

Informatics, M.S.

Requirements

The Master of Science program in informatics requires a total of 31 s.h. of graduate credit, including 19 s.h. of core courses and 12 s.h. of coursework in a chosen subprogram: geoinformatics, health informatics, or human-computer interaction. Students must maintain a program g.p.a. of at least 3.00.

The non-research, course-based program is for students who wish to enhance their careers with advanced knowledge of informatics. Students must also complete the requirements for the degree as described in the Manual of Rules and Regulations, Section X, on the Graduate College website.

The M.S. with a major in informatics requires the following coursework.

Core Courses

All students complete the following core courses.

Programming

Code	Title	Hours
This course:		
CS:5110/IGPI:5110	Introduction to Informatics	3
One of these:		
CS:3210	Programming Languages and Tools	3
CS:3980	Topics in Computer Science I	3
GEOG:5055/ IGPI:5055	Geospatial Programming (required for geoinformatics cognate)	3

Statistics

Code	Title	Hours
One of these:		
BIOS:4120	Introduction to Biostatistics (required for health informatics cognate)	3
STAT:4143/ PSQF:4143	Introduction to Statistical Methods	3

Data Science

Code	Title	Hours
One of these:		
BAIS:6480	Knowledge Discovery	3
STAT:4540/ BAIS:4540/ IGPI:4540	Statistical Learning	3
An approved course (consult advisor)		
		3

Databases

Code	Title	Hours
One of these:		
CS:4400	Database Systems	3
GEOG:4580/ IGPI:4581	Introduction to Geographic Databases (required for geoinformatics cognate)	3

Human Factors

Code	Title	Hours
One of these:		
CS:4500	Research Methods in Human-Computer Interaction	3
CS:4510	Human-Computer Interaction for Computer Science	3
GEOG:5540/ IGPI:5540	Geographic Visualization (required for geoinformatics cognate)	3

Ethics

Code	Title	Hours
This course:		
CS:5980	Topics in Computer Science III	1

Subprograms

Students choose one of three subprograms and complete the requirements.

Geoinformatics Subprogram

Code	Title	Hours
Four of these:		
GEOG:3010/ IGPI:3010	Geographic Information Systems and Science	3
GEOG:3500/ IGPI:3500	Introduction to Environmental Remote Sensing	3
GEOG:3520/ IGPI:3520	GIS for Environmental Studies	3
GEOG:3570	Light Detection and Ranging (LiDAR): Principles and Applications	3
GEOG:4150/ GHS:4150/ IGPI:4150	Health and Environment: GIS Applications	3

Health Informatics Subprogram

Code	Title	Hours
Four of these:		
BIOS:5120/ IGPI:5120/ STAT:5610	Regression Modeling and ANOVA in the Health Sciences	3
BMB:3310/ CBIO:3310/ MMED:3310	Practical Data Science and Bioinformatics (recommended for students with a biology background)	3
CS:4470	Health Data Analytics	3
EPID:4400	Epidemiology I: Principles	3
IGPI:5220/ EPID:5200	Principles of Public Health Informatics	3

Human-Computer Interaction Subprogram

Code	Title	Hours
Three of these:		
PSQF:6243/ STAT:6513	Intermediate Statistical Methods	3
PSY:3060	Sensation and Perception	3
An approved elective (consult director)		
One of these:		
CS:4500	Research Methods in Human-Computer Interaction (if not taken to satisfy Human Factors requirement)	3
CS:4510	Human-Computer Interaction for Computer Science (if not taken to satisfy Human Factors requirement and if have not taken CS:2520)	3
ISE:6211	Human Factors in Healthcare Systems	3
ISE:6220	Cognitive Engineering	3

For more information about the Master of Science requirements, see the Interdisciplinary Graduate Program in Informatics website.