

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.)

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)
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 Chemistry (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)
 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)
 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)
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) MI
 Secondary Education
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)
 Aerospace Engineering (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 (BA) 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*

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(In addition to those designated MI on opposite page)

American Studies	German	Pre-Law
Art	Global Studies	Pre-MBA
Bioinformatics	Ind/Organizational Psych	Pre-Medicine
Business	International Economics	Psychology of Leadership
Creative Writing	Leadership Communication	Psychometrics
Cognitive Neuroscience	Literature	Russian
Communication Studies	Literature and Film	Science, Technology & Politics
Energy Technology	Marketing	Sociology
Enterprise Resource Planning	Materials	Spanish
Ethics	Military Science	Studio Art
Explosives Engineering *	Mineral Process Engineering	Sustainability
Film and Literature	Multiculturalism & Diversity	Sustainable Business
Finance	Music	Technical Communication*
French	Philosophy of Technology	Theatre
Geology	Political Science	Writing

UNDERGRADUATE CERTIFICATES

Updated 10/25/2012

Certificate

Explosives Engineering
Explosives Technology
Design
Technical Communication

Discipline

Mining Engineering
Mining & Nuclear Engineering
Interdisciplinary Engineering
Technical Communication

GRADUATE CERTIFICATES

Updated 12/27/2012

Certificates

Actuarial Science
Business Essentials
Business Intelligence
CAD/CAM and Rapid Product Realization
Composite Materials and Structures
Computational Intelligence
Contemporary Structural Engineering
Control Systems
Electric Machine and Drives
Electrical Power Systems Engineering
Energy Conversion and Transport
Engineering Management
Engineering Mechanics
Enterprise Resource Planning
Explosives Engineering
Explosives Technology
Financial Engineering
Financial Mathematics
Geoenvironmental Engineering
Geotechnical Earthquake Engineering
Geotechnics
Human Computer Interaction
Human Systems Integration
Information Assurance and Security
Infrastructure Renewal
Leadership in Engineering Organizations
Lean Six Sigma
Management for Sustainable Business
Manufacturing Automation
Manufacturing Systems
Military Construction Management
Military Geological Engineering
Mining Engineering
Multimedia and Information Systems
Network Centric Systems
Project Engineering and Construction Management
Project Management
Psychology of Leadership
Psychometrics
Safety Engineering
Software Design and Development
Statistics
Systems Engineering
Systems and Software Architecture
Technical Communication
Wireless Networks and Mobile Systems

Discipline

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

* Indicates undergraduate & graduate level minor