INFORMATION SYSTEMS, B.S.

Begin Campus: Any Penn State Campus
End Campus: Harrisburg

Program Description
This major prepares students to enter rapidly expanding fields associated with technology. This includes programming, systems analysis and design, database administration, network management, support services and training, and management of information resources. Students obtain competence both in information technology and in business theory. Thus, the curriculum combines technical content with managerial aspects of information systems. Each student’s background is complemented with basic business instruction in accounting, marketing, management, and finance. With business and non-business electives, the program is designed to develop necessary skills to be an effective Information Systems employee. Because the Harrisburg area is the center of industry and economic development for South Central Pennsylvania, students are provided with many opportunities to experience the exciting and challenging world of business.

What is Information Systems?
Information systems is concerned with managing data systems and related facilities for processing and retrieving internal business information. It can include study in programming, systems analysis and design, database administration, networking, support services, and management of information resources. Additionally, it often includes study of business and management.

You Might Like This Program If...
- You are interested in organizations and how they function.
- You have strong oral and written communication skills.
- You enjoy working with computers and information technology.
- You want a career in computer programming, business analysis, or information technology.

Entrance to Major
Entry to the Information Systems major requires the completion of 8 entry-to-major courses: ACCTG 211, ECON 102, ENGL 15 or ENGL 30, FIN 301, MATH 110 or MATH 140, MGMT 301, MKTG 301, SCM 200 or STAT 200; and a 2.00 or higher cumulative grade-point average.

Additional information about this major is available in the office of the Director of Undergraduate Studies, School of Business Administration at Penn State Harrisburg.

Degree Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>For the Bachelor of Science degree in Information Systems, a minimum of 120 credits is required:</td>
<td></td>
</tr>
<tr>
<td>General Education</td>
<td></td>
<td>45</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Requirements for the Major</td>
<td></td>
<td>79</td>
</tr>
</tbody>
</table>

Consistent with Senate policy, at least 24 credits of course work in the major and the capstone course must be completed at the Capital College to earn the degree.

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

12 of these 45 credits are included in the Requirements for the Major.

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
This includes 12 credits of General Education courses: 3 credits of GWS courses; 3 credits of GS courses; 6 credits of GQ courses.

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). For more information, check the Suggested Academic Plan for your intended program.

Integrated B.S. in Information Systems and M.B.A. in Business Administration
The School of Business Administration offers a limited number of academically superior Bachelor of Science in Information Systems candidates the opportunity to enroll in an integrated, continuous program of study leading to both the Bachelor of Science in Information Systems and the Master of Business Administration. The ability to coordinate as well as concurrently pursue the two degree programs enables the students to earn both degrees in five years. Specifically, as many as twelve of the credits required for the master’s degree may be applied to both undergraduate and graduate degree programs. The Integrated Undergraduate-Graduate Program reduces the total number of credits needed to earn both degrees from 150 to 138.

Students in the IUG program must satisfy the requirements for both the Bachelor of Science in Information Systems and Master of Business Administration degrees. The total course load is reduced due to courses that can count towards both degrees. The first two years of the IUG program are identical to the first two years of the Bachelor of Science program. Students in the IUG program take five additional credits in their
Student performance will be monitored on an on-going basis. In addition, a formal evaluation of student academic performance will be performed when the students have completed 100 to 105 credits, which is at the end of the first semester of the senior year for typical students in the program. Students who have not maintained a 3.0 GPA in their graduate courses will be put on probationary status with respect to the IUG program. They will receive a warning letter regarding probationary status. Their ability to continue in the IUG program will be based on their academic performance in the last semester of their senior year.

Students have the choice of receiving the B.S. in Information Systems degree at the end of the fourth year or waiting until the end of the fifth year to receive both degrees. Students who elect to receive the B.S. degree at the end of the fourth year will pay graduate tuition for courses taken in the fifth year; students opting to receive both degrees at the end of the fifth year will pay undergraduate tuition for all five years.

If for any reason students admitted to the IUG program are unable to complete the requirements for the Master of Business Administration degree, the students will be permitted to receive the Bachelor of Science in Information Systems degree assuming all the undergraduate degree requirements have been satisfactorily completed. If the students successfully complete courses listed in the recommended schedule, they will satisfy the requirements for the Bachelor of Science degree by the end of their fourth year.

Admission Requirements

To initiate the application process, students must submit a resume, a personal statement including career goals and how MBA will enhance their career goals, transcripts of courses taken outside Penn State, two letters of recommendation, with at least one from the School of Business Administration faculty, and a plan of study that integrates both undergraduate and graduate requirements. A graduate faculty advisor in collaboration with the Director of MBA Program will help undergraduate candidates determine a sequence of courses that will prepare them for acceptance into the Integrated Undergraduate-Graduate (IUG) degree program.

The number of openings in the IUG program is limited. Applicants to the IUG program must have completed a minimum of 60 credits. Typical students would apply after completing between 60 and 90 credits, that is, after the fifth semester and before the end of the seventh semester. In addition, the applicants must earn a minimum of cumulative grade point average of 3.5 and complete the following Entry to Major courses or equivalent:

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<td>ENGL 15 or ENGL 30</td>
<td>Rhetoric and Composition or Honors Freshman Composition</td>
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<td>Corporation Finance</td>
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<td>MATH 110 or MATH 140</td>
<td>Techniques of Calculus I or Calculus With Analytic Geometry I</td>
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</tr>
<tr>
<td>MGMT 301</td>
<td>Basic Management Concepts</td>
<td>3</td>
</tr>
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To formally apply, students must submit a completed graduate school application. The students should mention in the notes section that the application is for the IUG program in Business Administration. The Graduate Management Admission Test (GMAT) or Graduate Record Examination (GRE) is not required for admission into the program; however, if students are interested in applying for a graduate assistantship, GMAT or GRE scores must be submitted by the end of the eighth semester.

Students applications will be evaluated based on their overall portfolio, in addition to the above requirements. In all cases, admission to the program will be at the discretion of the Graduate Admissions Committee in Business Administration.

Degree Requirements

Students in the IUG program must satisfy the degree requirements for both Bachelor of Science in Information Systems and Master of Business Administration degrees. The total course load is reduced due to the maximum of 12 credits that can count towards both degrees. All courses counted for both degrees must be at the 500- or 800-level.

Integrated B.S. in Information Systems/ MSIS Program

The School of Business Administration offers a limited number of academically superior Bachelor of Science in Information Systems candidates the opportunity to enroll in an integrated, continuous program of study leading to both the Bachelor of Science in Information Systems and the Master of Science in Information Systems. The ability to coordinate as well as concurrently pursue the two degree programs enables the students to earn both degrees in five years. Specifically, as many as twelve of the credits required for the master’s degree may be applied to both undergraduate and graduate degree programs. The Integrated Undergraduate-Graduate Program reduces the total number of credits needed to earn both degrees from 150 to 138.

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Student performance will be monitored on an on-going basis. In addition, a formal evaluation of student academic performance will be performed when the students have completed 100 to 105 credits, which is at the end of the first semester of the senior year for typical students in the program. Students who have not maintained a 3.0 GPA in their graduate courses will be put on probationary status with respect to the IUG program. They will receive a warning letter regarding probationary status. Their ability to continue in the IUG program will be based on their academic performance in the last semester of their senior year.

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<td>3</td>
</tr>
<tr>
<td>MKTG 301</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>SCM 200</td>
<td>Introduction to Statistics for Business</td>
<td>4</td>
</tr>
<tr>
<td>or STAT 200</td>
<td>Elementary Statistics</td>
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Student Outcomes

Students will obtain:

- Knowledge in technologies that support the information environment.
- Knowledge in business or organizational processes that are supported by technology.
- General skills and abilities that promote good communication, problem-solving and analytical abilities, and the ability to work in a team environment.
- Skills to participate in and lead multidisciplinary teams in the development, implementation, and management of information technology solutions.

The program meets the objectives through varied experiences and an emphasis on good communication skills.

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 need 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)

Harrisburg

Girish H. Subramanian, Ph.D.
Program Coordinator
Olmsted Building E355
Middletown, PA 17057
717-948-6450
ghs2@psu.edu

Suggested Academic Plan

Harrisburg 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>Semester</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>ENGL 15 or 30†</td>
<td>Course is an Entrance to Major requirement</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MATH 110 or 140‡</td>
<td>‡ Course requires a grade of C or better for General Education</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ECON 102‡</td>
<td>‡ Course requires a grade of C or better for the major</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>General Education Course</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>General Education Course (GHW)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total Credits</td>
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<td>14.5</td>
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</table>

### Second Year

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Fall</td>
<td>ACCTG 211#</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MKTG 301#</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MIS 204</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>General Education Course</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>General Education Course (GHW)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total Credits</td>
<td></td>
<td>16</td>
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</table>

### Third Year

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>BA 241</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BA 242</td>
<td></td>
<td>2</td>
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<tr>
<td></td>
<td>ECON 104</td>
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<td>3</td>
</tr>
<tr>
<td></td>
<td>MIS 307*</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MIS 465*</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>General Education Course (GHW)</td>
<td></td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>Total Credits</td>
<td></td>
<td>14.5</td>
</tr>
</tbody>
</table>

### Fourth Year

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>BA 364</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Application Development Concentration or Network Security Concentration or Individualized Concentration*</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>200-400 level Business courses in consultation with adviser</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Non-Business Elective</td>
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<td>3</td>
</tr>
<tr>
<td></td>
<td>Total Credits</td>
<td></td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Non-Business Elective</td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

Total Credits 120

† Course satisfies General Education and degree requirement

1. Application Development Concentration (Sem 6)
   - MIS 466 - Business Programming for the Web

2. Network Security Concentration (Sem 6)
   - IST 302 - IT Project Management, IST 456 - Information Security Management
   - Network Security Concentration (Sem 7)

3. Individualized Concentration (Sem 6)

### 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.

### Advising Notes

- 30 Credits of GA, GH, GHW, GN, GS to include 6 Integrative Studies credits.
- 15 Credits of GWS, and GQ require a grade of "C" or better.

### Program Notes

- Courses required for the major must generally be taken within 10 years of entrance to the major.
- Students must complete a 3-credit course in "United States Cultures (US)" and a 3-credit course in "International Cultures (IL)." B A 364 (US/IL) may be used to meet either the IL or US requirement, but may be used to fulfill only 3 of the 6 credit requirement.
Career Paths
Because the Harrisburg area is the center of industry and economic development for southcentral Pennsylvania, students are provided with many opportunities to experience the exciting and challenging world of business through internships and guest speakers in various courses.

Careers
Opportunities exist in systems development in positions such as systems analyst, systems designer, programmer, and analyst programmer. Another challenging career path for IS graduates includes positions in information systems management or project management. Graduates will find these opportunities in small businesses, large corporations, government, and education.

Opportunities for Graduate Studies
The Bachelor of Science in Information systems provides a sound background for students who plan to pursue graduate studies in fields associated with technology, including Penn State’s Master of Science in Information Systems program.

Accreditation
This program is AACSB accredited.

Contact
Harrisburg
SCHOOL OF BUSINESS ADMINISTRATION
Olmsted Building E355
Middletown, PA 17057
717-948-6139
cxs879@psu.edu

http://harrisburg.psu.edu/business-administration/information-systems/bachelor-science-information-systems