# : INFORMATION SCIENCE

## In Workflow

1. I SCHOOL Dept. Approver (arubel@wisc.edu; wiessinger@wisc.edu)
2. L&S College Admin Reviewer (emklein@wisc.edu; klcornelius@wisc.edu; mjpflieger@wisc.edu; schuth@wisc.edu; zenz@wisc.edu)
3. L&S College Approver (ewilcots@wisc.edu; emklein@wisc.edu; klcornelius@wisc.edu; mjpflieger@wisc.edu; schuth@wisc.edu; zmcleod@wisc.edu)
4. APIR Admin (mrschultz3@wisc.edu; jlmilner@wisc.edu; meyoung@wisc.edu; mittelstadt@wisc.edu)
5. UAPC Approver (jkscholz@wisc.edu; jlmilner@wisc.edu; mrschultz3@wisc.edu; laleininger@wisc.edu; mittelstadt@wisc.edu)
6. Registrar (wclipske@wisc.edu; jbrown42@wisc.edu; emackay2@wisc.edu)

## Approval Path

1. Thu, 02 Sep 2021 22:21:42 GMT
   Alan Rubel (arubel): Approved for I SCHOOL Dept. Approver
2. Wed, 08 Sep 2021 15:10:07 GMT
   Kimbrin Cornelius (klcornelius): Rollback to I SCHOOL Dept. Approver for L&S College Admin Reviewer
3. Wed, 08 Sep 2021 16:11:20 GMT
   Melissa Schultz (mrschultz3): Rollback to Initiator
4. Wed, 08 Sep 2021 16:25:14 GMT
   Alan Rubel (arubel): Approved for I SCHOOL Dept. Approver
5. Thu, 16 Sep 2021 19:04:01 GMT
   Elaine Klein (emklein): Rollback to Initiator
6. Mon, 04 Oct 2021 03:40:26 GMT
   Nicole Wiessinger (wiessinger): Approved for I SCHOOL Dept. Approver

### New Program Proposal

Date Submitted: Fri, 01 Oct 2021 22:03:35 GMT

### Viewing: : Information Science

### Last edit: Fri, 08 Oct 2021 00:04:38 GMT

Changes proposed by: eschenfelder

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

| Name |
| --- |
| Elaine M Klein - L&S |

**Proposal Abstract/Summary:**

The faculty of the Information School in the College of Letters & Science at University of Wisconsin-Madison proposes to establish a Bachelor of Arts/Bachelor of Science (B.A./B.S.) degree major in Information Science (iSci). The major contributes to the UW-Madison mission of helping students "develop an understanding and appreciation for the complex cultural and physical worlds in which they live." The campus strategic framework prioritizes expanding "educational programming in areas of high student demand" including information science, applied computing and data analytics. It will help achieve the College of Letters & Science goal of extending access to technology curricula to a broader and more diverse set of students. The iSci major will include 30-credits (21 credits of information science coursework, 1-6 credits of career/internship, and 8 credits of electives) within the 120 credit BA/BS degree. Graduates will seek employment that leverages their information and data expertise across a wide range of fields. Data from peer programs show a high employment rate for graduates.

## Basic Information

**Program State:**

Active

**Type of Program:**

Degree/Major

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

A2P AMENDED 21Sept MSN Information Science BABS(1).pdf

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

iSci Regents AUTHORIZATION 091021.docx

**Who is the audience?**
Undergraduate

**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

**Award:**
Bachelor of Arts and Bachelor of Science

**Transcript Title:**
Information Science

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

| Role Type | Name (Last, First) | Email | Phone | Title |
|---|---|---|---|---|
| Primary Contact | Wiessinger, Nicole | wiessinger@wisc.edu | 608/263-2963 | |
| Department Chair | Rubel, Alan | arubel@wisc.edu | 608/263-2900 | |
| Primary Dean's Office Contact | Klein, Elaine | emklein@wisc.edu | 608/265-8484 | |
| Primary Dean's Office Contact | Eschenfelder, Kristin | eschenfelder@wisc.e | 608/263-2105 | |

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

| Departments |
|---|
| Computer Sciences (COMP SCI) |
| Statistics (STATISTICS) |

**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:**
Face-to-Face (majority face-to-face courses)

**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 2022 (1232)

**Year of first program review (5 years after first student enrollment):**
2028

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

Winter 2021 – BOR approval (planned); pre-implementation planning, pilot new classes
Spring 2022 – formal implementation meeting, staff hiring, preparation of communications material with advisors and partner departments, pilot new classes
Summer 2022 – SOAR advising and recruiting for the major, participation in Summer Collegiate Experience
Fall 2022 – the major begins
Spring 2023- first assessment activities begin.

## Rationale and Justifications

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

The proposed Information Science (iSci) major provides students with the opportunity to learn concepts and examine issues at the nexus of people, data, information and computing. ISci emphases the ethical, cultural, and social challenges inherent in the design and use of information technology-based and data-driven solutions. It emphasizes design of systems for the good of people, organizations, and society. The proposed major will produce critical thinkers, creative innovators, and future leaders adept in the creation, management, retrieval, and curation of data and information, and skilled in the design and application of information technologies to solve problems. Graduates will seek to increase access to and understanding of information and data in ways that expand both individual and collective knowledge, enhance productivity, and foster well-being and civic responsibility in Wisconsin, the United States, and beyond.

Students majoring in Information Science at UW-Madison shall:
1) Understand ways in which the policies, ethics, and values associated with information systems can affect society;
2) Understand the relationships between information, cognition, and human social activity;
3) Apply design principles and information science concepts to improve information systems and solve problems;
4) Apply introductory data analysis and data quality management approaches and communicate results;
5) Apply computational tools to accomplish goals and meet human needs;
6) Communicate well in oral, written, and visual forms.

**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)?**

According to its Mission Statement, UW-Madison's primary goal is to "help students to develop an understanding and appreciation for the complex cultural and physical worlds in which they live." Computer-based information and data systems have become central to students' lives as well as the many career fields they choose to pursue. The proposed iSci major will contribute to the liberal arts mission of creating a more informed citizenry able to grapple with the technologically complex issues facing today's society. The curriculum of the proposed iSci major will combine acquisition of critical "why this matters" analysis skills with technical "how to" knowledge. For example, students in the major will explore how information and data systems shape social interactions (e.g., recreation, shopping, political activity), and at the same time they will learn tools and techniques to design innovative new systems. The University of Wisconsin's strategic framework for 2020-2025 prioritizes expanding "educational programming in areas of high student demand." The iSci major would expand access to coursework related to information science, applied computing and data analytics. It will create new courses that appeal to and are accessible to a broad array of students. This will strengthen educational outcomes and enhance the overall college experience for a broad range of our undergraduate student population.

The Information School (iSchool) will administer and govern the curriculum. There are 53 iSchools in North America and 115 world-wide and most of them host undergraduate majors. It has sufficient faculty to offer the program (14 tenure track faculty, 4 full time faculty associates, and a 2021-22 cluster hire in computing, data, and information ethics). The iSchool already fields 6-8 undergraduate courses per year for the Digital Studies undergraduate certificate and the Data Science major, and these courses will be included in the new iSci major. The iSchool will field all required coursework to ensure its availability. The iSchool will offer many of the electives, but it will also partner with other departments to include their electives in the major.

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

Nationally, Information Science majors are popular. The Taulbee survey, which tracks enrollment in computing-related programs in North America, shows an increase of 6.6% per year in US declarations of computing-related majors, including information science majors. Looking at U.S. programs in 2019, information science majors had an average of 143.2 declared students (Taulbee Report 2019 pg 21; (https://cra.org/resources/taulbee-survey/)).

For an in-state comparison, UW-Milwaukee has a successful major in Information Science & Technology which had 229 graduates in 2018-2019 and 441 reported majors.

At UW-Madison, the popularity of the related curriculum in the UW-Madison Digital Studies certificate also suggests the proposed iSci major would see similar growth at UW-Madison. The Digital Studies certificate has 600 declared students and 200 graduates a year. The academic coordinator for the certificate attests that she is often asked by undergraduate students why there is no related major and if there is one in the works. The proposed information science major would fill this gap for students. Building from the success of the Digital Studies certificate, the program is expected to attract students that might not otherwise have considered majoring in a STEM discipline. Further, we expect the new iSci major will attract students who are attracted in computing and data related fields, but chose not to declare in Computer Sciences or Data Sciences. Furthermore, many students are anticipated to use the iSCi major to add to and enrich study in an existing major.

Demand for related majors at UW-Madison is very high suggesting related demand for the proposed iSci major. The UW-Madison campus has seen strong growth of enrollment in Computer Sciences and Data Science in the past few years. Data Science started with an initial 131 majors which quickly grew to 300 majors by spring 2021.