

Chemical & Biomolecular Engineering (CHM ENG)

CHM ENG 24 Freshman Seminars 1 Unit

Department: Chemical & Biomolecular Engineering

Course level: Undergraduate

Term course may be offered: Spring

Grading: The grading option will be decided by the instructor when the class is offered.

Hours and format: 1 hour of Seminar per week for 15 weeks.

The Berkeley Seminar Program has been designed to provide new students with the opportunity to explore an intellectual topic with a faculty member in a small-seminar setting. Berkeley Seminars are offered in all campus departments, and topics vary from department to department and semester to semester.

Course may be repeated for credit as topic varies. Course may be repeated for credit when topic changes.

CHM ENG 40 Introduction to Chemical Engineering Design 2 Units

Department: Chemical & Biomolecular Engineering

Course level: Undergraduate

Term course may be offered: Fall

Grading: Letter grade.

Hours and format: 1 hours of lecture and 1 hour of discussion per week.

Prerequisites: Mathematics 1A, which may be taken concurrently.

Design and analysis of processes involving chemical change. Strategies for design, such as creative thinking and (re)definition of the design goal. Methods for analyzing designs, such as mathematical modeling, empirical analysis by graphics, and dynamic scaling by dimensional analysis. Design choices in light of process efficiency, product quality, economics, safety, and environmental issues.

CHM ENG 84 Sophomore Seminar 1 or 2 Units

Department: Chemical & Biomolecular Engineering

Course level: Undergraduate

Terms course may be offered: Fall, spring and summer

Grading: The grading option will be decided by the instructor when the class is offered.

Hours and format: 1 hour of seminar per week per unit for 15 weeks. 1 and 1 half hours of seminar per week per unit for 10 weeks. 2 hours of seminar per week per unit for 8 weeks. 3 hours of seminar per week per unit for 5 weeks.

Prerequisites: At discretion of instructor.

Sophomore seminars are small interactive courses offered by faculty members in departments all across the campus. Sophomore seminars offer opportunity for close, regular intellectual contact between faculty members and students in the crucial second year. The topics vary from department to department and semester to semester. Enrollment limited to 15 sophomores.

Course may be repeated for credit as topic varies. Course may be repeated for credit when topic changes.

CHM ENG 90 Science and Engineering of Sustainable Energy 3 Units

Department: Chemical & Biomolecular Engineering

Course level: Undergraduate

Term course may be offered: Spring

Grading: Letter grade.

Hours and format: 2 hours of Lecture and 1 hour of Discussion per week for 15 weeks.

Prerequisites: Chemistry 1A or 4A.

An introduction is given to the science and technologies of producing electricity and transportation fuels from renewable energy resources