

# Informatics, PhD

## Requirements

The Doctor of Philosophy program in informatics requires at least 72 s.h. of graduate credit. A total of 19 s.h. of core courses are required plus an additional 12 s.h. of courses approved by a student's committee. The remaining 41 s.h. may be completed with additional coursework or through reading or research hours. Students must maintain a Graduate College major program grade-point average of at least 3.00.

It requires completion of coursework, satisfactory performance on the qualifying exam, comprehensive exam, and the proposal, plus the production and formal defense of a dissertation describing original research results.

Students select an advisor from among the program faculty. On the rare occasion when students choose a PhD advisor who is outside the program, a co-advisor from the program faculty must be designated.

The PhD in informatics requires the following coursework.

## Core Courses

Students complete a total of 19 s.h. in core coursework. The student's advisor and the rest of the student's committee consisting of at least two other faculty select the remaining courses (12 s.h. minimum) for a total of at least 31 s.h. of coursework.

## Programming

Course #	Title	Hours
This course:		
CS:5110/IGPI:5110	Introduction to Informatics	3
One of these:		
CS:3010	Software Engineering Fundamentals in Java	3
CS:3210	Programming Languages and Tools	3
CS:3980	Topics in Computer Science I	3
SEES:3050/IGPI:3050	Geospatial Programming	3

## Statistics

Course #	Title	Hours
One of these:		
BIOS:4120	Introduction to Biostatistics	3
STAT:4143/PSQF:4143	Introduction to Statistical Methods	3

## Data Science

Course #	Title	Hours
One of these:		
BAIS:6480/IGPI:6480	Knowledge Discovery	3
STAT:4540/BAIS:4540/DATA:4540/IGPI:4540	Statistical Learning	3

An additional course (consult advisor)

## Databases

Course #	Title	Hours
One of these:		
CS:4400	Database Systems	3
SEES:4580/IGPI:4581	Introduction to Geographic Databases	3

## Human Factors

Course #	Title	Hours
One of these:		
CS:4500	Research Methods in Human-Computer Interaction	3
CS:4510	Human-Computer Interaction for Computer Science	3
SEES:3540/IGPI:3540	Geographic Visualization	3

## Ethics

Course #	Title	Hours
This course:		
CS:5980	Topics in Computer Science III (Responsible Conduct of Research)	1

## Elective Core Coursework

Course #	Title	Hours
Coursework selected in consultation with advisor and committee		12

## Electives

The remaining 41 s.h. may be completed with additional coursework or through reading or research hours.

## Comprehensive Examination

PhD students must pass a comprehensive examination at or near completion of their coursework requirements. Students prepare a 20-30 page survey/discussion (along the lines of the introduction and literature review from an eventual thesis) for distribution to their faculty committee, followed at least two weeks later by a 20-40 minute oral presentation, and a question/answer session.

Students may request that the MS be granted at the time of the comprehensive exam. The MS without thesis is awarded upon successful completion of the comprehensive exam but may, at the examination committee's discretion, be awarded even if students do not pass the exam. Students may also choose to complete the thesis requirements and be awarded an MS with thesis.

## Dissertation

Students complete dissertation coursework in consultation with their advisor.

Upon successful completion of all requirements, including the dissertation and its oral defense, students are awarded the Doctor of Philosophy degree.

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