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 296: Special Topics in Engineering Science
- Engr 297: Special Topics in Engineering Science
- 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
- 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 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 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 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: Televisions Systems II
Engr 633: Process Dynamics and Control I
Engr 635: Optimization
Engr 636: Groundwater Mechanics
Engr 637: Groundwater Modeling
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 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 655: 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
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

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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 740: Special Topics in Soil Science
Engr 770: Special Topics in Solid Mechanics
Engr 787: 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/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 501: Computational and Systems Biomedicine
• BME 510: Drug and Gene Delivery
• BME 520: Biochemical Process Engineering
• 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 251: Programming for Chemical Engineering
• Ch E 307: Chemical Process Principles I
• Ch E 308: Chemical Process Principles 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 330: Chemical Eng. R & D Experience
• 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 449: Process Design
• Ch E 450: Process Optimization
• Ch E 451: Plant Design I
• Ch E 452: Product and Process Development
• 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: Immunengineering
• Ch E 523: Molecular and Cellular Biophysics
• Ch E 524: Microscopy for Engineers
• Ch E 528: Polymer Processing
• Ch E 535: Experimental Methods in Engineering
• Ch E 540: Coating Materials Process & Applications
• Ch E 543: Introduction to Polymer Science
• Ch E 545: Colloid and Surface Science
• Ch E 547: Surfactant 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
• Engr 540: Environmental Organic Transport Phenomena
• Engr 542: Molecular Modeling of Nano Materials
• Engr 544: Synth and Fab of Nano Materials
• Engr 545: Polymer Nanocomposites

Civil Engineering
• C E 101: Introduction to Civil Engineering I
• C E 102: Introduction to Civil Engineering II
• C E 205: Civil Engineering Laboratory I
• C E 207: Surveying
• C E 208: Civil Engineering Graphics I
• C E 305: Civil Engineering Laboratory II
• C E 310: Introduction to Structural Mechanics
• C E 311: Structural Analysis
• C E 315: Civil Engineering Materials
• C E 325: Intermediate Dynamics
• C E 371: Intro to Environmental Engineering
• C E 401: Civil Engineering Fundamentals
• C E 405: Civil Engineering Laboratory III
• C E 412: Design of Concrete Structures
• C E 413: Steel Design
• C E 414: Advanced Concrete Design
• C E 417: Construction Engineering and Management
• C E 421: Matrix Analysis of Structures
• 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 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 495: Geospatial Analysis for Engr & Vis Apps
• 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 Methods for Nanomaterials

**Computer & Information Science**
- CIS 111: Computer Science I
- CIS 112: Computer Science II
- CIS 113: Honors Computer Science I
- CIS 211: Computer Science III
- 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: Introduction to Computational Media
- 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 3D 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

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.

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Tuesday, November 14, 2023 at 2:30:14 pm CST
• 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
• ELE 100: Introduction to Electrical Engineering
• ELE 235: Principles of Digital Systems
• ELE 236: Digital Systems Laboratory I
• ELE 237: Electrical Engineering Tools and Toys
• ELE 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 357: Electrical Engineering Problems I
• 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 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 451: Electrical Energy Conversion
• 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 Eng. Design Field Camp 1
• G E 305: Geomechanics
• G E 401: Geological Eng. Design Field Camp 2
• G E 405: Engineering Geophysics
• 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 436: Field Camp G E Design
• G E 437: Geological Engineering Design Field Camp
• G E 450: Hydrogeology
• G E 470: Intro. to Geographic Information System
• G E 490: Directed Studies and Projects
• G E 503: Environmental Geochemistry
• G E 507: Regional Geological Engineering
• G E 510: Remote Sensing
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• ME 417: Projects
• ME 418: Projects
• ME 419: Energy and Fluids Laboratory
• ME 426: Kinematics: Analysis and Synthesis
• ME 428: Dynamics of Machinery
• ME 439: Mechanical Engineering Design
• ME 521: Projects
• ME 522: Projects
• ME 523: Special Topics in Mechanical Engineering
• ME 524: Special Topics in Mechanical Engineering
• ME 525: Advanced Dynamics
• ME 527: Materials Processing
• ME 529: Aerodynamics
• ME 530: Physical Metallurgy
• ME 531: Mechanical Behavior of Engr Materials
• ME 533: Electronic Properties of Materials
• ME 534: Properties and Selection of Materials
• ME 535: Experimental Stress Analysis
• ME 537: Mechatronic Systems Engineering
• ME 541: Theory and Use of CAD and Solid Modeling
• ME 543: Linear Systems and Controls