Informatics, BA

The major in informatics provides students with the necessary training for employment in careers such as software development, user experience, and data analytics. It provides good preparation for graduate study in a variety of disciplines.

Students may declare a major in informatics when they are admitted to the university or afterward. All students begin the major as Bachelor of Arts students but may switch to the Bachelor of Science program at any time.

The informatics major combines fundamental and practical computing knowledge with a choice of cognate area from the liberal arts and sciences, providing students with the necessary background and specialized skills to work at the interface of computing and another discipline. Students may begin the major without a chosen cognate area; they may declare a cognate at any time. Some cognates are available only with the Bachelor of Arts, while others are available only with the Bachelor of Science. A student's choice of cognate determines whether the student will earn a BA or a BS.

Informatics majors are advised at the Academic Advising Center until they have completed 30 s.h., at which point they are assigned a departmental advisor. Students being advised at the Academic Advising Center also can consult with an informatics faculty advisor.

Transfer students who have taken a course approved as equivalent to a required informatics or computer science course are exempt from that course. Transfer course grades are included in the informatics grade-point average.

Students should consult the Department of Computer Science website or visit the department's office for information about general policies, elective areas, internships, scholarships, and student groups, such as the university's chapter of the Association for Computing Machinery (ACM) and Women in Computing Sciences (WiCS).

Many informatics major courses are offered once per year and have prerequisites that are also only offered annually. Speak with an advisor for more information.

Advanced Placement

The Computer Science Advanced Placement (AP) exam may be used to satisfy requirements. See Advanced Placement Credit Policy on the Department of Computer Science website.

Learning Outcomes

- Students can apply computational thinking approaches to solve problems.
- Students can individually and collaboratively develop software using professional tools.
- Students can extract, organize, analyze, and present data from a variety of sources.
- Students can contribute to the development of usable, useful, and enjoyable software applications by using human-centered methods.
- Students understand social, professional, and ethical issues related to computing.
- Students have a thorough understanding of a chosen cognate area.

Requirements

The Bachelor of Arts with a major in informatics requires a minimum of 120 s.h., including at least 45–51 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. A cumulative GPA of at least 2.00 is required for graduation. Students must also complete the College of Liberal Arts and Sciences GE CLAS Core.

The program combines foundational informatics coursework with coursework in a cognate area. The major offers the cognate areas of art, economics, geoinformatics, health informatics, human-computer interaction, linguistics, media, music, social informatics, and individualized cognates. Required credit for the major depends on a student's choice of cognate area.

Coursework for the major includes the informatics core, one elective, a statistics course, and a set of courses in a chosen cognate area. Work for the major may not be taken pass/nonpass. Students are expected to have taken MATH:1005 College Algebra or the equivalent.

Students who major in informatics may not also major in computer science, business analytics and information systems, or computer science and engineering. They may, however, earn a minor in computer science.

Departmental Residency Requirement

Students must complete at least four courses (minimum of 12 s.h.) at the University of Iowa from the following: CS:3910 Informatics Project and three additional computer science courses (prefix CS) numbered 2500–4999; these courses are requirements for the BA in informatics as listed below.

Program Requirements

The BA with a major in informatics requires the following coursework. Enrollment in many courses for the major requires a minimum grade of C-minus in prerequisite courses.

Requirements	Hours
Informatics Core Courses	19
Informatics Electives	3
Statistics Course	3-4
Cognate Courses	18-26

Informatics Core

The informatics core consists of six required computing courses (19 s.h.) that emphasize data manipulation, databases, and networking. It provides more applications-oriented content than the traditional computer science curriculum yet is designed to offer students a sound basis in underlying computer science themes and techniques.

Course #	Title	Hours
All of these:		
CS:1110	Introduction to Computer Science	3
CS:2110	Programming for Informatics	4
CS:2420	Analyzing Data for Informatics	3
CS:2520	Human-Computer Interaction for Informatics	3

CS:2620	Server-Side Development for Informatics	3
CS:3910	Informatics Project	3

Informatics Electives

Students must complete at least 3 s.h. in one computer science course (prefix CS) numbered 3000–4999, excluding CS:3910 and CS:4510; they may count up to 3 s.h. from CS:3990 Honors in Computer Science or Informatics. Course selection must be approved by an informatics advisor. Students may have additional choices from the Department of Electrical and Computer Engineering and the Department of Business Analytics; consult an informatics advisor for additional choices.

Statistics Course

Students must complete one introductory statistics course. Some cognates require a specific statistics course. Students should consult with their advisors to choose a statistics course appropriate for their cognate area.

Course #	Title	Hours
One of these:		
PSY:2811	Research Methods and Data Analysis in Psychology I	3
SOC:2160	Applied Statistics for Social Scientists	3
STAT:1020	Elementary Statistics and Inference	3
STAT:1030	Statistics for Business	4
STAT:2010	Statistical Methods and Computing	3
STAT:2020	Probability and Statistics for the Engineering and Physical Sciences	3
STAT:3120	Probability and Statistics	4
STAT:3510	Biostatistics	3
STAT:4143	Introduction to Statistical Methods	3

Cognates

Students must complete all requirements listed under one of the following cognate areas: art, economics, geoinformatics, health informatics, human-computer interaction, linguistics, media, music, social informatics, or an individualized cognate.

Art

The informatics major with the art cognate requires a minimum of 47 s.h. of work for the major, including at least 22 s.h. in cognate courses. Students learn about the design and maintenance of web services, applications of modern computerized artistic tools, and benefits and limitations of computers as a digital medium. They also gain insight into computerized tool design that is guided by knowledge of an artist's requirements. The art cognate may lead to careers in web development, technology coordination for artistic productions, development of digital artistic tools, and artistic or technical development for entertainment companies. Cognate courses are primarily in art history, design, elements of art, and photography.

Some courses listed below are open only to students majoring in art, so they are appropriate choices only for students with a double major in art and informatics. Non-art majors should work with an informatics advisor to develop an individual set of art cognate courses.

Course #	Title	Hours
All of these:		
ARTS:1510	Basic Drawing	3
ARTS:1520	Design Fundamentals	3
DSGN:2500 or PHTO:2600	Graphic Design I Photography I	3
DSGN:2600 or PHTO:3100	Graphic Design II Photography II: Introduction to Darkroom Photography	3
DSGN:3500 or PHTO:3110	Graphic Design III Photography III: The Constructed Image	4
Any art history course (prefix ARTH) numbered 1010-2999		3
One of these, to complete at least 22 s.h. for the art cognate:		
CS:2800	Digital Arts: An Introduction	3
DSGN:3600	Graphic Design IV	4
MUSM:3125	Museums in a Digital World	3
PHTO:3200	Photography IV: Special Topics	4
PHTO:3210	Photography IV: Contemporary Video Practices	4
PHTO:3220	Photography IV: Alternative Photographic Processes	4
SCLP:3840	Robotic Art Studio	4
SCLP:4835	Electronic Objects and Spaces	4
SCLP:4840	Air, Actuators, and Motors	4

Economics

The informatics major with the economics cognate requires a minimum of 49 s.h. of work for the major, including 24 s.h. in cognate courses, which are primarily from economics. The economics cognate is intended for students interested in working with economic, financial, or demographic data. It may lead to careers in administration, business, or government or to graduate study in management or policy areas.

Course #	Title	Hours
All of these:		
ECON:1100	Principles of Microeconomics	4
ECON:1200	Principles of Macroeconomics	4
ECON:3100	Intermediate Microeconomics	3
ECON:3150	Intermediate Macroeconomics	3
MATH:1350	Quantitative Reasoning for Business	4
Additional 6 s.h. in economics courses (prefix ECON) numbered 3000 or above		6

Geoinformatics

The informatics major with the geoinformatics cognate requires a minimum of 48 s.h. of work for the major, including 23 s.h. in cognate courses, which are primarily from earth, environment, and sustainability sciences. The geoinformatics cognate is intended for students interested in geographic information systems (GIS) and spatial aspects of data. It may

lead to careers in business, government, or public health or to graduate study in geography, public health, or policy areas.

Course #	Title	Hours
All of these:		
SEES:1020	The Global Environment	3
SEES:1021	The Global Environment Lab	1
SEES:2050	Foundations of GIS	4
Two of these:		
SEES:1070	Contemporary Environmental Issues	3
SEES:2110	Eight Billion and Counting: Introduction to Population Dynamics	3
SEES:2910	The Global Economy	3
One of these:		
SEES:3520	GIS for Environmental Applications	3
SEES:3570	Light Detection and Ranging (LiDAR): Principles and Applications	3
Two of these:		
SEES:3500	Introduction to Environmental Remote Sensing	3
SEES:3520	GIS for Environmental Applications (if not used to satisfy the preceding requirement)	3
SEES:3540	Geographic Visualization	3
SEES:3570	Light Detection and Ranging (LiDAR): Principles and Applications (if not used to satisfy the preceding requirement)	3
SEES:3610	Ethical Collection and Use of Geospatial Information	3

Health Informatics

The informatics major with the health informatics cognate requires a minimum of 46 s.h. of work for the major, including 21 s.h. in cognate courses. The health informatics cognate is intended for students interested in applications of computing to health care, especially in public health. It may lead to careers in medical or health-related areas or to graduate and professional degree programs in public health, health informatics, and medical informatics. Cognate courses are selected primarily from public health, earth, environment, and sustainability sciences, and global health studies.

Once students complete the required courses in each of the four sets below, they must select additional courses from the sets to complete 21 s.h. of credit for the cognate.

Course #	Title	Hours
One of these:		
CPH:1400	Fundamentals of Public Health	3
GHS:3720	Contemporary Issues in Global Health	3
At least two of these:		
SEES:2050	Foundations of GIS	4
SEES:3110	Geography of Health	3

Course #	Title	Hours
SEES:4150	Health and Environment: GIS Applications	3
One of these:		
SEES:3500	Introduction to Environmental Remote Sensing	3
SEES:3520	GIS for Environmental Applications	3
SEES:3540	Geographic Visualization	3
SEES:3570	Light Detection and Ranging (LiDAR): Principles and Applications	3
SEES:3610	Ethical Collection and Use of Geospatial Information	3
At least 6 s.h. from these:		
GHS:3720	Contemporary Issues in Global Health (if not used to satisfy preceding requirement)	3
GHS:3850	Promoting Health Globally	3
GHS:4100	Topics in Global Health	1-3
JMC:3150	Media and Health	3
One of these:		
EPID:4400	Epidemiology I: Principles	3
HMP:4000	Introduction to the U.S. Health Care System	3

Human-Computer Interaction

The informatics major with the human-computer interaction cognate requires a minimum of 46 s.h. of work for the major, including at least 21 s.h. in cognate courses. The human-computer interaction cognate is intended for students interested in designing useful and usable technologies. It can lead to careers in interaction design, web design, implementation of user interfaces, and evaluation of human-computer interactions as well as providing valuable skills for graduate study in human-computer interaction.

The cognate's courses provide an interdisciplinary foundation including psychology, sociology, and studio arts, together with an understanding of research methods in human-computer interaction and relevant software development skills. This cognate requires more advanced courses in computer science than other cognates.

Course #	Title	Hours
This course:		
CS:4500	Research Methods in Human-Computer Interaction	3
Either both psychology courses or both sociology courses:		
PSY:1001 & PSY:2601	Elementary Psychology - Introduction to Cognitive Psychology	6
SOC:1010 & SOC:2130	Introduction to Sociology - Sociological Theory	6-7
One art course from these:		
ARTS:1020	Elements of 3D Design	3
ARTS:1070	Elements of Graphic Design (recommended)	3
At least 9 s.h. from these, to complete at least 21 s.h. for the cognate:		
ISE:3400	Human Factors	3

PSY:2401	Introduction to Developmental Science	3
PSY:2501	Introduction to Social Psychology	3
PSY:2701	Introduction to Behavioral Neuroscience	4

Any computer science course (prefix CS) numbered 3000 or above, except CS:4510 and CS:5990, with human-computer interaction themed courses numbered 4000 and above recommended

Most courses in this list have prerequisites, which students must complete before they may register for the course. Most of the psychological and brain science courses (prefix PSY) require PSY:1001 Elementary Psychology as a prerequisite. Students should review prerequisites carefully before making their selections.

Linguistics

The informatics major with the linguistics cognate requires a minimum of 47 s.h. of work for the major, including 22 s.h. in cognate courses. Linguistics, the scientific study of human languages, is directly related to psychology, anthropology, and computer science as well as to more applied fields such as second language acquisition or speech and hearing science. The cognate focuses on computational representations of syntax and semantics for processing natural language. Cognate courses are drawn primarily from linguistics.

Course #	Title	Hours
All of these:		
CSD:3112	Anatomy and Physiology of Speech Production	4
CSD:3116	Basic Neuroscience for Speech and Hearing	3
LING:3001	Introduction to Linguistics	3
LING:3005	Articulatory and Acoustic Phonetics	3
LING:3010	Syntactic Analysis	3
LING:3020	Phonological Analysis	3
LING:3080	History of the English Language	3

Media

The informatics major with the media cognate requires a minimum of 47 s.h. of work for the major, including 22 s.h. in cognate courses. This cognate is intended for students interested in working in media industries. Data-specific occupations in these industries include but are not limited to data/communication analyst, data mining expert, strategic analyst, data journalist, web developer, information graphics specialist, app developer, and multimedia journalist.

Course #	Title	Hours
One of these:		
JMC:1100	Introduction to Media Effects	3
JMC:1200	Introduction to Media and Culture	3
JMC:1500	Introduction to Social Media	3
All of these:		
JMC:1300	Introduction to Journalism and Strategic Communication	3
JMC:1600	Writing Fundamentals	1
JMC:2020	Multimedia Storytelling	3
JMC:2030	Visual Communication and Design	3
Three of these:		
JMC:3600	Topics in Designing/ Producing	3-4
JMC:3603	Newscast Production	3-4
JMC:3610	Graphic Design	3-4
JMC:3630	Photography	3-4
JMC:3640	Information and Data Visualization	3-4
JMC:3650	Video Production	3-4
JMC:3660	Audio Production	3-4

Music

The informatics major with the music cognate requires a minimum of 51 s.h. of work for the major, including 26 s.h. in cognate courses. The music cognate is intended for students interested in audio recording, manipulation of sound, and digital media. It may help students prepare for careers in the entertainment industry. Cognate courses are primarily from music, with some from cinematic arts and theatre arts. Entering students must possess basic musicianship skills; an audition may be required for admission.

When students begin work on this cognate, they should enroll in MUS:1201 Musicianship and Theory I and must take the Placement Exam A, which is administered online during the summer before the fall semester begins, to determine readiness for the musicianship and theory course sequence. See Musicianship and Theory Placement on the School of Music website for more information. Advanced placement in School of Music courses does not reduce the number of semester hours required for the cognate.

Course #	Title	Hours
All of these:		
MUS:1200	Fundamentals of Music for Majors	3
MUS:1201	Musicianship and Theory I	4
MUS:1202	Musicianship and Theory II	4
MUS:1211	Group Instruction in Piano I	1
MUS:1212	Group Instruction in Piano II	1
MUS:3780	Audio Recording I	3
MUS:3781	Audio Recording II	3
One of these:		
MUS:1310	World Music	3
MUS:1720	History of Jazz	3
MUS:2301	History of Western Music I	3
MUS:2302	History of Western Music II	3
MUS:2311	Music of Latin America and the Caribbean	3
At least one of these, to complete 26 s.h. for the music cognate:		
CS:2800	Digital Arts: An Introduction	3
CINE:4841	Film/Video Production: Sound Design	4
MUS:1007	Garage Band: The Basics	2
MUS:1010	Recital Attendance for Nonmajors	1

THTR:3260	Sound Design for the Theatre	3

Social Informatics

The informatics major with the social informatics cognate requires a minimum of 45 s.h. of work for the major, including at least 20 s.h. in cognate courses, all from the Department of Sociology and Criminology. The sociology cognate is intended for students interested in applying data analytics to topics related to social change, social relationships, societal impact on individual behavior, crime, and the criminal justice system.

Course #	Title	Hours
All of these:		
SOC:1010	Introduction to Sociology	3-4
SOC:2130	Sociological Theory	3
SOC:2170	Research Methods	3
At least 11 s.h. from these:		
CRIM:1410	Introduction to Criminology	3
CRIM:3420	Juvenile Delinquency	3
CRIM:3450	Criminal Legal System	3
CRIM:4400	Internship in Criminal Justice and Corrections	3

Any sociology course (prefix SOC) numbered 1020 or above

Individualized Cognates

Students interested in developing individualized cognates may work with an informatics advisor. Individualized cognates may be drawn primarily from one department or an appropriate mix of departments; they require an approved set of cognate courses totaling 18–25 s.h.

Early Admission to the Graduate College

Undergraduate informatics students who have 6 s.h. or less to earn toward graduation may apply for early admission to the Graduate College. Early admission allows students in their final undergraduate semester to take courses for graduate credit in addition to the courses they need to complete their bachelor's degrees.

Combined Programs

BA/MS in Informatics (Geoinformatics, Health Informatics, or Human-Computer Interaction Subprogram)

Students majoring in informatics who are interested in earning a master's degree in informatics may apply to the combined BA/MS program (geoinformatics, health informatics, or human-computer interaction subprogram) offered by the College of Liberal Arts and Sciences and the Graduate College. The program enables students to begin graduate-level study of informatics before they complete their bachelor's degree. Students are able to complete both degrees in less time than if they were to complete the two degrees separately.

Separate application to each degree program is required. Applicants must be admitted to both programs before they may be admitted to the combined degree program. For more

information about the graduate degree program, see the MS in informatics (Graduate College) in the catalog.

Honors

Honors in the Major

Students majoring in informatics have the opportunity to graduate with honors in the major. They must maintain a minimum UI cumulative grade-point average (GPA) of 3.33 and a minimum major GPA of 3.50; additionally, students complete 4–6 s.h. of CS:3990 Honors in Computer Science or Informatics and submit an acceptable honors thesis or project. At any time, students can communicate to the computer science professional advisor that they have an honors interest and can have that designation placed on their academic record.

A student is responsible for finding a faculty member willing to supervise the honors project. The student can register for CS:3990 Honors in Computer Science or Informatics under the project supervisor's name once the faculty member approves the proposed project and a timetable for the work. Once that is accomplished, the student must then communicate with the Department of Computer Science honors director, who changes the student's status to denote the student is pursuing honors in the major. It is not necessary to have declared an honors interest before finding a thesis supervisor and beginning to pursue honors in the major, but the student must be coded as pursuing honors prior to completing the application for degree.

An honors project can be completed in one semester, but it usually takes two semesters to complete. In the final semester, a student must register for CS:3999 Computer Science or Informatics Honors Cohort. The honors thesis/project must be approved by the thesis supervisor and then submitted to the honors director who will give initial approval that the student can graduate with honors in the major. Final approval is given after final grades are submitted and all requirements are met. For more details regarding project requirements, see Honors in Computer Science on the department's website.

University of Iowa Honors Program

In addition to honors in the major, students can pursue honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the informatics major. However, the semester hours earned in CS:3990 Honors in Computer Science or Informatics can be used to partially satisfy the UI Honors requirement of 12 s.h. of experiential learning coursework.

For more information, contact the Department of Computer Science honors director.

Career Advancement

Informatics graduates work in a broad range of market sectors, reflecting the interdisciplinary nature of the program and the large number of available cognates. Students will have technical skills along with a specialty area that can help them pursue a specific type of organization or interest field. Areas that informatics graduates have pursued include

software development, database and/or web administration, data analysis, software support (IT), user interface/user experience web design (the human-computer interaction cognate is useful for this area), and health care information (the health informatics cognate is useful for this area).

A recent job placement survey indicates that more than 90% of University of Iowa informatics graduates have a job, are continuing education, or are not seeking employment within six months of graduation.

View post-graduation data on the Pomerantz Career Center website, which uses University of Iowa placement information to explore what recent informatics alumni are doing, including median salaries, job titles, companies of employment, and other facts about UI graduates.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The Four-Year Graduation Plan is not available to BA students majoring in informatics. Students work with their advisors on individual graduation plans.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Informatics, BA

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
CS:1110	Introduction to Computer Science	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [b]		3
GE CLAS Core: International and Global Issues [b]		3
CSI:1600	Success at Iowa	1
	Hours	**13-14**
Spring		
Major: introductory statistics [c, d]		3 - 4
Major: cognate area course [e]		3 - 4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3
GE CLAS Core: Historical Perspectives [b]		3
Elective course [f]		2
	Hours	**14-16**

Course	Title	Hours
Second Year		
Fall		
CS:2110	Programming for Informatics [g]	4
Major: cognate area course [e]		3 - 4
GE CLAS Core: Social Sciences [b]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [h]		4 - 5
Elective course [f]		3
	Hours	**17-19**
Spring		
CS:2420	Analyzing Data for Informatics [i]	3
CS:2520	Human-Computer Interaction for Informatics [i]	3
Major: cognate area course [e]		3 - 4
GE CLAS Core: World Languages Second Level Proficiency or elective course [h]		4 - 5
Elective course [f]		2
	Hours	**15-17**
Third Year		
Fall		
CS:2620	Server-Side Development for Informatics [g]	3
Major: cognate area course [e]		3 - 4
GE CLAS Core: Natural Sciences without Lab [b]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [h]		4 - 5
Elective course [f]		2
	Hours	**15-17**
Spring		
Major: cognate area course [e]		3 - 4
GE CLAS Core: Literary, Visual, and Performing Arts [b]		3
GE CLAS Core: Natural Sciences with Lab [b]		4
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [h]		4 - 5
Elective course [f]		3
	Hours	**17-19**
Fourth Year		
Fall		
Major: advanced informatics elective [j]		3
Major: cognate area course [e]		3 - 4
GE CLAS Core: Values and Society [b]		3
Elective course [f]		3
Elective course [f]		3
	Hours	**15-16**
Spring		
CS:3910	Informatics Project [i]	3
Major: cognate area course [e]		3 - 4
Elective course [f]		3
Elective course [f]		3
Elective course [f]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [k]		
	Hours	**15-16**
	Total Hours	**121-134**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative and Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

c See General Catalog for list of approved courses. Students pursuing the human-computer interaction cognate are encouraged to take either PSY:2811 or SOC:2160.

d Fulfills a major requirement and may fulfill a GE requirement.

e Students must complete all requirements in one of the following cognate areas: art, economics, geoinformatics, health informatics, human-computer interaction, linguistics, media, music, social informatics or an individualized cognate. Students interested in developing individualized cognates (a grouping of 18-25 s.h. of courses drawn primarily from one department) must work with an informatics faculty advisor to create a plan of study and obtain departmental approval for their plan.

f Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

g Typically this course is offered in fall semesters only. Check MyUI for course availability since offerings are subject to change.

h Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

i Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

j Computer science course (prefix CS) numbered 3000-4999, including CS:3990 for 3 s.h., but excluding CS:3910 and CS:4510.

k Please see Academic Calendar, Office of the Registrar website for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.