

# BUSINESS ADMINISTRATION

The business and information technology department offers a unique master of business administration (MBA). The MBA is a professional degree that combines core business knowledge with specialization tracks that include the newest technology trends, all in an environment of team based project work, business plan development, live simulations, and employer networking. In addition to influential presentation skills and advanced problem solving competencies, MBAs develop advanced strategic thinking skills that are required of the leaders of today and tomorrow.

## Financial Assistance

Financial assistance is available to graduate students in the form of assistantships and fellowships. Research opportunities for advanced students exist. For application forms, contact the department

## Additional Information

Contact us at 573-341-7216, bit@mst.edu or visit <http://bit.mst.edu>.

## Admissions Requirements

In addition to the requirements set by the office of admissions and the office of graduate studies, specific requirements for admission to the MBA program are as follows:

- Successful completion of an undergraduate degree from a recognized college or university with a GPA (grade point average or international equivalent) of 3.0/4.0 or better.
- Submission of scores from the Graduate Record Exam (GRE) or the Graduate Management Admissions Test (GMAT).
- TOEFL or IELTS scores must be submitted if English is not the candidate's natural language.

\*\*\*Please note that meeting the above requirements does not guarantee admission into the MBA program, but, rather, is used by the admissions committee in the decision-making process\*\*\*

## Degree Requirements

In today's business environment, management requires the ability to leverage information across business functions and knowledge across internal and external boundaries. Students work in teams on comprehensive business cases, live simulations and real company assigned projects throughout the MBA program.

The Missouri S&T MBA requires a total of 36 graduate credit hours (5000-level and above) and is offered in two (2) parts: the MBA Core (21 credits) and electives (15 credits). The MBA core classes include BUS 6121, BUS 6622, BUS 6723, BUS 6224, BUS 6425, BUS 6426, and BUS 6827. Courses below the 5000-level will not count toward the MBA degree, even if they are taken to fulfill prerequisites. A maximum of 6 credit hours may be taken outside the Business and Information Technology department, except where taking one of the approved Graduate Certificates listed below requires otherwise.

The business and information technology department offers a variety of graduate certificates. Each certificate program consists of four courses and is open to persons holding a bachelor's, master's or Ph.D degree in areas such as business, social sciences, technology, engineering, or related disciplines who have the required pre-requisites for the courses in the program. A student must maintain an average cumulative grade point

of 3.0 or better on a 4.0 scale in the certificate courses in order to receive the graduate certificate.

Students may apply to be admitted only to a graduate certificate program. If admitted, the student will have non-degree graduate status but will earn graduate credit for the courses completed. If a student completes the four graduate certificate courses with a grade of B or better in each of the courses taken, the student may be admitted to the master of business administration or to the master of science in information science and technology if the student so chooses. A student must, however, follow the normal application process and meet other program prerequisites. The graduate certificate credits will count toward the student's MBA or M.S. degree.

The current list of approved graduate certificates includes:

- AI, machine learning and automation in business
- Business analytics and data science
- Business intelligence
- Business project management
- Cybersecurity and information assurance management
- Digital media and web design
- Digital supply chain management
- Electronic and social commerce
- Enterprise resource planning
- Entrepreneurship and technological innovation
- Finance
- Financial Technology
- Human-computer interaction and user experience
- Information system project management
- Management and leadership
- Mobil business and technology
- Military construction management (offered by engineering management program)
- Military geological engineering (offered by geological sciences and engineering programs)

Additional graduate certificates may be approved for the department.

Details about some of the graduate certificates are listed below; others are listed in the information science and technology section of the catalog.

## Business Project Management

This certificate aims to equip students with a set of tools that will allow them to achieve Project Management Institute (PMI) standards in the project management area to successfully manage resources and to analyze, evaluate and improve complex projects. Specifically, the ability to:

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

- Organize and manage complex projects

A student admitted to this graduate certificate must complete four courses:

BUS 6425	Supply Chain and Project Management
BUS 6723	Artificial Intelligence, Robotics, and Information Systems Management
ENG MGT 5320	Project Management
ENG MGT 6322	Case Studies in Project Management

## Entrepreneurship and Technological Innovation

Change and growth in Missouri and America require the training, nourishing, and flourishing of entrepreneurs. Many college students, however, do not yet recognize the entrepreneurial spirit in themselves. Recent entrepreneurship research indicates that many of the skills and much of the knowledge of successful entrepreneurs can be developed and taught in the classroom. The department of business and information technology has created this certificate to spark the entrepreneurial spirit in the students of Missouri S&T, and provide them with a solid foundation on which to build.

To that end, the program focuses on the following competencies:

- Recognizing opportunity
- Assessing opportunity
- Planning under uncertainty
- Fostering innovations
- Mastering creativity
- Building and managing networks
- Leveraging resources
- Mitigating and managing risk
- Focus and adaptability
- Design thinking
- Implementing new ideas

A student admitted to this graduate certificate must complete four courses:

Required core courses:

BUS 5980	Business Models for Entrepreneurship and Innovation
BUS 6622	International Marketing
Two courses from the following list:	
IS&T 5168	Law and Ethics in E-Commerce
MKT 5310	Digital Marketing and Promotions
BUS 5580	Strategic Management
IS&T 5886	Prototyping Human-Computer Interactions
BUS 5150	Customer Focus and Satisfaction
IS&T 6251	Technological Innovation, Entrepreneurship, and Economic Development
IS&T 6654	Advanced Web Design and Digital Media Studies
IS&T 5335	Fundamentals of Mobile Technology for Business

## Finance

This certificate provides in-depth exposure to finance, including managerial and corporate finance, as well as investments and financial statement analysis and modeling. Skills will be enhanced in financial theory, financial markets, and decision-making in investments, with

career options as budget analysts/financial analysts, risk management specialists, capital advisors, and investment underwriters, among others.

A student admitted to this graduate certificate must complete four courses:

BUS 6827	Managerial Finance
Three courses from the following list:	
FINANCE 5160	Corporate Finance II
FINANCE 5260	Investments I
BUS 5230	Financial Statement Analysis
FINANCE 5310	Financial Technology and Analytics

## Financial Technology

This certificate deals with the aim of making financial systems more efficient. It exists at the intersection of information systems and finance. FinTech is a range of disruptive technological approaches within the money, market, marketplace, and financial infrastructure spheres. From cryptocurrencies and blockchain to enterprise software and asset management via robo-advisors, financial service functions are increasingly based on growing and innovative technology.

A student admitted to this certificate must complete four courses:

FINANCE 5310	Financial Technology and Analytics
IS&T 5420	Business Analytics and Data Science
One course from the following list:	
FINANCE 5160	Corporate Finance II
FINANCE 5260	Investments I
BUS 5230	Financial Statement Analysis
One course from the following list:	
IS&T 5520	Data Science and Machine Learning with Python
IS&T 6450	Information Visualization
BUS 6723	Artificial Intelligence, Robotics, and Information Systems Management
IS&T 6780	Adv Human and Organizational Factors in Cybersecurity
ERP 5210	Performance Dashboard, Scorecard and Data Visualization

## Management and Leadership

This certificate is designed to prepare students to be the leaders of the future, by enabling them to manage through the use of technology. Understanding technology is becoming ever more critical in business as a tool used by efficient and effective managers. These leaders not only understand the managerial process and how to inspire others, but also know how to harness technology to expedite the process. The certificate incorporates management theories, technological savvy, and leadership skills to create a student who is ready for the challenges of a fast paced managerial position.

A student admitted to this graduate certificate must complete four courses:

Required Core Course:

BUS 6121	Leadership
Elective courses (choose three):	
BUS 5580	Strategic Management
BUS 5111	Business Negotiations
BUS 5470	Human Resource Management
BUS 6425	Supply Chain and Project Management
BUS 6723	Artificial Intelligence, Robotics, and Information Systems Management
IS&T 6261	Advanced Information Systems Project Management
IS&T 5251	Management and Leadership of Technological Innovation

IS&T 5168	Law and Ethics in E-Commerce
MKT 5150	Customer Focus and Satisfaction
ENG MGT 5320	Project Management

**Langtao Chen**, Assistant Professor  
PHD Georgia State University  
Data analytics, human-computer interaction, social media, health informatics, machine learning, gameful design.

**Yu Hsien Chiu**, Teaching Professor  
MASTER University of Wisconsin-Milwaukee  
Enterprise resource planning, management information systems, business intelligence.

**Cecil Chua**, Associate Professor  
PHD Georgia State University

**Cassandra Carlene Elrod**, Associate Professor  
PHD University of Missouri-Rolla  
Marketing in higher education, operations management, supply chain management, continuous improvement, project management, quality, and lean enterprise.

**Li-Li Eng**, Associate Professor  
PHD University of Michigan Ann Arbor  
Financial and managerial accounting, international accounting.

**Hanqing Fang**, Assistant Professor  
PHD Mississippi State University

**Nobuyuki Fukawa**, Associate Professor  
PHD Louisiana State University  
Consumer behavior, marketing research, marketing strategy.

**Michael Gene Hilgers**, Professor  
PHD Brown University  
Modeling and simulation, leaning technologies, and human-computer interaction.

**Bih-Ru Lea**, Associate Professor  
PHD Clemson University  
Enterprise resource planning, performance dashboards, accounting information systems, data visualization, business process integration, and supply chain management.

**Yu Liu**, Assistant Professor  
PHD University of Oregon  
Empirical corporate finance, investment, OTC market, public finance, and political economics.

**Fiona Fui-Hoon Nah**, Professor  
PHD University of British Columbia  
Management information systems, E-commerce, mobile commerce, human-computer interaction.

**Keng Leng Siau**, Professor  
PHD University of British Columbia  
Artificial intelligence/machine learning, business intelligence/analytics, design science, mobile, and ubiquitous business.

**Sarah Margaret Stanley**, Associate Professor  
PHD Saint Louis University  
Brand relationships, advertising effectiveness, social marketing and its effects on consumer brand choice.

**Wen-Bin Yu**, Associate Professor  
PHD University of Louisville  
Business intelligence, text mining, data mining, demand forecasting, simulation, and agent bases systems.

**Hongxian Zhang**, Associate Professor  
PHD University of Texas at San Antonio  
Corporate finance, investments, public pension funds.

**Wangchuchu Zhao**, Specialist  
MS Missouri University of Science and Technology

**Cui Zou**, Specialist  
MS Missouri University of Science and Technology

**BUS 5000 Special Problems** (IND 0.0-6.0)  
Problems or readings on specific subjects or projects in the department.  
Prerequisite: Admission to the MBA program.

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**BUS 5001 Special Topics** (LEC 0.0-6.0)  
This is designed to give the department an opportunity to test a new course. Variable title.

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**BUS 5040 Oral Examination** (IND 0.0)  
After completion of all other requirements, oral examinations for on-campus M.B.A./Ph.D. students may be processed during intersession. Off-campus M.B.A. students must be enrolled in oral examination and must have paid an oral examination fee at the time defense/oral examination (oral/written). All other students must enroll for credit commensurate with uses made of facilities and/or faculties. In no case shall this be for less than three (3) semester hours for resident students.

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**BUS 5080 Practicum** (IND 0.0-6.0)  
This course is similar to the Bus 5085 Internship course. The difference is that this course is intended for students who are already employed by an organization for whom they wish to continue working. Prerequisite: Bus Core.

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**BUS 5085 Internship** (IND 0.0-6.0)  
Students apply critical thinking skills and discipline specific knowledge in a work setting based on a project designed by the advisor and employer. Activities will vary depending on the student's background and the setting. Requires major report and formal presentation to sponsoring organization. Prerequisite: Graduate standing.

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**BUS 5099 Research** (IND 0.0-9.0)  
Research investigation of an advanced nature leading to a major report suitable for publication in a journal or in a conference proceedings.  
Prerequisite: Permission of the instructor.

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**BUS 5105 Graduate Management and Business Law Essentials** (LEC 1.5)  
This course is an introduction to the essentials of management and business law for running a business. It's designed for students planning to enter the MBA program who need this area and for non-business students who want some business background. Credit cannot be applied to any major or minor in Business, IS&T, or Economics. Additional case study or report required. Prerequisite: Bachelor Degree.

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**BUS 5111 Business Negotiations** (LEC 3.0)

The purpose of this course is to understand the practices and processes of negotiation for negotiating successfully in a variety of settings. The course is designed to be relevant to the broad spectrum of negotiation problems faced by managers, consultants, etc. Because almost everyone negotiates all the time, this course is relevant to almost any student. Prerequisites: Junior standing or above.

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**BUS 5115 Introduction to Individual and Group Dynamics in Business** (LEC 3.0)

This course will cover contemporary theories of business leadership styles and group dynamics. Leadership theories, group dysfunction/function, positive group interactions, change impacts, the importance of business ethics as well as the role of gender and culture on the group will be examined.

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**BUS 5150 Customer Focus and Satisfaction** (LEC 3.0)

Major emphasis is given to the concept of customer focus, with coverage of techniques for obtaining customer needs, measuring customer satisfaction, developing products and services to satisfy customers, and maximizing the benefits of customer feedback. A semester long HoQ project will be done. Prerequisites: Mkt 3110 or Mkt 3105 or Eng Mgt 3510. (Co-listed MKT 5150).

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**BUS 5205 Graduate Accounting Essentials** (LEC 1.5)

This course is an introduction to the essentials of financial and managerial accounting for running a business. It's designed for students planning to enter the MBA program who need this area and for non-business students who want some business background. Credit cannot be applied to any major or minor in Business, IS&T, or Economics. Additional case or report required. Prerequisite: Bachelor Degree.

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**BUS 5230 Financial Statement Analysis** (LEC 3.0)

Analysis and interpretation of financial statements for profitability analysis, credit analysis, and other business analyses that rely on financial data. Introduces emerging roles of accounting analytics. Illustrates data analytics concepts and techniques to detect earning management, predict fraud, and to provide insights into other business strategies. Prerequisite: BUS 1210 or graduate standing and financial accounting knowledge.

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**BUS 5305 Graduate Operations Management Essentials** (LEC 1.5)

This course is an introduction to the essentials of operations management for running a business. It is designed for students planning to enter the MBA program who need this area and for non-business students who want some business background. Credit cannot be applied to any major or minor in Business, IS&T, or Economics. Additional case study or report required. Prerequisite: Bachelor Degree.

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**BUS 5360 Business Operations** (LEC 3.0)

This course examines the concepts, processes, and institutions that are fundamental to an understanding of business operations within organizations. Emphasis is on the management and organization of manufacturing and service operations and the application of quantitative methods to the solution of strategic, tactical and operational problems. Prerequisites: BUS 1210 or ENG MGT 2211; at least Junior standing; and one of the following: STAT 1111, STAT 1115, STAT 3111, STAT 3113, STAT 3115, or STAT 3117.

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**BUS 5470 Human Resource Management** (LEC 3.0)

The course examines employee selection, performance appraisal, training and development, compensation, legal issues, and labor relations. Prerequisite: Bus 1110.

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**BUS 5580 Strategic Management** (LEC 3.0)

Study of the formulation and implementation of corporate, business and functional strategies designed to achieve organizational objectives. Case studies and research reports may be used extensively. Prerequisites: MKT 3110 or Eng Mgt 3510; Finance 2150 or Eng Mgt 3200; Senior standing.

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**BUS 5705 Graduate Management Information Systems Essentials** (LEC 1.5)

This course is an introduction to the essentials of management information systems for running a business. It is designed for students planning to enter the MBA program. Credit in this course cannot be applied to any major or minor in Business, IS&T, or Economics. Additional case or report required. Prerequisite: Bachelor Degree.

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**BUS 5730 Machine Learning and Artificial Intelligence for Business** (LEC 3.0)

Explores various approaches to machine learning and artificial intelligence, along with their numerous applications in business. Describes some of the many technological approaches to business problems that are considered part of machine learning and artificial intelligence, such as neural networks and deep learning. Prerequisites: IS&T 1750; or Graduate Standing, understanding of management information systems.

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**BUS 5805 Graduate Mathematics and Statistics Essentials** (LEC 1.5)

This course is an introduction to the essentials of mathematics and statistics for running a business. It is designed for students planning to enter the MBA program who need this area and for non-business students who want some business background. Credit cannot be applied to any major or minor in Business, IS&T, or Economics. Additional case study or report required. Prerequisite: Bachelor Degree.

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**BUS 5896 Project Research** (IND 0.0-9.0)

The research project will involve students applying research techniques and discipline specific knowledge working on a project designed by the advisor, often working with a business organization. Requires major report and formal presentation to sponsoring organization. Prerequisite: Permission of the instructor.

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**BUS 5910 Privacy and Information Security** (LEC 3.0)

Explores issues concerning the use, disclosure, and protection of information (personal, organizational, health, and financial) from a legal perspective. A focus on understanding, planning, protecting, and responding to data breaches and other information risk and threats. Case studies based on litigation are reviewed and analyzed. Assumes MIS familiarity.

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**BUS 5980 Business Models for Entrepreneurship and Innovation** (LEC 3.0)

This course uses problem based learning to expand student insight into the nature, development, and application of business models. It increases the practical skills and knowledge required to generate original models of value creation for both entrepreneurial start-ups and corporate innovation. Prerequisite: Senior or graduate standing.

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**BUS 6000 Special Problems** (IND 0.0-6.0)

Problems or readings on specific subjects or projects in the department.

Prerequisite: Admission to the MBA program.

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**BUS 6001 Special Topics** (IND 0.0-6.0)

This is designed to give the department an opportunity to test a new course. Variable title.

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**BUS 6099 Research** (IND 0.0-9.0)

Research investigation of an advanced nature leading to a major report suitable for publication in a journal or in a conference proceedings.

Prerequisite: Permission of the instructor.

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**BUS 6111 Advanced Business Negotiations** (LEC 3.0)

The purpose of this course is to understand the practices and processes of negotiation for negotiating successfully in a variety of settings. The course is designed to be relevant to the broad spectrum of negotiation problems faced by managers, consultants, etc. A negotiation project is also required. Prerequisite: Graduate status.

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**BUS 6121 Leadership** (LEC 3.0)

This class will explore leadership challenges, tactics, and strategies for working within, and leading, teams and organizations. Management, networking, presentation skills, and sustainable business practices will be covered. MBA core. Prerequisites: Graduate standing.

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**BUS 6150 Advanced Customer Focus and Satisfaction** (LEC 3.0)

Major emphasis is given to the concept of customer focus, with coverage of techniques for obtaining customer needs, measuring customer satisfaction, developing products and services to satisfy customers, and maximizing the benefits of customer feedback. Individual focused research is included. Prerequisites: MKT 3110 or MKT 3105 or ENG MGT 3510. (Co-listed MKT 6150).

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**BUS 6224 Managerial Accounting and Control** (LEC 3.0)

This course covers managerial accounting and its critical role in decision making, monitoring, and controlling business processes. MBA core.

Prerequisite: Graduate standing.

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**BUS 6425 Supply Chain and Project Management** (LEC 3.0)

This course covers supply chain management and its critical role in developing and maintaining effective and efficient processes in the organization, including operations and project management processes and principles. MBA core. Prerequisite: Graduate standing.

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**BUS 6426 Integration of Business Areas** (LEC 3.0)

Students will acquire knowledge to integrate the business functions to maximize performance efficiency and effectiveness. It will be covered through case studies and readings. MBA core. Prerequisite: Graduate standing.

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**BUS 6622 International Marketing** (LEC 3.0)

This course focuses on the challenges faced by business managers as they deal with a competitive global market. The course will examine various topics related to international marketing such as cultural differences, economic differences, differences in product and technical standards, global advertising, and international pricing and segmentation. MBA core. Prerequisite: Graduate standing.

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**BUS 6675 Advanced International Business** (LEC 3.0)

Business concepts, analytical processes and philosophical bases for international business operations. Emphasis is on environmental dynamics, multinational business organizations, cultural and economic constraints, unique international business practices and international operations, strategy and policy. Research project required. Prerequisites: MKT 3110 or MKT 5105 or Eng Mgt 3510.

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**BUS 6723 Artificial Intelligence, Robotics, and Information Systems Management** (LEC 3.0)

The course, designed for business executives, covers management of information to revitalize business processes, improve business decision-making, embrace emerging and disruptive technologies, and gain competitive advantages. The course also covers implications of AI, automation, machine learning, and robotics on business and society. MBA core. Prerequisite: Graduate standing. (Co-listed with IS&T 6723).

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**BUS 6827 Managerial Finance** (LEC 3.0)

This course covers the use of financial tools to manage the organization. The main focus is the strategic decision-making process of modern managers responsible for major financial decisions. Topics include financial policy, capital investment analysis, dividend policy, capital structure, and other contemporary corporate finance issues. MBA core. Prerequisite: Graduate standing.

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**BUS 6887 Research Methods in Business and IS&T** (LEC 3.0)

This course covers quantitative and qualitative research methods for exploring the interaction between people and information technologies. The course covers techniques and tools for carrying out literature reviews, forming research goals, designing research, conducting data analyses; and preparing manuscripts and live presentations. (Co-listed with IS&T 6887).

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