Program Orientation
Tuesday, August 13, 2019
(attendance strongly encouraged)

ENG 270 Series Pre-Semester Leadership Bootcamp
August 14-23, 2019 (attendance required; 2 units)
January 6-17, 2020 (attendance required; 2 units)

Full-Time Program Length
9 months (2 consecutive semesters)

Minimum Number of Units to Complete Degree
25 semester units (must be in 200 series, must be letter graded)

Technical Electives in Area of Concentration
A minimum of 12 semester units (must be in 200 series and letter-graded) are required.
- Please see the following pages for specific course requirements for each technical concentration.

Core Leadership Curriculum
8 semester units
Please see following page for details.

Comprehensive Final Examination
The Comprehensive Exam will be divided into two components, one devoted to leadership topics (to be administered by the Fung Institute during the Fall semester, no later than December 15th) and the other to technical topics (to be administered by individual departments within COE). The exam may be written, oral, or a combination of the two.

Capstone Projects
5 semester units of ENGIN 296MA-B (letter grade at end of Spring semester). Students are required to complete a capstone project.
- 2 semester units ENGIN 296MA – Fall
- 3 semester units ENGIN 296MB – Spring

Grade Point Averages (GPAs)
All students are required to have a minimum overall GPA of 3.0 to earn their degree.

Minimum Units per Semester
Full-time graduate students must enroll in 12 semester units each semester.

Continued on page 2
Fall Engineering Leadership Topics (3 units required):

August Bootcamp
- ENGIN 270A, Organizational Behavior for Engineers
- ENGIN 270B, R&D Tech Management & Ethics

Fall Semester
- ENGIN 270C, Project Management and Teaming

Spring Engineering Leadership Topics (3 units):

Students choose 2 of 4 to meet core requirement:
- ENGIN 270D, Entrepreneurship for Engineers
- ENGIN 270E, Technology Strategy
- ENGIN 270l, Industry Analysis
- ENGIN 270G, Marketing & Product Management
- ENGIN270H, Accounting and Finance

Required: ENGIN 270K, Coaching for High Performing Teams

Communications for Engineering Leadership (ENGIN 295, letter graded)

1 unit Fall, 1 unit Spring.

Communications for Engineering Leaders is a year-long course which supports your efforts to generate clear, engaging, and memorable content for your project’s reporting deliverables.

Reporting deliverables include: presentations, pitches, press releases, promotional materials, project proposals, and research papers.

*Engineering Leadership topics listed here are not guaranteed to be offered, and the course schedule may change without notice. Refer to the UC Berkeley Course Schedule for further enrollment information.
Department Staff

Bioengineering (BIOE)
Kristin Olson
(510) 642-9931
kaolson@berkeley.edu
306 Stanley Hall

Civil and Environmental Engineering (CEE)
Shelley Okimoto
(510) 643-8944
okimoto@ce.berkeley.edu
750 Davis Hall

Electrical Engineering & Computer Science (EECS)
Michael Sun
(510) 643-8107
msun86@eecs.berkeley.edu
205 Cory Hall

Industrial Engineering & Operations Research (IEOR)
Jesse Dieker
(510) 642-7983
jdieker@berkeley.edu
4137 Etcheverry

Material Science & Engineering (MSE)
Ariana Castro (510) 642-0716
msessa@berkeley.edu
210 HMMB #1760

Mechanical Engineering (ME)
Isabel Blanco (510) 642-6780
miblanco@berkeley.edu
6189 Etcheverry

Nuclear Engineering (NE)
Kirsten Wimple
(510) 642-5760
kirstenw@berkeley.edu
4149 Etcheverry

Master of Engineering Program Office

The Coleman Fung Institute for Engineering Leadership
Shires Hall
2451 Ridge Road
Berkeley, CA 94709
(510) 642-0633
Open during regular business hours, Mon-Fri from 9am to 5pm

Fung Institute Staff

Lee Fleming
Faculty Director
lfleming@ieor.berkeley.edu
230B Blum Hall

Wayne Delker
Executive Director
(510) 642-4374
wdelker@berkeley.edu
331 Shires Hall

Hazel Palaski
Director of Operations
hpalaski@berkeley.edu

Beth Leven
Director, Academic Affairs
(510) 642-7545
leven@berkeley.edu
331 Shires Hall

Julie McShane
Director, Career Development and Alumni Relations
(510) 642-6402
jmcshane@berkeley.edu
222 Shires Hall

Alex Beliaev
Director, Capstone Experience
alexb@berkeley.edu
330 Shires Hall

Dione Rivera
Asst. Director, Career Development
(510) 642-0721
dionerivera@berkeley.edu
221 Shires Hall

Claire Trias
Student Services and Capstone Advisor
(510) 642-6479
ctrias@berkeley.edu
214 Shires Hall

Megan Braverman
Student Services and Admissions Advisor
(510) 642-1750
mbraverman@berkeley.edu

Ashley Villanueva
Marketing Manager
ashvillanueva@berkeley.edu

Jené Madison
Events Specialist
jmadison@berkeley.edu
BIOENGINEERING (BIOE)

Fall 2019

BIOE C208 Biological Performance of Materials
BIOE C209 Advanced Orthopedic Biomechanics
BIOE 211 Cell and Tissue Mechanotransduction
BIOE C217 Biomimetic Engineering — Eng. from Biology
BIOE 221 Advanced BioMEMS and Bionanotechnology
BIOE 221L BioMEMS and BioNanotechnology Lab
BIOE C223 Polymer Engineering
BIOE 224 Basic Principles of Drug Delivery
BIOE 231 Intro to Computational Biology
BIOE C237 Adv. Designing for the Human Body
BIOE 247 Principles of Synthetic Biology
BIOE 248 Bioenergy and Sustainable Chemical Synthesis: Metabolic Engineering and Synthetic Biology
BIOE C250 Nanomaterials in Medicine
BIOE 252 Clinical Need-Based Therapy Solutions
BIOE C261 Medical Imaging Signals and Systems
BIOE 263 Principles of Molecular & Cellular Biophotonics

Spring 2020

BIOE C214 Advanced Tissue Mechanics
BIOE C215 Molecular Biomechanics & Mechanobiology of the Cell
BIOE C216 Macromolecular Science in Biotechnology and Medicine
BIOE C222 Adv. Structural Aspects of Biomaterials
BIOE 225 Biomolecular Structure Determination
BIOE 232 Genetic Devices
BIOE 235 Frontiers in Microbial Systems Biology
BIOE 241 Probabilistic Modeling in Computational Biology
BIOE 251 Micro/Nanofluidics for Bioengineering & Lab-on-a-Chip
BIOE253 Biotechnology Entrepreneurship, Innovation, and Product Development
BIOE 263L Molecular & Cellular Biophotonics Lab
BIOE 282 Model-Based Design of Clinical Therapies

Student Affairs Officer:
Kristin Olson
(510) 642-9931
kaolson@berkeley.edu
306 Stanley Hall, #1762

MEng Courses

Bioengineering MEng students will have the opportunity to choose 200-level bioengineering electives that best suit their professional goals and Capstone project; other courses can be taken with the approval of your academic advisor. Please note that not all 200-level courses are taught every year.

Note: The courses listed here are not guaranteed to be offered, and the course schedule may change without notice. Refer to the UC Berkeley Course Schedule for further enrollment information.
General Bioengineering and Entrepreneurship
BIOE 252 Clinical Need-Based Therapy Solutions
BIOE 280 Ethical & Social Issues in Translational Medicine
BIOE 290 Hacking for Impact: Tackling Societal Challenges with the Lean Launchpad Method
BIOE 290 Biotechnology Entrepreneurship, Innovation, and Product Development

Biomedical Engineering Design
BIOE 252 Clinical Need-Based Therapy Solutions
BIOE 280 Ethical & Social Issues in Translational Medicine
BIOE 282 Model-Based Design of Clinical Therapies
BIOE 290 Biotechnology Engineering Design
BIOE 295 Bringing Biomedical Devices to Market
BIOE 296 Clinical Immersion
BIOE 296 Biomedical Engineering Design

Mechanobiology
C209 Advanced Orthopedic Biomechanics
211 Cell & Tissue Mechanotransduction
C214 Advanced Tissue Mechanics
C215 Molecular Biomechanics & Mechanobiology of the Cell
C217 Biomimetic Engineering --- Eng. from Biology

Biomedical Imaging
BIOE 252 Clinical Need-Based Therapy Solutions
BIOE C261 Medical Imaging Signals & Systems
BIOE 263 Principles of Molecular & Cellular Biophotonics
BIOE 263L Molecular & Cellular Biophotonics Lab
BIOE C265 Principles of Magnetic Resonance Imaging

Student Affairs Officer:
Kristin Olson
(510) 642-9931
kaolson@berkeley.edu
306 Stanley Hall, #1762
BIOENGINEERING (BIOE)

Bioinformatics and Computational Biology
BIOE 225 Biomolecular Structure Determination
BIOE 231 Intro to Computational Molecular & Cell Biology
BIOE 235 Frontiers in Microbial Systems Biology
BIOE 241 Probabilistic Modeling in Computational Biology
BIOE 245 Intro to Machine Learning in Computational Biology

Biomaterials & Biomedical Devices
BIOE C208 Biological Performance of Materials
BIOE C215 Adv. Structural Aspects of Biomaterials
BIOE C216 Macromolecular Science in Biotechnology and Medicine
BIOE 221 BioMEMS and Medical Devices
BIOE 221L BioMEMS and BioNanotechnology Lab
BIOE C223 Polymer Engineering
BIOE 224 Basic Principles of Drug Delivery
BIOE C237 Adv. Designing for the Human Body
BIOE C250 Nanomaterials in Medicine
BIOE 251 Micro/Nanofluidics for Bioengineering & Lab-on-a-Chip
BIOE 252 Clinical Need-Based Therapy Solutions
BIOE 295 Bringing Biomedical Devices to Market

Synthetic Biology
BIOE 235 Frontiers in Microbial Systems Biology
BIOE 232 Genetic Devices
BIOE 247 Principles in Synthetic Biology
BIOE 248 Bioenergy & Sustainable Chemical Synthesis

Student Affairs Officer:
Kristin Olson
(510) 642-9931
kaolson@berkeley.edu
306 Stanley Hall, #1762
Transportation Engineering - Intelligent Transportation Systems Track
2 required technical electives:

CE 251 Operation of Transportation Facilities
CE 252 Systems Analysis in Transportation

2 courses chosen from:

CE 255 Highway Traffic Operations
CE 256 Transportation Sustainability
CE 259 Public Transportation Systems
CE 260 Air Transportation
CE 264 Behavioral Modeling for Engineering, Planning, and Policy Analysis

Civil Systems - Large Cyber-Physical Track
This track requires a minimum of 12 units of technical electives from the following list:

CE 263N Scalable Spatial Analytics
CE 264 Behavioral Modeling
CE 271 Sensors and Signal Interpretation
CE 290I Control and Information Management
CE C291F Control and Optimization of Distributed Parameters Systems
CE 295 Energy Systems and Control CE 295 Energy Systems and Control

Student Affairs Officer:
Shelley Okimoto
(510) 643-8944
okimoto@ce.berkeley.edu
750 Davis Hall

Student Affairs Officer:
Felicia Bautista
fbautista3@berkeley.edu

Note: The courses listed here are not guaranteed to be offered, and the course schedule may change without notice. Refer to the UC Berkeley Course Schedule for further enrollment information.
Data Science and Systems

Fall 2018
- CS C200A Principles & Techniques of Data Science
- CS 260A User Interface Design and Development
- CS 289A Introduction to Machine Learning
- CS 294-112 Deep Reinforcement Learning
- EECS 227AT Optimization Models in Engineering
- EE 227BT Convex Optimization

Spring 2019
- CS C200A Principles & Techniques of Data Science
- CS 260A User Interface Design and Development
- CS 267 Parallel Computing
- CS 282A Designing, Visualizing, and Understanding Deep Neural Networks
- CS289A Introduction to Machine Learning
- CS294-144 Blockchain, Cryptoeconomics, and the Future of Technology
- EECS 227AT Optimization Models in Engineering
- EE C227C Convex Optimization and Approximation

Visual Computing and Computer Graphics

Fall 2018
- CS 260A User Interface Design and Development
- CS 289A Introduction to Machine Learning
- CS 294-137 Theory and Applications of Virtual Reality and Immersive Computing
  * Req’d technical course if you are part of AR/VR capstone design experience
- EECS 227AT Optimization Models in Engineering
- EE 290T Adv. Topics in Elec Eng: Signal Processing

Spring 2019
- CS 260A User Interface Design and Development
- CS 267 Parallel Computing
- CS 280 Computer Vision
- CS 284A Foundations of Computer Graphics
- CS 289A Introduction to Machine Learning
- EE 225B Digital Image Processing
- EECS 227AT Optimization Models in Engineering
- EE C227C Convex Optimization and Approximation
- EE 290T Advanced Topics in Signal Processing

Student Affairs Officer:
Michael Sun
(510) 643-8107
msun86@eecs.berkeley.edu
205 Cory Hall

All EECS MEng students should expect to complete four technical courses within the EECS department at the graduate level, the Fung Institute’s engineering leadership curriculum, as well as a Capstone project that will be hosted by the EECS department. At least three of your four technical electives must be from the course list of the concentration you were admitted to. The remaining technical course should be chosen from your own or another MEng area of concentration within the EECS department.

Note: The courses listed here are from 2018-19 and are not guaranteed to be offered in 2019-20. The course schedule may change without notice. Refer to the UC Berkeley Course Schedule for further information.
Robotics and Embedded Software

Fall 2018
 EECS 206A Introduction to Robotics
 EE C220A Advanced Control Systems
 EE C220B Experiential Advanced Control Design
 EE 221A Linear System Theory
 EE C249A Introduction to Embedded Systems
 CS 294-112 Deep Reinforcement Learning

Spring 2019
 EECS C206B Robotic Manipulation and Interaction
 EE 213A Power Electronics
 EE 225B Digital Image Processing
 EECS 227AT Optimization Models in Engineering
 EE C227C Convex Optimization and Approximation
 EE 249B Design of Embedded Systems: Models, Validation, Synthesis
 EE 290P, Advanced Topics in Bioelectronics
 CS 280 Computer Vision

Physical Electronics and Integrated Circuits

Fall 2018
 EE C220A Advanced Control Systems
 EE 220B Experiential Advanced Control Design
 EE 230A Integrated-Circuits Design
 EE 240A Linear Integrated Circuits
 EE 242A Integrated Circuits for Communication
 EECS 251A Introduction to Digital Design and Integrated Circuits
 Pick ONE accompanying lab sections below:
 EECS 251AL Application Specific Integrated Circuits
 EECS 251BL FPGA Design Laboratory
 EE 290C Advanced Topics in Electrical Engineering: Advanced Topics in Circuit Design
 EE 290T Advanced Topics in Electrical Engineering: Advanced Topics in Signal Processing

Spring 2019
 EE 213A Power Electronics
 EE 219C Computer Aided Verification
 EE C220A Advanced Control Systems
 EE 225B Digital Image Processing
 EE 230A Integrated-Circuits Devices
 EE 230B Solid State Devices
 EE 240B Advanced Analog Integrated Circuits
 EE 247B Introduction to MEMS Design
 EE 249B Design of Embedded Systems: Models, Validation, Synthesis
 EECS 251A Introduction to Digital Design and Integrated Circuits
 Pick ONE accompanying lab sections below:
 EECS 251AL Application Specific Integrated Circuits
 EECS 251BL FPGA Design Laboratory
 EE 290C Advanced Topics in Electrical Engineering: Advanced Topics in Circuit Design
 EE 290T Advanced Topics in Electrical Engineering: Advanced Topics in Signal Processing

Student Affairs Officer:
Michael Sun
(510) 643-8107
msun86@eecs.berkeley.edu
205 Cory Hall
Signal Processing and Communications
Fall 2018
EE C206A Introduction to Robotics
EE 221A Linear System Theory
EE 226A Random Processes in Systems
EECS 227AT Optimization Models in Engineering
EE 227BT Convex Optimization
EE 229A Information Theory and Coding
EE 230A Integrated Circuit Devices
EE 230C Solid State Electronics
EE240A Analog Integrated Circuits
EE 242A Integrated Circuits for Communications
EE C249A Introduction to Embedded Systems
EECS 251A Introduction to Digital Design and Integrated Circuits
  Pick ONE accompanying lab sections below:
  EECS 251AL Application Specific Integrated Circuits
  EECS 251BL FPGA Design Laboratory
CS 260A User Interface Design and Development
CS 289A Introduction to Machine Learning
EE 290C Advanced Topics in Electrical Engineering: Advanced Topics in Circuit Design
EE 290T Advanced Topics in Electrical Engineering: Advanced Topics in Signal Processing

Spring 2019
CS 260A User Interface Design and Development
CS 280 Computer Vision
CS 289A Introduction to Machine Learning
EECS 206B Robotic Manipulation and Interaction
EE 213A Power Electronics
EE 225B Digital Image Processing
EECS 227AT Optimization Models in Engineering
EE C227C Convex Optimization and Approximation
EE 229B Error Control Coding
EE 230A Integrated Circuits Devices
EE C247B Introduction to MEMS Design
EECS 251A Introduction to Digital Design and Integrated Circuits
  Pick ONE accompanying lab sections below:
  EECS 251AL Application Specific Integrated Circuits
  EECS 251BL FPGA Design Laboratory
EE 290C Advanced Topics in Circuit Design
EE 290P Advanced Topics in Bioelectronics
EE 290T Advanced Topics in Signal Processing

Note: The courses listed here are from 2018-19 and are not guaranteed to be offered in 2019-20. The course schedule may change without notice. Refer to the UC Berkeley Course Schedule for further enrollment information.
INDUSTRIAL ENGINEERING AND OPERATIONS RESEARCH (IEOR)

Fall 2019
REQUIRED: IEOR 240 Optimization Analytics
REQUIRED: IEOR 241 Risk Modeling, Simulation, and Data Analysis

ADDITIONAL IEOR Technical Electives:
223 Financial Engineering Systems II (3)
242 Applications in Data Analysis (3)
250 Introduction to Production Planning and Logistics Models (3)
262A Mathematical Programming I (4)
263A Applied Stochastic Process I (4)
290 Applied Data Science with Venture Applications (3)

Spring 2020
IEOR Technical Electives (6 units)
222 Financial Engineering Systems I (3)
224 Portfolio and Risk Analytics (3)
242 Applications in Data Analysis (3)
C253 Supply Chain Operation and Management (3)
258 Control and Optimization for Power Systems (3)
262B Mathematical Programming II (3)
263B Applied Stochastic Process I (3)
265 Learning and Optimization (3)
290 Modern Optimization for Statistical Learning (3)
290 Applied Data Science with Venture Applications (3)

Student Affairs Officer:
Jesse Dieker
(510) 642-7983
jdieker@berkeley.edu
4137 Etcheverry Hall

Students must complete a minimum of 4 approved 200-level IEOR technical electives, including INDENG 240 and 241, during the course of program. View course descriptions for details.

Note: The courses listed here are not guaranteed to be offered, and the course schedule may change without notice. Refer to the UC Berkeley Course Schedule for further enrollment information.
INDUSTRIAL ENGINEERING AND OPERATIONS RESEARCH (IEOR)

**FinTech**

**Required IEOR Technical Courses:**
- IEOR 240 Optimization Analytics (3 units)
- IEOR 241 Risk Modeling, Simulation, and Data Analysis (3 units)
- IEOR 242 Applications in Data Analysis (3 units)

**Choose 2 of 4 FinTech Technical Electives:**
May be offered in either Fall or Spring
- IEOR 221 Introduction to Financial Engineering (when available) (3 units)
- IEOR 222 Financial Engineering Systems I (3 units)
- IEOR 224 Portfolio and Risk Analytics (3 units)

*ENGIN 296MB Capstone Team Project Course with Professor Guo; or equivalent FinTech project approved by Prof. Guo (5 units)*

The FinTech concentration requires students to complete 1 additional technical elective as compared to the general MEng IEOR track. Students interested in more advanced studies are recommended to take INDENG 223.

**Note:** The courses listed here are not guaranteed to be offered, and the course schedule may change without notice. Refer to the UC Berkeley Course Schedule for further enrollment information.
MATERIALS SCIENCE AND ENGINEERING (MSE)

MSE – General Program

Fall Semester Required (4 units)
MSE 200A Survey of Materials Science

Technical Electives I: (3 units)
MSE 201A Thermodynamics and Phase Transformations in Solids
MSE 204 Theory of Electron Microscopy and X-Ray Diffraction
MSE C208 Biological Performance of Materials
MSE C211 Mechanics of Solids
MSE 223 Semiconductor Materials
MSE C250 Nanomaterials in Medicine
MSE 251 Polymer Surfaces and Interfaces

Spring Semester Technical Electives II & III: (6-7 units)
MSE C212 Deformation, Fracture and Fatigue
MSE 215 Computational Materials Science
MSE C216 Macromolecular Science in Biotechnology and Medicine
MSE C225 Thin Film Science and Technology
MSE 241 Electron Microscopy Laboratory
MSE C286 Modeling and Simulation of Advanced Manufacturing Processes

Student Affairs Officer:
Ariana Castro
210A HMMB
(510) 642-0716
arianap@berkeley.edu

For students wishing to concentrate in the areas of Materials for Energy Systems, Structural Materials, and Opto-Electronic Materials, the faculty has identified specific courses that would be particularly relevant. However, these “Concentrations” are suggestions only. Students are encouraged to select electives that best satisfy their specific educational objectives.

Note: The courses listed here are not guaranteed to be offered, and the course schedule may change without notice. Refer to the UC Berkeley Course Schedule for further enrollment information.
# MATERIALS SCIENCE AND ENGINEERING (MSE)

## MSE – Biomaterials

**Fall Semester Required (4 units):**
- MSE 200A Survey of Materials Science

**Technical Electives I (3 units):**
- MSE 201A Thermodynamics and Phase Transformations in Solids
- MSE 204 Theory of Electron Microscopy and X-Ray Diffraction
- MSE C208 Biological Performance of Materials
- MSE 251 Polymer Surfaces and Interfaces

**Spring Semester Technical Electives II & III: (6-7 units)**
- MSE C216 Macromolecular Science in Biotechnology and Medicine
- MSE 260 Surface Properties of Materials

## MSE – Electronic, Magnetic and Optical Materials

**Fall Semester Required (4 units):**
- MSE 200A Survey of Materials Science

**Technical Electives I (3 units):**
- MSE 201A Thermodynamics and Phase Transformations in Solids
- MSE 223 Semiconductor Materials

**Spring Semester Technical Electives II & III: (6-7 units)**
- MSE 215 Computational Materials Science
- MSE C225 Thin Film Science and Technology

## MSE – Advanced Structural Materials

**Fall Semester Required (4 units):**
- MSE 200A Survey of Materials Science

**Technical Electives I (3 units):**
- MSE 201A Thermodynamics and Phase Transformations in Solids
- MSE 204 Theory of Electron Microscopy and X-Ray Diffraction
- MSE C211 Mechanics of Solids

**Spring Semester Technical Electives II & III: (6-7 units)**
- MSE C212 Deformation, Fracture and Fatigue
- MSE 215 Computational Materials Science

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**Note:** The courses listed here are not guaranteed to be offered, and the course schedule may change without notice. Refer to the UC Berkeley Course Schedule for further enrollment information.

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**MATERIALS SCIENCE & ENGINEERING**
MATERIALS SCIENCE AND ENGINEERING (MSE)

MSE – Computational Materials
Fall Semester Required (4 units):
MSE 200A Survey of Materials Science

Technical Electives I (3 units):
MSE 201A Thermodynamics and Phase Transformations in Solids
MSE C211 Mechanics of Solids

Spring Semester Technical Electives II & III: (6-7 units)
MSE C212 Deformation and Fracture of Engineering Materials
MSE 215 Computational Materials Science
MSE C286 Modeling and Simulation of Advanced Manufacturing Processes

MSE – Chemical and Electrochemical Materials
Fall Semester Required (4 units):
MSE 200A Survey of Materials Science

Technical Electives I (3 units):
MSE 201A Thermodynamics and Phase Transformations in Solids
MSE 204 Theory of Electron Microscopy and X-Ray Diffraction
MSE 223 Semiconductor Materials

Spring Semester Technical Electives II & III: (6-7 units)
MSE C225 Thin Film Science and Technology
MSE 260 Surface Properties of Materials

Note: The courses listed here are not guaranteed to be offered, and the course schedule may change without notice. Refer to the UC Berkeley Course Schedule for further enrollment information.

Student Affairs Officer:
Ariana Castro
210A HMMB
(510) 642-0716
arianap@berkeley.edu

For further details on concentrations and curriculum, see the MSE department website’s “Areas of Technical Concentration” webpage.
MECHANICAL ENGINEERING (ME)

Advanced Energy Technology
Fall 2019 Semester
ME250A Conductive and Radiative Transport
ME 254 Thermodynamics
ME 255 Advanced Combustion Processes

Spring 2020 Semester
ME 235 Design of Microprocessor-Based Mechanical Systems
ME 250B Convective Transport and Computational Methods
ME 292E Advanced Special Topics in Energy Science and Technology

Biomechanics
Fall 2019 Semester
ME C210 Advanced Orthopaedic Biomechanics
ME C223 Polymer Engineering
ME 239 Advanced Designing for the Human Body
ME C278 Advanced Designing for the Human Body
ME 292C-001 Human Centered Design Methods

Spring 2020 Semester
ME C214 Advanced Tissue Mechanics
ME C215 Advanced Structural Aspects of Biomaterials
ME C225 Deformation and Fracture of Engineering Materials
ME 270 Advanced Augmentation of Human Dexterity

Student Affairs Officer:
Isabel Blanco
(510) 642-6780
6189 Etcheverry Hall
miblanco@berkeley.edu

12 semester units required: must be in 200 series and letter graded. Below is a tentative schedule of classes.

Note: The courses listed here are not guaranteed to be offered, and the course schedule may change without notice. Refer to the UC Berkeley Course Schedule for further enrollment information.
MECHANICAL ENGINEERING
(ME)

Control of Robotic and Autonomous Systems (Formerly Experimental Advanced Control Systems Design)

Fall 2019 Semester
ME C231A Experiential Advanced Control Design I
ME C232 Advanced Control Systems I
ME 292B-002 Advanced Special Topics in Controls: Feedback Control of Legged Robots

Spring 2020 Semester
ME C231B Experiential Advanced Control Design II
ME 233 Advanced Control Systems II
ME 235 Design of Microprocessor-Based Mechanical Systems

Fluids and Ocean

Fall 2019 Semester
ME 260A Advanced Fluid Mechanics I
ME 263 Turbulence

Spring 2020 Semester
ME 260B Advanced Fluid Mechanics II
ME 266 Finite Diff. Meth. for Fluid Dynamics
ME 290C Topics in Fluid Mechanics

Note: The courses listed here are not guaranteed to be offered, and the course schedule may change without notice. Refer to the UC Berkeley Course Schedule for further enrollment information.
### MECHANICAL ENGINEERING (ME)

**Mechanics and Dynamics**

**Fall 2019 Semester**
- ME 271 Intermediate Dynamics
- ME 280A Introduction to the Finite Element Method (REQUIRED)

**Spring 2020 Semester**
- ME C279 / Civ Eng C235 Statistical Mechanics of Elasticity
- ME 282 Theory of Elasticity

**Modeling and Simulation of Advanced Manufacturing Processes**

**Fall 2019 Semester**
- ME C201 Modeling and Simulation of Advanced Manufacturing Processes (REQUIRED)
- ME 203 Nanoscale Processing of Materials
- ME C223 Polymer Engineering
- ME 280A Introduction to the Finite Element Method (REQUIRED)

**Spring 2020 Semester**
- ME 229 Design of Basic Electro-Mechanical Devices
- ME C279 Introduction to Statistical Mechanics for Engineers

**Product Design**

**Fall 2019 Semester**
- ME C200 Design, Evaluate, and Scale Development Technologies
- ME C223 Polymer Engineering
- ME C231A Experiential Advanced Control Design I
- ME 239 Advanced Design and Automation
- ME C278 Advanced Designing for the Human Body
- ME 292C-001 Human Centered Design Methods

**Spring 2020 Semester**
- ME C205 Critical Making
- ME 229 Design of Basic Electro-Mechanical Devices
- ME 235 Design of Microprocessor-Based Mechanical Engineering
- ME 292C Advanced Special Topics in Design

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Note: The courses listed here are not guaranteed to be offered, and the course schedule may change without notice. Refer to the UC Berkeley Course Schedule for further enrollment information.
Fall 2019 Technical Electives
- 200M Introduction to Nuclear Engineering
- 220M Irradiation Effects in Nuclear Materials
- 256M Nuclear Criticality Safety
- 261M Nuclear Power Engineering
- 267 Risk-Informed Design for Advanced Nuclear Systems
- 282C Charged Particle Sources and Beam Technology

Spring 2020 Technical Electives
- 201 Nuclear Reactions and Interactions of Radiation with Matter
- 210M Nuclear Reactions and Radiation
- 230 Analytical Methods for Non-Proliferation
- 255 Numerical Simulation in Radiation Transport
- 262 Radiobiology
- 281 Fully Ionized Plasmas
- C285 Nuclear Security: The Nexus Between Policy and Technology

Student Affairs Officer:
Kirsten Wimple
(510) 642-5760
kirstenw@berkeley.edu
4149 Etcheverry Hall

Meet with your faculty advisor to discuss your proposed course plan and sign up for at least two 200-level NE graduate courses.

Note: The courses listed here are not guaranteed to be offered, and the course schedule may change without notice. Refer to the UC Berkeley Course Schedule for further enrollment information.