Informatics, B.A.

The major in informatics provides students with the necessary training for employment in careers such as software development, user experience, and information management. 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 programs at any time.

The informatics major combines fundamental and practical computing knowledge with a choice of cognate areas 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, others are available only with the Bachelor of Science. A student's choice of cognate determines whether the student will earn a B.A. or a B.S.

Informatics majors are advised at the Academic Advising Center until they have completed 24 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, and internships, scholarships, and student groups, such as the University's chapter of the Association for Computing Machinery (ACM) and Women in Computing Sciences (WICS).

Advanced Placement

The Computer Science Advanced Placement Program test may be used to satisfy requirements. See Advanced Placement Credit Policy on the Department of Computer Science website.

Learning Outcomes

- Students have a basic grounding in computer science.
- Students have a thorough understanding of information processing tools and constructs.
- Students have a user-centric perspective on computing tools.
- Students have a thorough understanding of chosen cognate area.
- Students can apply computing tools to problem solving.

Requirements

The Bachelor of Arts with a major in informatics requires a minimum of 120 s.h., including at least 43-51 s.h. of work for the major. Students must maintain a g.p.a. of at least 2.00 in all courses for the major and in all UI courses for the major. A cumulative g.p.a. of at least 2.00 is required for graduation. Students also must 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 majoring in informatics may not earn a second 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 courses numbered CS:2500-CS:4999; these courses are requirements for the B.A. in informatics as listed below.

Program Requirements

The B.A. with a major in informatics requires the following coursework.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Informatics Core Courses</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>Informatics Electives</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Statistics Course</td>
<td>3-4</td>
</tr>
<tr>
<td></td>
<td>Cognate Courses</td>
<td>18-25</td>
</tr>
<tr>
<td></td>
<td>Total Hours</td>
<td>43-51</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS:1110</td>
<td>Introduction to Computer Science</td>
<td>3</td>
</tr>
<tr>
<td>CS:2110</td>
<td>Programming for Informatics</td>
<td>4</td>
</tr>
<tr>
<td>CS:2420</td>
<td>Databases for Informatics</td>
<td>3</td>
</tr>
<tr>
<td>CS:2520</td>
<td>Human-Computer Interaction</td>
<td>3</td>
</tr>
<tr>
<td>CS:2620</td>
<td>Networking and Security for Informatics</td>
<td>3</td>
</tr>
<tr>
<td>CS:3910</td>
<td>Informatics Project</td>
<td>3</td>
</tr>
</tbody>
</table>

Informatics Electives

Students must complete at least one course (3 s.h.) from a list of approved computing informatics electives. Course selection must be approved by an informatics advisor. In addition to the courses listed below, students may have additional choices from the Department of Electrical and Computer Science.
Engineering and the Department of Business Analytics; consult an informatics faculty advisor for additional choices.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAIS:4220</td>
<td>Advanced Database Management and Big Data</td>
<td>3</td>
</tr>
</tbody>
</table>

A computer science course (prefix CS) numbered 3000-4999, including CS:3990 for 3 s.h., but excluding CS:3910

**Statistics Course**

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

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>One of these:</td>
<td>Research Methods and Data Analysis in Psychology I</td>
<td>3</td>
</tr>
<tr>
<td>PSY:2811</td>
<td>Applied Statistics for Social Scientists</td>
<td>3</td>
</tr>
<tr>
<td>SOC:2160</td>
<td>Elementary Statistics and Inference</td>
<td>3</td>
</tr>
<tr>
<td>STAT:1020</td>
<td>Statistics for Business</td>
<td>4</td>
</tr>
<tr>
<td>STAT:2010</td>
<td>Statistical Methods and Computing</td>
<td>3</td>
</tr>
<tr>
<td>STAT:2020</td>
<td>Probability and Statistics for the Engineering and Physical Sciences</td>
<td>3</td>
</tr>
<tr>
<td>STAT:3120</td>
<td>Probability and Statistics</td>
<td>4</td>
</tr>
<tr>
<td>STAT:3510</td>
<td>Biostatistics</td>
<td>3</td>
</tr>
<tr>
<td>STAT:4143</td>
<td>Introduction to Statistical Methods</td>
<td>3</td>
</tr>
</tbody>
</table>

**Cognates**

Students must complete all requirements listed under one of the cognate areas below: 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 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 artistic tools, and benefits and limitations 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 faculty advisor to develop an individual set of art cognate courses.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTS:1510</td>
<td>Basic Drawing</td>
<td>3</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>All of these:</td>
<td>Principles of Microeconomics</td>
<td>4</td>
</tr>
<tr>
<td>ECON:1100</td>
<td>Principles of Macroeconomics</td>
<td>4</td>
</tr>
<tr>
<td>ECON:1200</td>
<td>Intermediate Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON:3100</td>
<td>Intermediate Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>MATH:1380</td>
<td>Calculus and Matrix Algebra for Business</td>
<td>4</td>
</tr>
</tbody>
</table>

Additional 6 s.h. in economics courses (prefix ECON) numbered 3000 or above

**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 geographical 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.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>All of these:</td>
<td>The Global Environment</td>
<td>3</td>
</tr>
<tr>
<td>GEOG:1020</td>
<td>The Global Environment Lab</td>
<td>1</td>
</tr>
<tr>
<td>GEOG:1050</td>
<td>Foundations of GIS</td>
<td>4</td>
</tr>
<tr>
<td>Two of these:</td>
<td>Contemporary Environmental Issues</td>
<td>3</td>
</tr>
<tr>
<td>GEOG:1070</td>
<td>Seven Billion and Counting: Introduction to Population Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>GEOG:2910</td>
<td>The Global Economy</td>
<td>3</td>
</tr>
</tbody>
</table>
One of these:
- GEOG:3520 GIS for Environmental Studies 3
- GEOG:3570 Light Detection and Ranging (LiDAR): Principles and Applications 3

And:
- Two geographical and sustainability sciences courses (prefix GEOG) numbered 3500 or above (at least 6 s.h.)

**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 healthcare, 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, geography, 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.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPH:1400</td>
<td>Fundamentals of Public Health</td>
<td>3</td>
</tr>
<tr>
<td>GHS:3720</td>
<td>Contemporary Issues in Global Health</td>
<td>3</td>
</tr>
</tbody>
</table>

At least two of these:
- GEOG:1050  Foundations of GIS 4
- GEOG:3110  Geography of Health 3
- GEOG:4150  Health and Environment: GIS Applications 3

Any geographical and sustainability sciences course (prefix GEOG) numbered 3500 or above

At least two of these:
- GHS:3720  Contemporary Issues in Global Health 3
- GHS:3850  Promoting Health Globally 3
- GHS:4100  Topics in Global Health 1-3
- GHS:4600  Global Health and Human Rights 2-3
- 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 provide valuable skills for graduate study in human-computer interaction.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS:4500</td>
<td>Research Methods in Human-Computer Interaction</td>
<td>3</td>
</tr>
</tbody>
</table>

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 3-D Design 3
- ARTS:1070  Elements of Graphic Design (recommended) 3
- ARTS:1090  Elements of Animation 3

One of these:
- 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

And:
- Two additional computer science courses (prefix CS) numbered 3000 or above, except CS:5990, to complete 21 s.h. for the human-computer interaction cognate

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 at least 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.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSD:3112</td>
<td>Anatomy and Physiology of Speech Production</td>
<td>4</td>
</tr>
<tr>
<td>CSD:3116</td>
<td>Basic Neuroscience for Speech and Hearing</td>
<td>3</td>
</tr>
<tr>
<td>LING:3001</td>
<td>Introduction to Linguistics</td>
<td>3</td>
</tr>
</tbody>
</table>
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 48 s.h. of work for the major, including 23 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.

The courses, JMC:2010 Journalistic Reporting and Writing and JMC:2020 Introduction to Multimedia Storytelling, are corequisites and must be taken during the same semester. Students are responsible for completing the prerequisites for JMC:2010.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>JMC:2010</td>
<td>Journalistic Reporting and Writing</td>
<td>4</td>
</tr>
<tr>
<td>JMC:2020</td>
<td>Introduction to Multimedia Storytelling</td>
<td>4</td>
</tr>
</tbody>
</table>

One of these:

- JMC:1300  Principles of Strategic Communication 3
- JMC:1400  Principles of Journalism 3

One of these:

- JMC:3610  Graphic Design 3-4
- JMC:3640  Data Journalism 3-4

And:

At least three journalism and mass communication courses (prefix JMC) numbered 3400 or above to complete 23 s.h. for the media cognate

**Music**

The informatics major with the music cognate requires a minimum of 48 s.h. of work for the major, including 23 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 they must take the Placement Exam A, which is administered online during the summer before 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.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS:1200</td>
<td>Fundamentals of Music for Majors</td>
<td>0</td>
</tr>
<tr>
<td>MUS:1201</td>
<td>Musicianship and Theory I</td>
<td>4</td>
</tr>
<tr>
<td>MUS:1202</td>
<td>Musicianship and Theory II</td>
<td>4</td>
</tr>
<tr>
<td>MUS:1211</td>
<td>Group Instruction in Piano I</td>
<td>1</td>
</tr>
<tr>
<td>MUS:1212</td>
<td>Group Instruction in Piano II</td>
<td>1</td>
</tr>
<tr>
<td>MUS:3780</td>
<td>Audio Recording I</td>
<td>3</td>
</tr>
<tr>
<td>MUS:3781</td>
<td>Audio Recording II</td>
<td>3</td>
</tr>
</tbody>
</table>

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 23 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 20 s.h. in cognate courses, all from the Department of Sociology and Criminology.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC:1010</td>
<td>Introduction to Sociology</td>
<td>3-4</td>
</tr>
<tr>
<td>SOC:2130</td>
<td>Sociological Theory</td>
<td>3</td>
</tr>
<tr>
<td>SOC:2170</td>
<td>Research Methods</td>
<td>3</td>
</tr>
</tbody>
</table>

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 faculty 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

#### B.A./M.S. in Business Analytics (Career Subprogram)

Students majoring in informatics who are interested in earning a master's degree in business analytics with a career subprogram may apply to the combined B.A./M.S. program offered by the College of Liberal Arts and Sciences and the Tippie College of Business. The program enables students to begin the study of business analytics before they complete their bachelor's degree. Students are able to complete both degrees in five years rather than six.

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 information about the business analytics program, see the M.S. in business analytics (career) in the Tippie College of Business section of the Catalog.

#### B.A./M.S. in Finance

Students majoring in informatics who are interested in earning a master's degree in finance may apply to the combined B.A./M.S. program offered by the College of Liberal Arts and Sciences and the Tippie College of Business. The program enables students to begin the study of finance before they complete their bachelor's degree. Students are able to complete both degrees in five years rather than six.

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 information about the finance program, see the M.S. in finance (Tippie College of Business) section of 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 g.p.a. of 3.33 and a minimum major g.p.a. 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 (0 s.h.). 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 on the Department of Computer Science 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.

### Academic Plans

#### Four-Year Graduation Plan

The Four-Year Graduation Plan is not available to B.A. 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, B.A.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Year</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fall</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGL:1200 or RHET:1030</td>
<td>The Interpretation of Literature or Rhetoric</td>
<td>3 - 4</td>
</tr>
<tr>
<td>GE CLAS Core: Diversity and Inclusion</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE CLAS Core: International and Global Issues</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CS:1110</td>
<td>Introduction to Computer Science</td>
<td>3</td>
</tr>
<tr>
<td>CSI:1600</td>
<td>Success at Iowa</td>
<td>2</td>
</tr>
<tr>
<td><strong>Hours</strong></td>
<td></td>
<td>14-15</td>
</tr>
<tr>
<td><strong>Spring</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RHET:1030 or ENGL:1200</td>
<td>Rhetoric or The Interpretation of Literature</td>
<td>3</td>
</tr>
<tr>
<td>GE CLAS Core: Historical Perspectives</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CS:2110</td>
<td>Programming for Informatics</td>
<td>4</td>
</tr>
<tr>
<td>Major: Informatics cognate course</td>
<td>3 - 4</td>
<td></td>
</tr>
<tr>
<td>Elective course</td>
<td>2</td>
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<tr>
<td><strong>Hours</strong></td>
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<td>15-16</td>
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Second Year
Fall
GE CLAS Core: World Languages First Level 4 - 5
Proficiency or elective course  
GE CLAS Core: Social Sciences  
CS:2520 Human-Computer Interaction 3
Major: Informatics cognate course  
Elective course  
Hours 16-18
Spring
GE CLAS Core: World Languages Second Level 4 - 5
Proficiency or elective course  
GE CLAS Core: Natural Sciences with Lab  
CS:2620 Networking and Security for Informatics 3
Major: Informatics cognate course  
Elective course  
Hours 16-18
Third Year
Fall
GE CLAS Core: World Languages Second Level 4 - 5
Proficiency or elective course  
GE CLAS Core: Natural Sciences without Lab  
CS:2420 Databases for Informatics 3
Major: Informatics cognate course  
Elective course  
Elective course  
Hours 16-18
Spring
GE CLAS Core: World Languages Fourth Level 4 - 5
Proficiency or elective course  
GE CLAS Core: Literary, Visual, and Performing Arts  
Major: Informatics cognate course  
Elective course  
Elective course  
Hours 16-18
Fourth Year
Fall
GE CLAS Core: Values and Culture  
Major: Informatics advanced elective  
Major: Introductory statistics  
Major: Informatics cognate course  
Elective course  
Hours 15-16
Spring
CS:3910 Informatics Project 3
Major: Informatics cognate course  
Elective course  
Elective course  
Elective course  
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) 
Hours 15-16
Total Hours 123-135

a 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.

b 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 individualized. 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.

c 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.

d Students who have completed four years of a single language in high school have satisfied the GE CLAS Core World Languages requirement. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course.

e BAIS:4220, or a computer science course (prefix CS) numbered 3000-4999, including CS:3990 for 3 s.h., but excluding CS:3910.

f STAT:1020 or other. Some cognates require a specific statistics course. See advisor for more information.

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

h 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. For more information visit http://commencement.uiowa.edu/. If applicable search for “Early and Late Participation” to find this page (e.g. participate in graduation ceremony in May, degree conferral in August).

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. Here are just a few of the areas that informatics graduates have pursued:

- software development
- database and/or web administrators
- data analyst
- software support personnel (IT)
- user interface/user experience web designers (the human-computer interaction cognate is useful for this area)
- health care information technicians (the health informatics cognate is useful for this area)

A recent job placement survey indicates that more than 90 percent 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 that uses University of Iowa placement information to explore what recent informatics alumni are doing that includes 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.