

# INFORMATION SCIENCE - MASTER OF SCIENCE (MS)

The Master of Science degree in Information Science is intended for BS students who desire additional study and experience conducting supervised research to make their résumés even more attractive to industry upon graduation, as well as students considering a PhD in Information Science but lacking either master's-level coursework in the field or demonstrated research experience at the graduate level.

There are two options under this degree:

- Thesis plan: 6 thesis hour credits, typically taken over two semesters (3 credit hours each). A thesis defense with 3 committee members and submission of the thesis to the Graduate School are required.
- Non-thesis plan: 6 credits taken as a graduate-level independent study over two semesters (3 credit hours each) with an INFO faculty member. Students will complete one or more in-depth research projects as part of this plan; however, a formal thesis document and oral presentation/defense are not required.

If an MS elects to continue as a PhD student Information Science—and is admitted, via an explicit and separate application to the program—then up to seven of the courses taken as part of this MS (a maximum of 21 credit hours) could be “rolled-up” to meet PhD curriculum requirements, pending approval of the student’s PhD preliminary exam committee and the graduate director.

## Bachelor's–Accelerated Master's Degree Program

Students may earn this degree as part of the bachelor's–accelerated master's (BAM) degree program, which allows currently enrolled CU Boulder undergraduate students the opportunity to earn a bachelor's and master's degree in a shorter period of time.

For more information, see the Accelerated Master's tab for the associated bachelor's degree(s): Information Science - Bachelor of Science (BS) (<https://catalog.colorado.edu/undergraduate/colleges-schools/communication-media-design-information/programs-study/information-science/information-science-bachelor-science-bs/#acceleratedmasterstext>)

## Requirements

### Application Guidelines

Applicants must hold at least a bachelor's degree or its equivalent. They must also provide the following documents:

- A CV or resume
- An unofficial transcript from each college or university attended
- Scores from the general GRE are optional; international students must also have a TOEFL score of at least 600 (IBT 100)
- Three letters of recommendation from people qualified to judge the student's potential for success in graduate school (Note: The most compelling recommendation letters will provide specific observations about the candidate's promise in analytical thinking, oral and written scientific communication, and research and teaching, as well as demonstration of teamwork and collegiality)

- A statement of purpose (two pages maximum) that describes a question, problem or topic in information science the student has a passion to address; explains how the student's previous academic training, professional experience and/or personal passions led them to this question, problem or topic and drew them to this degree program; and identifies the faculty members with whom the student is interested in working and why
- Optional: A writing sample in addition to the statement of purpose

We encourage applications from individuals representing the broad range of disciplines. We welcome students that bring diverse skills and perspectives on the range of issues related to understanding and shaping the future of information science. All students admitted to the program will be expected to develop a breadth of competencies that are essential to being a researcher in this diverse, interdisciplinary field. One's ability and willingness to expand skill sets should be demonstrated in the statement of purpose.

Students are required to upload an unofficial copy of their transcript(s) in the online application. We require one copy of the scanned transcript from each undergraduate and graduate institution attended. This includes community colleges, summer sessions and extension programs. While credits from one institution may appear on the transcript of a second institution, unofficial transcripts must be submitted from each institution, regardless of the length of attendance and whether courses were completed. Failure to list and submit transcripts from all institutions previously attended is considered a violation of academic ethics and may result in the cancellation of admission or dismissal from the university.

Only after a student is recommended for admission will they need to provide official transcripts. Assistance with graduate programs is available by phone (303-492-7977) or email ([cmcigrad@colorado.edu](mailto:cmcigrad@colorado.edu)).

## Required Courses and Credits

Refer to Plan of Study tab for sample plan of study by semester.

Code	Title	Credit Hours
<b>Course Category A: Depth/Specialization</b>		
<i>Methods Course</i>		3
Choose one:		
INFO 5507	Data and the Humanities	
INFO 5602	Information Visualization	
INFO 5603	Survey Research Design	
INFO 5604	Applied Machine Learning	
INFO 5605	Ethnographic Research in Applied Settings	
INFO 5607	Software Engineering for Data-Centered Systems	
INFO 5613	Network Science	
INFO 5651	Fundamental Concepts in Data Science	
INFO 5652	Statistical Programming in R	
INFO 5653	Text Mining	
INFO 6201	Interdisciplinary Ways of Knowing	
INFO 6301	Computation for Research in Information Science	
<i>Theory or Design Theory Course</i>		3
Choose one:		
INFO 5505	Designing for Creative Learning	



INFO 5602	Information Visualization
INFO 5606	Critical Technical Practice
INFO 5608	Community-Based Design
INFO 5609	User-Centered Design
INFO 5611	Ubiquitous Computing Experience Design
INFO 5747	Defamiliarizing Data: The Ethnography and Design of Making Data Strange
INFO 5919	HCC Survey and Synthesis: Foundations and Trajectories
INFO 6101	Theories and Concepts in Information Science
INFO 6401	Information and Ideas in Design Disciplines

Electives 6

Choose two graduate-level INFO elective courses, exclusive of the methods or theory courses satisfying the above requirements

Seminar 3

INFO 6500	Information Science Seminar (three semesters, 1 credit-hour each) <sup>1</sup>
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Course Category B: Breadth

Electives 9

Choose three approved electives (3 credit-hour courses) at the graduate level. These may be additional INFO graduate-level courses; they may also include approved courses from other campus units (i.e., “cognate” courses)

Course Category C: Thesis/Independent Study 6

Thesis plan: 6 thesis hour credits (INFO 6950 Master’s Thesis), typically taken over two semesters (3 credit hours each). A thesis defense with 3 committee members and submission of the thesis to the Graduate School are required

Non-thesis plan: 6 credits taken as a graduate-level independent study (INFO 5841 Independent Study or INFO 6940 Master’s Project) over two semesters (3 credit hours each) with an INFO faculty member. Students will complete one or more in-depth research projects as part of this plan; however, a formal thesis document and oral presentation/defense are not required

Total Credit Hours 30

<sup>1</sup> Includes required attendance at the weekly INFO departmental seminar/colloquium.

Plan of Study

Year One

Fall Semester	Credit Hours
INFO grad-level methods course	3
INFO grad-level elective course (5000-level)	3
Grad-level breadth course	3
INFO seminar	1
Credit Hours	10

Spring Semester

INFO grad-level theory/design theory course	3
Grad-level breadth course	3

Thesis/project/independent study course	3
INFO seminar	1
Credit Hours	10
Year Two	
Fall Semester	
INFO grad-level elective course (5000-level)	3
Grad-level breadth course	3
Thesis/project/independent study course	3
INFO seminar	1
Credit Hours	10
Total Credit Hours	30

Learning Outcomes

By the completion of the program, students will be able to: