School of Engineering

Overview
Academics & Admissions
Departments
Programs
Minors
Courses
Faculty
Awards

Courses

School of Engineering

- COP 201: CO-OP Work Experience
- COP 202: CO-OP Work Experience
- COP 300: Cooperative Education
- COP 301: CO-OP Work Experience
- COP 302: CO-OP Work Experience
- COP 401: CO-OP Work Experience
- COP 402: CO-OP Work Experience
- COP 501: CO-OP Work Experience
- COP 502: CO-OP Work Experience
- COP 503: CO-OP Work Experience
- Engr 100: Introduction to Engineering
- Engr 102: Principles of Engineering
- Engr 196: Special Topics in Engineering Science
- Engr 197: Special Topics in Engineering Science
- Engr 207: Graphics I
- Engr 208: Graphics II
- Engr 296: Special Topics in Engineering Science
- 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
- Engr 360: Electric Circuit Theory

The University of Mississippi is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award certificates and baccalaureate, master’s, specialist, and doctoral degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097, call 404-679-4500, or visit online at www.sacscoc.org for questions about the accreditation.

https://catalog.olemiss.edu/2022/fall/undergraduate/engineering/courses

Saturday, November 13, 2021 at 3:28:21 am CST
• Engr 361: Electric Circuit Laboratory
• Engr 361: Electric Circuit Laboratory
• Engr 363: Introductory Electric Circuit Laboratory
• Engr 363: Introductory Electric Circuit Laboratory
• Engr 390: Professional Communication for Engineers
• Engr 396: Special Topics in Engineering Science
• 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 420: Engineering Analysis III
• Engr 420: Engineering Analysis III
• Engr 450: Product Design and Development
• Engr 450: Product Design and Development
• Engr 453: Prob and Stat Analyses in Engr Design
• Engr 496: Special Topics in Engineering Science
• 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 555: Field Testing & Insr. in Geotech. Engr.
• 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 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 in Engineering Science
• Engr 597: Special Projects in Engineering Science
• Engr 598: Special Projects in Engineering Science
• 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
• 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: Vadose Zone Hydrology
- Engr 620: Advanced Remote Sensing
- Engr 622: Advanced Electromagnetic Theory
- Engr 624: Active Microwave Circuits
- Engr 625: Adv. Topics in Computational Mechanics
- Engr 626: Numerical Methods in Electromagnetics
- Engr 627: Ray Methods in Electromagnetics
- Engr 629: Television 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 656: Information Systems Principles
- Engr 657: Operating Systems Design Concepts
- Engr 658: Timesharing Computer Systems
- Engr 659: Advanced Information Retrieval
- 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
- Engr 669: Chemical Reaction and Reactor Analysis I
- Engr 670: Chemical Reaction & Reactor Analysis II
- Engr 671: Elasticity
- Engr 672: Viscoplasticity
- Engr 673: Plasticity
- Engr 674: Fracture Mechanics
- Engr 677: Plates and Shells
Engr 678: Elastic Stability
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 698: 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 718: Coding for Error Code
Engr 719: Advanced Microwave Measurements
Engr 720: Advanced Turbulence
Engr 721: Advanced Electrodynamics
Engr 723: Passive Microwave Circuits
Engr 725: Antennas
Engr 728: Adv Numerical Methods in Electromagnetic
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 501: Geospatial Primer
Engs 504: Remote Sensing Fundamentals
Engs 523: Sensors and Platforms
Engs 603: Analysis of Algorithms
Engs 606: Computer Networks
Engs 610: Telecommunication Network Engineering
Engs 611: Geospatial Science Primer
Engs 612: Remote Sensing Fundamentals
Engs 613: Introduction to Remote Sensing Systems
Engs 614: Remote Sensing and Digital Images
Engs 620: Geospatial Information Technology
Engs 621: Orbital Mechanics
Engs 624: Introduction to Digital Image Processing
Engs 626: Community Growth
Engs 627: Applied Probability Modeling
Engs 633: Microwave Filters
Engs 671: Digital Topographic Mapping
Engs 672: Remote Sensing and the Environment
Engs 673: Advanced Digital Image Processing
Engs 674: Geospatial Data Synthesis and Modeling
- Engs 675: Microwave Data
- Engs 681: Advanced Sensor Systems Data Collection
- Engs 682: Remote Sensing to Ecological Modeling
- Engs 683: Land Use and Land Cover Applications
- Engs 684: Agricultural Applications Remote Sensing
- Engs 685: Business Geographics
- GE 681: Applications in Geophysics
- Manf 150: Intro to Engineering / Manufacturing
- Manf 152: Intro to Engineering & Manufacturing II
- Manf 250: Graphics/Solid Modeling
- Manf 251: Manufacturing Processes
- Manf 252: Product Realization Laboratory
- Manf 253: Strategic Planning
- Manf 254: Continuous Flow/Layout
- Manf 255: Lean I: Standardized Work & Takt Time
- Manf 350: Standardized Work/Takt Time
- Manf 351: Manufacturing Product/Process Design
- 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 450: Practical Problem Solving in Manf
- Manf 451: Manf Design-Product Realization
- 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

**Biomedical Engineering**
- BME 200: Introduction to Biomedical Engineering
- BME 222: Biomaterials
- BME 301: Bioinstrumentation
- BME 311: Biomechanics
- BME 313: Physiology for Biomedical Engineering
- BME 314: Biomedical Measurement
- BME 320: Bioseparations
- BME 333: Biological Transport
- BME 350: Immunoengineering
- BME 370: Intro to Bioinformatics & Biostatistics
- BME 413: Biomedical Signal Processing
- BME 444: Biomedical Controls
- BME 461: Biomedical Engineering Senior Design I
- BME 462: Biomedical Engineering Senior Design II
- BME 510: Drug and Gene Delivery
- BME 522: Immunoengineering
- BME 523: Molecular and Cellular Biophysics
- BME 524: Microscopy for Engineers

**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

The University of Mississippi is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award certificates and baccalaureate, master’s, specialist, and doctoral degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097, call 404-679-4500, or visit online at www.sacscoc.org for questions about the accreditation.

https://catalog.olemiss.edu/2022/fall/undergraduate/engineering/courses
The University of Mississippi is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award certificates and baccalaureate, master’s, specialist, and doctoral degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097, call 404-679-4500, or visit online at www.sacscoc.org for questions about the accreditation.

https://catalog.olemiss.edu/2022/fall/undergraduate/engineering/courses
The University of Mississippi is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award certificates and baccalaureate, master's, specialist, and doctoral degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097, call 404-679-4500, or visit online at www.sacscoc.org for questions about the accreditation.

https://catalog.olemiss.edu/2022/fall/undergraduate/engineering/courses  Saturday, November 13, 2021 at 3:28:21 am CST
- Csci 405: Computer Simulation
- Csci 423: Introduction to Operating Systems
- Csci 425: Code Generation and Optimization
- Csci 426: System Security
- Csci 427: Network Security
- Csci 431: Robotics Programming
- Csci 433: Algorithm and Data Structure Analysis
- Csci 443: Advanced Data Science
- Csci 444: Information Visualization
- 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 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
- Csci 525: Compiler Construction
- Csci 526: Parallel Computing
- Csci 530: Computer Architecture and Design
- Csci 531: Artificial Intelligence
- Csci 533: Analysis of Algorithms
- Csci 541: Expert Systems and Logic Programming
- Csci 543: Data Mining
- Csci 547: Digital Image Processing
- Csci 550: Program Semantics and Derivation
- Csci 551: Computer System Performance Analysis
- Csci 554: Web Architecture and Programming
- Csci 555: Functional Programming
- Csci 556: Multiparadigm 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 632: Machine Learning
- Csci 658: Software Language Engineering
- Csci 663: Software Families
- Csci 665: Wireless and Sensor Networks

**Electrical and Computer Engineering**

- 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 235: Principles of Digital Systems
El E 236: Digital Systems Laboratory I
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: Signals and Systems
El E 337: Digital Systems Laboratory II
El E 340: Electrical Engineering Analysis I
El E 341: Theory of Fields
El E 351: Electronics Circuits I
El E 352: Electronics 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: Probability and Random Signals
El E 415: Telecommunications Laboratory
El E 425: Local Area Networks
El E 431: Theory of Control Systems
El E 432: Robotics Laboratory
El E 433: High Frequency and Microwave Laboratory
El E 434: Fiber Optics Laboratory
El E 436: Systems 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 534: Wireless Mobile Communications
El E 535: Digital Communications
El E 536: Introduction to Quantum Computing
El E 561: Microwave Circuit Design
El E 586: Digital Signal Processing

**Geology & Geological Engineering**

G E 234: Intro. to Geol. Engr. Field Methods
G E 301: Geological Engr. Design Field Camp 1
G E 305: Geomechanics
G E 401: Geological Engr. Design Field Camp 2
G E 405: Engineering Geophysics
GE 415: Petroleum Geology
GE 420: Subsurface Site Characterization
GE 421: Geological Engineering Design
GE 430: Geological Field Studies I
GE 431: Geological Field Studies II
GE 436: Field Camp GE Design
GE 437: Geological Engineering Design Field Camp
GE 450: Hydrogeology
GE 460: Fundamentals of Waste Management
GE 470: Intro. to Geographic Information System
GE 490: Directed Studies and Projects
GE 500: Introduction to Geochemistry I
GE 502: Construction Geological Engineering
GE 503: Environmental Geochemistry
GE 504: Envi. Geochemistry Lab & Field Methods
GE 506: Geomechanics for Geologists
GE 507: Regional Geological Engineering
GE 510: Remote Sensing
GE 511: Spatial Analysis
GE 513: Economic Geology
GE 520: Geol. & G.E. Computer Applications
GE 525: Engineering Seismology
GE 530: Advanced Geomechanics
GE 540: Rock Mechanics
GE 560: Waste Disposal I
GE 561: Design of Waste Repositories
GE 577: Geophysics I
GE 591: Special Topics
GE 635: Advanced Rock Mechanics
Geol 101: Physical Geology
Geol 102: Historical Geology
Geol 103: Earth Dynamics
Geol 104: Environmental Geology - Hazards
Geol 105: Environmental Geology - Resources
Geol 106: Earth History
Geol 107: Introduction to Oceanography
Geol 111: Physical Geology Laboratory
Geol 112: Historical Geology Laboratory
Geol 114: Environmental Geology-Hazards Laboratory
Geol 115: Environmental Geology - Resources Lab
Geol 120: Dinosaurs
Geol 203: Earth Dynamics Laboratory Content
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 Petrology
• 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
• Geol 697: Thesis

Mechanical Engineering
• 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 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: Expert 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