

# Computing Science - Artificial Intelligence Option Major Requirements (72)

## Foundation Courses

- CMPUT 174 - Introduction to the Foundations of Computation I (See Note 1)
- CMPUT 175 - Introduction to the Foundations of Computation II (See Note 1)
- MATH 125 - Linear Algebra I

### 3 units from:

- MATH 134 - Calculus for the Life Sciences I
- MATH 144 - Calculus for the Mathematical and Physical Sciences I \_\_\_\_\_
- MATH 154 - Calculus for Business and Economics I

### 3 units from:

- MATH 136 - Calculus for the Life Sciences II
- MATH 146 - Calculus for the Mathematical and Physical Sciences II
- MATH 156 - Calculus for Business and Economics II \_\_\_\_\_

### 3 units from:

- STAT 151 - Introduction to Applied Statistics I
- STAT 235 - Introductory Statistics for Engineering
- STAT 265 - Probability and Statistics I \_\_\_\_\_

## Senior Courses

- CMPUT 200 - Ethics of Data Science and Artificial Intelligence
- CMPUT 204 - Algorithms I
- CMPUT 261 - Introduction to Artificial Intelligence
- CMPUT 267 - Machine Learning I
- CMPUT 272 - Formal Systems and Logic in Computing Science
- CMPUT 365 - Introduction to Reinforcement Learning
- CMPUT 366 - Search and Planning in Artificial Intelligence
- CMPUT 467 - Machine Learning II

**Notes**  
 Students may replace CMPUT 174 with CMPUT 274, and CMPUT 175 with CMPUT 275. Students who take CMPUT 275 cannot take CMPUT 201 for credit. Upper level CMPUT courses may require specific CMPUT, MATH or STAT courses as prerequisites. These prerequisites must be considered when choosing Science options.

### 3 units from:

- CMPUT 201 - Practical Programming Methodology (See Note 1)
- CMPUT 291 - Introduction to File and Database Management \_\_\_\_\_

### 3 units from:

- STAT 252 - Introduction to Applied Statistics II
- STAT 266 - Probability and Statistics II \_\_\_\_\_

### 3 units from:

- CMPUT 312 - Introduction to Robotics and Mechatronics
- CMPUT 328 - Visual Recognition
- CMPUT 340 - Introduction to Numerical Methods
- CMPUT 350 - Advanced Games Programming \_\_\_\_\_

### 3 units from:

- CMPUT 412 - Experimental Mobile Robotics
- CMPUT 455 - Search, Knowledge and Simulation
- CMPUT 461 - Introduction to Natural Language Processing \_\_\_\_\_
- CMPUT 463 - Probabilistic Graphical Models

### 12 units from:

- CMPUT at the 300 and/or 400-level
- \_\_\_\_\_
- \_\_\_\_\_

### 6 units from:

- CMPUT at the 400-level
- \_\_\_\_\_
- \_\_\_\_\_

- COMM
- COMM
- IND
- BO\_\_
- BO\_\_
- BSBS
- BSFS
- BSSS
- LAB