

MANAGEMENT

Home Department: School of Management

Room 4-304 AB

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PROGRAM OVERVIEW

The Bachelor of Science in Management (BSM) degree is focused on developing technology-savvy business leaders of the future.

In order to accomplish our mission, the School of Management must focus on producing effective managers who are thought leaders and societal force for good. The BSM coupled with the cooperative education model will train students to utilize business knowledge to make insightful management decisions.

The Bachelor of Science in Management curriculum is a unique combination of management and business-related courses and technical disciplines that creates an intersection of business and STEM by design. The objective of this program is to prepare graduates for leadership roles in business organizations through a rigorous common core and customized concentrations built around student interests. Integration of project-based instruction and cooperative industrial experience prepares students for the management challenges of increasingly complex business environments.

The program provides the skills necessary for students to apply their multi-disciplinary education to the solution of challenging problems in the multifaceted world of modern business. The courses are orchestrated toward the management application of knowledge, not a mere understanding of functional skills.

BSM PROGRAM LEARNING OUTCOMES

Students should be able to:

- Effectively analyze complex and ambiguous business problems from a variety of perspectives to arrive at value creating solutions.
- Identify and use relevant technology for solving contemporary problems and be able to describe the potential direction of technological developments.
- Work in teams to investigate opportunities and solve problems.
- Communicate to diverse stakeholders through professional written, oral, and presentation skills.
- Demonstrate an appreciation of the importance of diversity, equity and inclusion on interpersonal, organizational, and societal interactions and outcomes.
- Acquire the knowledge, skills and abilities required to address problems faced by business and society.
- Effectively transfer learned theoretical frameworks, business constructs, tools, and behaviors from the classroom to professional practice.

CONCENTRATIONS

The BSM program gives students the unique opportunity to **Be Job Ready on Day 1** by providing them with the management and leadership skills through experiencing business in classroom and coop rotational engagements to make their dreams real, whether that is aspiring to a c-suite position or becoming an entrepreneur by starting their own

business. As students navigate through the management program including core courses, they will choose from a wide array of electives that form a concentration denoting an area of particular focus.

TECHNOLOGY LEADERSHIP

The Technology Leadership Concentration is comprised of four approved electives that may include courses from Mechanical Engineering, Electrical and Computer Engineering, Industrial and Manufacturing Engineering, Chemistry, Biology, and Computer Science.

BUSINESS ANALYTICS

The Business Analytics Concentration is comprised of four approved electives that may include courses from Computer Science, Industrial & Manufacturing Engineering, Liberal Studies, and Management.

SUPPLY CHAIN AND LOGISTICS MANAGEMENT

The Supply Chain and Logistics Management Concentration is comprised of four approved electives that may include courses from Industrial and Manufacturing Engineering and Business.

SUSTAINABILITY MANAGEMENT

The Sustainable Solutions for Enterprise Concentration is comprised of four approved electives that may include courses from Social Sciences, Biology, Chemistry, and Business.

INNOVATION AND ENTREPRENEURSHIP

The Innovation and Entrepreneurship Concentration is comprised of four approved electives that may include courses from Business, Economics, and Engineering.

STUDY ABROAD

The BSM offers a range of international educational opportunities, including the option to study abroad. Management students wishing to study abroad have the opportunity to attend classes held in English at partner universities in Austria, Germany and South Korea. The program is one term in length, normally the Senior 1(SR1) term. Students interested in studying abroad need to make their decision no later than the Junior 1 (JR1) term and discuss their intentions with their academic advisor. Additional information is available from the School of Management and the Kettering University Office of International Programs.

ACCREDITATION

The BSM program is accredited by the Association of Collegiate Business Schools and Programs (ACBSP).

Management Program Curriculum Requirements

Code	Title	Credit Hours
First Year Experience		
CILE-101	First Year Foundations	1
General Education		
COMM-101	Rhetoric & Writing	4
ECON-201	Economic Principles	4
200-level Liberal Arts Electives		8
LA-489	Senior Seminar: Leadership, Ethics, and Contemporary Issues	4
Advanced Humanities Electives ¹		4
Advanced Social Science Electives ¹		4

Advanced Humanities or Social Science Elective ¹	4	CE-452	Artificial Intelligence for Autonomous Driving	
Total Credit Hours	33	CE-454	Computer Vision for Autonomous Driving	
¹ Humanities and Social Science advanced electives must be selected from approved 300 and 400 level courses.		CE-472	VR Systems: Modeling & Control	
		CE-484	Internet of Things (IoT)	
Code	Title	Credit Hours		
Engineering, Mathematics and Science				
MATH-101 or MATH-101X	Calculus I	4	ECE-101	MATLAB and C Programming
	Calculus I		IME-200	Introduction to Industrial Engineering
Basic Science Elective		4	IME-403	Computer Numerical Control Machining
			IME-408	Industrial Robotics
			IME-463	Safety and Human Factors
			IME-465	Human-Computer Interaction and Interface Design
			IME-471	Quality Control
			IME-476	Lean Six Sigma
			IME-499	Industrial Engineering Independent Study
Management Core				
IME-100	Interdisciplinary Design and Manufacturing	4	MECH-427	Energy and the Environment
IME-211	Algorithms and Computer Programming	4	Business Analytics (approved electives from the following list or others with approval from advisor)	
BUSN-103	Introduction to Marketing	4	BUSN-456	Database Management Systems
MGMT-104	Management Concepts	4	COMM-401	Communicating about Data
BUSN-152	Information Systems	4	CS-101	Computing & Algorithms I
MGMT-205	Organizational Behavior	4	CS-102	Computing & Algorithms II
BUSN-221	Financial Accounting	4	CS-231	Programming Language Paradigms
BUSN-222	Managerial Accounting	4	CS-300	The Computing Professional
BUSN-271	Statistics for Business	4	CS-341	Modern Web Applications
BUSN-312	Management Science	4	CS-351	Cloud Computing
MGMT-313	Marketing Research	4	CS-355	Introduction to Cybersecurity
BUSN-331	Financial Management	4	CS-441	Foundations of Data Science
MGMT-314	Financial Statement Analysis	4	CS-461	Database Systems
MGMT-315	Operations and Supply Chain Management	4	CS-481	Artificial Intelligence
ECON-342	Intermediate Microeconomics: Managerial Economics	4	IME-211	Algorithms and Computer Programming
or ECON-344	Intermediate Macroeconomics: Economic Growth and Fluctuation		MGMT-423	Data Analytics
BUSN-371	Business Analytics	4	MGMT-424	Data Visualization
BUSN-402	Business Law	4	MGMT-425	Digital Strategy and Competitive Advantage
MGMT-419	Project Management	4	Supply Chain and Logistics Management (approved electives from the following list or others with approval from advisor)	
BUSN-459	International Business	4	BUSN-421	Lean Operations Management
MGMT-465	Strategic Management	4	BUSN-456	Database Management Systems
MGMT-479	Leadership	4	IME-321	Operations Research - Deterministic Models
MGMT-484	Business Consulting Project	4		
			IME-351	Engineering Economics
			IME-361	Lean Work Design
			IME-452	Production System Design
			IME-453	Supply Chain Design
			IME-476	Lean Six Sigma
Electives				
Business Electives: any business course for which the student has the prerequisites	4	Sustainability Management (approved electives from the following list or others with approval from advisor)		
Free Electives: any course for which the student has the prerequisites	8	BIOL-311	Ecology	
In consultation with your advisor, select one of the following concentrations (each concentration is comprised of four electives approved by the advisor):	16	MECH-427	Energy and the Environment	
Technology Leadership (approved electives from the following list or others with approval from advisor)		MECH-428	Bio and Renewable Energy	
CE-442	Mobile Robotics			
CE-450	App Dvelpmnt for Mobile Devices			

SSCI-314	Technology and Sustainable Development	Junior I	
Innovation and Entrepreneurship (approved electives from the following list or others with approval from advisor)		BUSN-312	Management Science 4
BUSN-303	New Venture Creation: Entrepreneurship	BUSN-331	Financial Management 4
BUSN-304	Innovation Development	MGMT-313	Marketing Research 4
BUSN-321	Entrepreneurial Thinking	Business Elective	4
BUSN-429	Entrepreneurial Finance	Credit Hours	
BUSN-433	Strategic Investment Mgmt	Junior II	
ECON-352	International Economics	BUSN-371	Business Analytics 4
ECON-499	Economics Independent Study	200-level Liberal Arts Elective	4
IME-414	Design for Manufacturing and Assembly	MGMT-314	Financial Statement Analysis 4
Culminating Undergraduate Experience		MGMT-315	Operations and Supply Chain Management 4
CILE-400	Undergraduate Thesis Initiation and Undergraduate Thesis Completion 1	Approved Concentration Elective	4
<i>Credit Hours Subtotal:</i>		Credit Hours	
(Minimum) Total Credits Required for Program: 161			

¹ Students are automatically registered for CILE-400 in a co-op term when they reach Junior II status.

Representative Program

Course	Title	Credit Hours	Credit Hours	20
Freshman I			Senior I	
CILE-101	First Year Foundations	1	BUSN-402	Business Law 4
BUSN-103	Introduction to Marketing	4	MGMT-419	Project Management 4
COMM-101	Rhetoric & Writing	4	MGMT-479	Leadership 4
IME-100	Interdisciplinary Design and Manufacturing	4	Advanced Humanities or Social Science Elective	4
IME-211	Algorithms and Computer Programming	4	Approved Concentration Elective	4
Credit Hours		Credit Hours		
Freshman II		17	Senior II	
BUSN-152	Information Systems	4	ECON-342 or ECON-344	Intermediate Microeconomics: Managerial Economics or Intermediate Macroeconomics: Economic Growth and Fluctuation 4
MATH-101	Calculus I	4	BUSN-459	International Business 4
MGMT-104	Management Concepts	4	MGMT-465	Strategic Management 4
Science Elective		4	Approved Concentration Elective	4
Credit Hours		Credit Hours		20
Sophomore I			Senior III	
BUSN-221	Financial Accounting	4	LA-489	Senior Seminar: Leadership, Ethics, and Contemporary Issues 4
200-level Liberal Arts Elective		4	MGMT-484	Business Consulting Project 4
MGMT-205	Organizational Behavior	4	Advanced Humanities or Social Science Elective	4
Free Elective		4	Approved Concentration Elective	4
Credit Hours		Credit Hours		16
Sophomore II			Any Term	
BUSN-222	Managerial Accounting	4	CILE-400 & CILE-401	Undergraduate Thesis Initiation and Undergraduate Thesis Completion 4
BUSN-271	Statistics for Business	4	Credit Hours	
ECON-201	Economic Principles	4	Total Credit Hours	
Free Elective		4	(Minimum) Total Credits Required for Program: 161	
Credit Hours		16		