INFORMATION SCIENCE, B.S.

REQUIREMENTS

UNIVERSITY GENERAL EDUCATION REQUIREMENTS

All undergraduate students at the University of Wisconsin–Madison are required to fulfill a minimum set of common university general education requirements to ensure that every graduate acquires the essential core of an undergraduate education. This core establishes a foundation for living a productive life, being a citizen of the world, appreciating aesthetic values, and engaging in lifelong learning in a continually changing world. Various schools and colleges will have requirements in addition to the requirements listed below. Consult your advisor for assistance, as needed. For additional information, see the university Undergraduate General Education Requirements (http://guide.wisc.edu/undergraduate/#requirementsforundergraduatestudytext) section of the *Guide*.

General Education	• Breadth—Humanities/Literature/Arts: 6 credits • Breadth—Natural Science: 4 to 6 credits, consisting of one 4- or 5-credit course with a laboratory component; or two courses providing a total of 6 credits • Breadth—Social Studies: 3 credits • Communication Part A & Part B * • Ethnic Studies * • Quantitative Reasoning Part A & Part B *

* The mortarboard symbol appears before the title of any course that fulfills one of the Communication Part A or Part B, Ethnic Studies, or Quantitative Reasoning Part A or Part B requirements.

COLLEGE OF LETTERS & SCIENCE DEGREE REQUIREMENTS: BACHELOR OF SCIENCE (B.S.)

Students pursuing a Bachelor of Science degree in the College of Letters & Science must complete all of the requirements below. The College of Letters & Science allows this major to be paired with either the Bachelor of Arts or the Bachelor of Science degree requirements.

BACHELOR OF SCIENCE DEGREE REQUIREMENTS

Mathematics	Complete two courses of 3+ credits at the Intermediate or Advanced level in MATH, COMP SCI, or STAT subjects. A maximum of one course in each of COMP SCI and STAT subjects counts toward this requirement.
Foreign Language	Complete the third unit of a foreign language.
L&S Breadth	Complete: • 12 credits of Humanities, which must include at least 6 credits of Literature; and • 12 credits of Social Science; and • 12 credits of Natural Science, which must include 6 credits of Biological Science and 6 credits of Physical Science.
Liberal Arts and Science Coursework	Complete at least 108 credits.
Depth of Intermediate/Advanced Coursework	Complete at least 60 credits at the Intermediate or Advanced level.
Major	Declare and complete at least one major.
Total Credits	Complete at least 120 credits.
UW-Madison Experience	Complete both: • 30 credits in residence, overall, and • 30 credits in residence after the 86th credit.
Quality of Work	• 2.000 in all coursework at UW–Madison • 2.000 in Intermediate/Advanced level coursework at UW–Madison

NON–L&S STUDENTS PURSUING AN L&S MAJOR

Non–L&S students who have permission from their school/college to pursue an additional major within L&S only need to fulfill the major requirements. They do not need to complete the L&S Degree Requirements above.

REQUIREMENTS FOR THE MAJOR

Students must complete a minimum of 30 total credits as detailed below.

LIST A: CORE INFORMATION SCIENCE COURSEWORK

Code	Title	Credits
Complete at least 21 credits		
Credits are calculated using any L I S course in a Breadth area below and any of the following additional courses:		
L I S 201	The Information Society	4
L I S 202	Informational Divides and Differences in a Multicultural Society	3
COMP SCI 202	Introduction to Computation (Information Science Coursework)	3
L I S 301	Information Literacies in Online Spaces	3
L I S 340	Topics in Information Studies - Social Aspects	3
L I S 341	Topics in Information Studies - Technological Aspects	1-3
L I S 350	History and Future of Books	3
L I S 351	Introduction to Digital Information	3
L I S 399	Independent Reading and Research	1-4
L I S 407	Data Storytelling with Visualization	3
L I S 440	Navigating the Data Revolution: Concepts of Data & Information Science	3
L I S/AFRICAN/ COM ARTS 444	Technology and Development in Africa and Beyond	3
L I S/LEGAL ST 460	Surveillance, Privacy, and Police Powers	3
L I S 461	Data and Algorithms: Ethics and Policy	3-4
L I S 464	Applied Database Design	3

L I S 470	Interaction Design Studio	3
L I S 500	Code and Power	3
L I S 501	Introduction to Text Mining	3
L I S 510	Human Factors in Information Security	3
L I S/NURSING/ OCC THER 517	Digital Health: Information and Technologies Supporting Consumers and Patients	3
COMP SCI 570	Introduction to Human-Computer Interaction (Information Science Coursework)	4
L I S 646	Introduction to Info Architecture and Interaction Design for the Web	3

INFORMATION SCIENCE BREADTH REQUIREMENTS (ALL MUST COMPLETE)

Ethics, Computing & Society Coursework

Code	Title	Credits
Complete one course & at least 3 credits		
L I S 201	The Information Society	4
L I S 202	Informational Divides and Differences in a Multicultural Society	3
L I S 461	Data and Algorithms: Ethics and Policy	3-4
L I S/LEGAL ST 460	Surveillance, Privacy, and Police Powers	3
L I S 500	Code and Power	3

Computational Techniques and Tools Coursework

Code	Title	Credits
Complete one course & at least 3 credits		
L I S 351	Introduction to Digital Information	3
L I S 501	Introduction to Text Mining	3
COMP SCI 202	Introduction to Computation	3
COMP SCI 220	Data Science Programming I	4
COMP SCI 200	Programming I	3
COMP SCI 300	Programming II	3
COMP SCI 368	Learning a Programming Language	1
STAT 433	Data Science with R (Complete one course & at least 3 credits)	3

Principles of Information and Data Science Coursework

Code	Title	Credits
Complete one course & at least 3 credits		
L I S 440	Navigating the Data Revolution: Concepts of Data & Information Science	3
L I S 464	Applied Database Design	3
STAT 240	Data Science Modeling I	4

Designing for Human Computer Interaction Coursework

Code	Title	Credits
Complete one course & at least 3 credits		
L I S 470	Interaction Design Studio	3
COMP SCI 570	Introduction to Human-Computer Interaction	4
I SY E/PSYCH 349	Introduction to Human Factors	3

Communicating Digitally Courses

Code	Title	Credits
Complete one course & at least 3 credits		
L I S 407	Data Storytelling with Visualization	3
L I S 350	History and Future of Books	3
COM ARTS 200	Introduction to Digital Communication	3

List B career/community/internship coursework (1-6 credits)

Code	Title	Credits
Complete 1-6 credits		
Some courses listed may have additional requisites:		
INTER-LS 210	L&S Career Development: Taking Initiative	1
INTER-LS 215	Communicating About Careers	3
INTER-LS/INTER-AG 250	Undergraduate Research Experience	1-3
INTER-LS 260	Internship in the Liberal Arts and Sciences	1
DS 601	Internship	1-8
INTL ST 322	Washington DC Semester in International Affairs Internship Seminar	4
INTL ST 523	International Internship	1-3
INTL ST 622	Washington DC Sem in International Affairs Seminar	4
L I S 399	Independent Reading and Research	1-4
LSC 399	Coordinative Internship/Cooperative Education	1-8
POLI SCI 402	Wisconsin in Washington Internship Course	4
PUB AFFR 327	Administrative Internship	3
COM ARTS 605	Digital Studies Capstone	1
COMP SCI/STAT 403	Internship Course in Comp Sci and Data Science	1
GEN BUS 450	Professional Experience in Business	1
JOURN 697	Internship	1-3

LIST C APPROVED ELECTIVES

Code	Title	Credits
Complete additional credits from courses on List A (Core Information Science), the courses listed for Breadth Requirements, or from any of the following:		
ACT SCI 652	Loss Models I	3
ACT SCI 655	Health Analytics	2-3
COM ARTS 155	Introduction to Digital Media Production	4
COM ARTS 200	Introduction to Digital Communication	3

COM ARTS 345	Online Communication and Personal Relationships	3
COM ARTS 346	Critical Internet Studies	3
COM ARTS 478	Rhetoric and Power on the Internet	3
COM ARTS 509	Digital Media and Political Communication	3
COM ARTS 577	Dynamics of Online Relationships	3
CNSR SCI 257	Introduction to Retail	2
CNSR SCI 301	Consumer Analytics	3
COMP SCI 200	Programming I	3
COMP SCI 220	Data Science Programming I	4
COMP SCI/E C E 252	Introduction to Computer Engineering	3
COMP SCI 300	Programming II	3
COMP SCI 304	WES-CS Group Meeting	1
COMP SCI 310	Problem Solving Using Computers	3
COMP SCI/E C E 354	Machine Organization and Programming	3
COMP SCI 369	Web Programming	3
COMP SCI 407	Foundations of Mobile Systems and Applications	3
COMP SCI 400	Programming III	3
COMP SCI 402	Introducing Computer Science to K-12 Students	2
COMP SCI/E C E 506	Software Engineering	3
COMP SCI 542	Introduction to Software Security	3
COMP SCI 545	Natural Language and Computing	3
COMP SCI 564	Database Management Systems: Design and Implementation	4
DS 120	Design: Fundamentals I	3
DS 140	Visual Thinking - Form and Space	3
DS 221	Person and Environment Interactions	3
DS 321	Problem-definition: Design Programming	3
DS 341	Design Thinking for Transformation	3
DS 451	Color Theory and Technology	3
DS/COMP SCI/ I SY E 518	Wearable Technology	3
DS/COMP SCI 579	Virtual Reality	3
DS 679	Research Methods in Design	3
GEN BUS 306	Business Analytics I	3
GEN BUS 307	Business Analytics II	3
GEN BUS 656	Machine Learning for Business Analytics	2-3
INFO SYS 371	Technology of Computer-Based Business Systems	3
INFO SYS 422	Computer-Based Data Management	3
INFO SYS 424	Analysis and Design of Computer-Based Systems	3
I SY E 348	Introduction to Human Factors Engineering Laboratory	1
I SY E/PSYCH 349	Introduction to Human Factors	3
I SY E 350	Industrial Engineering Design I	3
I SY E 450	Industrial Engineering Design II	3
I SY E/COMP SCI/ DS 518	Wearable Technology	3
LSC 350	Visualizing Science and Technology	3
LSC 432	Social Media for the Life Sciences	3
LSC 440	Digital Media and Science Communication	3
LSC 532	Web Design for the Sciences	3
LSC/COM ARTS/ JOURN 617	Health Communication in the Information Age	3
JOURN 175	Media Fluency for the Digital Age	3
JOURN 411	Multimedia Design	4
JOURN/COM ARTS/ LSC 617	Health Communication in the Information Age	3
JOURN 622	The Impact of Emerging Media	3
JOURN 463	Digital Media Strategies	4
MARKETNG 355	Marketing in a Digital Age	3
MARKETNG/ OTM 427	Information Technology in Supply Chains	3
MARKETNG 445	Digital Marketing Analytics	3
OTM/ MARKETNG 427	Information Technology in Supply Chains	3
OTM 442		3
OTM 453	Operations Analytics	3
R M I 660	Risk Analytics and Behavioral Science	2-3
R M I 670	Cyber Risk & Regulations	2-3
STAT 240	Data Science Modeling I	4
STAT 433	Data Science with R	3
PUB AFFR 281	Discovering What Works in Health Policy	3
PUB AFFR 380	Analytic Tools for Public Policy	3
PUB AFFR 523	Policy, Privacy, and Personal Identity in the Postgenomics Era	3

RESIDENCE & QUALITY OF WORK IN THE MAJOR

- Minimum 2.000 GPA in all L I S and major courses
- Minimum 2.000 GPA computed on 15 credits of upper-level work in the major[1]
- Minimum 15 credits in L I S courses taken on the UW-Madison campus[2]

FOOTNOTES

1

All Intermediate or Advanced-level courses are considered upper-level in the major.

2

A course is considered “at UW-Madison” when it is taken on the UW-Madison campus.

UNIVERSITY DEGREE REQUIREMENTS

Total Degree	To receive a bachelor's degree from UW–Madison, students must earn a minimum of 120 degree credits. The requirements for some programs may exceed 120 degree credits. Students should consult with their college or department advisor for information on specific credit requirements.
Residency	Degree candidates are required to earn a minimum of 30 credits in residence at UW–Madison. "In residence" means on the UW–Madison campus with an undergraduate degree classification. “In residence” credit also includes UW–Madison courses offered in distance or online formats and credits earned in UW–Madison Study Abroad/Study Away programs.
Quality of Work	Undergraduate students must maintain the minimum grade point average specified by the school, college, or academic program to remain in good academic standing. Students whose academic performance drops below these minimum thresholds will be placed on academic probation.