

SCHOOL OF ENGINEERING AND APPLIED SCIENCE (SEAS)

SEAS 101 Introductory SEAS Research 1-6 Hours (repeatable max of 6 hrs)

An introduction to research projects and problem-solving techniques in various SEAS fields. Note: Enrollment in a program of study within the Architectural and Manufacturing Sciences Department or consent of instructor required.

Recent Term(s) Offered: spring 2022; fall 2022; spring 2023; fall 2023; spring 2024; summer 2024

SEAS 175 Freshmen Experience I 1 Hour

For beginning college freshmen or transfer students with fewer than 24 semester hours of credit. Transition to university experience for School of Engineering and Applied Sciences (SEAS) students. Topics include time management skills, critical thinking, exploration of SEAS majors and careers, campus resources, effective teamwork skills, and an introduction to the design process and project management.

Restriction(s): Students with a semester level of Junior, Sophomore or Senior may **not** enroll.

Enrollment is limited to students in Land Surveying (1700), Floodplain Management (1763), Manufacturing Engineering Tech (5006), Engineering Technology Mgmt (5007), Architectural Science (518), Construction Management (533), Civil Engineering (534), Civil Engineering-Prep (534P), Electrical Engineering (537), Electrical Engineering-Prep (537P), Mechanical Engineering (543), Mechanical Engineering-Prep (543P), Computer Information Tech (555), Computer Information Tech-prep (555P), Computer Science (629) or Computer Science-Prep (629P)

Recent Term(s) Offered: fall 2024

SEAS 325 Survey of Building Systems 3 Hours

A study of building systems with the associated building codes and energy conservation techniques, HVAC, Electricity, lighting, water supply, waste disposal, fire protection, and building management systems.

Prerequisite(s): AS 163 and (CM 261 or CE 303) and (MATH 117 or MATH 136 or MATH 137)

Recent Term(s) Offered: spring 2022; summer 2022; fall 2022; winter 2023; spring 2023; summer 2023; fall 2023; winter 2024; spring 2024; summer 2024; fall 2024

SEAS 367 Supervised Work Experience in Industry 1-6 Hours (repeatable max of 6 hrs)

Supervised employment in industry. Written reports required. Note: Advisor approval required.

Recent Term(s) Offered: spring 2022; summer 2022; fall 2022; spring 2023; summer 2023; fall 2023; spring 2024; summer 2024; fall 2024

SEAS 368 Problem Solving 3 Hours

An application oriented introduction to basic analytical tools for the solution of practical industrial problems. Focusing on developing qualitative and quantitative literacy and analytic skills, the emphasis will be on data analysis, graphics and simple experiments applied to real problems. **Colonnade/Statewide General Education Code K-SY**

Prerequisite(s): 21 hours of Foundations and Explorations Courses, or junior status

Recent Term(s) Offered: spring 2024; fall 2024

SEAS 398 Internship I 1 Hour

Advisor approved, discipline-specific internship requiring 200 hours of work experience in business or industry. Note: Junior standing with permission of the instructor.

Prerequisite(s): permission of instructor

Restriction(s): Students with a semester level of Academy Junior, Academy Senior, Freshman or Sophomore may **not** enroll.

Recent Term(s) Offered: winter 2022; spring 2022; summer 2022; fall 2022; winter 2023; spring 2023; summer 2023; fall 2023; spring 2024; summer 2024; fall 2024

SEAS 401 Contemporary Issues in Architecture and Manufacturing 1 Hour (repeatable max of 3 hrs)

Contemporary issues reflecting current and emerging technologies, policies and practices in architecture and manufacturing will be studied. Guest presenters from business and industry will be presenting lectures. Students will prepare a series of papers representing their own investigation.

Restriction(s): Students with a semester level of Freshman, Junior or Sophomore may **not** enroll.

Recent Term(s) Offered: None

SEAS 475 Selected Topics in Industry 1-3 Hours (repeatable max of 6 hrs)

Varying topics of significant interest and current developments in various SEAS disciplines.

Restriction(s): Students with a semester level of Academy Junior, Academy Senior, Freshman or Sophomore may **not** enroll.

Recent Term(s) Offered: spring 2022; fall 2022; winter 2023; spring 2023; fall 2023; spring 2024; fall 2024