

# IDEA LAB

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IdeaLab is a community of makers, scholars, and teachers committed to traversing and transcending traditional disciplines and course structures in order to engage students and faculty in embodied learning experiences. Our programs encourage risk, collaboration, imagination, and prototyping of ideas. IdeaLab courses have innovative, experimental structures and may be cross-listed in any — or many — other departments.

## Course Listing

### IL 151A-D - IdeaLab Special Topics

Credits: 1-4

A topically organized introductory course that has an experimental structure that is different from traditional courses. This course will have one of the following characteristics: a different/re-imagined student/professor dynamic, a new temporal course structure, a subject that is between disciplinary boundaries, a new or emerging field, or a time sensitive subject.

**Note(s):** May be repeated for credit with a different topic.

### IL 161A-D - IdeaLab Special Topics Pop-up

Credits: 1-4

A topically organized introductory course that responds to a time sensitive subject. This course will respond to a major event, a situation where conditions are changing quickly or a subject that may disappear in the future.

**Note(s):** May be repeated for credit with a different topic.

### IL 201 - PourMore: Skidmore Lava Project

Credits: 2

An exploration of how art "is made" and science "is done". In this course, students will learn how basalt melts, flows, and solidifies under different conditions. Students will study the physical and chemical properties of basalt lava and rock; they will learn how to create the tremendous heat needed to melt basalt using a furnace; and how to manage the flow and solidification of lava. Students will work in small groups to explore some aspect of basalt lava through a series of experiments during the semester. In addition, the course will culminate in a community "Lava Pour" event that will be managed and run by students.

### IL 204 - Artificial Self

Credits: 2

Scholars and corporations are increasingly concerned with (a) creating effective artificial intelligence; and (b) creating new opportunities for human consciousness/selfhood to exist within virtual/digital spaces. These joint efforts mean that our world now includes technologies that meaningfully blur the boundaries between self/not-self, and even between biological/artificial intelligences. What are the boundaries between human and machine; between sentience and oblivion; between body and avatar; between innovation and mimicry? In other words: Can machines think? This course focuses on understanding the stakes and consequences of the development of increasingly compelling AI, metaverses, avatars, and programs. To do this, we will understand major debates related to selfhood, consciousness, self-awareness, and sentience. We will work with these ideas using academic readings across the cognitive sciences, including from linguistics, computer science, and psychology. However, understanding the artificial self requires "primary source" research too; we will experience artificial "self"hoods via structured direct engagement with AI chatbots and virtual worlds. We will use the tools of the virtual world to telematically interact with distance scholars/activists in shared activities for understanding virtual selves. Finally, we will partner with the Cognitive Science Society's "Can machines think?" contest to judge their international and multidisciplinary submissions of materials explaining major debates and issues related to artificial consciousness and selfhood.

### IL 251A-D - IdeaLab Special Topics

Credits: 1-4

A topically organized intermediate course that has an experimental structure that is different from traditional courses. This course will have one of the following characteristics: a different/re-imagined student/professor dynamic, a new temporal course structure, a subject that is between disciplinary boundaries, a new or emerging field, or a time sensitive subject.

**Note(s):** May be repeated for credit with a different topic.

### IL 261A-D - IdeaLab Special Topics Pop-up

Credits: 1-4

A topically organized intermediate course that responds to a time sensitive subject. This course will respond to a major event, a situation where conditions are changing quickly or a subject that may disappear in the future.

**Note(s):** May be repeated for credit with a different topic.

### IL 305 - Robotics

Credits: 3

An introduction to modern robotics. Students will design and construct autonomous mobile robots and manipulator arms. Topics include ethics of automation, actuators and drives, motor characteristics, motor control, sensors, linkages and joints, mechanical advantage, and error correction.

**Prerequisites:** PY 213 or CS 318 or instructor permission.

**Note(s):** Fulfills Senior Coda requirement.

### IL 351A-D - IdeaLab Special Topics

Credits: 1-4

A topically organized advanced course that has an experimental structure that is different from traditional courses. This course will have one of the following characteristics: a different/re-imagined student/professor dynamic, a new temporal course structure, a subject that is between disciplinary boundaries, a new or emerging field, or a time sensitive subject.

**Note(s):** May be repeated for credit with a different topic.

**IL 361A-D - IdeaLab Special Topics Pop-up**

Credits: 1-4

A topically organized advanced course that responds to a time sensitive subject. This course will respond to a major event, a situation where conditions are changing quickly or a subject that may disappear in the future.

**Note(s):** May be repeated for credit with a different topic.