New Program Proposal

Proposal Abstract/Summary:
Request to create a new master's level graduate program, "MS-Information," with two named options ("campus option" and "online option") to be administratively housed in the Information School (iSchool) within the division called the School of Computer, Data & Information Sciences (CDIS) within the College of Letters & Science. This program provides master's level education for adult students seeking entry into a data/information management and some applied computing professions without a baccalaureate degree in the related fields.

The program reflects the mission of CDIS to extend access to computing and data-related knowledge to a broader array of students at UW-Madison and to the citizens of state. The MS Information will complement the iSchool's current program array, which includes capstone certificate programs for adult learners in this area, and a long-standing American Library Association accredited Master's program in Library and Information Studies.

3/23/20 - Parent plan integration point reformatted done by the Graduate School

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

Name

Elaine M Klein - L&S

Basic Information

Type of Program: Degree/Major

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

- A2P 19Feb MSN Information MS.pdf
- NOI MSInformation for UW System.pdf
- 02 13 2020 RFA.docx
- 0213 budget narrative ms info .docx
- 0213 ms info regents budget.xlsx

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

- 02 13 2020 RFA.docx

Who is the audience?

Graduate or professional
Home Department: Information School (I SCHOOL)

School/College: College of Letters and Science

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: Information

Transcript Title: Information

Named Options: Parent Plan 1107: No Title Found

Parent Plan 1108: No Title Found

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>
<th>Email</th>
<th>Phone</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department Chair</td>
<td>Kim, Kyung-Sun</td>
<td><a href="mailto:kyungsunkim@wisc.edu">kyungsunkim@wisc.edu</a></td>
<td>608/263-2900</td>
<td></td>
</tr>
<tr>
<td>Primary Dean's Office Contact</td>
<td>Eschenfelder, Kristin</td>
<td><a href="mailto:eschenfelder@wisc.edu">eschenfelder@wisc.edu</a></td>
<td>608/263-2105</td>
<td>Associate Dean for Academic Planning</td>
</tr>
<tr>
<td>Primary Contact</td>
<td>Wiessinger, Nicole</td>
<td><a href="mailto:wiessinger@wisc.edu">wiessinger@wisc.edu</a></td>
<td>608/263-2963</td>
<td>Associate Director</td>
</tr>
<tr>
<td>Primary Dean's Office Contact</td>
<td>Klein, Elaine</td>
<td><a href="mailto:emklein@wisc.edu">emklein@wisc.edu</a></td>
<td>608/265-8484</td>
<td></td>
</tr>
</tbody>
</table>

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

- Computer Sciences (COMP SCI)
- Statistics (STATISTICS)
- College of Engineering (ENGINEERG)
- School of Business (BUSINESS)

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: Set at the named option level (parent plans only)

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? No

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

First term of student enrollment: Fall 2021 (1222)

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?

<table>
<thead>
<tr>
<th>Start Term</th>
<th>Application Deadline MM/DD</th>
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<tbody>
<tr>
<td>Fall</td>
<td>03/01</td>
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</table>

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

2025

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

2027

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

Shortly after BOR approval, L&S will convene an implementation meeting involving iSchool faculty and staff, colleagues from key UW-Madison administrative and service units, the Division of Continuing Studies, and from the Graduate School, to discuss the program proposal and implementation questions.

With the aim of admitting the first cohort of students in Fall 2021:

CDIS and iSchool will immediately begin working with the Division of Continuing Studies to market the degree program as soon as permitted.

Personnel: the iSchool will hire personnel to teach in and administer the program in the 2020/21 academic year.

Orientation Planning: Planning for welcoming and orienting the fall 2021 cohort will begin in summer/fall 2020.

Advising Planning: Training materials to prepare faculty and staff to advise new MS students will be prepared in winter 2020/2021. Faculty and staff will be trained during the fall 2020 and spring 2021 plenary meetings.

### Rationale and Justifications

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

In fall 2018, the University of Wisconsin—Madison and the College of Letters & Science began work on bringing Computer Sciences, Statistics, and the iSchool closer together administratively in order to “bring computing and key related disciplines closer... to encourage collaboration and expand teaching and research activities,” and in September 2019 the School of Computer, Data and Information Sciences (CDIS) was formed as a division within Letters & Science to coordinate the activities of the departments of Computer Sciences, Statistics and the Information School.

One goal of CDIS is to extend access to computing and data related educational opportunities across the UW-Madison campus and to the citizens of Wisconsin more broadly. Many aspects of today’s society demand more data/information literate citizenry and workforce. Technical skills are needed. But the UW-Madison also needs graduates who combine technical skills with the critical thinking, design and communication skills needed to ensure that new data driven computational systems, which society increasingly depends on, reflect and support values such as privacy, fairness, justice and transparency. The MS-Informatics will give students the opportunity to obtain both sets of knowledge: the technical skills needed to understand systems, and the critical thinking, design and communications skills to govern and critique them. The MS Information is aimed at adult career changers, specifically those seeking an entryway into a data/information/applied computing professions without a prior computing-related bachelors degree.

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 proposed revenue generating program fits well within state calls to develop an information technology and data savvy workforce as well as the important society goal of increasing data and information literacy. It fits with current campus strategic plans to develop additional revenue generating professional master’s degrees.

The proposed program is complementary to the Information School's long standing Masters of Arts degree in Library and Information Studies, extending the iSchool's information and data management education and career preparation into new areas. The MS degree will share some
electives courses with the MA, but it will differ in requirements, learning outcomes and required credit hours. The primary aim of the existing MA is to produce library and archives professionals and it is accredited by the American Library Association (ALA) Committee on Accreditation. The iSchool will not seek ALA accreditation for the proposed degree. The new degree will aim to produce information and data professionals who work in corporations, startups, nonprofits and government organizations.

The proposed MS in Information is designed to work in conjunction with the existing iSchool housed capstone certificate in User Experience Design (10 credits) and the capstone certificate in Analytics for Decision Making (9 credits). Admitted students who previously earned credits in the capstone certificates can transfer their credits into the MS in Information within 5 years of completion of the original credits after paying applicable tuition differentials (the Analytics certificate is priced at a lower tier). Students admitted into the MS in Information will be eligible to share coursework with students in the capstone certificates.

The MS Information is also coordinated with the MS Design + Innovation degree and will share coursework in the area of User Experience Design/Interaction Design. This cooperative relationship allows students the choice of a more general information/data management degree (MS Information) or a more focused design degree (MS D+I).

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

The admissions team at the iSchool reports a high level of interest in this degree from prospective students. The iSchool team reports they already have future applicants on stand-by waiting for the proposed program to move forward. Further the MS-Information will help the iSchool grow its international student population, and its pipeline from campus undergraduate degrees, which is currently low compared to iSchool peers.

The iSchool admissions coordinator reports that international applicants regularly turn down offers of admission to the iSchool because of the lack of a information/data management degree (MS Information), which is seen as more attractive than the MA library and information studies. The iSchool admissions coordinator, and the Digital Studies undergraduate advisor, also report a high level of interest among undergraduates in a potential MS Information degree.

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

Division of Continuing Studies at UW-Madison facilitated a Burning Glass Insight Job Posting Analysis for the MS Information in June of 2018 and reports a high number of relevant job postings with the highest demand on the west and east coasts, but with good demand in the Midwest including Michigan, Minnesota, Illinois, Ohio and also Wisconsin.

Bureau of Labor Statistics show an expected salary increase for people using a graduate degree to move into the information technology and analytics fields from prior careers (our target audience). Academic field statistics reported to the Associate for Library Science Education (ALISE) show that peer programs at state universities have strong enrollments showing healthy student demand reflecting the employment forecasts.

Below please find more information on each of the planned concentration areas of the MS Information and target employment categories for each area:

User Experience Design/Interaction Design: While Human Computer Interaction and User Experience Design are not categories in the Bureau of Labor Statistics Occupational Handbook, similar job titles that require a mix of IT skills with strong understandings of human behavior, organizational factors and design, have above average projected job growth (e.g., Web Designer 27% growth, Systems Analysts 21% growth). The 2018 Burning Glass report suggest 18.8% job growth for software developers (related to UX) and 20.9% growth for computer systems analysts. A 2017 Educational Advisory Board consulting report obtained via Division of Continuing Studies suggests students with this concentration can obtain employment with titles like “User Interface Designer” “Interaction Designer” “Computer Systems Analyst” and those students taking more courses in partnership with Computer Science could obtain jobs as “Software Developers.” The User Experience Professionals Association (UXPA) 2016 jobs survey found average national salaries of $98,000 with average starting salaries of just over $60,000.

Data Analytics for Information Professionals: An Educational Advisory Board consulting report
obtained via Continuing Studies found that occupations related to analytics and data analysis are expected to grow faster than the average of all occupations in the United States. For example, market research analysis positions are expected to increase by 32% by 2022. Bureau of Labor Statistics reports that Management Analyst positions will rise by 9%. Division of Continuing Studies interviews with employers emphasized the need for employees with applied research skills such as "using statistics in a business setting" and "understanding if data are credible" and data communications skills such as information visualization and how to "persuade and influence" using data. Indeed.com reports the average salary for a data analyst nationally as $69,653.

Data Governance/Information Management: This concentration aims to create specialists in managing large amounts of data, ensuring compliance with data-related laws, regulations and industry best practices, and processing and manipulating that data to make organizational decisions and generate new products and services. Other terms associated with this concentration include knowledge management and information/data security and data governance. This is a new employment area that is not well represented by traditional employment categories, but organizations of all types increasingly rely on effective storage and retrieval of data and information to make decisions. Bureau of Labor Statistics does not list data management or governance as a tracked job, but Glassdoor lists related job titles such as “chief data officer, data management, enterprise data architect, data modeler, database marketing, business analyst, data analyst, data architect” working primarily in health care, insurance, and the financial industries. Indeed.com reports an average salary for data analysts of $69,000. Data architects, a position requiring more database skills that the MS Information would provide, earn an average of $122,000.

Information Science: (embedded in core courses) The information science material embedded in required courses will provide foundational knowledge in information science. Future coursework could expand to include the computational processing of textual information through tools such as text and web mining, textual data visualization, natural language processing and basic machine learning. This is an employment area that is not well represented by traditional employment categories, but organizations of many types need text mining skills. Graduates could work in the technology and analysis units of organizations that seek to identify and explore patterns in and among texts. Many software companies, government agencies and research organizations seek experts who can develop and run analysis to discover relationships between texts, automatically detect text topics, text parts or text subjectivity, automatically product synthesis of large texts, and generate network analysis of relationships between texts.

Human and Organizational Factors in Data and Information Security and Privacy (future area of growth): Educational Advisory Board consulting reports show high demand for master’s level job postings in information and data security both regionally and nationally. The iSchool plans to collaborate with the Business School to create shared curricula in this area. The new curricula would not contain the advanced technical coursework needed to qualify as a “Cybersecurity” MS, but it would produce information professionals who are literate about computer security issues and have expertise in the human factors, data/information governance and policy/legal aspects of information/data security and these skills are in high demand. Technology companies, higher educational institutions, government agencies, NGOs are currently dealing with policy and ethical issues related to collection and use of information and data beyond merely securing data they already have. The 2018 Burning Glass report suggests a 20.9% growth in positions of “information security analysts.” This program will produce students who can address these broader concerns.

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

The required courses of the MS include foundational information science, data ethics, statistics, data flow analysis, communications, cultural competencies and data and project management knowledge. Concentration areas of the new MS program represent emerging, and rapidly growing, areas of the data and information professions. Further, they provide a pathway for students motivated by public good and community concerns to gain important data and technology skills. The MS will begin with two concentration areas:

Area 1: User Experience/Interaction Design (linked to UX capstone certificate)
Area 2: Data Analytics and Data Management for Information Professionals (linked to Analytics
capstone certificate)
Other concentration areas, such as Human and Organizational Factors in Data and Information Security and Privacy, and additional specialized coursework in information science will be added as faculty are hired with program revenues.

Planned growth areas:
- Human and Organizational Factors in Data and Information Security and Privacy
- Specialized information science courses

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 iSchool faculty and staff strongly supported an emphasis on preparation of students for a diverse and multicultural society and voted to include "cultural literacies" as a program level learning outcome. All students will be supported in achieving learning outcome 5. "Demonstrate professional communications, teamwork, and awareness of culture competencies" through the classroom portion of the required internship course. Diversity and inclusion issues will also be addressed by distribution of content across many other program courses and encouragement of the use of classroom materials such as readings developed by diverse voices.

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

The proposed program is complementary to several existing programs on the UW-Madison campus, and it will share coursework with some of them: (a) the professional masters in Computer Sciences, and (b) the MS-Statistics Data Science Option (c) the MS Design + Innovation from Engineering and (d) the MS Business Analytics. It builds on the iSchool's existing capstone certificates in Digital User Experience Design and Analytics for Decision Making.

The MS Information will complement the Computer Sciences Professional Masters (PMP) and it will share courses with CS to promote curricular efficiencies. The MS information is different in that it would include more coursework in the areas of management, policy/ethics, human dimensions of computer systems. The MS Information requires a lower level of technical proficiency prior to admission. The technical coursework for the MS in Information would include more entry-level technology courses than the CS PMP. The program draws a different set of students. The CS PMP is more purely technical in nature and prepares students for jobs that require a high level of knowledge of computer hardware, programming and computational theories (e.g., programmer, software developer). The MS Information mixes more introductory and applied technology courses with preparation in ethics and human aspects of computing. The MS in Information will draw on CS coursework in basic programming and HCI as electives. No CS coursework is required for the proposed degree.

Statistics – MS Statistics Data Science Option: The proposed MS Information differs from the MS Statistics Data Science option in that the Statistics MS has a more advanced statistical and computational material. The MS Statistics Data Science has numerous math and statistics prerequisites, while the proposed degree has none. The MS Statistics Data Science will produce data scientists while the proposed degree aims to produce data savvy information professionals. The MS Information approaches data management from a more managerial, policy and social impacts prospective. The MS Information degree would focus on issues related to planning data management at an organizational level, data organization and access issues, auditing and evaluation of data practices, and data policy and ethics issues and would cover only introductory statistical and data mining concepts to support creating data-savvy managers. Statistics has already approved the three Information School courses that would compromise the statistical component of courses possible in the MS Information. The two programs will share a course in Data Science Ethics.

Engineering/Design Innovation: The iSchool is part of the steering committee for the MS Design + Innovation and will share coursework in the areas of user experience/interaction design and information visualization. This cooperative relationship between the MS D+I and MS Information allows efficient sharing of courses while also giving students the choice between a more general information/data management degree (MS Information) and a design degree (MS D+I). The MS Information will differ from the MS Design+Innovation degrees in that it will offer
an online option, offer part time options for working adults, include distinct concentrations (e.g., information and data, management/data governance, analytics for decision making, information science), include information/data ethics and values concepts not covered by the MS Design Innovation, and prepare students for careers in managing data and information rather than careers in design. The MS Design + Innovation is more focused on careers in design: design engineers, design entrepreneurs, business model and supply chain designers.

Business School MS Business Analytics (proposed): The iSchool and the Business School and the are planning to share curriculum between the MS Information and a proposed MS Business:Business Analytics. The iSchool and School of Business plan to share future coursework in the Analytics and Data Risk and Surveillance areas. This cooperative relationship between the proposed MS Business Analytics and MS Information allows efficient sharing of courses while also giving students the choices about pathways. The MS Information will differ from planned Business School degrees in that: (a) it will offer an online degree option, (b) it will include concentrations in the areas not covered by School of Business such as user experience/interaction design, information science, and data governance and information management; (c) it aims at an audience of adult career changers rather than the MS Business Analytics audience of UW-Madison undergraduate students from business and other quantitative non-business fields (e.g., statistics, economics, computer science), who wish to stay in Madison to pursue 5th year master’s degree.

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>Eschenfelder, Kristin</td>
<td>Information School (I SCHOOL)</td>
<td>Associate Director, School of Computer, Data &amp; Information Sciences</td>
</tr>
<tr>
<td>Kim, Kyung-Sun</td>
<td>Information School (I SCHOOL)</td>
<td>Professor, Director</td>
</tr>
<tr>
<td>Smith, Catherine</td>
<td>Information School (I SCHOOL)</td>
<td>Professor</td>
</tr>
<tr>
<td>Rubel, Alan</td>
<td>Information School (I SCHOOL)</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>Salo, Dorothea</td>
<td>Information School (I SCHOOL)</td>
<td>Faculty Associate</td>
</tr>
<tr>
<td>Hendricks Cobb, Tanya</td>
<td>Information School (I SCHOOL)</td>
<td>Student Services Coordinator</td>
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<tr>
<td>Greiber, Jenny</td>
<td>Information School (I SCHOOL)</td>
<td>Certificates Coordinator</td>
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<tr>
<td>Wiessinger, Nicole</td>
<td>Information School (I SCHOOL)</td>
<td>Associate Director</td>
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What resources are available to support faculty, staff, labs, equipment, etc.? The Information School has an existing departmental space that includes faculty and administrative offices, meeting rooms, computer labs, usability labs, and social spaces. The Information School is well supported with IT through the HC White IT Cooperative. The Information School has a strategic partnerships with other units on campus that will augment the program including: (a) partnerships with Computer Science and Statistics through the School of Computer, Data & Information Science collaborations (b) strong relationships with UW-Madison offices that will facilitate student internships including the Cybersecurity Office, User Experience office in the Division of Information Technology, and campus data management offices (c) an strong existing internship program that regularly places students in information agencies in the state and region. The School of Computer, Data & Information Sciences is currently fundraising for a new building, and the MS Information would ultimately be housed in the those new facilities.

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

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<tr>
<th>Name (Last, First)</th>
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<td>Hendricks Cobb, Tanya</td>
<td>Information School (I SCHOOL)</td>
<td>Student services coordinator</td>
</tr>
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</table>

Describe how student services and advising will be supported. The Information School has a strong existing student services infrastructure with 2 total 100%
FTE positions supporting the MA Library and Information Studies program and the capstone certificate programs in User Experience and Analytics for Decision Making. The budget proposal for the MS information includes a plan to add 1 FTE in the student support area in 2020 to support the new program (2020 MS Program Coordinator/Advisor - 100% in MS). At that point, the three student-oriented staff members will coordinate their efforts to ensure student support and advising across the iSchool’s programs. In addition, the budget proposal includes a plan to hire an internship coordinator/advisor in 2021 which will serve multiple iSchool programs and further strengthen services to students while coordinating efforts with L&S Success Works (2021 GraAcaAdvisor/internship coordinator -33% for MS, 33% MA, 33% future undergrad)

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.

Letters & Sciences Community of Graduate Research Scholars

**Resources, Budget, and Finance**

Is this a revenue program? Yes

What is the tuition structure for this program?

- Market-based tuition - separate proposal to be submitted

Select a tuition increment:

- $1,100/credit

What is the rationale for selecting this tuition increment?

- Market analysis of peer programs. Students’ expected salaries upon completion of the program. Coverage of program costs.

Upload the proposal for market based tuition: MS_info

Marketbasedprogramtuitionrequestform.docx

Provide a summary business plan.

See attached 10 year budget plan for detailed information. The below is based on year 4 of the plan (2024).

- total credits produced: 1730
- tuition per credit: $1100
- gross tuition revenue: 1,903,000
- tuition revenue - discounts (scholarships): $1,712,700
- campus share: $171,270
- college share: $393,921
- instructional costs: $472,036
- support costs: $269,065
- program development costs: $28,393
- marketing costs: $123,500

- department revenue: $230,692 (mostly reinvested in more faculty and staff hiring)

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

As a non pooled program, all program costs will be covered by program revenue. The 10 year budget plans shows that all program costs will be covered by enrollment by the 4th year of the program if student recruitment targets are met.

What is the marketing plan?

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

- The Information School will develop a marketing plan in consultation with the Division of Continuing Studies. This plan will include the following elements:
  - * website on regular iSchool webpage
  - *website on the Advance Your Career Adult Learners page
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 APIR after school/college approval and before submission to UWSA for Board consideration. These forms are uploaded here by APIR.

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.

All needs are described above.

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.

Full time students will be eligible for financial aid. The Information School will seed the financial aid money to the new MS Information from available 131 revenues. Non pooled program students are not eligible for tuition remission. Scholarships will be available, decisions are made after admissions based on a combination of academic potential, financial need and the desire to build a well-rounded cohort.

Curriculum and Requirements

* social media based advertising (Google, LinkedIn)
* outreach to likely candidate universities in India, China
* spreading the word to alumni through newsletters, departmental social media
* attendance at relevant professional conferences with information packets

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 undergrad majors and alumni as well as targeted paid lists such as GRE. Dedicated landing page(s) will be built using lead conversion best practices.

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.

As a non pooled program, program revenue will cover all new program costs including administration, teaching academic staff, new faculty lines, student services and scholarships. The school has capacity to manage the additional outcomes assessment and program review with current resources. The iSchool is recruiting for 3 positions in 2019-2020. The Information School has received 3.5 years of faculty bridge support from the College of Letters & Science and campus totaling $540,000 coming in the form of 131 dollars. Additionally the iSchool will pay for the following expected costs from existing program revenue: online course development, short term staff costs, DCS marketing after year 2, S&E costs, and an initial pool of scholarship money for recruitment prior to generation of new program revenue.

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?

The College of L&S and campus have committed start up funds of $540,000 over three years to support the MS Information. The program will hire one faculty and one faculty associate in 2021 with these funds to provide sufficient new teaching capacity to begin the program. The program will also add student support personnel (program coordinator/advisor and internship coordinator) in 2020 and 2021 using existing MA program revenues and new MS Information program revenues. The iSchool has a sizable 131 surplus it can draw on to support these hires before new program revenue begins.

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?

The proposed program will increase workload for the iSchool professional administrative staff. New program revenue will be used to help hire a new University Services Associate who will serve multiple programs in the iSchool.

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.

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Guide Admissions/How to Get In tab

Students apply to the Master of Science in Information through one of the named options:
- Campus Program [REGISTRAR INSERT LINK]
- Online Program [REGISTRAR INSERT LINK]

Describe plans for recruiting students to this program.

Recruitment will be coordinated with the above described marketing plan.

Early stage: Recruitment will be led by the Information School student services team. Interested students are invited to make an appointment to talk with student services staff or visit the school. If possible, they are encouraged to attend a class during their visit. The program will hold annual web conference based recruiting information sessions in the fall to increase the geographical range of recruiting. iSchool student services also connects interested students to current student and alumni volunteers who are willing to discuss their experiences at the program and their career progression.

Middle: The student records manager tracks all partially completed applications and sends email reminders to applicants to complete their applications before key deadlines. The iSchool recently revamped its application process to speed up production of acceptance notices. Negotiation with accepted students for scholarship money begins at this time. Faculty volunteer to send encouraging emails to accepted students in their specialization areas. All admitted students are invited to subscribe to a new students blog that provides ongoing information for incoming students.

Post acceptance: In the period after acceptance but before starting the program, all admitted students are added to an incoming students blog. Student services regularly posts information about the program, the city of Madison, relevant part-time jobs for students, financial aid and other material on this blog. The Director and student services coordinator hold an online advising session mid-summer before students enroll for fall courses to answer questions.

Orientation: the iSchool holds orientations for both its online programs (early August) and its campus programs (late August) to prepare students for academic success by introducing them to department and campus resources as well as connecting them to relevant social and support groups. The online MS Information students will have a separate online orientation combining synchronous and asynchronous elements to ensure they are familiar with online educational tools and available campus resources such as the library and the Writing Center.

What is the recruiting and admissions strategy for underrepresented students?

In addition to general outreach and recruitment efforts listed above, the iSchool will participate in the GEM network that enables qualified students from underrepresented communities to pursue STEM graduate education. The iSchool student services staff will participate in events that draw together underrepresented student populations, such as Association for Women in Computing, the ACM Women in Computing group and state and regional professional associations such as Midwest UX and DAMA International for Data management/governance. The iSchool will partner with the Center for Academic Excellence in L&S to increase student awareness of the MS Information. The iSchool recently hosted an information table at the International Colloquium on Black Males in Education in Milwaukee in order to increase awareness of the future MS Information and the array of CDIS educational programs.

On campus the iSchool will attend the SOAR Resource Fair to increase awareness among students and collaborate with CS to send cohorts of students to the Grace Hopper Annual Conference of Women in Computing.

The program will target scholarships to recruit underrepresented students.

Projected Annual Enrollment:

<table>
<thead>
<tr>
<th>Year</th>
<th>Projected Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>32</td>
</tr>
<tr>
<td>Year 2</td>
<td>50</td>
</tr>
<tr>
<td>Year 3</td>
<td>64</td>
</tr>
<tr>
<td>Year 4</td>
<td>72</td>
</tr>
</tbody>
</table>
Maximum enrollment that can be supported with existing instructional and student services resources:

25

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

Lower than anticipated enrollments - given lower than anticipated enrollments after expected build years, the MS Information would (a) conduct user research in order to understand why students are not seeking or accepting admissions into the program. It would make adjustments to make the program more attractive (b) seek to expand recruitment areas internationally in order to draw new audiences.

Higher than anticipated enrollments - Higher than planned enrollments would only be accepted if they are sufficient to hire additional instructional and students services staff.

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

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

**CURRICULAR REQUIREMENTS**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Credit Requirement</td>
<td>30 credits</td>
</tr>
<tr>
<td>Minimum Residence Credit</td>
<td>16 credits</td>
</tr>
<tr>
<td>Minimum Graduate Coursework</td>
<td>Half of degree coursework (15 credits out of 30 total credits) 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://registrar.wisc.edu/course-guide/">https://registrar.wisc.edu/course-guide/</a>).</td>
</tr>
<tr>
<td>Overall Graduate GPA Requirement</td>
<td>3.00 GPA required.</td>
</tr>
<tr>
<td>Other Grade Requirements</td>
<td>Within the student's total program, one grade of BC or C is allowable in either a required or elective course if it is balanced by a grade of A or AB earned either prior to or concurrently with the unsatisfactory grade. Students receiving a BC or C move into probationary status. A second grade of BC or C or any grade of D or F will normally result in the student being dropped from the program. In addition, a student's graduate-program cumulative grade point average must be maintained at 3.00 or above.</td>
</tr>
<tr>
<td>Assessments and Examinations</td>
<td>No formal examination is required.</td>
</tr>
<tr>
<td>Language Requirements</td>
<td>None.</td>
</tr>
</tbody>
</table>

Required courses

Select a [Named Option](#) for courses required.

Named Options

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral. Students pursuing the Master of Science in Information must select one of the following named options:

Total credits required:

30

Guide Graduate Policies tab

https://next-guide.wisc.edu/courseleaf/approve/?role=GRAD SCH Dept. Approver
Students should refer to one of the named options for policy information:
Campus Program [REGISTRAR INSERT LINK]
Online Program [REGISTRAR INSERT LINK]

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.

The maximum period for completion of the M.S. (under special circumstances) is seven calendar years.
Contact the department for more information.

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.

Program Learning Outcomes and Assessment

List the program learning outcomes.

<table>
<thead>
<tr>
<th>Outcomes – enter one learning outcome per box. Use the green + to create additional boxes.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
</tbody>
</table>

Summarize the assessment plan.

Assessment plan for both named options: campus and online

a. How the program will continuously assess (using both direct and indirect assessment measures) the extent to which the learning outcomes are accomplished. The program will use both indirect and direct measures. The indirect measures will include an annual survey of upcoming graduates to assess the degree to which they perceive they have acquired knowledge and competencies represented in the PLOs. One direct measure will be a report from internship supervisors. assessing the students skills and competencies. Another direct measure will be a rotating review of required course assignments that demonstrate obtainment of PLOs. The review will be done by the iSchool assessment committee.

b. Describe the processes that will be in place to make use of assessment evidence to improve the quality of the program.

Each year the program director will produce a program assessment report. The faculty will discuss the report at the annual faculty retreat and suggest program changes and delegate issues to relevant iSchool committees such as the curriculum committee or the online education and student support committee.

For programs with named options, the assessment plan for the parent program should apply to and encompass all the named options. For named options the summary should highlight how the named option(s) is included in the overall assessment plan for the major.

Approved Assessment Plan: 0225 MS Information Assessment Plan.docx

Related Programs

Provide information in 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.

Several related programs exist in the UWSystem. Given the importance of d information technology to economic and social development of the state, a diversity of educational programs with different options and which attract different audiences support state goals of developing a data and technology savvy citizenry and workforce.
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.

<table>
<thead>
<tr>
<th>Name (Last, First)</th>
<th>Date of contact/support letter received</th>
<th>School, College, or Department</th>
<th>Comment by contact person</th>
<th>On behalf of</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debaillie, Lee</td>
<td>11/04/2019</td>
<td>College of Engineering (ENGINEERG)</td>
<td>request to add relevant ISYE courses to elective options (done)</td>
<td>Engineering</td>
</tr>
<tr>
<td>Zhu, Jun</td>
<td>10/06/2019</td>
<td>Statistics (STATISTICS)</td>
<td>courses in each program may be used as electives for the other program, adding value, breadth, and opportunities to the educational experiences of students in both programs</td>
<td>Statistics</td>
</tr>
<tr>
<td>Arpaci-Dusseau, Remzi</td>
<td></td>
<td>Computer Sciences (COMP SCI)</td>
<td>Align new intro python course numbering (underway)</td>
<td>Computer Sciences</td>
</tr>
<tr>
<td>Matsumura, Ella Mae</td>
<td></td>
<td>School of Business (BUSINESS)</td>
<td>use analytics courses from both programs as electives in the other</td>
<td>Business</td>
</tr>
</tbody>
</table>

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.

- The UW-Milwaukee MS Information Science and Technology (36 credits): The Milwaukee MS is currently offered “primarily online.” 
- The Madison degree will be primarily campus based and will recruit a sizable international student cohort.
- The Madison degree has a unique affiliation with two existing capstone certificates in User Experience Design and Analytics for Decision Making. This relationship gives students the flexibility of beginning their graduate work with an online certificate and then rolling the credits into the MS degree.
- The UW-Madison proposed degree differs in that it requires a for-credit field experience while other degree options do not.
- UW Data Science (UW-System Collaborative Degree 30 credits) – The MS Information has a different mission and will attract a different population of students. Its goal is to create data savvy information managers, while the Data Science MS aims to create data scientists. Compared to the UW System Data Science MS, the MS Information will provide more entry level, applied knowledge framed within the context of practical organizational decision making and information management. It will not have the mathematics and computer programming prerequisites required by the Data Science program.
- UW Master of Science in Information Technology Management (various campuses 37 credits) The proposed degree differs in three ways: 1. The UW System MS in IT Management is only available online, and draws from faculty from across the UW System. 2. The UW System MS has a business IT focus with required classes in finance, enterprise applications and business analysis. In contrast, the UW-Madison MS Information has more of an IT in civil society and information/data management focus. 3. The Madison MS Information has a required internship while the UW System has a capstone project.
- MS Information and Communications Technologies (Stout 30 credits) The proposed iSchool MS in Information differs in five ways from the UW-Stout program: 1. The UW-Stout program is also 100% online.
- The proposed iSchool program has a unique affiliation with two existing capstone certificates in User Experience Design and Analytics for Decision Making. This relationship gives students the flexibility of beginning their graduate work with an online certificate and then rolling the credits into the MS degree.
# 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:

<table>
<thead>
<tr>
<th>Entered by:</th>
<th>Elaine M. Klein, on behalf of the iSchool</th>
<th>Date entered:</th>
<th>2/14/2020</th>
</tr>
</thead>
</table>

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:

<table>
<thead>
<tr>
<th>Entered by:</th>
<th>Elaine M. Klein, Assoc Dean for Academic Planning</th>
<th>Date entered:</th>
<th>2/14/2020</th>
</tr>
</thead>
</table>

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

Enter any notes about the approval here:

<table>
<thead>
<tr>
<th>Entered by:</th>
<th>Date entered:</th>
</tr>
</thead>
</table>

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

Enter any notes about approval here:

<table>
<thead>
<tr>
<th>Entered by:</th>
<th>Date entered:</th>
</tr>
</thead>
</table>

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### For Administrative Use

**Admin Notes:**

**Guide URL:** /graduate/information/information-ms/

**Effective date:**

**Career:**

**SIS Program Code:**

**SIS Short Description:**

**Other plan codes associated with this program:**

**Diploma Text:**

**Diploma Text 2:**

**Degree:**

**Field of Study:**
<table>
<thead>
<tr>
<th>Reviewer</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regina Lowery (lowery3) (02/19/20 2:37 pm)</td>
<td>Learning outcomes: Format accepted.</td>
</tr>
<tr>
<td>Regina Lowery (lowery3) (02/19/20 2:44 pm)</td>
<td>Assessment plan: Include a curriculum map in the assessment plan. A template of a curriculum map can be found in the template assessment plan documents located at the bottom of this page: <a href="https://assessment.provost.wisc.edu/academic-program-assessment-plans-guidelines-and-templates/">https://assessment.provost.wisc.edu/academic-program-assessment-plans-guidelines-and-templates/</a>. Curriculum mapping often takes the form of a grid. The program’s courses and requirements comprise the rows. The learning outcomes comprise the columns. The box for a curricular element that contributes to given learning outcomes will be marked with a checkmark or some other notation.</td>
</tr>
<tr>
<td>Kristin Eschenfelder (eschenfelder) (02/21/20 3:47 pm)</td>
<td>Hello, I have receive a letter of support from the Business School. Who should I send it to in order to have it attached to the proposal? thank you!</td>
</tr>
<tr>
<td>Karen Mittelstadt (mittelstadt) (02/25/20 8:54 am)</td>
<td>Rollback: APIR Rollback. Per 2/25/2020 email from Mittelstadt to Eschenfelder/Wiessinger, revisions needed to make credit count consistent and to complete the assessment plan (add curriculum map).</td>
</tr>
<tr>
<td>Elaine Klein (emklein) (02/25/20 4:02 pm)</td>
<td>Rollback: Rollback to edit per APIR email</td>
</tr>
<tr>
<td>Alan Rubel (arubel) (02/26/20 11:32 am)</td>
<td>Rollback: Because it must be done.</td>
</tr>
<tr>
<td>Regina Lowery (lowery3) (03/17/20 10:07 am)</td>
<td>Assessment plan: Format accepted.</td>
</tr>
</tbody>
</table>