MANAGEMENT INFORMATION SYSTEMS, B.S. (BUSINESS)

Begin Campus: Any Penn State Campus

End Campus: University Park

Program Description

The Management Information Systems major focuses on IT-supported techniques for exploring, analyzing, integrating, and reporting business data to facilitate fact-based decisions and enterprise-wide management. The framework encompasses the concepts, principles, and methods for:

1. Collecting, transforming, and managing data,
2. Doing business analytics,
3. Communicating and sharing the results,
4. Aligning IT-enabled business analytics with business strategy.

Students in this major have the opportunity to take nine credits of supporting work in functional business areas such as accounting, finance, marketing, risk management, and supply chain management. Graduates develop cross-functional literacy in how techniques and technologies help achieve business objectives, along with competency in applying business analytics methods on behalf of the business and in a supporting business area. Thus, graduates are well-prepared for careers in industry, consulting, and government sectors as business analytics professionals.

More information about the broad range of career opportunities is available at http://www.smeal.psu.edu/scis/recruit (http://www.smeal.psu.edu/scis/recruit).

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.

Entrance to Major

This program currently has administrative enrollment controls. Administrative Enrollment Controls are initiated when limitations of space, faculty, or other resources in a major prevent accommodating all students who request them. Students must follow the administrative enrollment controls that are in effect for the semester that they enter the university.

First-Year Students Entering Summer 2019, Fall 2019, Spring 2020

In order to be eligible for entrance to this major, students must satisfy the following requirements:

- completed with a grade of C or better: ESL 15 or ENGL 15 or ENGL 30, ACCTG 211*, FIN 301*, MATH 110 or MATH 140, MGMT 301*, MKTG 301*, and SCM 200 or STAT 200
- completed ECON 102
- earned a minimum grade-point average (GPA) of 3.10 in the eight entrance-to-major courses listed above
- earned a minimum of 3.10 cumulative GPA
- Must be completed at Penn State (no substitutions or transfers)

Students Who Entered Prior to Summer 2019

Students who entered the University during Summer 2018, Fall 2018, and Spring 2019 should view the administrative enrollment controls in the archived 2018-19 Undergraduate Bulletin (http://bulletins.psu.edu/archive/2018-19/undergraduate/general-information/academic-information/#administrativeenrollmentcontrolstext). Students who entered the University prior to the summer 2018 semester should view the administrative enrollment controls for the semester that they entered the university (http://advising.psu.edu/entrance-major-requirements) on the Academic Advising Portal.

Degree Requirements

For the Bachelor of Science degree in Management Information Systems, a minimum of 120 credits is required with at least 15 credits at the 400 level:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education</td>
<td>45</td>
</tr>
<tr>
<td>Electives</td>
<td>14</td>
</tr>
<tr>
<td>Requirements for the Major</td>
<td>73</td>
</tr>
<tr>
<td>12 of the 45 credits for General Education are included in the Requirements for the Major. This includes: 3 credits of GWS courses; 6 credits of GQ courses; 3 credits of GS courses.</td>
<td></td>
</tr>
</tbody>
</table>

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.

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
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).

Accreditation
The college is accredited by the Middle States Commission on Higher Education, which is accredited by the Interstate Council of Higher Education for Finance (ICHE).

Code Title Credits
Prescribed Courses
BA 342 Socially Responsible, Sustainable and Ethical Business Practice 3
BA 411 Analyzing Business and Industry 3
BLAW 341 Business Law I: Introduction to Contracts, Liability Issues, and Intellectual Property 3
ECON 102 Introductory Microeconomic Analysis and Policy 3
ECON 104 Introductory Macroeconomic Analysis and Policy 3
ENGL 202D Effective Writing: Business Writing 3
SCM 301 Supply Chain Management 3
Prescribed Courses: Require a grade of C or better
ACCTG 211 Financial and Managerial Accounting for Decision Making 4
FIN 301 Corporation Finance 3
MGMT 301 Basic Management Concepts 3
MIS 204 Introduction to Business Information Systems 3
MIS 301 Business Analytics 3
MIS 431 Business Data Management 3
MIS 432 Business Information System Analysis 3
MIS 446 Information Technology and Business Strategy 3
MIS 479 Enterprise Information Systems 3
MKTG 301 Principles of Marketing 3

Additional Courses
Additional Courses: Require a grade of C or better
MATH 110 or MATH 140 Techniques of Calculus I 4
MATH 343 or MATH 344 Calculus With Analytic Geometry I 3
MIS 434 or MIS 441 Internet Technologies or Business Intelligence for Decision Making 3
SCM 200 or STAT 200 Introduction to Statistics for Business or Elementary Statistics 4

Supporting Courses and Related Areas
At least 12th-credit-level proficiency in a single foreign language 1
Select 6 credits of supporting coursework (see Department List) 6

1 Proficiency must be demonstrated by either examination or coursework.

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.
Suggested Academic Plan

The suggested academic plan(s) listed on this page are the plan(s) that are in effect during the 2019-20 academic year. To access previous years' suggested academic plans, please visit the archive (http://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).

University Park Campus and Commonwealth Campuses

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>Fall</th>
<th>Credits</th>
<th>Spring</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSU 6</td>
<td>1</td>
<td>MGMT 301*</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 15 or 30†</td>
<td>3</td>
<td>SCM 200 or STAT 200†</td>
<td>4</td>
</tr>
<tr>
<td>MATH 110 or 140†</td>
<td>4</td>
<td>World Language 002</td>
<td>4</td>
</tr>
<tr>
<td>ECON 102†</td>
<td>3</td>
<td>General Education</td>
<td>3</td>
</tr>
<tr>
<td>World Language 001</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>15</td>
<td></td>
<td>14</td>
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Second Year

<table>
<thead>
<tr>
<th>Fall</th>
<th>Credits</th>
<th>Spring</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKTG 301*</td>
<td>3</td>
<td>FIN 301*</td>
<td>3</td>
</tr>
<tr>
<td>ACCTG 211*</td>
<td>4</td>
<td>SCM 301 or ENGL 202D*</td>
<td>3</td>
</tr>
<tr>
<td>World Language 003</td>
<td>4</td>
<td>CAS 100†</td>
<td>3</td>
</tr>
<tr>
<td>ECON 104(or General Education)</td>
<td>3</td>
<td>General Education or MIS 204*</td>
<td>3</td>
</tr>
<tr>
<td>General Education or MIS 204*</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>17</td>
<td></td>
<td>15</td>
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Third Year

<table>
<thead>
<tr>
<th>Fall</th>
<th>Credits</th>
<th>Spring</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIS 301*</td>
<td>3</td>
<td>MIS 431*</td>
<td>3</td>
</tr>
<tr>
<td>Two Piece Sequence</td>
<td>3</td>
<td>ECON 104(or General Education)</td>
<td>3</td>
</tr>
<tr>
<td>BLAW 341 or BA 342</td>
<td>3</td>
<td>BA 342 or BLAW 341</td>
<td>3</td>
</tr>
<tr>
<td>SCM 301 or ENGL 202D*</td>
<td>3</td>
<td>General Education(GHW)</td>
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<tr>
<td>General Education</td>
<td>3</td>
<td>MIS 432*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td></td>
<td>16.5</td>
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Fourth Year

<table>
<thead>
<tr>
<th>Fall</th>
<th>Credits</th>
<th>Spring</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two Piece Sequence</td>
<td>3</td>
<td>MIS 479*</td>
<td>3</td>
</tr>
<tr>
<td>BA 411(or &quot;Additional MIS&quot;, either MIS 434 or MIS 441)</td>
<td>3</td>
<td>BA 411 (or &quot;Additional MIS&quot;, either MIS 434 or MIS 441)</td>
<td>3</td>
</tr>
<tr>
<td>MIS 446*</td>
<td>3</td>
<td>General Education</td>
<td>3</td>
</tr>
<tr>
<td>General Education</td>
<td>3</td>
<td>Elective</td>
<td>2</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
<td>General Education(GHW)</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td></td>
<td>12.5</td>
</tr>
</tbody>
</table>

Total Credits 120

* Course requires a grade of C or better for the major
† Course requires a grade of C or better for General Education
# Course is an Entrance to Major requirement
‡ Course satisfies General Education and degree requirement
1 Course requires a C or better for major and General Education (2nd course ONLY; the first course of the two options does not require a C)
2 Course requires a C or better for major (2nd course ONLY; the first course of the two options does not require a C)
3 Course requires a C or better for Entrance to Major
4 Course requires a C or better for General Education (2nd course ONLY; the first course of the two options does not require a C)

University Requirements and General Education Notes:

US and IL are abbreviations used to designate courses that satisfy University Requirements (United States and International Cultures). W, M, X, and Y are the suffixes at the end of a course number used to designate courses that satisfy University Writing Across the Curriculum requirement.

GWS, GQ, GHW, GN, GA, GH, and GS are abbreviations used to identify General Education program courses. General Education includes Foundations (GWS and GQ) and Knowledge Domains (GHW, GN, GA, GH, GS, and Integrative Studies). Foundations courses (GWS and GQ) require a grade of ‘C’ or better.

Integrative Studies courses are required for the General Education program. N is the suffix at the end of a course number used to designate an Inter-Domain course and Z is the suffix at the end of a course number used to designate a Linked course.

All incoming Schreyer Honors College first-year students at University Park will take ENGL/CAS 137 in the fall semester and ENGL/CAS 138 in the spring semester. These courses carry the GWS designation and replace both ENGL 30 and CAS 100. Each course is 3 credits.

Additional Notes:

In order to promote student academic success, the Smeal College has designated the successful completion of specific ‘entrance to major’ courses prior to the beginning of ‘major field’ course work. In order to ensure all students are equally prepared for success, the Smeal College of Business requires that the following ‘entrance to major’ courses must be completed at a Penn State campus: ACCTG 211, MGMT 301, MKTG 301 and FIN 301.
Therefore, transfer courses or those designated as direct equivalent courses for the four courses listed above will not be credited toward Smeal entrance to major progress.

Please note that pursuant to AACSB accreditation standards, the Smeal College requires that all upper division courses within the departments sponsoring the major be completed in residence at University Park under the instruction of Smeal College faculty.

For example, students in the Management Information Systems major must complete in residence with Smeal College faculty all 300 level and above Management Information System courses.

Petitions for hardship exceptions from this policy may be made to the Smeal College of Business Associate Dean for Undergraduate Education.

Advising Notes:
- It is highly recommended that students at University Park take SCM 301 in their 4th semester.
- It is highly recommended that students at campuses that do not offer SCM 301 take ENGL 202D in their 4th semester.
- Students must complete 12th credit level in a foreign language. Credits vary based on skill level.

Management Information System Notes:
- MIS 204 requires a “C” or better for the MIS Major

Management Information System Degree Requirements (MIS):
Program Year 2019

Course Descriptions
1. Take all of the following Management Information System courses (15 credits) - A grade of ‘C or better’ is required for all MIS courses along with MIS 204
   a. MIS 301
   b. MIS 431
   c. MIS 432
   d. MIS 446
   e. MIS 479W
2. Additional MIS class (3 credits) - A grade of ‘C or better’ is required for either course
   a. MIS 434
   b. MIS 441
3. Select one Two Piece Sequence from the following list (6 credits)
   a. Accounting - Select two courses from the following: ACCTG 404, ACCTG 471, ACCTG 472
   b. Business Law - B LAW 424, B LAW 425, B LAW 441, B LAW 444, B LAW 445, B LAW 446, B LAW 497, B LAW 499
   c. Business Sustainability - BA 441 and BA 442
   d. Economics - Select 3 credits of 300/400 level Economics and select 3 credits of 400 level Economics
   e. Entrepreneurship - MGMT 425 and MGMT 480
   f. Finance - Select two courses from the following: FIN 305, FIN 406, FIN 408
   g. International Business - Select two courses from the following: IB 303, IB 403, IB 404, IB 450, IB 460, IB 470, IB 497 Sustainability & International Business
   h. Management - MGMT 326 and either MGMT 461 or MGMT 471
   i. Marketing - Select either MKTG 330 or MKTG 327 and select either MKTG 445 or 422
   j. Real Estate - RM 303 and RM 450
   k. Risk Management - RM 302 and either RM 440 or RM 475
   l. Supply Chain and Information Systems - Select two courses from the following: SCM 404, SCM 405, SCM 406

Please Note: In lieu of completing a Two-Piece Sequence, students may complete one of the designated University minors listed below provided the minor has a minimum of six credits of 400-level course work that can be used in the two-piece category according to the course layout in the degree audit system.

Smeal College Minors
- International Business (IB)
- Legal Environment of Business (LEBUS)

Liberal Arts Minor or Concurrent Major
- Economics (ECON)

College of IST Minor or Concurrent Major
- Information Sciences and Technology (IST)

Eberly College of Science Minor or Concurrent Majors
- Mathematics (MATH)
- Statistics (STAT)

World Language Minors and Concurrent Majors
- Arabic Language (ARAB)
- Chinese Language (CHNS)
- French and Francophone Studies (FR)
- German (GER)
- Greek (GREEK)
- Hebrew (HEBR)
- Italian (IT)
- Japanese Language (JAPNS)
- Korean Language (KORLG)
- Latin (LATIN)
- Portuguese (PORT)
- Russian (RUS)
- Spanish (SPAN)

Additional University Approved Minors for management information systems (mis)
- Six Sigma (SIGMA)
- Security and Risk Analysis (SRA)

Contact
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https://php.smeal.psu.edu/smeal/contact/?contactID=scis