



# SCHOOL OF ENGINEERING

Overview

Academics & Admissions

**Departments** 

**Programs** 

**Minors** 

Courses

Faculty

**Awards** 

#### Courses

# SCHOOL OF ENGINEERING

- C OP 201: CO-OP Work Experience
- C OP 202: CO-OP Work Experience
- C OP 300: Cooperative Education
- C OP 301: CO-OP Work Experience
- C OP 302: CO-OP Work Experience
- C OP 401: CO-OP Work Experience
- C OP 402: CO-OP Work Experience
- C OP 501: CO-OP Work Experience • C OP 502: CO-OP Work Experience
- C OP 503: CO-OP Work Experience
- Engr 100: Introduction to Engineering
- Engr 101: Engineering Fundamentals
- Engr 102: Principles of Engineering
- Engr 111: Engineering Fundamentals Lab
- Engr 197: Special Topics in Engineering Science
- Engr 201: Computer Aided Design for Engineering
- Engr 207: Graphics I
- Engr 208: Graphics II
- Engr 297: Special Topics in Engineering Science
- Engr 301: Environmental Engineering Lab I
- Engr 302: Fluid Mechanics Laboratory
- Engr 307: Technical Communications
- Engr 309: Statics
- Engr 310: Engineering Analysis I
- Engr 310: Engineering Analysis I
- Engr 311: Intermediate Mechanics
- Engr 312: Mechanics of Materials
- Engr 312: Mechanics of Materials
- Engr 313: Introduction to Materials Science
- Engr 313: Introduction to Materials Science
- Engr 314: Materials Science Laboratory
- Engr 314: Materials Science Laboratory
- Engr 321: Thermodynamics
- Engr 321: Thermodynamics
- Engr 322: Transport Phenomena
- Engr 322: Transport Phenomena
- Engr 323: Fluid Mechanics
- Engr 323: Fluid Mechanics
- Engr 330: Engineering Systems Analysis and Design
- Engr 330: Engineering Systems Analysis and Design
- Engr 340: Engineering Geology
- Engr 340: Engineering Geology
- Engr 351: Socio-Technology I
- Engr 352: Socio-Technology II
- Engr 360: Electric Circuit Theory

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- Engr 360: Electric Circuit Theory
- Engr 361: Electric Circuit Laboratory
- Engr 361: Electric Circuit Laboratory
- Engr 362: Introductory Electric Circuit Theory
- Engr 363: Introductory Electric Circuit Laboratory
- Engr 363: Introductory Electric Circuit Laboratory
- Engr 390: Professional Communication for Engineers
- Engr 397: Special Topics in Engineering Science
- Engr 400: Leadership & Professionalism in Engineer
- Engr 401: Environmental Engineering Lab II
- Engr 402: Engineering Fundamentals
- Engr 407: Legal and Moral Aspects of Engineering
- Engr 410: Engineering Analysis II
- Engr 410: Engineering Analysis II
- Engr 415: Engineering Acoustics I
- Engr 431: Fundamentals of Systems Engineering
- Engr 450: Product Design and Development
- Engr 450: Product Design and Development
- Engr 451: General Engineering Senior Design I
- Engr 452: General Engineering Senior Design II
- Engr 453: Prob and Stat Analyses in Engr Design
- Engr 497: Special Topics in Engineering Science
- Engr 501: Fundamentals of Computer Science
- Engr 502: Software Systems
- Engr 515: Acoustics
- Engr 537: Environmental Engineering II
- Engr 551: Engineering Thermodynamics
- Engr 553: Heat Transfer
- · Engr 553: Heat Transfer
- Engr 558: Vibration Analysis
- Engr 559: Elements of Robotics
- Engr 559: Elements of Robotics
- Engr 571: Service Learning in Water Treatment
- Engr 572: Advanced Sanitary Analysis
- Engr 573: Environmental Remediation
- Engr 577: Geophysics I
- Engr 579: Geophysics II
- Engr 581: Applications in Geophysics
- Engr 582: Interdisciplinary Field Projects
- Engr 585: Mechanics of Composite Materials I
- Engr 590: Finite Element Analysis I
- Engr 591: Engineering Analysis I
- Engr 592: Engineering Analysis II
- Engr 593: Approximate Methods of Engr Analysis I
- Engr 594: Approximate Methods of Engr Analysis II
- Engr 596: Special Projects I
- Engr 597: Special Projects II
- Engr 598: Special Projects III
- Engr 600: Advanced Geochemistry
- Engr 601: Compressible Flow
- Engr 602: Lithostratigraphy
- Engr 603: Fluid Mechanics I
- Engr 604: Fluid Dynamics II
- Engr 605: Convective Heat and Mass Transfer
- Engr 606: Numerical Heat Transfer and Fluid Flow
- Engr 607: Statistical Thermodynamics
- Engr 608: Physical Gas Dynamics
- Engr 609: Time Series Analysis
- Engr 610: Data Communications Protocols



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- Engr 611: Aeroacoustics
- Engr 612: Aeroelasticity
- Engr 613: Exp Method in Aerodynamics/Aeroacoustics
- Engr 614: Geometrics
- Engr 615: Analytical Petroleum Geology
- Engr 616: Isotope Hydrogeology
- Engr 617: Continuum Mechanics
- Engr 618: Coding for Error Code
- Engr 618: Vadose Zone Hydrology
- Engr 619: Advanced Microwave Measurements
- Engr 620: Advanced Remote Sensing
- Engr 621: Advanced Electrodynamics
- Engr 622: Advanced Electromagnetic Theory
- Engr 623: Passive Microwave Circuits
- Engr 624: Active Microwave Circuits
- Engr 625: Adv. Topics in Computational Mechanics
- Engr 625: Antennas
- Engr 626: Numerical Methods in Electromagnetics
- Engr 627: Ray Methods in Electromagnetics
- Engr 628: Adv Numerical Methods in Electromagnetic
- Engr 629: Televisions Systems II
- Engr 630: Unit Process & Oper in Env Eng I
- Engr 631: Unit Process & Oper in Env Eng II
- Engr 632: Sludge Treatment and Disposal
- Engr 633: Process Dynamics and Control I
- Engr 634: Treatment & Disposal of Industrial Waste
- Engr 635: Optimization
- Engr 636: Groundwater Mechanics
- Engr 637: Groundwater Modeling
- Engr 638: Hazardous Waste Management
- Engr 639: Environmental Systems Engineering
- Engr 640: Stream and Estuarine Analysis
- Engr 641: Clay Petrology
- Engr 642: X-Ray Diffraction Analysis
- Engr 643: Advanced Geomorphology
- Engr 644: Carbonate Petrology
- Engr 645: Contaminant Transport
- Engr 646: Advanced Stratigraphy
- Engr 647: Pavement Management Systems
- Engr 648: Numerical Modeling in Geoscience & Engr
- Engr 649: Advanced Foundation Engineering
- Engr 650: Radar Remote Sensing
- Engr 652: Advanced Compiler Design
- Engr 653: Computer Structures
- Engr 654: Information Systems Principles
- Engr 654: Information Systems Principles
- Engr 656: Operating Systems Design Concepts
- Engr 657: Timesharing Computer Systems
- Engr 659: Advanced Information Retrieval
- Engr 660: Software Engineering II
- Engr 660: Software Engineering II
- Engr 661: Computer Networks II
- Engr 661: Computer Networks II
- Engr 662: Advanced Artificial Intelligence
- Engr 663: Advanced Rate and Equilibrium Processes
- Engr 664: Theory of Concurrent Programming
- Engr 665: Thermodynamics of Chemical Systems
- Engr 666: Fault Tolerant Computing
- Engr 667: Mass Transfer I



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- Engr 669: Chemical Reaction and Reactor Analysis I
- Engr 670: Chemical Reaction & Reactor Analysis II
- Engr 671: Elasticity
- Engr 672: Viscoelasticity
- Engr 673: Plasticity
- Engr 674: Fracture Mechanics
- · Engr 677: Plates and Shells
- Engr 678: Elasticstability
- Engr 679: Wave Propagation
- Engr 680: Advanced Acoustics
- Engr 683: Advanced Physical Metallurgy
- Engr 684: Advanced Mechanical Metallurgy
- Engr 685: Mechanics of Composite Materials II
- Engr 686: Multimedia Technologies II
- Engr 687: Special Functions for Applications
- Engr 688: Current Issues in Telecommunications
- Engr 689: Control of Robotics Manipulators
- Engr 690: Finite Element Analysis II
- Engr 691: Special Topics in Engineering Science I
- Engr 692: Special Topics in Engineering Science II
- Engr 693: Research Topics in Engineering Science I
- Engr 694: Research Topics in Eng. Science II
- Engr 695: Seminar
- Engr 696: Seminar in Environmental Engineering
- Engr 697: Thesis
- Engr 699: Special Topics in Engineering Science
- Engr 702: Finite Element Analysis of Fluid Flows
- Engr 706: Adv Waste Treat Proc in Sanitary Eng
- Engr 711: Turbulence
- Engr 712: Statistical Theory Turbulent Diffusion
- Engr 713: Hydrodynamic Stability
- Engr 714: Coastal Hydrodynamics
- Engr 715: Applied Hydro- and Aeromechanics I
- Engr 716: Applied Hydro- and Aeromechanics II
- Engr 717: Special Topics in Thermal Science
- Engr 720: Advanced Turbulence
- Engr 729: Special Topics in Electromagnetic Theory
- Engr 749: Special Topics in Soil Science
- Engr 779: Special Topics in Solid Mechanics
- Engr 797: Dissertation
- Engs 603: Analysis of Algorithms
- Engs 606: Computer Networks
- Engs 610: Telecommunication Network Engineering
- Engs 627: Applied Probability Modeling
- Engs 633: Microwave Filters
- Engs 685: Business Geographics
- Manf 152: Intro to Engineering & Manufacturing II
- Manf 255: Lean I: Standardized Work & Takt Time
- Manf 353: Accounting & Financial Mgmt for Manf
- Manf 355: Lean II: Continuous Flow/Layout
- Manf 396: Special Topics in Manufacturing
- Manf 397: Special Topics in Manufacturing
- Manf 452: Manf Design-Product Realization, II
- Manf 455: Lean III: Practical Problem Solving
- Manf 460: Introduction to Project Management
- Manf 465: Applications in Ops & Supply Chain Mgmt
- Manf 470: Principles of Lean Six Sigma
- Manf 496: Special Topics in Manufacturing
- Manf 497: Special Topics in Manufacturing



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#### **CHEMICAL ENGINEERING**

- Ch E 101: Introduction to Chemical Engineering
- Ch E 103: Introduction to Chemical Engineering I
- Ch E 104: Introduction to Chemical Engineering II
- Ch E 251: Programming for Chemical Engineering
- Ch E 307: Chemical Process Principles I
- Ch E 308: Chemical Process Principles II
- Ch E 309: Intro to Chemical Engineering Design
- Ch E 313: Modeling and Simulation I
- Ch E 314: Modeling and Simulation II
- Ch E 316: Chemical Engineering Fluid Mechanics
- Ch E 317: Process Fluid Dynamics and Heat Transfer
- Ch E 318: Chem Engineering Heat and Mass Transfer
- Ch E 345: Engineering Economy
- Ch E 407: Chemical Engineering Projects I
- Ch E 408: Chemical Engineering Projects II
- Ch E 411: Chemical Engineering Seminar
- Ch E 412: Process Control and Safety
- Ch E 413: Chemical Process Safety
- Ch E 417: Separation Processes
- Ch E 421: Chemical Engineering Thermodynamics
- Ch E 423: Chemical Reactor Analysis and Design
- Ch E 431: ChE Mass and Energy Balance Lab
- Ch E 432: ChE Unit Operations Lab
- Ch E 433: ChE Design Lab
- Ch E 445: Chemical Engineering Lab I
- Ch E 446: Chemical Engineering Lab II
- Ch E 449: Process Design
- Ch E 450: Process Optimization
- Ch E 451: Plant Design I
- Ch E 452: Plant Design II
- Ch E 470: Principles of Lean Six Sigma
- Ch E 511: Process Dynamics and Control
- Ch E 513: Special Topics in Chemical Engineering
- Ch E 515: Research Seminar
- Ch E 520: Biochemical Engineering
- Ch E 521: Drug and Gene Delivery
- Ch E 522: Immunoengineering
- Ch E 523: Molecular and Cellular Biophysics
- Ch E 524: Microscopy for Engineers
- Ch E 528: Polymer Processing
- Ch E 530: Coal Utilization and Pollutants Control
- Ch E 535: Experimental Methods in Engineering
- Ch E 540: Coating Materials Process & Applications
- Ch E 541: Appl of Chemical Instrumentation I
- Ch E 542: Appl of Chemical Instrumentation II
- Ch E 543: Introduction to Polymer Science
- Ch E 545: Colloid and Surface Science
- Ch E 547: Sufactant Science and Applications
- Ch E 550: Membrane Science and Engineering
- Ch E 560: Advanced Transport Phenomena I
- Ch E 561: Advanced Transport Phenomena II
- Ch E 593: Graduate Projects in Chemical Engr
- Ch E 660: Advanced Transport Phenomena I
- Ch E 661: Advanced Transport Phenomena II
- Engr 540: Environmental Organic Transport Phenomen
- Engr 542: Molecular Modeling of Nano Materials
- Engr 544: Synth and Fab of Nano Materials
- Engr 545: Polymer Nanocomposites



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#### **CIVIL ENGINEERING**

- C E 101: Introduction to Civil Engineering I
- C E 102: Introduction to Civil Engineering II
- C E 207: Surveying
- C E 208: Civil Engineering Graphics I
- C E 301: Environmental and Water Resources Lab
- C E 302: Mechanics Laboratory
- C E 303: Materials Laboratory
- C E 307: Civil Engineering Laboratory I
- C E 310: Introduction to Structural Mechanics
- C E 315: Civil Engineering Materials
- C E 325: Intermediate Mechanics
- C E 371: Intro to Environmental Engineering
- C E 402: Soil Mechanics Laboratory
- C E 407: Civil Engineering Laboratory II
- C E 411: Structural Analysis
- C E 412: Design of Concrete Structures
- C E 413: Steel Design
- C E 414: Advanced Concrete Design
- C E 416: Bridge Engineering
- C E 417: Construction Engineering and Management
- C E 431: Soil Mechanics I
- C E 433: Foundation Engineering
- C E 435: Advanced Geotechnical Engineering
- C E 452: Civil Engineering Analysis
- C E 454: Engineering Design I
- C E 455: Civil Engineering Design I
- C E 456: Civil Engineering Design II
- C E 471: Environmental Engineering I
- C E 472: Water Resources Engineering
- C E 481: Transportation Engineering I
- C E 497: Civil Engineering Projects
- C E 500: Geographic Information Systems Engr Sci
- C E 511: Structural Dynamics
- C E 513: Advanced Steel Design
- C E 514: Pre-Stressed Concrete Design
- C E 516: Bridge Engineering
- C E 521: Advanced Mechanics of Materials
- C E 531: Soil Mechanics II
- C E 536: Designing with Geosynthetics
- C E 541: Flow in Open Channels
- C E 542: Flow in Porous Media
- C E 543: Sediment Transport
- C E 561: Civil Engineering Systems
- C E 570: Infrastructure Management
- C E 572: Stormwater Engineering and Management
- C E 574: Wastewater Engineering
- C E 575: Drinking Water Engineering
- C E 578: Agricultural Conservation for Eng & Sci
- C E 581: Transportation Engineering II
- C E 585: Highway Pavements
- C E 590: Airport Planning and Design
- Engr 541: Foundations of Nano Engineering and Sci
- Engr 547: Characterization MethodsforNanomaterials

## **COMPUTER & INFORMATION SCIENCE**

- CIS 111: Computer Science I
- CIS 112: Computer Science II
- CIS 113: Honors Computer Science I
- CIS 211: Computer Science III



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- CIS 251: Programming for Engineering and Sciences
- · CIS 333: Digital Design and 3D Printing
- CIS 427: Network Security
- CIS 447: Immersive Media
- · Csci 103: Survey of Computing
- Csci 111: Computer Science I
- Csci 112: Computer Science II
- Csci 113: Honors Computer Science I
- Csci 191: Office Applications
- Csci 192: Computing Applications
- Csci 193: Personal Computer Systems
- Csci 203: Computer and Information Processing
- Csci 211: Computer Science III
- Csci 223: Computer Org. & Assembly Language
- Csci 251: Programming for Engineering and Sciences
- Csci 256: Programming in Python
- Csci 259: Programming in C++
- Csci 300: Social Responsibility in Comp. Science
- Csci 305: Software for Global Use
- Csci 311: Models of Computation
- Csci 323: Systems of Programming
- Csci 325: Foundations of Computer Security
- Csci 333: Digital Design and 3-D Printing
- Csci 343: Fundamentals of Data Science
- Csci 345: Information Storage and Retrieval
- Csci 353: Introduction to Numerical Methods
- Csci 354: Web Programming
- · Csci 356: Data Structures in Python
- Csci 361: Introduction to Computer Networks
- Csci 387: Software Design and Development
- Csci 390: Special Topics in Programming
- Csci 391: Computer Graphics
- Csci 405: Computer Simulation
- Csci 423: Introduction to Operating Systems
- Csci 425: Code Generation and Optimization
- Csci 426: System Security
- Csci 427: Fundamentals of Computer Security
- Csci 431: Robotics Programming
- · Csci 433: Algorithm and Data Structure Analysis
- Csci 443: Advanced Data Science
- Csci 444: Multimedia Design and Development
- Csci 447: Immersive Media
- Csci 450: Organization of Programming Languages
- Csci 458: Mobile Application Development
- Csci 475: Introduction to Database Systems
- Csci 487: Senior Project
- Csci 490: Special Topics
- · Csci 491: Special Topics in Computer Security
- Csci 492: Special Topics in Data Science
- Csci 495: Undergrad Computer Science Internship
- Csci 500: Fundamental Concepts in Computing
- Csci 501: Fundamental Concepts in Systems
- Csci 502: Fundamental Concepts in Algorithms
- Csci 503: Fundamental Concepts in Languages
- Csci 517: Natural Language Processing
- Csci 520: Formal Theory of Computer Languages
- Csci 521: Computer Systems Engineering
- Csci 523: Operating Systems
- Csci 524: Distributed Operating System Design



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- Csci 525: Compiler Construction
- Csci 526: Parallel Computing
- Csci 531: Artificial Intelligence
- Csci 533: Analysis of Algorithms
- Csci 541: Expert Systems and Logic Programming
- Csci 543: Data Mining
- Csci 550: Program Semantics and Derivation
- Csci 551: Computer System Performance Analysis
- Csci 555: Functional Programming
- · Csci 557: GPU Computing
- Csci 561: Computer Networks
- Csci 562: Software Engineering I
- Csci 575: Database Systems
- Csci 581: Special Topics in Computer Science I
- Csci 582: Special Topics in Computer Science II
- Csci 595: Graduate Computer Science Internship
- Csci 632: Machine Learning
- Csci 665: Wireless and Sensor Networks

#### **ELECTRICAL ENGINEERING**

- BME 200: Introduction to Biomedical Engineering
- BME 301: Bioinstrumentation
- BME 320: Bioseparations
- BME 322: Biomaterials
- BME 333: Biological Transport
- BME 350: Immunotherapy
- BME 444: Biomedical Controls
- BME 461: Biomedical Engineering Senior Design I
- BME 462: Biomedical Engineering Senior Design II
- Cp E 421: Embedded Systems Design
- Cp E 431: Computer Architecture
- Cp E 432: Testing of Computing Systems
- Cp E 461: Senior Design in Computer Engineering I
- Cp E 462: Senior Design in Computer Engineering II
- ECE 361: Design and Design Tools in ECE
- El E 100: Introduction to Electrical Engineering
- El E 101: Survey of the Electrotechnology
- El E 237: Electrical Engineering Tools and Toys
- El E 301: Applied Electronics
- El E 302: Applied Communication Systems
- El E 322: Electric Circuit II
- El E 331: Linear Systems
- El E 333: Systems Laboratory
- El E 335: Principles of Digital Systems
- El E 336: Digital Systems Laboratory I
- El E 337: Digital Systems Laboratory II
- El E 340: Electrical Engineering Analysis I
- El E 341: Theory of Fields
- El E 351: Models and Circuits I
- El E 352: Models and Circuits II
- El E 353: Electronics Laboratory
- El E 354: PC-Based Instrumentation Laboratory
- El E 357: Electrical Engineering Problems I
- El E 358: Electrical Engineering Problems II
- El E 367: Computer-Aided Design in Electrical Engr
- El E 385: Advanced Digital Systems
- El E 386: Advanced Digital Systems Laboratory
- El E 391: Random Signals
- El E 431: Theory of Control Systems
- El E 432: Robotics Laboratory



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- El E 433: High Frequency and Microwave Laboratory
- El E 434: Fiber Optics Laboratory
- El E 441: Electromagnetic Theory I
- El E 442: Electromagnetic Theory II
- El E 443: Network Analysis and Synthesis
- El E 447: Modulation, Noise, and Communications
- El E 449: Analog Communications Laboratory
- El E 450: Digital Communications Laboratory
- El E 451: Electrical Energy Conversion
- El E 452: Electric Power Transformer Laboratory
- El E 453: Solid State Devices
- El E 461: Sr. Design in Electrical Engineering I
- El E 462: Sr. Design in Electrical Engineering II
- El E 481: Fund. Low Power Dig. VLSI Design
- El E 482: Digital CMOS VLSI Design
- El E 485: Microprocessor Systems Engineering
- El E 486: Microprocessor Systems Engr Lab
- El E 487: Digital Signal Processing Laboratory
- El E 521: Electrical Engineering Projects I
- El E 522: Electrical Engineering Projects II
- El E 523: Microwave Engineering
- El E 525: Introduction to Antennas
- El E 533: Electronic Properties of Materials
- El E 536: Introduction to Quantum Computing
- El E 561: Microwave Circuit Design

#### **GEOLOGY & GEOLOGICAL ENGINEERING**

- G E 234: Intro. to Geol. Engr. Field Methods
- G E 301: Geological Eng. Design Field Camp 1
- G E 305: Geomechanics
- G E 401: Geological Eng. Design Field Camp 2
- G E 402: Professionalism in Geological Engr.
- G E 405: Engineering Geophysics
- G E 413: Prob. & Stat. Analyses in Eng. Design
- G E 415: Petroleum Geology
- G E 420: Subsurface Site Characterization
- G E 421: Geological Engineering Design
- G E 430: Geological Field Studies I
- G E 431: Geological Field Studies II
- G E 436: Field Camp G E Design
- G E 437: Geological Engineering Design Field Camp
- G E 440: Rock Mechanics
- G E 450: Hydrogeology
- G E 460: Fundamentals of Waste Management
- G E 470: Intro. to Geographic Information System
- G E 490: Directed Studies and Projects
- G E 500: Introduction to Geochemistry I
- G E 502: Construction Geological Engineering
- G E 503: Environmental Geochemistry
- G E 504: Envi. Geochemistry Lab & Field Methods
- G E 506: Geomechanics for Geologists
- G E 507: Regional Geological Engineering
- G E 510: Remote Sensing
- G E 511: Spatial Analysis
- G E 513: Economic Geology
- G E 520: Geol. & G.E. Computer Applications
- G E 525: Engineering Seismology
- G E 530: Advanced Geomechanics
- G E 535: Advanced Rock Mechanics
- G E 555: Introduction to Mining Engineering



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- G E 560: Waste Disposal I
- G E 561: Design of Waste Repositories
- G E 577: Geophysics I
- G E 591: Special Topics
- · Geol 101: Physical Geology
- · Geol 102: Historical Geology
- Geol 103: Earth Dynamics
- Geol 104: Environmental Geology I
- Geol 105: Environmental Geology Resources
- Geol 107: Introduction to Oceanography
- Geol 111: Physical Geology Laboratory
- Geol 112: Historical Geology Laboratory
- Geol 114: Environmental Geology Laboratory I
- Geol 115: Environmental Geology Resources Lab
- Geol 120: Dinosaurs
- Geol 221: Mineralogy
- Geol 222: Elementary Petrology
- Geol 225: Mineralogy & Elementary Petrology
- Geol 303: Structural and Tectonic Geology
- Geol 305: Geomorphology
- Geol 309: Invertebrate Paleontology
- Geol 314: Sedimentology and Stratigraphy
- Geol 406: Petrology
- Geol 410: Coastal and Reef Dynamics
- Geol 420: Optical Mineralogy
- Geol 500: Intro. to Geographic Information Systems
- Geol 505: Hydrogeology
- Geol 506: Advanced Petrology
- Geol 515: Directed Studies
- Geol 517: Global Tectonics
- Geol 518: Quantitative Methods in Geo. & Geo Eng
- Geol 520: Advanced Igneous and Metamorphic Petrolo
- Geol 530: Geology Field Studies
- Geol 535: Geochemistry
- Geol 550: Oceanography and Marine Geology
- Geol 555: Geology and Geol. Engineering Seminar
- Geol 603: Earth Sciences I
- Geol 604: Earth Sciences II
- Geol 609: Earth Science Projects
- Geol 610: Earth Science Projects
- Geol 611: Advanced Studies in Geology
- Geol 613: Instrumental and Analytical Procedure
- Geol 614: Advanced Geographic Information Systems
- Geol 615: Geostatistics
- Geol 630: Coastal Plain Geology
- Geol 641: Clay Petrology
- Geol 642: X-Ray Diff Analysis Inorg Crys Materials
- Geol 643: Advanced Geomorphology
- Geol 644: Advanced Paleontology
- Geol 645: Advanced Sedimentation
- Geol 646: Advanced Stratigraphy
- Geol 647: Sedimentary Petrology
- Geol 648: Metamorphic Petrology
- Geol 649: Pedology
- Geol 690: Scientific Writing Seminar
- Geol 697: Thesis

# **MECHANICAL ENGINEERING**

- Engr 523: Engineering Thermal Management
- Engr 546: Micro/Nanoscale Fabrication



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- Engr 554: Computational Heat Transfer
- M E 101: Introduction to Mechanical Engineering
- M E 201: Engineering Graphics Fundamentals
- M E 324: Introduction to Mechanical Design
- M E 325: Intermediate Dynamics
- M E 399: Thermodynamics II
- M E 401: Thermo-Fluid Dynamics
- M E 402: Elements of Propulsion
- M E 404: Applied Fluid Mechanics
- M E 405: Modern Energy Conversion
- M E 406: Alternative Energy Systems
- M E 416: Structures and Dynamics Laboratory
- M E 417: Projects
- M E 418: Projects
- M E 419: Energy and Fluids Laboratory
- M E 420: Experimental Mechanical Engineering II
- M E 421: Structural Analysis
- M E 422: Structural Design I
- M E 426: Kinematics: Analysis and Synthesis
- M E 427: Kinematic Analysis and Synthesis
- M E 428: Dynamics of Machinery
- M E 438: Mechanical Engineering Design
- M E 521: Projects
- M E 522: Projects
- M E 523: Special Topics in Mechanical Engineering
- M E 524: Special Topics in Mechanical Engineering
- M E 525: Advanced Dynamics
- M E 526: Experimental Methods
- M E 527: Materials Processing
- M E 528: Polymer Processing
- M E 529: Aerodynamics
- M E 530: Physical Metallurgy
- M E 531: Mechanical Behavior of Engr Materials
- M E 532: Glass and Ceramics
- M E 533: Electronic Properties of Materials
- M E 534: Properties and Selection of Materials
- M E 535: Experimental Stress Analysis
- M E 537: Mechatronic Systems Engineering
- M E 538: Exprl Character of Polymer Composites
- M E 540: Failure Analysis
- M E 541: Theory and Use of CAD and Solid Modeling
- M E 543: Linear Systems and Controls
- M E 555: Heating Ventilation and Air-Conditioning

