

# 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:

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

## CONCENTRATIONS

The BSM gives students the unique opportunity to **Be Job Ready on Day 1** by providing them with the management and leadership skills 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
<b>First Year Experience</b>		
CILE-101	First Year Foundations	1
<b>General Education</b>		
COMM-101	Rhetoric & Writing	4
ECON-201	Economic Principles	4
LA-201	Sophomore Seminar: Exploring the Human Condition	4
LA-489	Sr. Seminar: Leadership, Ethics	4
Advanced Humanities Electives <sup>1</sup>		8

Advanced Social Science Electives <sup>1</sup>	8
<b>Total Credit Hours</b>	<b>33</b>

<sup>1</sup> Humanities and Social Science advanced electives must be selected from approved 300 and 400 level courses.

Code	Title	Credit Hours
<b>Engineering, Mathematics and Science</b>		
MATH-101	Calculus I	4
or MATH-101X	Calculus I	
Basic Science Elective		4
<i>Credit Hours Subtotal:</i>		<i>8</i>
<b>Management Core</b>		
IME-100	Interdisciplinary Design and Manufacturing	4
IME-211	Algorithms and Computer Programming	4
BUSN-103	Introduction to Marketing	4
MGMT-104	Management Concepts	4
BUSN-152	Information Systems	4
MGMT-205	Organizational Behavior	4
BUSN-221	Financial Accounting	4
BUSN-222	Managerial Accounting	4
BUSN-271	Statistics for Business	4
BUSN-312	Management Science	4
MGMT-313	Marketing Research	4
BUSN-331	Financial Management	4
MGMT-314	Financial Statement Analysis	4
MGMT-315	Operations and Supply Chain Management	4
ECON-342	Intermediate Microeconomics: Managerial Economics	4
or ECON-344	Intermediate Macroeconomics: Economic Growth and Fluctuation	
BUSN-371	Business Analytics	4
BUSN-402	Business Law	4
MGMT-419	Project Management	4
BUSN-459	International Business	4
MGMT-465	Strategic Management	4
MGMT-479	Leadership	4
MGMT-484	Business Consulting Project	4
<i>Credit Hours Subtotal:</i>		<i>88</i>
<b>Electives</b>		
Business Electives: any business course for which the student has the prerequisites		4
Free Electives: any course for which the student has the prerequisites		8
In consultation with your advisor, select one of the following concentrations (each concentration is comprised of four electives approved by the advisor):		16
<b>Technology Leadership (approved electives from the following list or others with approval from advisor)</b>		
CE-442	Mobile Robotics	
CE-450	App Dvelpmt for Mobile Devices	

CE-452	Artificial Intelligence for Autonomous Driving
CE-454	Computer Vision for Autonomous Driving
CE-472	VR Systems: Modeling & Control
CE-484	Internet of Things (IoT)
ECE-101	MATLAB and C Programming
IME-200	Introduction to Industrial Engineering
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
MECH-100	Engineering Graphical Communication
MECH-427	Energy and the Environment
<b>Business Analytics (approved electives from the following list or others with approval from advisor)</b>	
BUSN-456	Database Management Systems
COMM-401	Communicating about Data
CS-101	Computing & Algorithms I
CS-102	Computing & Algorithms II
CS-231	Programming Language Paradigms
CS-300	The Computing Professional
CS-341	Web Software Tools
CS-351	Cloud Computing
CS-355	Introduction to Cybersecurity
CS-441	Foundations of Data Science
CS-461	Database Systems
CS-481	Artificial Intelligence
IME-211	Algorithms and Computer Programming
MGMT-423	Data Analytics
MGMT-424	Data Visualization
MGMT-425	Digital Strategy and Competitive Advantage
<b>Supply Chain and Logistics Management (approved electives from the following list or others with approval from advisor)</b>	
BUSN-421	Lean Operations Management
BUSN-456	Database Management Systems
IME-321	Operations Research - Deterministic Models
IME-351	Engineering Economics
IME-361	Lean Work Design
IME-452	Production System Design
IME-453	Supply Chain Design
IME-476	Lean Six Sigma
<b>Sustainability Management (approved electives from the following list or others with approval from advisor)</b>	
BIOL-311	Ecology
MECH-427	Energy and the Environment
MECH-428	Bio and Renewable Energy

SSCI-314	Technology and Sustainable Development	
<b>Innovation and Entrepreneurship (approved electives from the following list or others with approval from advisor)</b>		
BUSN-303	New Venture Creation: Entrepreneurship	
BUSN-304	Innovation Development	
BUSN-321	Entrepreneurial Thinking	
BUSN-429	Entrepreneurial Finance	
BUSN-433	Strategic Investment Mgmt	
ECON-352	International Economics	
ECON-499	Economics Independent Study	
IME-474	Design for Manufacture and Assembly	
<b>Culminating Undergraduate Experience</b>		
CILE-400	Culminating Undergraduate Experience: Thesis <sup>1</sup>	4
<i>Credit Hours Subtotal:</i>		32

**(Minimum) Total Credits Required for Program: 161**

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

## Representative Program

Course	Title	Credit Hours
<b>Freshman I</b>		
CILE-101	First Year Foundations	1
COMM-101	Rhetoric & Writing	4
BUSN-103	Introduction to Marketing	4
IME-211	Algorithms and Computer Programming	4
IME-100	Interdisciplinary Design and Manufacturing	4
<b>Credit Hours</b>		<b>17</b>
<b>Freshman II</b>		
MATH-101	Calculus I	4
MGMT-104	Management Concepts	4
BUSN-152	Information Systems	4
Science Elective		4
<b>Credit Hours</b>		<b>16</b>
<b>Sophomore I</b>		
LS-201	Sophomore Seminar: Exploring the Human Condition	4
MGMT-205	Organizational Behavior	4
BUSN-221	Financial Accounting	4
Free Elective		4
<b>Credit Hours</b>		<b>16</b>
<b>Sophomore II</b>		
ECON-201	Economic Principles	4
BUSN-222	Managerial Accounting	4
BUSN-271	Statistics for Business	4
Free Elective		4
<b>Credit Hours</b>		<b>16</b>

<b>Junior I</b>		
BUSN-312	Management Science	4
MGMT-313	Marketing Research	4
BUSN-331	Financial Management	4
Business Elective		4
<b>Credit Hours</b>		<b>16</b>

<b>Junior II</b>		
MGMT-314	Financial Statement Analysis	4
MGMT-315	Operations and Supply Chain Management	4
BUSN-371	Business Analytics	4
Approved Concentration Elective		4
Advanced Communications Elective		4
<b>Credit Hours</b>		<b>20</b>

<b>Senior I</b>		
BUSN-402	Business Law	4
MGMT-419	Project Management	4
MGMT-479	Leadership	4
Advanced Social Science Elective		4
Approved Concentration Elective		4
<b>Credit Hours</b>		<b>20</b>

<b>Senior II</b>		
ECON-342 or ECON-344	Intermediate Microeconomics: Managerial Economics or Intermediate Macroeconomics: Economic Growth and Fluctuation	4
BUSN-459	International Business	4
MGMT-465	Strategic Management	4
Approved Concentration Elective		4
Advanced Humanities Elective		4
<b>Credit Hours</b>		<b>20</b>

<b>Senior III</b>		
LS-489	Senior Seminar: Leadership, Ethics, and Contemporary Issues	4
MGMT-484	Business Consulting Project	4
Advanced Communications, Humanities or Social Science Elective		4
Approved Concentration Elective		4
<b>Credit Hours</b>		<b>16</b>

<b>Any Term</b>		
CILE-400	Culminating Undergraduate Experience: Thesis	4
<b>Credit Hours</b>		<b>4</b>
<b>Total Credit Hours</b>		<b>161</b>

**(Minimum) Total Credits Required for Program: 161**