

# COMPUTER SCIENCE AND SOCIETY BACHELOR OF SCIENCE

## Leading to a Bachelor of Science Degree in Computer Science and Society

Students in Computer Science + Society learn how to solve the world's problems using the skills of Computer Science and the frameworks of the Social Sciences and Humanities. Students gain a solid foundation in Computer Science as well as the interdisciplinary knowledge needed to understand and shape the role of technology in society. The major courses offer hands-on experience applying critical thinking, research, and data analysis skills to real-world problems drawn from a regional and global context. Electives allow students to tailor their studies to their interests and career plans. The program of study leads to a capstone project involving independent research. Students also apply these skills in the workplace through two required co-op work semesters.

### Student Outcomes

Graduates of the major in Computer Science + Society should be able to:

- Design, implement and evaluate solutions to problems grounded in real-world scenarios by applying conceptual frameworks from the Humanities and Social Sciences and principles of Computer Science.
- Analyze the interrelationship between scientific inquiry, technological innovation, cultural production, and human behavior.
- Communicate effectively in a variety of professional contexts through use of critical argument, analyses, and creative expression in written, oral, visual, and/or digital output.
- Make informed professional judgments based on ethical principles, social awareness, and cultural understanding.
- Function effectively in collaborative environments.

### Four Year Program

Total credits for degree: 120 credits

#### First Year

Fall Semester		Credits
CSAS1000	INTRODUCTION TO COMPUTER SCIENCE + SOCIETY	4
COMP1000	COMPUTER SCIENCE I	4
MATH1500	PRECALCULUS	4
ENGLISH SEQUENCE		4
<b>Credits</b>		<b>16</b>
Spring Semester		
COMP1050	COMPUTER SCIENCE II	4
MATH2300	DISCRETE MATHEMATICS	4
SCIENCE ELECTIVE: BIOL, CHEM or PHYS		4
ENGLISH SEQUENCE		4
<b>Credits</b>		<b>16</b>

#### Second Year

Fall Semester		
CSAS2000	COMPUTER SCIENCE + SOCIETY STUDIO	4
COMP1100	INTRODUCTION TO NETWORKS	4

HSSI4000	SCIENCE, TECHNOLOGY & SOCIETY	4
MATH1030	STATISTICS & APPLICATIONS	4
<b>Credits</b>		<b>16</b>

#### Spring Semester

COMP1200	COMPUTER ORGANIZATION	4
HIST4191	HISTORY OF TECHNOLOGY <sup>1</sup>	4
HSS ELECTIVE <sup>1</sup>		4
FREE ELECTIVE <sup>2</sup>		4
COOP2500	CO-OP INSTITUTE	0
<b>Credits</b>		<b>16</b>

#### Summer Semester

COOP3000	OPTIONAL COOP EDUCATION	0
<b>Credits</b>		<b>0</b>

#### Third Year

##### Fall Semester

COMP2000	DATA STRUCTURES	4
COMP2650	DATABASE MANAGEMENT SYSTEMS	4
SOCL4232	RESEARCH METHODS	4
FREE ELECTIVE <sup>2</sup>		4
<b>Credits</b>		<b>16</b>

##### Spring Semester

COOP3500	COOP EDUCATION 1	0
<b>Credits</b>		<b>0</b>

##### Summer Semester

CSAS2000	COMPUTER SCIENCE + SOCIETY STUDIO (This course is required twice: Sophomore Fall and Junior Summer)	4
COMP2350	ALGORITHMS	4
HSS ELECTIVE <sup>1</sup>		4
HSS ELECTIVE <sup>1</sup>		4
<b>Credits</b>		<b>16</b>

#### Fourth Year

##### Fall Semester

COOP4500	COOP EDUCATION 2	0
<b>Credits</b>		<b>0</b>

##### Spring Semester

POLS4350	SCIENCE & TECHNOLOGY POLICY	4
PHIL4525	A.I. ETHICS	4
HSS ELECTIVE <sup>1</sup>		4
<b>Credits</b>		<b>12</b>

##### Summer Semester

CSAS5000	COMPUTER SCIENCE + SOCIETY SENIOR PROJECT	4
HSS ELECTIVE <sup>1</sup>		4
FREE ELECTIVE <sup>2</sup>		4
<b>Credits</b>		<b>12</b>

**Total Credits** **120**

<sup>1</sup> Any Humanities or Social Sciences course numbered 3000 or higher

<sup>2</sup> Any Wentworth course

Math Placement (<https://catalog.wit.edu/academic-policies-procedures/ug/math-placement/>) may alter the course schedule above.

### Three Year Program

Total credits for degree: 120 credits

Course	Title	Credits
<b>Freshman Year</b>		
<b>Fall Semester</b>		
CSAS1000	INTRODUCTION TO COMPUTER SCIENCE + SOCIETY	4
COMP1000	COMPUTER SCIENCE I	4
COMP1100	INTRODUCTION TO NETWORKS	4
MATH1500	PRECALCULUS	4
English Sequence		4
<b>Credits</b>		<b>20</b>
<b>Spring Semester</b>		
COMP1050	COMPUTER SCIENCE II	4
MATH1030	STATISTICS & APPLICATIONS	4
MATH2300	DISCRETE MATHEMATICS	4
SCIENCE Elective w/Lab: BIOL, CHEM or PHYS		4
English Sequence		4
<b>Credits</b>		<b>20</b>
<b>Sophomore Year</b>		
<b>Fall Semester</b>		
COMP1200	COMPUTER ORGANIZATION	4
CSAS2000	COMPUTER SCIENCE + SOCIETY STUDIO (This course is required twice: Fall & Spring Sophomore year)	4
COMP2000	DATA STRUCTURES	4
HSSI4000	SCIENCE, TECHNOLOGY & SOCIETY	4
SOCL4232	RESEARCH METHODS	4
COOP2500	INTRODUCTION TO COOPERATIVE EDUCATION	0
<b>Credits</b>		<b>20</b>
<b>Spring Semester</b>		
COMP2350	ALGORITHMS	4
CSAS2000	COMPUTER SCIENCE + SOCIETY STUDIO (This course is required twice: Fall & Spring Sophomore year)	4
HIST4191	HISTORY OF TECHNOLOGY	4
POLS4350	SCIENCE & TECHNOLOGY POLICY	4
CS+S ELECTIVE <sup>1</sup>		4
<b>Credits</b>		<b>20</b>
<b>Summer Semester</b>		
COOP3500	COOP EDUCATION 1	0
<b>Credits</b>		<b>0</b>
<b>Junior Year</b>		
<b>Fall Semester</b>		
ECON4200	TECHNOLOGY & ECONOMIC DEVELOPMENT	4
ETHICS Elective <sup>2</sup>		4
COMP2650	DATABASES	4
COMP Elective <sup>3</sup>		4

Course	Title	Credits
GENERAL Elective		4
<b>Credits</b>		<b>20</b>
<b>Spring Semester</b>		
COOP4500	COOP EDUCATION 2	0
<b>Credits</b>		<b>0</b>
<b>Summer Semester</b>		
CSAS5000	COMPUTER SCIENCE + SOCIETY SENIOR PROJECT	4
CS+S ELECTIVE <sup>1</sup>		4
CS+S ELECTIVE		4
CS+S ELECTIVE		4
COMP Elective		4
<b>Credits</b>		<b>20</b>
<b>Total Credits</b>		<b>120</b>

<sup>1</sup> COMM4300, COMM4310, COMM4325, HIST4200, HUMN4200, HUMN4243,

HUMN4263, HUMN4325, COMM4330, LITR4601, POLS4450, SOCL4102, SOCL4212

<sup>2</sup> PHIL4401, PHIL4525, PHIL4550, PHIL4600

<sup>3</sup> Any Computer Science Elective

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