What is Management Information Systems?

Management information systems lie at the intersection of business intelligence and computer programming. MIS managers apply information technology in ways that improve the efficiency and effectiveness of organizational decision-making and enterprise-wide management. This ability to save an organization time, money, and frustration by harnessing the usefulness of big data positions MIS managers to become valued members of a leadership team.

You Might Like This Program If...

- Your career interests intersect at “business” and “technology.”
- You are equally curious about accounting and coding and economics and database management.
- You are interested in pursuing concurrent education in enterprise resource planning (ERP) with SAP or Oracle.

Entrance to Major

Entry to the Management Information Systems major requires successful completion of 5 entry-to-major courses: ACCTG 211, ECON 102, ENGL 15 or ENGL 30, MATH 110 or MATH 140, STAT 200 or SCM 200. Each course requires a C or better grade for successful completion.

Degree Requirements

For the Bachelor of Science degree in Management Information Systems, a minimum of 120 credits is required:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education</td>
<td>45</td>
</tr>
<tr>
<td>Requirements for the Major</td>
<td>96-97</td>
</tr>
</tbody>
</table>

21 of the 45 credits for General Education are included in the Requirements for the Major. This includes: 6 credits of GQ courses; 6 credits of GS courses; 9 credits of GWS courses.

Per Senate Policy 83.80.5, the college dean or campus chancellor and program faculty may require up to 24 credits of coursework in the major to be taken at the location or in the college or program where the degree is earned.

General Education

Connecting career and curiosity, the General Education curriculum provides the opportunity for students to acquire transferable skills necessary to be successful in the future and to thrive while living in interconnected contexts. General Education aids students in developing intellectual curiosity, a strengthened ability to think, and a deeper sense of aesthetic appreciation. These are requirements for all baccalaureate students and are often partially incorporated into the requirements of a program. For additional information, see the General Education Requirements (http://bulletins.psu.edu/undergraduate/general-education/baccalaureate-degree-general-education-program/) section of the Bulletin and consult your academic adviser.

The keystone symbol appears next to the title of any course that is designated as a General Education course. Program requirements may also satisfy General Education requirements and vary for each program.
Management Information Systems, B.S. (Behrend)

Foundations (grade of C or better is required.)

- Quantification (GQ): 6 credits
- Writing and Speaking (GWS): 9 credits

Knowledge Domains

- Arts (GA): 6 credits
- Health and Wellness (GHW): 3 credits
- Humanities (GH): 6 credits
- Social and Behavioral Sciences (GS): 6 credits
- Natural Sciences (GN): 9 credits

Integrative Studies (may also complete a Knowledge Domain requirement)

- Inter-Domain or Approved Linked Courses: 6 credits

University Degree Requirements

First Year Engagement

All students enrolled in a college or the Division of Undergraduate Studies at University Park, and the World Campus are required to take 1 to 3 credits of the First-Year Seminar, as specified by their college First-Year Engagement Plan.

Other Penn State colleges and campuses may require the First-Year Seminar; colleges and campuses that do not require a First-Year Seminar provide students with a first-year engagement experience.

First-year baccalaureate students entering Penn State should consult their academic adviser for these requirements.

Cultures Requirement

6 credits are required and may satisfy other requirements

- United States Cultures: 3 credits
- International Cultures: 3 credits

Writing Across the Curriculum

3 credits required from the college of graduation and likely prescribed as part of major requirements.

Total Minimum Credits

A minimum of 120 degree credits must be earned for a baccalaureate degree. The requirements for some programs may exceed 120 credits. Students should consult with their college or department adviser for information on specific credit requirements.

Quality of Work

Candidates must complete the degree requirements for their major and earn at least a 2.00 grade-point average for all courses completed within their degree program.

Limitations on Source and Time for Credit Acquisition

The college dean or campus chancellor and program faculty may require up to 24 credits of course work in the major to be taken at the location or in the college or program where the degree is earned. Credit used toward degree programs may need to be earned from a particular source or within time constraints (see Senate Policy 83-80 (http://senate.psu.edu/policies-and-rules-for-undergraduate-students/82-00-and-83-00-degree-requirements/#83-80)). For more information, check the Suggested Academic Plan for your intended program.

Requirements for The Major

Each student must earn at least a grade of C in each 300- and 400-level course in the major field.

To graduate, a student enrolled in the major must earn a grade of C or better in each course designated by the major as a C-required course, as specified by Senate Policy 82-44 (http://senate.psu.edu/policies-and-rules-for-undergraduate-students/82-00-and-83-00-degree-requirements/#82-44).

Common Requirements for the Major (All Options)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA 241</td>
<td>Legal Environment of Business</td>
<td>2</td>
</tr>
<tr>
<td>BA 242</td>
<td>Social and Ethical Environment of Business</td>
<td>2</td>
</tr>
<tr>
<td>ECON 104</td>
<td>Introductory Macroeconomic Analysis and Policy</td>
<td>3</td>
</tr>
<tr>
<td>MIS 204</td>
<td>Introduction to Management Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>PSU 7</td>
<td>First-Year Seminar Behrend</td>
<td>1</td>
</tr>
</tbody>
</table>

Prescribed Courses: Require a grade of C or better

ACCTG 211 | Financial and Managerial Accounting for Decision Making | 4       |
CAS 100   | Effective Speech                                          | 3       |
ECON 102  | Introductory Microeconomic Analysis and Policy            | 3       |
FIN 301   | Corporation Finance                                      | 3       |
MGMT 301  | Basic Management Concepts                                 | 3       |
MGMT 410  | Project Management                                       | 3       |
MGMT 471W | Strategic Management and Business Policy                  | 3       |
MIS 336   | Database Management Systems                               | 3       |
MIS 430   | Systems Analysis                                          | 3       |
MIS 495   | Internship                                                | 3       |
MKTG 301  | Principles of Marketing                                   | 3       |
SCM 301   | Supply Chain Management                                   | 3       |

Additional Courses

Additional Courses: Require a grade of C or better

ENGL 15   | Rhetoric and Composition                                  | 3       |
or ENGL 30 |

ENGL 202C | Effective Writing: Technical Writing                      | 3       |
or ENGL 202D | Effective Writing: Business Writing                  |

MATH 110  | Techniques of Calculus I                                  | 4       |
or MATH 140 | Calculus With Analytic Geometry I                     |

SCM 200   | Introduction to Statistics for Business                  | 4       |
or STAT 200 | Elementary Statistics                                    |

Select one of the following:

ECON 470 | International Trade and Finance                           | 3       |
FIN 471   | International Finance                                     |         |
IB 303    | International Business Operations                         |         |
MGMT 461  | International Management                                  |         |
MKTG 445  | Global Marketing                                          |         |

Other 300-400-level international business courses

Requirements for the Option

Select an option

31-32
Requirements for the Option
Business Analyst Option (31 credits)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prescribed Courses: Require a grade of C or better</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIS 387</td>
<td>Website Design and Administration</td>
<td>3</td>
</tr>
<tr>
<td>MIS 404</td>
<td>Introduction to ERP and Business Processes</td>
<td>3</td>
</tr>
<tr>
<td>MIS 445</td>
<td>Business Intelligence</td>
<td>4</td>
</tr>
</tbody>
</table>

Additional Courses: Require a grade of C or better
Select 3 credits in any approved programming course 3
Select 12 to 15 credits of 300- or 400-level MIS or business supporting courses 12-15

Supporting Courses and Related Areas
Select 3 to 6 credits from any business major field or any non-business major course, except for all KINES (GHW) courses, any ENGL course below ENGL 15, and any MATH course below MATH 110. Exceptions may be petitioned through the applicable department chair.

1 The Supporting Courses Requirements will support students who want to earn a concurrent major (such as Project and Supply Chain Management) or choose to complete a minor or a certificate in another field. Students will be advised and encouraged to develop a distinctive competency in a related field such as Marketing or Business Economics that will differentiate them upon graduation. This section also gives students flexibility to pursue coursework outside of the Black School of Business (i.e. Communication or other areas of interest). Students are strongly encouraged to discuss their options with their academic adviser.

Data Analyst Option (31 credits)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prescribed Courses: Require a grade of C or better</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIS 345</td>
<td>Introduction to Data Analytics</td>
<td>3</td>
</tr>
<tr>
<td>MIS 445</td>
<td>Business Intelligence</td>
<td>4</td>
</tr>
<tr>
<td>MIS 447</td>
<td>Data Warehousing</td>
<td>3</td>
</tr>
</tbody>
</table>

Additional Courses: Require a grade of C or better
Select 3 credits in any approved programming course 3
Select 3 credits of 300- or 400-level MIS or business supporting courses 3

Supporting Courses and Related Areas
Select 6 credits from any business major field or any non-business major course, except for all KINES (GHW) courses, any ENGL course below ENGL 15, and any MATH course below MATH 110. Exceptions may be petitioned through the applicable department chair.

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Systems Analyst Option (31-32 credits)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prescribed Courses: Require a grade of C or better</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIS 435</td>
<td>Systems Design and Implementation</td>
<td>4</td>
</tr>
</tbody>
</table>

Additional Courses: Require a grade of C or better
Select 6-7 credits in any approved courses 6-7
Select 9 credits of 300- or 400-level courses in Computer Science or MIS in consultation with academic adviser 6-9

Supporting Courses and Related Areas
Select 3 to 6 credits from any business major field or any non-business major course, except for all KINES (GHW) courses, any ENGL course below ENGL 15, and any MATH course below MATH 110. Exceptions may be petitioned through the applicable department chair.

1 The Supporting Courses Requirements will support students who want to earn a concurrent major (such as Project and Supply Chain Management) or choose to complete a minor or a certificate in another field. Students will be advised and encouraged to develop a distinctive competency in a related field such as Marketing or Business Economics that will differentiate them upon graduation. This section also gives students flexibility to pursue coursework outside of the Black School of Business (i.e. Communication or other areas of interest). Students are strongly encouraged to discuss their options with their academic adviser.

Program Learning Objectives

Critical and Integrative Thinking:

1. Students will be able to think critically by actively considering different points of view and utilize an integrated, holistic approach to construct relevant analyses, arguments, and conclusions.
   a. Students will clearly identify the key issues in the analysis.
   b. Students will present the appropriate analytic framework or warrant.
   c. Students will identify and assess important assumptions and question their validity.
   d. Students will identify and assess the quality of supporting data/evidence & provide additional data/evidence related to the issue.
   e. Students will draw and discusses conclusions, implications, and consequences.
   f. Students will identify key business issues using an integrated approach.
g. Students will apply appropriate holistic analyses to business issues.

h. Students will generate solutions that incorporate an integrated perspective to business problems.

Oral Communication:

1. Upon graduation our undergraduate students in The Sam and Irene Black School of Business will be able to execute the oral communication skills that they have learned in the interactive business courses to business situations where effective explanation, persuasion, exchanging information and ideas are essential.
   a. Students will be able to clearly express their line of thoughts to an audience.
   b. Students will be able to show confidence in their ability to communicate with their audience.
   c. Students will be able to effectively organize their thoughts and clearly communicate their organized thoughts with their audience.
   d. Students will be able to provide accuracy of content in their communication with their audience.
   e. Students will be able to provide depth of content in their communication with their audience.
   f. Students will be able to deliver a professional quality presentation to an audience while using appropriate and supporting technology.
   g. Students will be able to have a professional appearance in front of their audience.

Writing Competence:

1. Students will be able to demonstrate effective writing skills.
   a. Students will organize written assignments effectively.
   b. Students will develop a clear and well-structured argument.
   c. Students will identify and provide evidence sufficient to support the argument.
   d. Students will find reliable sources and cite and reference them correctly.
   e. Students will demonstrate proper writing mechanics with respect to spelling, punctuation, and grammar.

Teamwork:

1. Students will be positive contributors to effective team functioning via application of their functional skills in addition to strong interpersonal skills.
   a. Students will be able to recognize the different ways in which their peers contribute to collaborative work.
   b. Students will contribute effectively to teams.
   c. Students will display good interpersonal skills in teamwork contexts.
   d. Students will learn how to interact effectively on teams.

Ethics and Social Responsibility:

1. Students will be able to recognize ethical issues and apply ethical theories in business situations at individual and/or organizational levels.
   a. Students will recognize ethical issues and the inter-relationships between business and society.
   b. Students will identify stakeholders affected by decisions and actions.
   c. Students will understand the consequences of decisions/actions to stakeholders.
   d. Students will analyze an ethical dilemma applying multiple ethical theories.
   e. Students will be able to correctly apply relevant ethical principles.
   f. Students will be able to recommend a plan of action.
   g. Students will be able to supported recommend action with by ethical analysis/evaluation.

Functional Area Knowledge:

1. Students will be able to apply foundational knowledge to analyze and solve problems and interpret written and visual material across various business domains.
   a. Students will be able to apply foundational knowledge to analyze and solve problems and interpret written and visual material in the Accounting domain.
   b. Students will be able to apply foundational knowledge to analyze and solve problems and interpret written and visual material in the Economics domain.
   c. Students will be able to apply foundational knowledge to analyze and solve problems and interpret written and visual material in the Management domain.
   d. Students will be able to apply foundational knowledge to analyze and solve problems and interpret written and visual material in the Quantitative Business Analysis domain.
   e. Students will be able to apply foundational knowledge to analyze and solve problems and interpret written and visual material in the Finance domain.
   f. Students will be able to apply foundational knowledge to analyze and solve problems and interpret written and visual material in the Marketing domain.
   g. Students will be able to apply foundational knowledge to analyze and solve problems and interpret written and visual material in the Legal and Social Environment domain.
   h. Students will be able to apply foundational knowledge to analyze and solve problems and interpret written and visual material in the Information Systems domain.
   i. Students will be able to apply foundational knowledge to analyze and solve problems and interpret written and visual material in the International Issues domain.

Functional Area Knowledge (ACCOUNTING):

1. Students will be able to demonstrate a broad general knowledge of the principles of accounting, both managerial and financial.
   a. Students will be able to perform basic financial accounting transaction analysis.
   b. Students will prepare and interpret general purpose financial statements.
   c. Students will perform financial statement analysis.
   d. Students will apply various principles of managerial accounting.

Functional Area Knowledge (ECONOMICS):

1. Students will be able to demonstrate a broad general knowledge of the principles of economics, both microeconomics and macroeconomics.
a. Students will apply concepts associated with free market operations.
b. Students will conduct decision making based on opportunity costs and marginal analysis.
c. Students will determine consumer behavior based on various measures of elasticity.
d. Students will interpret effects associated with the four major market structures.
e. Students will apply the theory of comparative advantage.
f. Students will apply the basic market and macroeconomic models to explain changes in price and quantity.
g. Students will define, calculate, and interpret major economic indicators.
h. Students will identify and analyze the phases of the business cycle and their characteristics, including the problems associated with each cycle.
i. Students will interpret the impact of fiscal policy effects on the macro economy.
j. Students will interpret the impact monetary policy on the macro economy.
k. Students will identify how various analytical frameworks, (e.g., classical, Keynesian, monetarist, etc.) used may affect the policy conclusions in debates over stabilization policy.
l. Students will apply the theory of comparative advantage and the flows of financial assets principle to trade.

Functional Area Knowledge (FINANCE):

1. Use discounted valuation techniques to make capital investment decisions.
a. Calculate the NPV for three scenarios (1) base case, (2) best case, and (3) worst case
b. Identify relevant initial CFs for NPV calculation
c. Identify relevant operating CFs for NPV calculation
d. Identify relevant terminal CFs for NPV calculation
e. Create and interpret a NPV profile
f. Analyze and accept or reject a proposed investment project.

2. Understand the relationship between risk and return for equity and debt.
a. Understand the trade-off between risk and return for individual assets by computing a beta and required rate of return using the CAPM (Capital Asset Pricing Model).
b. Explain an appropriate proxy for the market rate of return for the CAPM.
c. Explain an appropriate risk-free rate proxy for the CAPM.
d. Calculate cost of debt or YTM of corporate bonds

3. Determine the required return on a proposed investment.
a. Calculate and interpret the weighted-average cost of capital (WACC) by estimating the market cost of equity and debt.
b. Understand when WACC is appropriate as the required return to evaluate a proposed capital investment.

Functional Area Knowledge (MARKETING):

1. Students will be able to describe the benefits and challenges of applying information technology in various organizations and functional areas.

Functional Area Knowledge (INTERNATIONAL BUSINESS):

1. Students will be able to will have basic multidisciplinary knowledge needed to conduct international business and understand the impact of globalization.
a. Our students will develop an awareness of global issues and diverse cultures.
b. Our students will be able to analyze how global factors affect decision making.
c. Our students will be able to use information resources to formulate global strategy.

Functional Area Knowledge (LEGAL ENVIRONMENT):

1. Students will be able to identify key terms, concepts, and theories of the law, understand how law affects business, demonstrate an ability to analyze legal issues, and apply the law to business situations.
a. Students will identify key terms, concepts, and theories of law.
b. Students will analyze legal issues and apply the law to business situations.

Functional Area Knowledge (MANAGEMENT):

1. Students will be able to demonstrate a broad knowledge of each business discipline, including management.
a. More particularly, students will be able to identify the correct core concepts in the context of the following 12 main topic areas:
   i. Introduction to / History of Management
   ii. Managing in the Global Environment
   iii. Decision Making
   iv. Planning & Strategy
   v. Organizational Structure & Culture
   vi. Managing Human Resources
   vii. Individual Attitudes & Behavior
   viii. Managing Teams
   ix. Motivation
   x. Leadership
   xi. Communication
   xii. Principles of Control

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   iv. Planning & Strategy
   v. Organizational Structure & Culture
   vi. Managing Human Resources
   vii. Individual Attitudes & Behavior
   viii. Managing Teams
   ix. Motivation
   x. Leadership
   xi. Communication
   xii. Principles of Control

Functional Area Knowledge (MARKETING):

1. Students will be able to describe the benefits and challenges of applying information technology in various organizations and functional areas.

2. Students will describe management issues and career paths in Information Technology.

3. Students will describe the benefits and challenges of applying information technology in various organizations and functional areas.

Functional Area Knowledge (INTERNATIONAL BUSINESS):

1. Students will be able to will have basic multidisciplinary knowledge needed to conduct international business and understand the impact of globalization.
a. Our students will develop an awareness of global issues and diverse cultures.
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   ii. Managing in the Global Environment
   iii. Decision Making
   iv. Planning & Strategy
   v. Organizational Structure & Culture
   vi. Managing Human Resources
   vii. Individual Attitudes & Behavior
   viii. Managing Teams
   ix. Motivation
   x. Leadership
   xi. Communication
   xii. Principles of Control

Functional Area Knowledge (MARKETING):

1. Students will be able to describe the benefits and challenges of applying information technology in various organizations and functional areas.

2. Students will describe management issues and career paths in Information Technology.

3. Students will describe the benefits and challenges of applying information technology in various organizations and functional areas.
ii. Be able to choose an appropriate marketing strategy for different types of firms (e.g., market development, product development, diversification, market penetration).

c. Students will understand the process of market research.
   i. Be able to choose an appropriate market research design and method for different types of market research questions.

d. Students will understand buyers and markets.
   i. Be able to understand the mechanism of the buyer behaviors.
   e. Students will understand the concept of target marketing strategy.
      i. Be able to use market segmentation variables for targeting and positioning.
      ii. Students will understand the 4P’s (product, price, promotion, place) concepts.
      iii. Be able to formulate MARKETING 4P’S DECISIONS.

Functional Area Knowledge (QUANTITATIVE BUSINESS ANALYSIS):

1. Upon graduation our undergraduate students in The Sam and Irene Black School of Business will be able to demonstrate a broad knowledge of business disciplines (quantitative business analysis).
   a. Students will be able to apply the basic rules of probability to assess likelihood within a population.
   b. Students will be able to identify and apply appropriate probability distribution concepts to analyze data.
   c. Students will be able to demonstrate an understanding of correlation and regression analysis.

Functional Area Knowledge (SUPPLY CHAIN MANAGEMENT):

1. Students will be able to demonstrate a broad knowledge of business disciplines (supply chain management).
   a. Students will be able to apply forecasting methods for demand of a product or service.
   b. Students will be able to apply inventory and planning models for managing operations.
   c. Students will be able to demonstrate an understanding of TQM tools.

Academic Advising

The objectives of the university’s academic advising program are to help advisees identify and achieve their academic goals, to promote their intellectual discovery, and to encourage students to take advantage of both in-and out-of class educational opportunities in order that they become self-directed learners and decision makers.

Both advisers and advisees share responsibility for making the advising relationship succeed. By encouraging their advisees to become engaged in their education, to meet their educational goals, and to develop the habit of learning, advisers assume a significant educational role. The advisee’s unit of enrollment will provide each advisee with a primary academic adviser, the information needed to plan the chosen program of study, and referrals to other specialized resources.

READ SENATE POLICY 32-00: ADVISING POLICY (http://senate.psu.edu/policies-and-rules-for-undergraduate-students/32-00-advising-policy/)

Erie
Kathleen Noce, D.Ed.
Teaching Professor of Management Information Systems
273 Burke

Suggested Academic Plan

The suggested academic plan(s) listed on this page are the plan(s) that are in effect during the 2020-21 academic year. To access previous years’ suggested academic plans, please visit the archive (https://bulletins.psu.edu/undergraduate/archive/) to view the appropriate Undergraduate Bulletin edition (Note: the archive only contain suggested academic plans beginning with the 2018-19 edition of the Undergraduate Bulletin).

Business Analyst Option at Erie Campus

The course series listed below provides only one of the many possible ways to move through this curriculum. The University may make changes in policies, procedures, educational offerings, and requirements at any time. This plan should be used in conjunction with your degree audit (accessible in LionPATH as either an Academic Requirements or What If report). Please consult with a Penn State academic adviser on a regular basis to develop and refine an academic plan that is appropriate for you.

First Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 15 or 30*‡†</td>
<td>3</td>
</tr>
<tr>
<td>3 CAS 100 (OR CAS 100A OR CAS 100B OR CAS100C)‡†</td>
<td>3</td>
</tr>
<tr>
<td>MATH 110 or 140‡‡</td>
<td>4</td>
</tr>
<tr>
<td>ECON 102*‡†</td>
<td>3</td>
</tr>
<tr>
<td>GENERAL EDUCATION COURSE²</td>
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<tr>
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<td>PSU 7</td>
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| Total Credits | 15.5 |

Second Year

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>ACCTG 211*#</td>
<td>4</td>
</tr>
<tr>
<td>ECON 102*‡†</td>
<td>3</td>
</tr>
<tr>
<td>FIN 301*</td>
<td>3</td>
</tr>
<tr>
<td>SCM 200 or STAT 200‡‡‡</td>
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<tr>
<td>MGMT 301*</td>
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</tbody>
</table>

| Total Credits | 15.5 |

Third Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIS 336*</td>
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</tr>
<tr>
<td>MIS 404*</td>
<td>3</td>
</tr>
<tr>
<td>GENERAL EDUCATION COURSE³</td>
<td>3</td>
</tr>
<tr>
<td>MIS 315 (or PROGRAMMING COURSE)</td>
<td>3</td>
</tr>
<tr>
<td>MIS 315 (or PROGRAMMING COURSE)</td>
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<tr>
<td>MIS 315 (or PROGRAMMING COURSE)</td>
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| Total Credits | 16   |

Erie, PA 16563
814-898-6508
kxn9@psu.edu
Fourth Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Spring</th>
<th>Credits</th>
<th>Fall</th>
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<tr>
<td>MGMT 471W*</td>
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<td>INTERNATIONAL BUSINESS COURSE (IL)</td>
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<td>MIS 495*</td>
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</table>

Total Credits 120

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# Course is an Entrance to Major requirement
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Data Analyst Option at Erie Campus

The course series listed below provides only one of the many possible ways to move through this curriculum. The University may make changes in policies, procedures, educational offerings, and requirements at any time. This plan should be used in conjunction with your degree audit (accessible in LionPATH as either an Academic Requirements or What If report). Please consult with a Penn State academic adviser on a regular basis to develop and refine an academic plan that is appropriate for you.

First Year

<table>
<thead>
<tr>
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<th>Fall</th>
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<td>CAS 100 (OR CAS 100A OR CAS 100B OR CAS 100C)**†</td>
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<td>MATH 110 or 140**†</td>
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<td>ECON 102**†</td>
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Second Year

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<td>ENGL 202**†</td>
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<td>ECON 104**†</td>
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<td>SCM 200 or STAT 200**†</td>
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Third Year

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<th>Fall</th>
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Fourth Year

<table>
<thead>
<tr>
<th>Course</th>
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<th>Spring</th>
<th>Credits</th>
<th>Fall</th>
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<tr>
<td>MGMT 410*</td>
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<td>MGMT 471W*</td>
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<td>MIS 495*</td>
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<td>MIS 445*</td>
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Systems Analyst Option at Erie Campus

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First Year

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<thead>
<tr>
<th>Fall</th>
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<tr>
<td>ENGL 15 or 30&quot;§†‡</td>
<td>3 CAS 100 (OR CAS 100A OR CAS 100B OR CAS100C)&quot;§†‡</td>
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<tr>
<td>MATH 110 or 140&quot;§†‡</td>
<td>4 ECON 102&quot;§†‡</td>
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<td>GENERAL EDUCATION COURSE§</td>
<td>3 MIS 204&quot;§†</td>
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<td>GENERAL EDUCATION COURSE§ (GHW)</td>
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Second Year

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<th>Fall</th>
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<tr>
<td>ACCTG 211&quot;§</td>
<td>4 ENGL 202D&quot;‡</td>
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<tr>
<td>BA 241 &amp; BA 242</td>
<td>4 FIN 301&quot;†</td>
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<tr>
<td>ECON 104&quot;†</td>
<td>3 MGMT 301&quot;*</td>
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<tr>
<td>SCM 200&quot;†§†</td>
<td>4 MKTG 301&quot;*</td>
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<td>GENERAL EDUCATION COURSE (GHW)§</td>
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<td>GENERAL EDUCATION COURSE&quot;</td>
<td>3 PROGRAMMING COURSE 2&quot;*</td>
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<tr>
<td>GENERAL EDUCATION COURSE&quot;</td>
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<tr>
<th>Fall</th>
<th>Credits Spring</th>
<th>Credits</th>
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<td>MGMT 410&quot;*</td>
<td>3 MIS 495&quot;*</td>
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<tr>
<td>MGMT 471W&quot;*</td>
<td>3 INTERNATIONAL BUISNESS COURSE (IL)&quot;*</td>
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<tr>
<td>MIS 435&quot;*</td>
<td>4 SUPPORTING MIS/ BUSINESS COURSE&quot;*</td>
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<td>APPROVED ELECTIVE&quot;</td>
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Career Paths
Tailor Penn State Behrend's MIS degree program to your career interests by pursuing one of three options: Business Analyst, Data Analyst, or Systems Analyst. Graduates typically enter the workforce in IT-related positions such as computer systems analyst, applications developer, web developer, project manager, technology auditor, internet solutions manager, or database administrator. Penn State Behrend has a comprehensive support system to help you identify and achieve your goals for college and beyond. Meet with your academic adviser often and take advantage of the services offered by the Academic and Career Planning Center beginning in your first semester.

Careers

Opportunities from Graduate Studies
B.S. in Management Information Systems graduates are well-prepared to pursue master’s- or doctoral-level education in a business or technology discipline, or in Penn State Behrend’s master’s degree programs in Business Administration (M.B.A.), Project Management (M.P.M.) or Manufacturing Management (M.M.M).

Professional Resources
- AACSB International (http://www.aacsb.edu/)
- Association for Information Systems (https://aisnet.org/)
- Association of Information Technology Professionals (https://www.aitp.org/)

Accreditation
The Black School of Business is accredited by AACSB International—The Association to Advance Collegiate Schools of Business. As the world's largest business education alliance, AACSB connects educators, students, and business to achieve a common goal: to create the next generation of great leaders. Synonymous with the highest standards of excellence since 1916, AACSB provides quality assurance, business education intelligence, and professional development services to over 1,500 member organizations and more than 785 accredited business schools worldwide. AACSB’s mission is to foster engagement, accelerate innovation, and amplify impact in business education.

Contact
Erie
BLACK SCHOOL OF BUSINESS
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