

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 03/09/2018

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
 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
 Human Resources/Personnel
 Human Services
 Psychology of Leadership
 Secondary Education (BA, BS)
 Usability of Technology
SYSTEMS ENGINEERING (MS, PhD)
TECHNICAL COMMUNICATION (BS, MS) MI

MINORS

(In addition to those designated MI on previous page)

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

* Indicates undergraduate & graduate level minor
Updated 03/09/2018

UNDERGRADUATE CERTIFICATES

Certificate

Explosives Engineering
Explosives Technology
Technical Writing

Discipline

Mining & Nuclear Engineering
Mining & Nuclear Engineering
Technical Communication

Updated 10/25/2012

GRADUATE CERTIFICATES

Certificates

Actuarial Science
Advanced Control Systems
AI, Machine Learning and Automation in Business
Applied Workplace Psychology
Automation Engineering and PLC
Big Data Management and Analytics
Big Data Management and Security
Business Analytics and Data Science
Business Essentials
Business Intelligence
Business Project Management
CAD/CAM and Rapid Product Realization
Composite Materials and Structures
Computational Intelligence
Contemporary Structural Engineering
Control Systems
Cyber Security
Cybersecurity and Information Assurance Management
Digital Media and Web Design
Digital Supply Chain Management
Electric Machine and Drives
Electrical Power Systems Engineering
Electronic and Social Commerce
Energy Conversion and Transport
Engineering Management
Engineering Mechanics
Enterprise Resource Planning
Entrepreneurship and Technological Innovation
Explosives Engineering
Explosives Technology
Financial Engineering
Financial Mathematics
Geoenvironmental Engineering
Geotechnical Earthquake Engineering
Geotechnics

Discipline

Mathematics
Electrical Engineering
Information Science and Technology
Psychological Science
Electrical Engineering
Computer Science
Computer Science
Information Science & Technology
Business Administration
Information Science & Technology
Business Administration
Manufacturing Engineering
Aerospace Engineering/Mechanical Engineering
Systems Engineering/Computer Engineering/Computer Science
Civil Engineering
Mechanical Engineering
Computer Science
Information Science and Technology
Information Science & Technology
Information Science & Technology
Electrical Engineering
Electrical Engineering
Information Science & Technology
Aerospace Engineering/Mechanical Engineering
Engineering Management
Aerospace Engineering/Mechanical Engineering
Information Science & Technology
Business Administration
Explosives Engineering
Explosives Engineering
Engineering Management/Systems Engineering
Mathematics
Civil Engineering
Civil 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
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

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
Civil Engineering/Engineering Management
Engineering Management
Chemical and Biochemical Engineering/Engineering Management
Computer Science
Mathematics and Statistics/Psychological Science
Mathematics and Statistics
Systems Engineering
Computer Science
Technical Communication
Computer Science

Updated 03/09/2018

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