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 02/26/2016

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
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 (BS)
   Computers and Architecture (BS)
   Embedded Computer Systems (BS)
   Integrated Circuits and Logic Design (BS)
   Networking and Software Engineering (BS)
   Security and Reliability (BS)
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)
   Secondary Education (BS)
ENGLISH (BA)
   Secondary Education
ENVIRONMENTAL ENGINEERING (BS, MS)
EXPLOSIVES ENGINEERING (MS, PhD) MI
GEOPHYSICAL 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)
GEOLAND GEOPHYSICS (BS, MS, PhD)
   Exploration Geophysics (MS, PhD)
   Exploration Geophysics (MS, PhD)
   Geophysics (BS)
   Geophysics (BS)
   Groundwater & Environmental Geochemistry (BS)
   Petroleum Geology (BS)
GEOTECHNICS (ME)
   Secondary Education
HISTORY (BA) MI
   Secondary Education
   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)
   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
   Secondary Education (BA)
PHYSICS (BS, MS, MST, PhD) MI
   Applied Physics (BS)
   Geophysics (BS)
   Secondary Education (BS)
PSYCHOLOGY (BA, BS) MI
   Cognitive Neuroscience
   Human Resources/Personnel
   Human Services
   Psychology of Leadership
   Secondary Education (BA, BS)
SYSTEMS ENGINEERING (BS, MS, PhD)
   Usability of Technology
   TECHNICAL COMMUNICATION (BS, MS) MI

Updated 07/07/2015
MINORS
(In addition to those designated MI on previous page)

Adaptive Leadership  Adaptive Leadership  Finance  Music
American Studies  American Studies  French  Philosophy of Technology
Art  Art  Geology  Political Science
Automation Engineering  Automation Engineering  German  Pre-Law
Bioinformatics  Bioinformatics  Global Studies  Pre-MBA
Biomedical Engineering  Biomedical Engineering  Global Sustainable Economics  Pre-Medicine
Business  Business  Human-Computer Interaction & User Experience  Psychology of Leadership
Business Analytics & Data Science  Business Analytics & Data Science  Humanitarian Engineering and Science  Psychometrics
Cognitive Neuroscience  Cognitive Neuroscience  Ind/Organizational Psych  Russian
Communication Studies  Communication Studies  International Economics  Science, Technology & Humanity
Creative Writing  Creative Writing  Leadership Communication  Sociology
Digital Supply Chain Management  Digital Supply Chain Management  Leadership Experience  Spanish
Electronic and Social Commerce  Electronic and Social Commerce  Literature  Studio Art
Energy Technology  Energy Technology  Literature and Film  Sustainability
Enterprise Resource Planning  Enterprise Resource Planning  Management  Technical Communication*
Entrepreneurship  Entrepreneurship  Marketing  Theatre
Ethics  Ethics  Mineral Process Engineering  Writing
Explosives Engineering *  Explosives Engineering *  Mobile Business and Technology
Film and Literature  Film and Literature  Multiculturalism & Diversity

* Indicates undergraduate & graduate level minor

Updated 09/15/2015

UNDERGRADUATE CERTIFICATES

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<thead>
<tr>
<th>Certificate</th>
<th>Discipline</th>
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<tbody>
<tr>
<td>Explosives Engineering</td>
<td>Mining &amp; Nuclear Engineering</td>
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<td>Explosives Technology</td>
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<td>Technical Writing</td>
<td>Technical Communication</td>
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Updated 10/25/2012

GRADUATE CERTIFICATES

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<td>Actuarial Science</td>
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<td>Big Data Management and Analytics</td>
<td>Computer Science</td>
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<td>Big Data Management and Security</td>
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<td>Business Analytics and Data Science</td>
<td>Information Science &amp; Technology</td>
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<tr>
<td>Business Essentials</td>
<td>Business Administration</td>
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<td>Business Intelligence</td>
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<td>Business Project Management</td>
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<td>CAD/CAM and Rapid Product Realization</td>
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<td>Composite Materials and Structures</td>
<td>Systems Engineering/Computer Engineering/Computer Science</td>
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<td>Computational Intelligence</td>
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<td>Contemporary Structural Engineering</td>
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<td>Control Systems</td>
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<td>Digital Media</td>
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<td>Digital Supply Chain Management</td>
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<td>Electric Machine and Drives</td>
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<td>Electrical Power Systems Engineering</td>
<td>Information Science &amp; Technology</td>
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<td>Electronic and Social Commerce</td>
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<td>Energy Conversion and Transport</td>
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<td>Information Assurance &amp; Security Officer Essentials</td>
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<td>Lean Six Sigma</td>
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<td>Manufacturing Systems</td>
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<td>Mobile Business and Technology</td>
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<td>Model Based Systems Engineering</td>
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<td>Network Centric Systems</td>
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<td>Project Engineering and Construction Management</td>
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<tr>
<td>Safety Engineering</td>
<td>Chemical and Biochemical Engineering/Engineering Management</td>
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<tr>
<td>Software Design and Development</td>
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<td>Systems and Software Architecture</td>
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<td>Technical Communication</td>
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<td>Wireless Networks and Mobile Systems</td>
<td>Computer Science</td>
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**Updated 04/01/2016**

**TEACHER CERTIFICATION PROGRAMS**

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

Elementary Education Certification
- Multidisciplinary Studies BA

**Updated 02/04/2015**