## Degree Requirements for Interdisciplinary Computing (as of Fall 2019)

### Computer Science Core Requirements

<table>
<thead>
<tr>
<th>Sem</th>
<th>Grade</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>CPSC 115L Intro to Computing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CPSC 215L Data Structures and Algorithms</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CPSC 203 Math Found. of Computing</td>
</tr>
</tbody>
</table>

### Coordinate Courses - need 6 to 7 courses in the coordinate discipline to be chosen in consultation with the coordinate advisor

<table>
<thead>
<tr>
<th>Sem</th>
<th>Grade</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

### Cognate Requirements

For students coordinating with a discipline in the natural and social sciences:

<table>
<thead>
<tr>
<th>Sem</th>
<th>Grade</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>MATH 131 Calculus I</td>
</tr>
</tbody>
</table>

and one additional numeric or symbolic reasoning course from the following list: (if MATH, must be 107 or higher)

<table>
<thead>
<tr>
<th>Sem</th>
<th>Grade</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>POLS 242 Political Science Research Methods</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PSYC 221L Research Design and Analysis</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SOCL 201L Research Methods in the Soc. Sciences</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MATH</td>
</tr>
</tbody>
</table>

For students coordinating with a discipline in the arts and humanities:

<table>
<thead>
<tr>
<th>Sem</th>
<th>Grade</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>MATH 127 Functions, Graphs &amp; Modeling OR Eligibility to enroll in MATH 131 (additional mathematics courses are to be specified in a study plan)</td>
</tr>
</tbody>
</table>

### Computer Science Electives - need 3 courses appropriate to the coordinate discipline, to be chosen in consultation with the computer science advisor

<table>
<thead>
<tr>
<th>Sem</th>
<th>Grade</th>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>CPSC 110 Computers, Information, and Society</td>
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<tr>
<td></td>
<td></td>
<td>CPSC 110 Visual Computing</td>
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<td></td>
<td></td>
<td>CPSC 110 Computing with Mobile Phones</td>
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<tr>
<td></td>
<td></td>
<td>CPSC 219 Theory of Computation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CPSC 225 Topics in Application Programming</td>
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<tr>
<td></td>
<td></td>
<td>CPSC 275L Introduction to Computer Systems</td>
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<tr>
<td></td>
<td></td>
<td>CPSC 304 Computer Graphics</td>
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<tr>
<td></td>
<td></td>
<td>CPSC 310 Software Design</td>
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<tr>
<td></td>
<td></td>
<td>CPSC 315 Systems Software</td>
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<tr>
<td></td>
<td></td>
<td>CPSC 316 Foundations of Programming Languages</td>
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<tr>
<td></td>
<td></td>
<td>CPSC 320 Analysis of Algorithms</td>
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<tr>
<td></td>
<td></td>
<td>CPSC 333 Computer Networks</td>
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<tr>
<td></td>
<td></td>
<td>CPSC 340 Principles of Software Engineering</td>
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<tr>
<td></td>
<td></td>
<td>CPSC 352 Artificial Intelligence</td>
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<tr>
<td></td>
<td></td>
<td>CPSC 372 Database Fundamentals</td>
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<tr>
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<td>CPSC 375 High-Performance Computing</td>
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<tr>
<td></td>
<td></td>
<td>CPSC 385 Computer Security</td>
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<tr>
<td></td>
<td></td>
<td>CPSC 415 Special Topics in Computing</td>
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<tr>
<td></td>
<td></td>
<td>CPSC 498</td>
</tr>
</tbody>
</table>

### Senior Exercise (Seminar + Project)

<table>
<thead>
<tr>
<th>Sem</th>
<th>Grade</th>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>CPSC 403</td>
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<td></td>
<td></td>
<td>CPSC 404</td>
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<td></td>
<td></td>
<td>CPSC 498</td>
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<tr>
<td></td>
<td></td>
<td>CPSC 499</td>
</tr>
</tbody>
</table>

Students must register for all four separately. They also receive separate grades.
<table>
<thead>
<tr>
<th>Year</th>
<th>Course Code</th>
<th>Course Name</th>
<th>Year</th>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st year</td>
<td>Freshman Seminar</td>
<td>Intro to Computing</td>
<td>2nd year</td>
<td>Cognate Course 1</td>
<td>Coordinate Course 1</td>
</tr>
<tr>
<td>1st year</td>
<td>CPSC 115L</td>
<td>Intro to Computing</td>
<td>2nd year</td>
<td>Cognate Course 2</td>
<td>Coordinate Course 2</td>
</tr>
<tr>
<td>1st year</td>
<td></td>
<td></td>
<td>2nd year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd year</td>
<td>Coordinate Course 1</td>
<td></td>
<td>3rd year</td>
<td>Coordinate Course 3</td>
<td>CS Elective 1</td>
</tr>
<tr>
<td>2nd year</td>
<td></td>
<td></td>
<td>3rd year</td>
<td>Coordinate Course 4</td>
<td>Coordinate Course 5</td>
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<tr>
<td>3rd year</td>
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<td>3rd year</td>
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<tr>
<td>4th year</td>
<td>CPSC 403</td>
<td>Senior Seminar</td>
<td>4th year</td>
<td>CPSC 404</td>
<td>Senior Seminar</td>
</tr>
<tr>
<td>4th year</td>
<td>CPSC 498</td>
<td>Senior Project</td>
<td>4th year</td>
<td>CPSC 499</td>
<td>Senior Project</td>
</tr>
<tr>
<td>4th year</td>
<td>CS Elective 2</td>
<td></td>
<td>4th year</td>
<td>CS Elective 3</td>
<td>Coordinate Course 7</td>
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<tr>
<td>4th year</td>
<td>Coordinate Course 6</td>
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</tbody>
</table>

Interdisciplinary Computing
Recommended Course Load
Interdisciplinary Computing with Economics

Computing technology and concepts have become increasingly important in all areas of economics and finance, from analysis to security to modeling and visualization. Study in this area might also focus on some of the economic impacts of computing in areas such as online media or intellectual property law. A course of study in this area would draw on computer science electives, mathematics, and coordinate Courses.

The degree requirements for Interdisciplinary Computing with Economics is laid out in the chart below.

<table>
<thead>
<tr>
<th>Computer Science Core Requirements</th>
<th>Economics Coordinate Courses</th>
<th>Cognate Requirements</th>
<th>Computer Science Electives</th>
<th>Senior Exercise (Seminar + Project)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sem Grade Course</td>
<td>Sem Grade Course</td>
<td>Sem Grade Course</td>
<td>Sem Grade Course</td>
<td>Sem Grade Course</td>
</tr>
<tr>
<td>CPSC 215L Data Structures and Algorithms</td>
<td>ECON 301 Microeconomic Theory</td>
<td>ECON 3xx 300-level Economics Course</td>
<td>CPSC 110 Visual Computing</td>
<td>CPSC 403</td>
</tr>
<tr>
<td>CPSC 203 Math Found. of Computing</td>
<td>ECON 302 Macroeconomic Theory</td>
<td>ECON 331 Economics Senior Seminar</td>
<td>CPSC 110 Computing with Mobile Phones</td>
<td>CPSC 404</td>
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<td>ECON 318 Basic Econometrics</td>
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<td>CPSC 219 Theory of Computation</td>
<td>CPSC 404</td>
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<td>CPSC 409</td>
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<td>CPSC 304 Computer Graphics</td>
<td>CPSC 498</td>
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<td>CPSC 310* Software Design</td>
<td>CPSC 498</td>
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<td>CPSC 315 Systems Software</td>
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<td>CPSC 320* Analysis of Algorithms</td>
<td>CPSC 499</td>
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<td>CPSC 333* Computer Networks</td>
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Note that students must earn a minimum grade of C- in CPSC 115L, CPSC 203, and CPSC 215L, a minimum grade of B- in ECON 101, and a minimum grade of C+ in MATH 207/ECON 218, ECON 301, and ECON 302.
<table>
<thead>
<tr>
<th>Year</th>
<th>FALL</th>
<th>SPRING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>First Year Seminar</td>
<td>CPSC 215L Data Structures and Algorithms</td>
</tr>
<tr>
<td></td>
<td>CPSC 115L Intro to Computing</td>
<td>MATH 207 Statistical Data Analysis OR</td>
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<tr>
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<td>ECON 101 Basic Economic Principles</td>
<td>ECON 218 Intro to Stats for Econ</td>
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<tr>
<td></td>
<td></td>
<td>ECON 2xx 200-level Economics course</td>
</tr>
<tr>
<td>2nd</td>
<td>CS Elective 1</td>
<td>CPSC 203 Math Found. of Computing</td>
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<td>ECON 301 Microeconomic Theory</td>
<td>ECON 302 Macroeconomic Theory</td>
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<tr>
<td></td>
<td>MATH 131 Calculus I</td>
<td></td>
</tr>
<tr>
<td>3rd</td>
<td>CS Elective 2</td>
<td>CS Elective 3</td>
</tr>
<tr>
<td></td>
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<td>ECON 3xx 300-level Economics course</td>
</tr>
<tr>
<td>4th</td>
<td>CPSC 403 Senior Seminar</td>
<td>CPSC 404 Senior Seminar</td>
</tr>
<tr>
<td></td>
<td>CPSC 498 Senior Project</td>
<td>CPSC 499 Senior Project</td>
</tr>
<tr>
<td></td>
<td>ECON 331 Economics Senior Seminar</td>
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</table>

**Interdisciplinary Computing with Economics**

Recommended Course Load