A minor in IDEAS requires seven credits. Comprised of three courses the IDEAS minor core is designed to introduce students to hands-on project-based studio, laboratory, and critical coursework in design and engineering. The remaining four elective courses come from course concentrations. Some courses offered on an irregular basis are not listed in concentrations, but may be used for electives subject to approval from the minor advisor.

### Minor Core

3 COURSES

The **Minor Core** is identical for all IDEAS Minor Tracks.

- **Engineering Foundations Lab:**
  - IDEA 170 or IDEA 175

- **Introductory Design Studio:**
  - ARST220/IDEA 120, ARST235/IDEA 135, ARSTxxx/IDEA160, IDEA 185, IDEA 190, ARSTXXx/IDEA 236, ARST/IDEA243, ARST221/IDEAxxx, IDEA285

- **Design & Technology Seminar:**
  - IDEA 180, Any 200-level SISP Course, or other Design & Technology focused seminar.

Multiple options for each Core course requirement:

- **Engineering Foundations Lab:** IDEA 170 or IDEA 175
- **Introductory Design Studio:** ARST220/IDEA 120, ARST235/IDEA 135, ARSTxxx/IDEA160, IDEA 185, IDEA 190, ARSTXXx/IDEA 236, ARST/IDEA243, ARST221/IDEAxxx, IDEA285
- **Design & Technology Seminar:** IDEA 180, Any 200-level SISP Course, or other Design & Technology focused seminar.

### Concentration

4 COURSES

Each IDEAS Minor includes a **Concentration** area from a wide array of areas in Design, Engineering, Arts & Society.

- **Concentration Elective A**
- **Concentration Elective B**
- **Concentration Elective C**
- **Concentration Elective D**

Some of the Minor Concentrations include courses listed among those that will satisfy a gateway course distribution requirement.

Students will work with an advisor to help them achieve the appropriate depth of study in the concentration.

Related courses that are not offered on a regular basis or course substitutions may be considered for minor credit, subject to review by the minor advisor.

Typically, introductory (100-level) courses may not be counted toward the Concentration elective requirement.

### Portfolio

All IDEAS minors will assemble a portfolio encompassing work developed within IDEAS courses. Students participating in the minor will begin the development of a digital and/or physical portfolio in the required project-based minor courses. In consultation with an advisor, projects will be added to this portfolio and reviewed before completion of the minor.

**Concentrations Include:**
- Arts and Design
- Applied Math
- Biological or Biochemical Concentration
- Chemical Concentration
- Computer Concentration
- Electrical Concentration
- Environmental Concentration
- Geomechanics/Geosystems
- Materials Science
- Mechanical Concentration
- Performance Design