

MATH AND PRE-ENGINEERING

The **Math and Pre-Engineering** area of study prepares students for transfer to four-year programs in mathematics, engineering, and related STEM fields. Through the Associate in Science degree, students build a strong foundation in calculus, physics, and analytical problem-solving while developing the quantitative reasoning skills essential for advanced study in science and engineering disciplines.

Students are encouraged to choose a concentration to guide their studies and align their coursework with their intended transfer major. Concentrations in **Civil Engineering, Electrical Engineering, Mathematics, Mathematics Education, and Mechanical Engineering** help students follow the appropriate sequence of mathematics, science, and technical courses needed for upper-level coursework. These pathways support students as they prepare to continue their education in engineering, applied mathematics, teaching, and other technical fields that rely on strong quantitative and analytical skills.

Associate in Science

Math and Pre-Engineering, Associate in Science (<https://catalog.ocean.edu/areas-study/math-pre-engineering/as-math/>)

Students are encouraged to choose a concentration to guide their studies and get on a pathway to transfer. A concentration is an advising structure used to help students focus their coursework within a broader degree program. Concentrations provide guidance toward a particular area of interest or intended transfer major and ensure students complete the appropriate prerequisite courses. A concentration is not a separate major or credential and will not appear on the diploma or transcript.

Concentrations

- Civil Engineering Concentration (<https://catalog.ocean.edu/areas-study/math-pre-engineering/civil-engr/>)
- Electrical Engineering Concentration (<https://catalog.ocean.edu/areas-study/math-pre-engineering/elec-engr/>)
- Mathematics Concentration (<https://catalog.ocean.edu/areas-study/math-pre-engineering/math/>)
- Mathematics Education Concentration (<https://catalog.ocean.edu/areas-study/math-pre-engineering/math-ed/>)
- Mechanical Engineering Concentration (<https://catalog.ocean.edu/areas-study/math-pre-engineering/mech-engr/>)