# Real Intelligence, Artificial Actions

| QUARTERS | LOCATION | TIME OFFERED |
| --- | --- | --- |
| Spring Open | Olympia | Day |

| CLASS STANDING | CREDITS | ACADEMIC YEAR |
| --- | --- | --- |
| Freshman, Sophomore | 16 | 2025 – 2026 |

**Taught By:**

Catherine Kehl  Jakob Kaivo

This program is primarily intended for students with an interest in STEM topics, particularly math, computer science, and robotics, but who currently lack a STEM background. We will introduce key concepts through the different lenses of math, programming, and robotics to develop a firm foundation for quantitative and analytical reasoning about the worlds we live in, both physical and virtual. The overarching focus is that your real intelligence is the driving force behind the actions that artificial agents engage in, and how you can use that knowledge to control those actions rather than being controlled by them.

The program will have four interconnected elements:

- We will explore a combination of essential algebra and statistics to understand how computers and robotics view the world (algebra) and how the media abuses math to mislead the public (statistics).
- We will use Python to understand how computer programs are made and how students can take more control of what their computers do.
- We will use a combination of CircuitPython and microcontrollers to build physical devices controlled by student-created code to show that it is the robots who should fear us, not the other way around.
- We will discuss various contemporary topics related to the other threads, particularly the misleading use of statistics and the ethical implications of technological development.

Both the Python and Robotics threads will be a combination of short talks and hands-on labs. Math activities include lectures with weekly homework assignments and short quizzes to check progressive understanding. Seminar will include weekly readings with a focus on active participation in group conversation and reflective writing.

**Anticipated Credit Equivalencies:**
6 - Math: Algebraic Thinking and Statistics
4 - Python Programming
4 - Intro to Robotics: Programming microcontrollers with Python
2 - Seminar: Case Studies in Misinformation and Technological Ethics

# Registration

**Spring Registration:**

Course Reference Numbers
Fr - So (16): 30256

# Academic Details

**Fields of Study:**

| | |
|---|---|
| Computer Science | Mathematics |

**Preparatory for studies and careers in:**

Computer Science, Math, Robotics

**Credits:** 16

**Maximum Enrollment:** 50

**Class Standing:** Freshman, Sophomore

## Schedule

**Quarters:**

Spring
2026
Open

**In Person or Remote:**

In Person (S)
**See definition of Hybrid, Remote, and In-Person instruction**

**Time Offered:** Day

**Schedule Evergreen:**

**Schedule Details**

**First Meeting:**

Monday, March 30, 2026 - 10:00 am
Evans Hall 2617 - Windows / Linux Lab

**Location:** Olympia

Olympia, Washington Tacoma, Washington

(360) 867-6000

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House of Welcome Cultural Arts Center and The Indigenous Arts Campus at Evergreen.

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