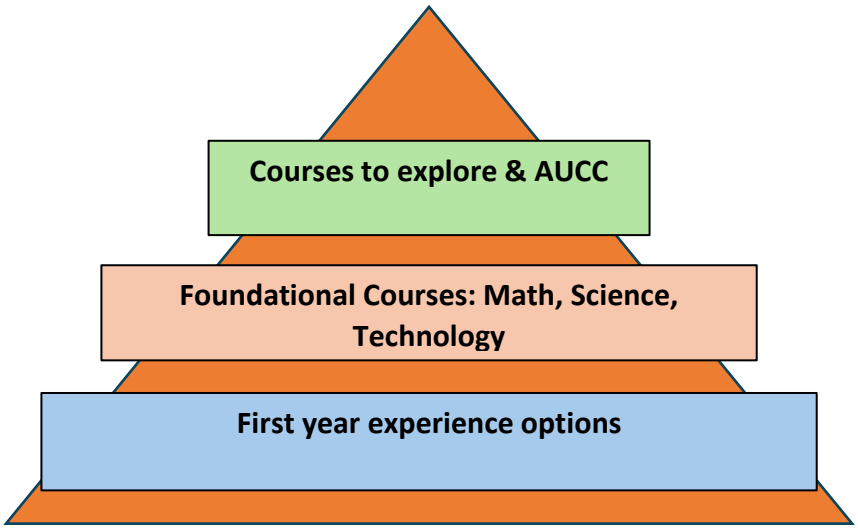
EXPE: Exploring Math, Physical Science & Engineering

Your interests may include technology, product design, and understanding how science & math relate to the world around you. Be sure to check out all the options on the Exploratory Studies website.
Major Track: Exploring Math, Physical Science & Engineering



The course registration pyramid – our framework for course selection

FIRST YEAR EXPERIENCE options – choose one:

First year experience options are for first-time, first-year students. They include a first-year seminar course designed to foster connection, academic success, and exploration. Please talk with your advisor about the best option for you.

Key communities Cluster (seminar + 2 AUCC classes)	**Seminar Cluster** (IU172 + composition class)	**Stand-alone seminar** (IU172)	**Explorer's Challenge** (independent exploration)

FOUNDATIONAL course options:

Important note: All majors in this track require calculus. Students should plan to take calculus as early as possible. If it is not taken in the first semester, it should be taken in the second semester immediately after completing or testing out of pre-calculus. Completing the math placement tool prior to orientation (or the first day of classes) is critical to staying on track.

1ST Semester (ready for algebra / pre-calculus)	2nd Semester
Math: • 1 credit pre-calculus options (MATH117, 118, 124, 125, 126 – depends on placement) **Science:** • Problem Solving in Chemistry (CHEM105) - if tested out of MATH117 and 118 (algebra), OR • General Chemistry and lab (CHEM111 / 112) - if tested out of MATH117 & 118 (algebra), OR • Biology (LIFE102 or LIFE103)	**Math:** • Calculus 1 (MATH160, 155 or 141) **Science:** • General Chemistry and lab (CHEM111/112), OR • Biology (LIFE102 or LIFE103), OR • Computer Programming (CS164)
1st semester (ready for Calculus)	**2nd semester**
Math: • Calculus 1 (MATH160, 155 or 141) **Science:** • General Chemistry and lab (CHEM111 / 112) • Biology (LIFE102 or 103),	**Math:** • Calculus 2 (MATH161, 255), or no math **Science:** • General Chemistry 2 and lab (CHEM113/114), OR • Biology (LIFE102 or LIFE103), OR • Physics (PH141), OR • Computer Programming (CS164)

COURSES TO EXPLORE and AUCC requirements:

- AA 100/101: Introduction to Astronomy w/ lab (satisfies AUCC 3A: Biological & Physical Science)
- CHEM 111/112: General Chemistry I w/ lab (satisfies AUCC 3A: Biological & Physical Science)
- CON 101: Introduction to Construction Management**must declare pre-CM or CM minor for access**
- CS 150B: Culture and Coding – Python (satisfies AUCC 3B: Arts & Humanities)
- ECON202: Principles of Microeconomics (satisfies AUCC 3C: Social & Behavioral Science)
- ENGR 111: Fundamentals of Engineering (must be taken with or after MATH 160 – advisor override required)
- ERHS 220: Environmental Health (satisfies AUCC 3A: Biological & Physical Science – must be taken with or after LIFE 102)
- GEOL 120: Geology and Society (satisfies AUCC 3A: Biological & Physical Science)
- GEOL 122: Geoscience – Climate and Environmental Change (satisfies AUCC 3A: Biological & Physical Science)
- GES101: Introduction to Sustainability
- GES141: Introduction to Sustainable Energy
- GR100: Introduction to Geography (also satisfies AUCC 3C: Social & Behavioral Science)
- FTEC 155: Introduction to Food Science (also satisfies AUCC 3A: Biological & Physical Science)
- IDEA 210: Introduction to Design Thinking (satisfies AUCC 3B: Arts & Humanities)
- IDEA 280A2: Design Thinking Conversations
- IDEA 310: Any A-Z Design Thinking Toolbox course (must be taken with or after IDEA 210)
- IU173: Thinking toward a Thriving Planet (also satisfies AUCC categories – varies by topic)
- LIFE 102: Attributes of Living Systems (satisfies AUCC 3A: Biological & Physical Science)
- LIFE 103: Biology of Organisms – Animals and Plants (satisfies AUCC 3A: Biological & Physical Science)
- MIP 101: Introduction to Human Disease and Immunity
- PHIL 201: Ethical Computing Systems (satisfies AUCC 3B: Arts & Humanities)
- PH 141: Physics for Scientists and Engineers I (satisfies AUCC 3A: Biological & Physical Science)
- PSY 100: Introduction to Psychology (satisfies AUCC 3C: Social & Behavioral Science)
- PSY152: Science of Learning (also satisfies AUCC 3C: Social & Behavioral Science)

EXPE: Math, Physical Science, and Engineering

Next-level Exploration (course has prerequisites or is an upper-level course):

- ENGR114: Engineering for Grand Challenges (prerequisite: ENGR111)
- FTEC210: Science of Food Fermentation (prerequisites: BZ110/111 or LIFE102, CHEM107 or 108, FSHN150)
- FTEC360: Brewing Processes (prerequisite CHEM241)

Please visit https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/ for AUCC options