

Industrial Engin and Oper Research (IND ENG)

IND ENG 24 Freshman Seminars 1 Unit

Department: Industrial Engin and Oper Research

Course level: Undergraduate

Term course may be offered: Fall

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.

IND ENG 115 Industrial and Commercial Data Systems 3 Units

Department: Industrial Engin and Oper Research

Course level: Undergraduate

Term course may be offered: Fall

Grading: Letter grade.

Hours and format: 2 hours of lecture and 2 hours of laboratory/project per week.

Prerequisites: Upper division standing.

Design and implementation of databases, with an emphasis on industrial and commercial applications. Relational algebra, SQL, normalization. Students work in teams with local companies on a database design project. WWW design and queries.

Instructor: Goldberg

IND ENG 130 Methods of Manufacturing Improvement 3 Units

Department: Industrial Engin and Oper Research

Course level: Undergraduate

Term course may be offered: Spring

Grading: Letter grade.

Hours and format: 3 hours of Lecture per week for 15 weeks.

Prerequisites: 172, Mathematics 54, or Statistics 134 (may be taken concurrently).

Analytical techniques for the improvement of manufacturing performance along the dimensions of productivity, quality, customer service, and throughput. Techniques for yield analysis, process control, inspection sampling, equipment efficiency analysis, cycle time reduction, and on-time delivery improvement. Applications on semiconductor manufacturing or other industrial settings.

Instructor: Leachman

IND ENG 131 Discrete Event Simulation 3 Units

Department: Industrial Engin and Oper Research

Course level: Undergraduate

Terms course may be offered: Fall, spring and summer

Grading: Letter grade.

Hours and format: 2 hours of Lecture and 1 hour of Discussion per week for 15 weeks. 3 hours of Lecture and 1.5 hours of Discussion per week for 10 weeks. 4.5 hours of Lecture and 1.5 hours of Discussion per week for 8 weeks. 5 hours of Lecture and 1.5 hours of Discussion per week for 6 weeks.

Prerequisites: 161, 165; 172 or Statistics 134.

Introductory course on design, programming, and statistical analysis of a simulation study. Topics include the types of problems that can be solved by such methods. Programming material includes the theory