MISSOURI S&T™

Corporate and Professional Educational Programs

in St. Louis

Missouri S&T offers its high-quality educational programs from its physical location in St. Louis at competitive rates.

LIKE WHAT YOU SEE? TAKE THE NEXT STEP.

Scan the QR codes to get started.

REQUEST INFORMATION

Let us tell you more.

APPLY NOW

Make S&T part of your equation.

- Corporate and professional-oriented professional master's degrees (10 courses).
- Graduate certificates (4 courses) — taught both in line with the normal semester offerings and/or in accordance with organizational demands.
- Quick-impact experiences, including short courses and bootcamps. Content can be tweaked as needed and span anywhere from one to two days to three to four weeks. Instruction is carried out by full-time S&T faculty from the Rolla campus or other qualified professionals.

Opportunities cater to a diverse audience, including corporations, government agencies and working professionals seeking to enhance their expertise and stay ahead in a rapidly evolving world. Whether you are looking to upskill, reskill or embark on a new career path, our program provides you with the support necessary to achieve your goals. We believe learning should be a lifelong journey, and our commitment to excellence ensures you receive the highest quality education to drive your personal and professional growth.

Join us at Missouri S&T and embark on a transformative journey of continuous improvement and success. Learn more at stl.mst.edu.

You have goals.

We have options.

Professional Master's

- Aerospace engineering
- Civil engineering
- Computer engineering
- Electrical engineering
- Environmental engineering
- Engineering management
- Mechanical engineering
- Systems engineering

Graduate Certificates

- Advanced engineering materials
- Advanced materials for sustainable infrastructure
- Big data management and analytics
- Building systems engineering
- Cyber security
- Foundations of supply chain integrations systems
- Geoanalytics and geointelligence
- Geoenvironmental engineering
- Project engineering and construction management

Quick Impact Learning

- Advanced manufacturing
- Artifical intelligence
- Computer programming
- Construction management
- Drone technology
- Hypersonics
- Leadership
- MATLAB applications
- Nuclear energy
- System performance and safety

PROFESSIONAL

MASTER OF SCIENCE DEGREES

Missouri S&T offers practice-oriented programs that are distinguished by their comprehensiveness and specialization. A program encompasses a selection of 10 courses meticulously tailored to align with corporate objectives and career advancement goals. The professional master's degrees offer extensive knowledge and academic recognition, graduating well-prepared professionals in the corporate and academic realms alike.

Aerospace Engineering

The aerospace engineering program in the department of mechanical and aerospace engineering offers comprehensive graduate education in several areas. Aerodynamics, gas dynamics, hypersonics, aerospace system design, aerospace propulsion, aerospace structures, plasma aerospace applications, multidisciplinary optimization, and flight dynamics and control are the major areas of emphasis.

Civil Engineering

This program provides the building blocks for the dynamic and challenging world of civil engineering. You'll use your expertise to make an immediate impact, whether your interest is in building better roads, bridges, or other infrastructure projects and systems.

Computer Engineering

The mission of the computer engineering program, consistent with the Missouri S&T campus mission statements, is the education of students to fully prepare them to provide leadership in the recognition and solution of society's problems in computer engineering. This program is multidisciplinary. Specialization areas of study include digital systems design, electrical engineering, embedded computer systems, systems, intelligence, and software engineering — topics include computational intelligence, computer networks, dependability, fault tolerance, image processing, neural networks, and system security/survivability.

Electrical Engineering

The mission of the electrical engineering program, consistent with the Missouri S&T campus mission statements, is the education of students to fully prepare them to provide leadership in the recognition and solution of society's problems in the area of

electrical engineering. Graduate programs in electrical engineering typically include specializations in areas such as circuits and electronics, communications and signal processing, controls and systems, electromagnetics, devices and optics, and power.

Environmental Engineering

This field is rapidly advancing to include many of today's greatest challenges, such as sustainability, carbon emissions and limited water resources. Courses in S&T's environmental engineering graduate degree program focus on engineering analysis that incorporate the fundamental physical, biological and chemical characteristics of natural and engineered environmental systems, while putting these engineering solutions in the context of societal needs and the requirements of environmental laws.

Engineering Management

Engineering management is the art and science of planning, organizing, allocating resources and directing and controlling engineering activities. The field of engineering management has become recognized as a professional discipline with a critical role in the modern society. Graduates develop innovative and integrated solutions to problems that arise at the convergence of engineering and business. The discipline involves designing, operating and continuously improving systems by integrating engineering and management knowledge. This integration starts with an awareness of customer needs and market conditions. It then seeks to optimize the use of people, equipment, money and information to achieve desired objectives. The discipline also seeks to develop students into individuals with leadership potential who can achieve high quality results in an ethical manner and with respect for the environment.

Mechanical Engineering

The mechanical engineering program in the department of mechanical and aerospace engineering offers comprehensive graduate education in a number of areas. The principal areas include dynamics and controls, manufacturing, materials and structures, mechanical design, and thermal and fluid systems. A wide variety of interdisciplinary programs meeting specific objectives are available.

Systems Engineering

Systems engineering is a transdisciplinary approach and means to enable the realization of successful systems by defining customer needs and required functionality early in the development cycle. Systems engineers are responsible for the design and management of complex systems guided by systems requirements. There is a growing need for engineers who are concerned with the whole system and can take an interdisciplinary and top-down approach. Systems engineers need to be problem definers, not just problem solvers, and should be involved with a system throughout its life cycle —from development through production, deployment, training support, operation and disposal.

DESIGNED FOR CORPORATIONS AND WORKING PROFESSIONALS

GRADUATE CERTIFICATES

Missouri S&T's graduate certificates encompass four courses focused on a specific area of study. These courses can also potentially be applied toward a Missouri S&T master's degree, enabling professionals to pursue further education and earn two complementary credentials.

Advanced Engineering Materials

This graduate certificate in advanced engineering materials provides working professionals and graduate-level students with insights into a wide-range of advanced engineering materials.

Advanced Materials for Sustainable Infrastructure

This certificate program is designed to provide formalized education in the area of advanced structural materials for sustainable building and transportation infrastructure. The courses offered provide a specialized approach to the study of materials science and engineering and emerging technologies used for the design of sustainable and resilient construction and repair/rehabilitation materials using an interdisciplinary approach.

Building Systems Engineering

This certificate program equips students with the tools necessary to meet international standards in management. It prepares students to effectively manage projects and human resources, as well as to analyze, evaluate and improve systems.

Geoanalytics and Geointelligence

The graduate certificate in geoanalytics and geointelligence is designed to provide formalized education in the areas of geoanalytics, geospatial data analysis and geointelligence. It is structured for those who are interested in careers that rely heavily on geoanalytics or geointelligence with a certificate to increase their marketability in this job sector.

Geoenvironmental Engineering

This certificate program is designed to provide formalized education in the area of geoenvironmental engineering. Courses provide students with skills in geotechnical principles and remediation technologies for effective geoenvironmental engineering solutions.

In just four courses, corporate employees and professionals can gain the advanced training and instruction they need to thrive in their field. Plus, the certificate courses can be applied toward a master's program.

Project Engineering and Construction Management

This program is designed to provide formalized education in the area of project engineering and construction management. Students will gain knowledge related to international standards for management and how to effectively manage projects and human resources to improve systems. Specifically, this program will give the participants the ability to:

- Identify operations problems and implement solutions for improved strategic competitiveness
- Make sound decisions, plan, and control the key resources (money and people) of an organization
- Critically analyze, evaluate, improve or adapt existing technical and managerial systems
- Design and develop new technical and managerial systems

The following certificates will be delivered in hybrid mode with more than 50% of the material provided online.

Big Data Management and Analytics

As the size and availability of datasets increase, so do the challenges in efficiently and effectively sharing, analyzing and visualizing information. Proficiency in big data analytics requires knowledge in interdisciplinary areas including computer science, business information technology, mathematics and statistics, and electrical and computer engineering. This is a specialized graduate certificate program to teach practicing computing professionals and graduate students the skills necessary for the use and development of big data management, big data analytics, data mining, cloud computing and business intelligence.

Cyber Security

Protecting information systems is key to protecting the nation's critical infrastructures. Only through diligence and a well-trained workforce will we be able to adequately defend the nation's vital information resources. Cyber security has one of the largest demands for an educated workforce within the federal, state, and industry domains. This certificate meets a majority of the requirements for the National Initiative for Cyber Security Education (NICE) standards for the NSA-DHS Center of Academic Excellence program.

Foundations of Supply Chain Integrations Systems

If you're ready to take your engineering, science or business skills to the next level, advance your education in the high-demand field of supply chain management. Study systems that help influence quality decision-making and the global impact of supply chain products or services. Missouri S&T has built this 100% online graduate certificate in foundations of supply chain integration systems for technical communicators ready to take the next step in their careers.

SHORT COURSES AND BOOTCAMPS

QUICK-IMPACT LEARNING

In today's fast-paced business environment, rapid skill acquisition is paramount. Missouri S&T's quick impact learning offers short courses and bootcamps designed for immediate results. These programs provide industry-specific competencies in a condensed format and are ideal for targeted skill acquisition.

Advanced Manufacturing

The objective of our advanced manufacturing courses is to equip individuals with the knowledge and skills needed to excel in the rapidly evolving landscape of modern manufacturing. Our goal is to offer thorough training in cutting-edge manufacturing processes, including automation, robots, additive manufacturing and technology for smart factories. Our training programs place a high value on practical experience and real-world applications, ensuring that graduates are well-equipped to improve the effectiveness, innovation and sustainability of manufacturing processes across a range of industries. The ultimate objective is to create knowledgeable people who can foster competition and innovation in the field of advanced manufacturing while addressing major global issues like sustainability and digital transformation.

Artificial Intelligence

The objective of our artificial intelligence (AI) courses and bootcamps is to enable students to harness the transformative power of artificial intelligence in various domains. We aim to equip students with the knowledge and practical skills necessary to design, develop, and deploy AI solutions that can solve complex problems and drive innovation. Our programs cover a wide range of AI topics, including machine learning, deep learning, natural language processing, computer vision and reinforcement learning.

Computer Programming

The objective of our computer programming courses and bootcamps is to empower individuals with the knowledge and practical skills needed to thrive in the fast-paced and dynamic world of technology. Our courses are designed to equip students with proficiency in programming languages, software development methodologies and problem-solving techniques. Whether you aspire to become a full-stack developer, a data scientist, a cybersecurity expert or a mobile app developer, our programs are structured to prepare you for success in these fields.

Construction Management

Our construction management courses and bootcamps are designed to give participants the fundamental know-how and abilities they need to succeed in the industry. We concentrate on giving a thorough understanding of leadership, risk management, budgeting, scheduling and planning for construction projects. Whether they desire to become project managers, construction supervisors or industry experts, our programs are tailored to educate students for the dynamic and complex world of construction. Our courses make sure that graduates are well-prepared to lead construction projects efficiently, safely and in conformity with industry standards by combining academic knowledge and practical experience. Our objective is to develop qualified, assured construction management experts who can successfully navigate the difficulties of building projects and contribute to the development of the industry.

Drone Technology

The objective of our drone technology courses is to empower individuals with the knowledge and skills required to harness the potential of unmanned aerial systems. Our goal is to offer thorough training in drone operation, upkeep, data analysis and application across a range of sectors, from agriculture and environmental monitoring to filmmaking and public safety. Our training courses emphasize safety, legal compliance and cutting-edge technology to help participants become skilled drone operators and creators. Our courses are meant to give you the skills you need to succeed in this exciting and quickly developing sector, whether you're a professional trying to incorporate drones into your work or an entrepreneur hoping to utilize drone technology for commercial potential. The ultimate objective is to create knowledgeable drone professionals who can use these cutting-edge instruments to tackle practical problems and stimulate innovation in a variety of industries.

Hypersonics

The objective of our hypersonics courses is to provide individuals with specialized knowledge and expertise in the field of hypersonic technology and engineering. For the purpose of preparing students for jobs in aerospace, defense and cutting-edge research, our programs concentrate on the fundamentals of high-speed flight, including aerodynamics, propulsion, materials science and thermal management. To ensure that graduates are well-prepared to contribute to the development of hypersonic vehicles, space exploration and defense applications, we place a strong emphasis on innovation and hands-on learning. No matter if you want to work as a hypersonic engineer, researcher or aerospace scientist, our courses will provide you the skills you need to succeed in this quickly developing profession. The ultimate objective is to generate competent hypersonic specialists who can enhance aerospace technology and advance future space exploration and high-speed flying.

At Missouri S&T, innovation meets education, and the future is yours to shape. We provide cutting-edge professional courses and intensive bootcamps that empower individuals to excel in the dynamic and ever-evolving landscape of today's workforce.

In an era marked by rapid technological advancement and a continuously changing job market, staying competitive and relevant has never been more critical. At Missouri S&T, we understand that traditional education models may not always meet the demands of the modern workforce. That's why we have designed our professional courses and bootcamps to bridge the gap between academia and industry with a focus on a variety of areas.

Leadership

The objective of our leadership bootcamps is to cultivate and nurture effective, forward-thinking leaders across various industries. To motivate teams, foster innovation and meet the challenges of today's dynamic workplace, we want to equip people with the fundamental leadership abilities, techniques and tools they need. Our programs emphasize enhancing emotional intelligence, decision-making skills and self-awareness. Our courses offer the information and real-world experience required to succeed in leadership jobs, whether you're a seasoned executive trying to improve your leadership skills or an emerging leader hoping to lay a solid foundation. Our courses and bootcamps equip graduates to lead with confidence, agility and a deep awareness of the intricacies of effective leadership in the contemporary business landscape through a blend of theory, real-world case studies and interactive exercises. The ultimate objective is to develop powerful, visionary leaders who can have a beneficial influence.

MATLAB Applications

The objective of our MATLAB applications courses is to empower individuals with practical expertise in utilizing MATLAB, a powerful and versatile computational tool, across diverse fields and industries. Our courses emphasize practical instruction and real-world applications, giving participants expertise in MATLAB-based data analysis, modeling, simulation and algorithm development. Whether you're an engineer, scientist, researcher or student, learning MATLAB will improve your ability to innovate in your sector, take on difficult technical difficulties, and advance disciplines like engineering, physics, finance, and data science. Our ultimate objective is to create MATLAB professionals who can use the capabilities of this technology to enhance productivity and innovation in their respective fields.

Nuclear Energy

The objective of our nuclear energy courses and bootcamps is to provide individuals with a deep and comprehensive understanding of nuclear science and technology. Our courses, which cover subjects including nuclear reactor design, nuclear safety procedures, radiation protection and nuclear waste management, are designed to educate students for careers in the nuclear energy industry. In order to ensure that graduates are qualified to contribute to the secure and effective operation of nuclear power plants or to take part in nuclear research and development, we place a high priority on safety, regulatory compliance and sustainability. No matter if you want to work in the energy industry as a nuclear engineer, nuclear physicist or policymaker, our programs are tailored to provide you the information and abilities you need to succeed. Our ultimate objective is to produce well-rounded nuclear energy experts who can solve the world's energy demands while upholding the highest standards of safety.

System Performance and Safety

Courses and bootcamps on system performance and safety provide professionals from a range of industries with essential knowledge and skills. Participants gain knowledge of how to recognize and reduce safety risks, improve performance and follow legal requirements. These courses give people the skills they need to build, maintain and run systems that prioritize safety and provide the best performance, whether it's mastering hazard analysis methodologies, putting fault tolerance policies into practice, or boosting system resilience.

ABOUT MISSOURI S&T

Designated as both a land-grant and space-grant institution, Missouri S&T has a rich academic tradition dating back to its founding in 1870 as the Missouri School of Mines and Metallurgy. The university currently enrolls over 7,000 students and is home to more than 350 faculty, many of whom are recognized as among the top two percent in their respective fields. Missouri S&T is frequently commended as a leading institution for career placement and return on investment and a top destination for engineering majors. The university counts around 60,000 living alumni, including world-famous astronauts, scientists, engineers, inventors and business leaders. One of four universities within the University of Missouri System, Missouri S&T also benefits from shared services, partnership agreements and other forms of collaboration with its peer institutions.

NATIONALLY RECOGNIZED

Today, Missouri S&T offers a unique constellation of comprehensive programs that build on the university's rich history and continue to benefit Missouri, the nation, and the global community. The university has received numerous accolades in recent years, including the following high rankings:

- **No. 1 public engineering school in Missouri** (U.S. News & World Report, 2025)
- **No. 2 public university in the U.S. for "Best Salaries"** (The Wall Street Journal and College Pulse, 2025)
- **No. 3 public university nationwide for career placement** (*Princeton Review, 2025*)
- **No. 17 public university for best value** (*Princeton Review, 2025*)

1 Missouri S&T offers diverse areas of study, from computing and engineering to arts, sciences, and education.

2 Missouri S&T was founded in 1870 as one of the first technological learning institutions west of the Mississippi River.

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