides leadership and oversight of the graduate program and oversees faculty committees pertaining to (a) student recruiting, admission, and fellowship, (b) graduate curriculum, and (c) assessment of Ph.D. progress towards degree, including the Ph.D. qualifying exam. The on-campus Student Services Coordinator provides academic and sometimes personal advising to on-campus ECE graduate students (the vast majority of the ECE graduate students) and also interfaces with prospective graduate students. Other ECE staff contribute to payroll, benefits, and communications at both undergraduate and graduate levels.

**Interviews**

The one-on-one meetings with faculty and discussions with administrators, staff, and students were beneficial and provided first-hand insight into the Graduate Programs beyond the data and information provided by the ECE Department Self-Study. The tenor of all the interviews was highly positive. None of the interviewees identified major flaws. When prodded, faculty identified only minor criticisms, with the most prevalent concerns related to uncertainty about the impact of the department's new admissions policy, which requires faculty to provide a five-year funding commitment to incoming students, and to TA support. Aside from these minor criticisms, the interviewees indicated they were happy with the department leadership and had the opinion that the ECE Department and its Graduate Programs are headed in the right direction. The committee concurs with this assessment.

**Overall, the ECE Department's Graduate Programs are healthy; their quality is excellent; the student outcomes are excellent; and student learning goals are being met. The Department should be commended for creating, maintaining, and continuously improving an outstanding Graduate experience.**

Below are summaries of particularly notable program strengths and concerns/challenges, followed by recommendations. For the most part, the concerns and challenges are of the type that
typically arise over time even in perfectly well run departments and/or because of budgeting constraints.

**Program Strengths**

- **Restructured Departmental Administration Resulting in Greater Commitment to Graduate Programs.** The creation of the Associate Chair for Graduate and Online Studies has been very effective in directing and coordinating faculty committees relating to ECE graduate programs. This restructuring has increased the number of faculty members involved in graduate student issues and enhanced their level of participation. The Associate Chair is viewed as strong and proactive, and his work is considered well coupled to similarly effective leadership provided by the Chair. The Associate Chair has also been an effective Department-level resource for graduate students. The restructuring of the Departmental Administration (along with other recent policy changes, see below) is evidence of the Department’s commitment to a Graduate Program that ensures excellent student outcomes, meets students’ learning goals, and creates a positive student experience.

- **Faculty Hiring that Promote a Better Student Experience.** The department had done an excellent job of hiring new faculty in recent years. The gender diversity among the faculty, which surpasses that of most ECE departments, is notable and should contribute to improved diversity among incoming students in the coming years and therefore a better student experience.

- **Favorable Career Outcomes for Students.** One of the most important student outcomes is job placement, and the department is performing very well in this area. Data show that the overwhelming majority (85%) of graduating Ph.D. students have lined up employment by the time of graduation. Job placement and career advancement were not worries shared by current students; on the contrary, placement and advancement opportunities were viewed optimistically. Faculty reported students are well sought after by industry and national laboratories, with graduates receiving multiple job offers with high bonuses (at least within some areas of ECE).

- **Improved Graduate Student Handbook.** The recently revised Graduate Student Handbook is rightly regarded as a significant improvement to the graduate program. It appreciably clarifies departmental organization, policies, and procedures, making them more transparent to students and ensuring that programmatic- and student learning- expectations are clearly defined. This information, including key details related to graduation benchmarks (e.g., qualifying and preliminary exams) will be of great value to the students and could even improve time to graduation. The revision of this handbook took considerable effort and is another example of the Department’s commitment to a Graduate Program that ensures excellent student outcomes, meets students’ learning goals, and creates a positive student experience.
Proactive Identification of “Orphan” Graduate Students. Interviews with both faculty and students indicated that, in the past, graduate students who do not have advisers or funding might continue their program for years without making any real progress towards a Ph.D. The learning objectives of these “orphan” Ph.D. students were not being met without the necessary research experiences. Both students and faculty pointed to the new policy of requiring a five-year commitment at the time of admission as being a way to prevent this situation in the future. Students who “slip through the cracks” will be identified and provided alternate advisers and funding so that these students can meet their learning objectives. This should also decrease time to graduation.

Graduate Course Selection that Empowers Students to Meet Learning Goals. Both faculty and students that were interviewed expressed their satisfaction with the graduate course offerings. The number of courses is felt to be sufficient to allow students to develop a course plan that prepares them for success and is interesting. The offering schedule is predictable and therefore does not cause delays in graduation. Scheduling challenges that arise are promptly addressed. Finally, the size of these courses is typically sufficiently small as to allow students access to the instructor and create a favorable learning environment. These characteristics will be challenged by the activation of the new Named Option M.S. programs; but, these observations suggest that there may be room for this expansion without negatively impacting student learning or the student experience.

ECE 610/611 Introductory Courses that Improve Student Outcomes. The recent addition of required introductory courses for M.S. and Ph.D. students (ECE 610 and 611) has been a success on multiple levels. Students report the courses have improved community and cohesion among the graduate student population and therefore have improved the student experience. (The recent formation of a Graduate Student Association was cited as having a similarly important effect, providing more opportunity for graduate students to interact with a larger community.) Faculty appreciated the ECE 610 and 611 courses and their effectiveness at introducing students to research areas and groups and disseminating best practices for succeeding in graduate school. ECE 610 and 611 were also viewed by some faculty as effective means for identifying and recruiting promising M.S. students for potential future Ph.D. studies. Thus, the addition of these courses have facilitated interactions between students and faculty.

Program Concerns and Challenges

Insufficient Staff for Graduate Programs. The large number of on-campus students in the Ph.D. and M.S. programs (300+ and growing) has placed an unrealistically large load on the singular staff member (the Graduate Student Services Coordinator for on-campus students) handling these student programs. The current staff member in this position has been extremely effective but has been overworked and is at risk of burnout. The department administrators and new Associate Chair for Graduate Studies have compelling ideas how to
improve the Graduate Program, student outcomes, and the student experience but lack staffing resources to execute these ideas. Overall, it is clear that administrative staff positions are insufficient for handling the workload under present and projected future conditions. Simply, the staffing is too small for a Graduate Program of this size.

- **Potential Unintended Effects of the Five-Year Funding Guarantee Policy.** A dramatic change in student recruitment policy has recently been implemented in response to the Graduate School’s requirement for a five-year funding guarantee. It is too early to gauge its effects, but it could have negative impacts on the Department. Student enrollment has the potential to drop significantly unless the admission procedure is modified to take into account anticipated declinations. Although implementation of five-year funding commitments to incoming Ph.D. students was largely seen by the faculty as a necessary step to improve student experience, there was concern and uncertainty about the details of how the policy has been and will be implemented by the department. Some faculty thought the policy would result in an improvement in recruiting and not affect faculty once the shock of the change wears off. But, others expressed concern, much of which is shared by this committee, about how this change will affect the long-term health of the program. One particular concern regards how the five-year guarantee is insured; there is sentiment that asking individual faculty members to assume all of the risk is not ideal (e.g., possible summer salary loss, future recruiting restrictions) and misses the possibility of leveraging risk by making the commitment collective across the faculty. Multiple faculty members conveyed reservations about hiring research assistants sight unseen with a five-year funding commitment, which inherently carries significant risk. At least one faculty member indicated that requiring a five-year funding commitment by specific faculty members and then not making TA backup funds easily available without stigma will have deleterious consequences. The worry of the committee is that the Department’s current policy could lead to fewer commitments by the faculty and therefore negatively impact Ph.D. student recruitment and the quality of the Ph.D. program as a whole (and therefore the student experience) -- if not addressed. Some faculty reported that the specific details of the policy have already resulted in faculty making fewer offers, as well as driving faculty to recruit graduate students from other departments.

- **Inequity in TA Workload (from student perspective).** Both student and faculty interviewees expressed concerns, mostly shared by the committee, regarding the level of TA appointment. First, the level of TA appointments does not correlate well with teaching workload. While the written agreement between the Department and TAs envisions times for task completion that fit within a certain appointment (e.g., 33%), graduate students regarded allotted times as insufficient to complete the tasks. This mismatch between workload and percentage appointment is a source of frustration for students, does not appear to be measured via surveys or other means, and has not been adjusted. Second, there is concern
that the level of TA appointment (typically 33% or less) is less than the levels of RA appointments and TA appointments in other departments.

- **Insufficient TA Support for Many Classes (from faculty perspective).** Interviewees very frequently expressed concerns about the need for more TA support in the department. It was noted that considerable TA support has been allocated to new “flipped” classrooms, while more traditional courses lacked adequate support to cover discussion sessions and office hours outside the classroom. As noted above, in many cases, TA workload and expectations by faculty surpassed that supported by their appointment. For example, relatively large courses (>50) are, in some cases, allocated only one shared TA, with a 1/6 or 1/12 appointment. The resulting burden on the faculty and TAs negatively impacts the educational experience of the students in these courses and the research productivity of the faculty and their groups and is therefore a drain on student outcomes both in the classroom and the research laboratory.

- **Long Term Plan for Providing Mental Health and Wellness Resources Needed.** The Graduate Associate Chair and Graduate Student Coordinator are very committed to supporting students for student wellness and mental health issues. However, there is concern that the effort required is not sustainable (e.g., could lead to burnout, or new people rotating through positions may be less well equipped). Also, students may not feel comfortable approaching these individuals (or their faculty advisors) as they may not be viewed as neutral. The College of Engineering mental health counselors are only available one day a week. The Department should consider and adopt long term plans to address these challenges because a substantial fraction of the graduate student body’s experiences and learning outcomes are affected by mental health and wellness issues.

- **Uneven Awareness by Faculty of Resources for Addressing Mental Health and Wellness Issues.** Most faculty indicated that the Department was more focused on student mental health than it had been previously (as evidenced by a recent visit of a UHS staff person to a ECE department meeting meeting). However, it was clear from the faculty interviews that understanding of the resources available for supporting mental health and wellness varied substantially among faculty and research groups. This perception was echoed by the graduate students. The confidence of faculty in their own ability to address mental health challenges also varied from faculty member to faculty member.

- **Diversity.** The Department is well connected to the GERS Program in the College of Engineering, and this is viewed as a successful and valuable resource. However, the ECE Department has less diversity in its graduate student population than it would like. The committee was concerned that the move towards a new 5-year funding guarantee policy for Ph.D. students could further negatively affect Ph.D. diversity. It is often the case that students from different socioeconomic backgrounds may not look as strong on paper as more traditional students. By forcing faculty to make student selection choices based largely on
their paper record, it might adversely affect their likelihood of bringing in a diverse graduate student pool. Several faculty indicated that a stronger connection to GERS might help mitigate this effect.

**Recommendations**

- **Create a New Graduate-Focused Staff Position.** An additional staff position should be authorized. The new staff member would assist the Associate Chair for Graduate and Online Studies, particularly in the area of programs for on-campus students, working with existing staff members to implement new ideas for improving and assessing student outcomes and learning goals.

- **Monitor and Address Impact of the Five-Year Funding Guarantee Policy.** The impact of the new five-year funding guarantee policy should be monitored by the department to ensure it does not have a negative effect on the quality and desired quantity of the Ph.D. student pool. Likely, the policy will need to be updated to ensure the policy promotes recruitment of the best students and promotes a diverse student body.

The department leadership and broader faculty should assess the impact of the new Ph.D. admissions policy in the near future, once data from the first year of implementation are clear. Such assessment should be continued for the foreseeable future to alleviate any negative impact this policy has on student recruitment by junior faculty, recruitment of underrepresented minorities, and other vulnerable groups. Efforts should be made to listen to and respond to concerns by faculty as the impact of this policy emerges, especially if negative effects become evident. The department leadership and faculty will be in the best position to devise effective measures to counter unintended consequences, but ideas include identifying better insurance policies to allow individual faculty to be aggressive in their recruitment of excellent students, while distributing the risk across the department. The department should fully leverage TA positions available inside and outside the department to allow for many more offers to be made than the number of positions directly available from existing faculty grants. New policies could be supported by the acquisition of good historical data summarizing sources of student funding, ratio of offers-to-acceptances, among other metrics to enable faculty to increase the number of offers beyond that allowed by the current policy. Specific policies should be implemented (1) to guarantee that junior faculty are given adequate “insurance” back-up to allow them to be aggressive in their recruiting during their probationary period and (2) to provide incentives for the recruitment of high-quality underrepresented minority students who may not be the primary targets of recruitment.

- **Assess and Update TA Workload and Appointment Percentage.** The ECE department should carry out a TA workload assessment to quantify workload on a course-by-course basis across the entire curriculum. The department is encouraged to adjust the TA workload for each course so that it is commensurate with the percentage of TA appointment, or vice versa.
Moreover, the department should consider raising the TA appointment percentage across the board so that it matches the RA appointment level and the TA appointment levels commonly offered by other departments -- in order to create a more equitable environment. One suggestion for quantifying TA workload is to require all TAs to keep accurate timesheets over a three week period to provide a snapshot of TA workload on a course-by-course basis. These actions promise to improve the experiences of students supported by TAs.

- **Increase Number of TA Positions and TA Budget.** More TA positions and an increased TA budget are needed to improve educational outcomes and faculty productivity. At the same time, a larger TA budget would allow the department to backstop individual faculty members’ five-year commitments to Ph.D. students in a way that is more natural and positive. Faculty should be encouraged to recruit aggressively with an understanding that it is expected that during some portion of their program, their graduate students will be expected to TA.

- **Expand Mental Wellness and Health Support and Awareness in a Sustainable Way.** Mental health training and advertisement of available resources (to both students and faculty) should be expanded. Inclusion of this content in 610/611 and graduate student orientation is a positive step that promises to be sustainable, but efforts should be made to ensure that more senior students, who may be more likely to encounter the need, are given and informed of these resources, as well. Possible steps could include (1) periodic emails from the Chair or Graduate Coordinator highlighting resources, (2) providing more opportunities for student networking and/or social interactions (e.g., led by the Graduate Student Association), and (3) training of faculty on issues related to mental health support for their students. Creating policies and best-practices that are sustainable and self-propagating in the long term are recommended. Regular UHS office hours with recurring advertisement to the students should be provided or another resource should be established to off-load some of the burden currently being carried by the Associate Chair and Graduate Coordinator.

**Other Observations by Committee:**

- **Maintaining Strength of ECE’s Part of a Successful Campus-Wide Program.** The fusion plasma program in ECE is highly successful (funding of $2M/year) and highly regarded nationally. It is one leg of a campus wide effort among three departments with a national ranking of 2 – 3. This is a graduate program issue because the plasma area is very successful in attracting numerous high quality students to UW-Madison across the three departments and in providing a uniquely rich graduate student environment. ECE is at risk for losing this program because its low priority in the department’s strategic plan may not result in replacements for retiring faculty.