Degree Programs, Emphasis Areas, Minors and Certificates
Missouri University of Science and Technology
(Degree programs are in capitals. Emphasis areas are lower case subheads followed by degree abbreviation if restricted to that degree.)
as of 04/17/2019

AEROSPACE ENGINEERING (BS, MS, PhD) MI
APPLIED AND ENVIRONMENTAL BIOLOGY (MS)
APPLIED MATHEMATICS (BS, MS) MI
  Actuarial Science (BS)
  Algebra (MS)
  Algebra/Discrete Mathematics (BS)
  Applied Analysis
  Computational Mathematics
  Secondary Education (BS)
  Statistics
ARCHITECTURAL ENGINEERING (BS)
  Construction Eng & Project Mgt
  Construction Materials
  Environmental Systems for Buildings
  Structural Engineering
BIOLOGICAL SCIENCES (BA, BS) MI
  Pre-Medicine (BA)
  Secondary Education (BA)
BUSINESS ADMINISTRATION (MBA)
BUSINESS AND MANAGEMENT SYSTEMS (BS)
  E-commerce
  Enterprise Resource Planning
  Finance
  Human Computer Interaction
  Management Information Systems
  Marketing
  Secondary Education
CERAMIC ENGINEERING (BS, MS, PhD)
  Biomaterials (MS)
CHEMICAL ENGINEERING (BS, MS, PhD, DE)
  Biochemical Engineering (BS)
CHEMISTRY (BA, BS, MS, MST, PhD) MI
  Biochemistry (BS)
  Polymer & Coatings Science (BS)
  Pre-Medicine (BS)
  Secondary Education (BA)
CIVIL ENGINEERING (BS, MS, PhD, DE)
  Construction Engineering
  Environmental Engineering
  Geotechnical Engineering
  Materials Engineering
  Structural Engineering
  Transportation Engineering
  Water Resources Engineering
COMPUTER ENGINEERING (BS, MS, PhD) MI
  Computational Intelligence
  Computer Architecture and Embedded Systems
  Integrated Circuits and Logic Design
  Networking, Security, and Dependability
COMPUTER SCIENCE (BS, MS, PhD) MI
  Critical Infrastructure Protection (MS)
  Software Engineering (MS)
ECONOMICS (BA, BS) MI
  Economics/Business (BS)
  Secondary Education (BA)
ELECTRICAL ENGINEERING (BS, MS, PhD, DE) MI
  Circuits and Electronics
  Communications and Signal Processing
  Computer Engineering
  Controls and Systems
  Electromagnetics
  Optics and Devices
  Power and Energy
  Solar Energy (MS)
ENGINEERING MANAGEMENT (BS, MS, PhD) MI
  Industrial Engineering (BS)
  Management of Technology (BS)
  Manufacturing Engineering (BS)
  Packaging Engineering (BS)
  Public Works (MS)
  Quality Engineering (BS)
ENGLISH (BA)
  Secondary Education
ENVIRONMENTAL ENGINEERING (BS, MS)
  EXPLOSIVES ENGINEERING (MS, PhD) MI
  EXPLOSIVES TECHNOLOGY (MS)
GEOLOGICAL ENGINEERING (BS, MS, PhD, DE) MI
  Engineering Geology and Geotechnics (BS)
  Environ Protect & Haz Waste Mgt (BS)
  Groundwater Hydro & Contaminant Transport (BS)
  Petroleum, Energy and Natural Resources (BS)
  Quarry Engineering (BS)
  Hazardous Waste Engineering & Science (MS)
GEOLOGY AND GEOPHYSICS (BS, MS, PhD)
  Exploration Geochemistry (MS, PhD)
  Exploration Geophysics (MS, PhD)
  Geochemistry (BS)
  Geology (BS)
  Geophysics (BS)
  Groundwater & Environmental Geochemistry (BS)
  Petroleum Geology (BS)
GEOTECHNICS (ME)
HISTORY (BA, BS) MI
  Secondary Education (BA)
INDUSTRIAL ORGANIZATIONAL PSYCHOLOGY (MS)
INFORMATION SCIENCE & TECHNOLOGY (BS, MS) MI
  Enterprise Resource Planning
  Human Computer Interaction (BS)
MANUFACTURING ENGINEERING (MS, ME)
MATERIALS SCIENCE AND ENGINEERING (MS, PhD)
MATHEMATICS (MST, PhD) MI
  Computational and Applied Mathematics (PhD)
  Statistics (PhD)
MECHANICAL ENGINEERING (BS, MS, PhD, DE)
  Control Systems
  Energy Conversion
  Environmental Systems
  Instrumentation
  Manufacturing Processes
  Materials Science
  Mechanical Design and Analysis
  Thermal Science
METALLURGICAL ENGINEERING (BS, MS, PhD)
  Chemical Metallurgy (BS)
  Manufacturing Metallurgy (BS)
  Physical Metallurgy (BS)
MINING ENGINEERING (BS, MS, ME, PhD, DE) MI
  Coal (BS)
  Explosives Engineering (BS)
  Mining & the Environment (BS)
  Mining Health and Safety (BS)
  Quarry Engineering (BS)
  Sustainable Development (BS)
MULTIDISCIPLINARY STUDIES (BA)
NUCLEAR ENGINEERING (BS, MS, PhD, DE) MI
PETROLEUM ENGINEERING (BS, MS, PhD, DE) MI
PHILOSOPHY (BS) MI
PHYSICS (BS, MS, MST, PhD) MI
  Applied Physics (BS)
  Geophysics (BS)
  Secondary Education (BS)
PSYCHOLOGY (BA, BS) MI
  Cognitive Neuroscience
  EXPLOSIVES PSYCHOLOGY (BS)
  Human Resources/Personnel
  Human Services
  Psychology of Leadership
  Secondary Education (BA, BS)
  Usability of Technology
SYSTEMS ENGINEERING (MS, PhD)
  TECHNICAL COMMUNICATION (BS, MS) MI

Updated 04/17/2019
MINORS
(In addition to those designated MI on previous page)

Adaptive Leadership
American Studies
Art
Artificial Intelligence and Machine Learning in Business
Automation Engineering
Bioinformatics
Biomedical Engineering
Business
Business Analytics & Data Science
Business Applications and Software Development
Cognitive Neuroscience
Communication Studies
Creative Writing
Cybersecurity Management and Information Assurance
Digital Supply Chain Management
Electronic and Social Commerce
Energy Technology
Entrepreneurship
Ethics
Explosives Engineering *
Film and Literature

Finance
Financial Technology
French
Game Studies
Geology
German
Global Studies
Global Sustainable Economics
Human-Computer Interaction & User Experience
Humanitarian Engineering and Science
Ind/Organizational Psych
International Economics
Latin American Studies for Technical Applications
Leadership Communication
Linguistics
Literature
Literature and Film
Management
Marketing
Military Aerospace Studies
Mineral Process Engineering
Mobile Business and Technology

Multiculturalism & Diversity
Music
Philosophy of Technology
Political Science
Pre-Law
Pre-MBA
Pre-Medicine
Psychology for Health Care
Psychology of Leadership
Psychometrics
Russian
Science, Technology & Humanity
Social Media in Industry
Sociology
Spanish
Studio Art
Sustainability
Technical Communication*
Theatre
Writing

* Indicates undergraduate & graduate level minor
Updated 05/09/2018

UNDERGRADUATE CERTIFICATES

<table>
<thead>
<tr>
<th>Certificate</th>
<th>Discipline</th>
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<tbody>
<tr>
<td>Automation Engineering</td>
<td>Electrical Engineering</td>
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<tr>
<td>Explosives Engineering</td>
<td>Mining &amp; Nuclear Engineering</td>
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<td>Explosives Technology</td>
<td>Mining &amp; Nuclear Engineering</td>
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<tr>
<td>Technical Writing</td>
<td>Technical Communication</td>
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Updated 07/31/2018

GRADUATE CERTIFICATES

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<th>Certificates</th>
<th>Discipline</th>
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<td>Actuarial Science</td>
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<td>Advanced Control Systems</td>
<td>Electrical Engineering</td>
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<td>AI, Machine Learning and Automation in Business</td>
<td>Information Science &amp; Technology</td>
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<td>Applied Workplace Psychology</td>
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<td>Automation Engineering and PLC</td>
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<td>Big Data Management and Analytics</td>
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<td>Big Data Management and Security</td>
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<td>Business Analytics and Data Science</td>
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<td>Business Essentials</td>
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<td>Business Intelligence</td>
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<td>Business Project Management</td>
<td>Business Administration</td>
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<td>CAD/CAM and Rapid Product Realization</td>
<td>Manufacturing Engineering</td>
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<td>Composite Materials and Structures</td>
<td>Aerospace Engineering/Mechanical Engineering</td>
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<tr>
<td>Computational Intelligence</td>
<td>Systems Engineering/Computer Engineering/Computer Science</td>
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<td>Contemporary Structural Engineering</td>
<td>Civil Engineering</td>
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<td>Control Systems</td>
<td>Mechanical Engineering</td>
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<td>Cyber Security</td>
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<td>Digital Media and Web Design</td>
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<td>Digital Supply Chain Management</td>
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<td>Electrical Engineering</td>
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<td>Electrical Power Systems Engineering</td>
<td>Electrical Engineering</td>
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<td>Electronic and Social Commerce</td>
<td>Information Science &amp; Technology</td>
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<td>Energy Conversion and Transport</td>
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<td>Entrepreneurship and Technological Innovation</td>
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<td>Finance</td>
<td>Business Administration</td>
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<td>Engineering Management/Systems Engineering</td>
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Financial Mathematics
Financial Technology
Geoenvironmental Engineering
Geotechnical Earthquake Engineering
Geotechnics
Human-Computer Interaction and User Experience
Human Systems Integration
Information Assurance & Security Officer Essentials
Information System Project Management
Information Systems and Cloud Computing
Infrastructure Renewal
Lean Six Sigma
Management and Leadership
Management for Sustainable Business
Manufacturing Automation
Manufacturing Systems
Military Construction Management
Military Geological Engineering
Mining Engineering
Mobile Business and Technology
Model Based Systems Engineering
Network Centric Systems
Nuclear Nonproliferation
Project Engineering and Construction Management
Project Management
Safety Engineering
Software Design and Development
Statistical Methods in Psychology
Statistics
Systems Engineering
Systems and Software Architecture
Technical Communication
Wireless Networks and Mobile Systems

Mathematics
Business Administration
Civil Engineering
Civil Engineering
Geotechnics
Information Science & Technology
Engineering Management/Information Science & Technology
Computer Engineering/Computer Science
Information Science & Technology
Computer Science
Civil Engineering
Engineering Management
Business Administration
Economics
Mechanical Engineering
Manufacturing Engineering
Engineering Management
Geological Engineering
Mining Engineering
Information Science & Technology
Systems Engineering
Computer Engineering/Systems Engineering
Nuclear Engineering
Civil Engineering/Engineering Management
Engineering Management
Chemical and Biochemical Engineering/Engineering Management
Computer Science
Mathematics and Statistics/Psychology
Mathematics and Statistics
Systems Engineering
Computer Science
Technical Communication
Computer Science

TEACHER CERTIFICATION PROGRAMS

Secondary Education Certification
- Applied Mathematics BS
- Biological Sciences BA
- Business and Management Systems BS
- Chemistry BA
- Economics BA
- English BA
- History BA
- Physics BS
- Psychology BA, BS

Elementary Education Certification
- Multidisciplinary Studies BA

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Updated 04/17/2019