

**DEGREE REQUIREMENTS FOR INTERDISCIPLINARY COMPUTING (as of FALL 2019)**

Updated April 2019

Name \_\_\_\_\_ Class of \_\_\_\_\_ CPSC GPA \_\_\_\_\_ (from Transcript)

| Computer Science Core Requirements |       |  | Coordinate Courses - need 6 to 7 courses in the coordinate discipline to be chosen in consultation with the coordinate advisor |       |        |       |       |        |
|------------------------------------|-------|--|--|-------|--------|-------|-------|--------|
| Sem                                | Grade | Course                                   | Sem  | Grade | Course | Sem   | Grade | Course |
| _____                              | _____ | CPSC 115L Intro to Computing             | _____  | _____ | .....  | _____ | _____ | .....  |
| _____                              | _____ | CPSC 215L Data Structures and Algorithms | _____  | _____ | .....  | _____ | _____ | .....  |
| _____                              | _____ | CPSC 203 Math Found. of Computing        | _____  | _____ | .....  | _____ | _____ | .....  |

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

| Sem   | Grade | Course              |
|-------|-------|---------------------|
| _____ | _____ | MATH 131 Calculus I |

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

|       |       |   |
|-------|-------|---|
| _____ | _____ | POLS 242 Political Science Research Methods     |
| _____ | _____ | PSYC 221L Research Design and Analysis          |
| _____ | _____ | SOCL 201L Research Methods in the Soc. Sciences |
| _____ | _____ | MATH .....                                      |

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

|       |       |                                       |    |  |
|-------|-------|---------------------------------------|----|--|
| _____ | _____ | MATH 127 Functions, Graphs & Modeling | OR | Eligibility to enroll in MATH 131 (additional mathematics courses are to be specified in a study plan) |
|-------|-------|---------------------------------------|----|--|

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

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

**Senior Exercise (Seminar + Project)**

| Sem   | Grade | Course   | Sem   | Grade | Course   |
|-------|-------|----------|-------|-------|----------|
| _____ | _____ | CPSC 403 | _____ | _____ | CPSC 498 |
| _____ | _____ | CPSC 404 | _____ | _____ | CPSC 499 |

Students must register for all four separately. They also receive separate grades.

# Interdisciplinary Computing

Recommended Course Load

**FALL**

**SPRING**

|          |  |  |
|----------|--|--|
| 1st year | Freshman Seminar<br>CPSC 115L    Intro to Computing<br><hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> | CPSC 215L    Data Structures and Algorithms<br>CPSC 203    Math Found. of Computing<br><hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> |
| 2nd year | Cognate Course 1<br>Coordinate Course 1<br><hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/>             | Cognate Course 2<br>Coordinate Course 2<br><hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/>   |
| 3rd year | Coordinate Course 3<br>Coordinate Course 4<br><hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/>          | CS Elective 1<br>Coordinate Course 5<br><hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/>  |
| 4th year | CPSC 403    Senior Seminar<br>CPSC 498    Senior Project<br>CS Elective 2<br>Coordinate Course 6<br><hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/>                         | CPSC 404    Senior Seminar<br>CPSC 499    Senior Project<br>CS Elective 3<br>Coordinate Course 7<br><hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/>   |

# Interdisciplinary Computing with Economics

Updated April 2019

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.

| Computer Science Core Requirements   |       |   | Economics Coordinate Courses |       |  |                                  |       |                                     |
|--|-------|---|------------------------------|-------|--|----------------------------------|-------|-------------------------------------|
| Sem  | Grade | Course  | Sem                          | Grade | Course                                       | Sem                              | Grade | Course                              |
| _____  | _____ | CPSC 115L Intro to Computing                  | _____                        | _____ | ECON 101 Basic Economic Principles           | _____                            | _____ | ECON 2xx 200-level Economics Course |
| _____  | _____ | CPSC 215L Data Structures and Algorithms      | _____                        | _____ | ECON 301 Microeconomic Theory                | _____                            | _____ | ECON 3xx 300-level Economics Course |
| _____  | _____ | CPSC 203 Math Found. of Computing             | _____                        | _____ | ECON 302 Macroeconomic Theory                | _____                            | _____ | ECON 331 Economics Senior Seminar   |
| _____  | _____ |   | _____                        | _____ | ECON 318 Basic Econometrics                  |                                  |       |                                     |
| Cognate Requirements   |       |   |                              |       |  |                                  |       |                                     |
| Sem  | Grade | Course  |                              |       |  |                                  |       |                                     |
| _____  | _____ | MATH 131 Calculus I                           |                              |       |  |                                  |       |                                     |
| _____  | _____ | MATH 207 Statistical Data Analysis            | OR                           | _____ | _____  | ECON 218 Intro to Stats for Econ |       |                                     |
| Computer Science Electives (need 3 courses appropriate to the coordinate discipline, to be chosen in consultation with the computer science advisor) |       |   |                              |       |  |                                  |       |                                     |
| The recommended electives for an Economics coordinate are flagged with an *.   |       |   |                              |       |  |                                  |       |                                     |
| Sem  | Grade | Course  | Sem                          | Grade | Course                                       |                                  |       |                                     |
| _____  | _____ | CPSC 110 Computers, Information, and Society  | _____                        | _____ | CPSC 340* Principles of Software Engineering |                                  |       |                                     |
| _____  | _____ | CPSC 110 Visual Computing                     | _____                        | _____ | CPSC 352 Artificial Intelligence             |                                  |       |                                     |
| _____  | _____ | CPSC 110 Computing with Mobile Phones         | _____                        | _____ | CPSC 372 Database Fundamentals               |                                  |       |                                     |
| _____  | _____ | CPSC 219 Theory of Computation                | _____                        | _____ | CPSC 375 High-Performance Computing          |                                  |       |                                     |
| _____  | _____ | CPSC 225 Topics in Application Programming    | _____                        | _____ | CPSC 385* Computer Security                  |                                  |       |                                     |
| _____  | _____ | CPSC 275L Introduction to Computer Systems    | _____                        | _____ | CPSC 415 Special Topics in Computing         |                                  |       |                                     |
| _____  | _____ | CPSC 304 Computer Graphics                    | _____                        | _____ | .....  |                                  |       |                                     |
| _____  | _____ | CPSC 310* Software Design                     | _____                        | _____ | .....  |                                  |       |                                     |
| _____  | _____ | CPSC 315 Systems Software                     |                              |       |  |                                  |       |                                     |
| _____  | _____ | CPSC 316 Foundations of Programming Languages |                              |       |  |                                  |       |                                     |
| _____  | _____ | CPSC 320* Analysis of Algorithms              |                              |       |  |                                  |       |                                     |
| _____  | _____ | CPSC 333* Computer Networks                   |                              |       |  |                                  |       |                                     |
| Senior Exercise (Seminar + Project)  |       |   | Sem                          | Grade | Course                                       | Sem                              | Grade | Course                              |
|  |       |   | _____                        | _____ | CPSC 403                                     | _____                            | _____ | CPSC 498                            |
|  |       |   | _____                        | _____ | CPSC 404                                     | _____                            | _____ | CPSC 499                            |
| Students must register for all four separately. They also receive separate grades.   |       |   |                              |       |  |                                  |       |                                     |

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.

# Interdisciplinary Computing with Economics

Recommended Course Load

**FALL**

**SPRING**

1st year

|  |   |
|--|---|
| First Year Seminar<br>CPSC 115L Intro to Computing<br>ECON 101 Basic Economic Principles<br>_____<br>_____ | CPSC 215L Data Structures and Algorithms<br>MATH 207 Statistical Data Analysis <b>OR</b><br>ECON 218 Intro to Stats for Econ<br>ECON 2xx 200-level Economics course<br>_____<br>_____ |
|--|---|

2nd year

|   |  |
|---|--|
| CS Elective 1<br>ECON 301 Microeconomic Theory<br>MATH 131 Calculus I<br>_____<br>_____ | CPSC 203 Math Found. of Computing<br>ECON 302 Macroeconomic Theory<br>_____<br>_____ |
|---|--|

3rd year

|  |  |
|--|--|
| CS Elective 2<br>ECON 318 Basic Econometrics<br>_____<br>_____ | CS Elective 3<br>ECON 3xx 300-level Economics course<br>_____<br>_____ |
|--|--|

4th year

|   |  |
|---|--|
| CPSC 403 Senior Seminar<br>CPSC 498 Senior Project<br>ECON 331 Economics Senior Seminar<br>_____<br>_____ | CPSC 404 Senior Seminar<br>CPSC 499 Senior Project<br>_____<br>_____ |
|---|--|