

INFORMATION SYSTEMS, BACHELOR OF SCIENCE (BS)

Program Learning Outcomes

- **Communication and Interpersonal Skills:** Use written, oral and electronic methods for effective communication. (UO 1) The student will be able to:
 - Participate effectively on teams to accomplish a common goal.
 - Communicate effectively with a range of audiences using various mechanisms, formally or informally with excellent oral, written, and listening skills.
 - Analyze, and incorporate diverse ideas and broader perspectives represented in the diversity of people.
 - Demonstrate persistence, flexibility, curiosity, creativity, risk taking, and a tolerance of these abilities in others.
 - Devise effective user interfaces for information systems.
- **Ethical and Professional Responsibilities:** Discern and articulate the impact of technologies on society. (UO 8) The student will be able to:
 - Understand professional responsibilities in terms of the ethical, legal, security and social aspects of any given problem and its solution.
 - Demonstrate an understanding of the cognitive, social, legal, ethical, diversity, and security perspectives surrounding a given problem.
 - Assess the impact of information systems and associated technologies on individuals, groups, organizations, society, and the world for the purpose of making informed decisions from a sociological, governmental, legal, and/or security perspective.
 - Critically evaluate and possibly act on current ethical issues in the IS field.
 - Apply IS professional codes of conduct.
- **Information Technology:** Have proficient use of computers and software to manage information statistical analysis, spreadsheet, database and other appropriate applications. (UO 10)
 - Understand, apply and adapt various problem-solving strategies, using appropriate technology and methods.
 - Identify information systems problems and/or opportunities in terms of the human, organizational, informational and technology dimensions.
 - Analyze issues surrounding the problem and/or opportunity in terms of the human, organizational, informational, and technology dimensions; and determine the requirements appropriate to understanding the situation.
 - Design systems, architectures, processes, components, or programs to meet desired needs of the human context at varying levels of analysis (e.g., individual, group, organization, society, and/or world).
 - Evaluate the success of systems, architecture, processes, components, or programs intended to meet desired needs of the human context at varying levels of analysis (e.g., individual, group, organization, society, and/or world).
- **Professional Proficiency:** Evaluate the necessary skills and knowledge to meet professional competencies as information systems professionals and global citizens. (UO 5 & 9) The student will be able to:

- Define the history and vocabulary unique to information systems professionals.
- Understand and apply the interdisciplinary, theoretical knowledge of information systems.
- Define and explain the core concepts, principles, processes, and theories within the academic major of IS.
- Apply the core concepts of the academic majors of IS to real-world problems.
- Collaborate with other professionals as well as perform successfully at the individual level.

Related Links

Information Systems, BS Program Page (<https://www.sru.edu/academics/majors-and-minors/information-systems/>)

Information Systems and Technology Management Department Page (<https://www.sru.edu/academics/colleges-and-departments/cob/school-of-business/information-systems-and-technology-management/>)

Professional Licensure/Certification Page (<https://www.sru.edu/students/student-consumer-information/professional-licensure/>)

Curriculum Guide

GPA Requirement

Overall GPA: 2.0 or higher

Core GPA: 2.0 or higher

Summary*

Code	Title	Hours
	Rock Studies 2 Requirements	42-43
	Other Basic Requirements	0-3
	Major Requirements	54-55
	Electives	24

* All undergraduate degree programs require a minimum of 120 credits.

Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Rock Studies 2 Requirements

Code	Title	Hours
The Rock		
SUBJ 139	Foundations of Academic Discovery ¹	3
ENGL 102	Critical Writing	3
ENGL 104	Critical Reading	3
Select one of the following:		3-4
MATH 117	Quantitative Reasoning	
MATH 123	Introduction to Applied Calculus	
MATH 225	Calculus I	
Select one of the following:		3
COMM 200	Civil Discourse: Theory & Practice	
PHIL 110	Ethics and Civil Discourse	
POLS 235	Civil Discourse and Democracy	
Subtotal		15-16
Integrated Inquiry		
<i>Creative and Aesthetic Inquiry</i>		

Select 3 Credits (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)	3
<i>Humanities Inquiry</i>	
Select 3 Credits (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)	3
<i>Social Science Inquiry</i>	
Select 3 Credits (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)	3
<i>Natural Sciences Inquiry</i>	
SCI 101 Science of Life	3
<i>Physical Sciences Inquiry</i>	
SCI 102 Understanding the Physical World	3
Subtotal	15
Thematic Thread	
Select 12 Credits (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/) ²	12
Required Thematic Thread Coursework:	
ECON 202 Principles of Microeconomics	
Total Hours	42-43

- ¹ Course offered in multiple subjects; cannot take course in first major subject.
- ² One course from each category; six credits must be 300-level or above; no more than 4 credits from one subject area; specific courses required in first major, regardless of prefix of course, cannot be used to satisfy thread requirements; any course with same prefix as first major cannot be used to satisfy thread requirements, even if it is not a course in the first major.

Basic Math Requirement

Check with your adviser or a current degree audit report to see if you have been exempted from this course. The credit earned in this course will not be counted toward the 120 credit hour minimum needed to earn a degree.

Code	Title	Hours
Complete one of the following:		0-3
Meet required minimum SAT or ACT math score OR		
ESAP 110	Beginning Algebra	
Total Hours		0-3

DIVERSITY, EQUITY, AND INCLUSION REQUIREMENT

Students must take and pass a course with the Diversity, Equity, and Inclusion (DEI) designation prior to graduation. Students can meet this requirement by taking any DEI - designated course in any program at any time during their undergraduate career.

Major Requirements

- 27 major credits must be taken at SRU or PASSHE
- 27 major credits must be taken at the 300 level or above

Code	Title	Hours
Required Management Information System Courses		
MIS 210	Productivity Software ¹	3
Select one of the following:		
MIS 211	Information Systems Application Development ¹	3

CPSC 130	Introduction to Computing and Programming ¹	
CPSC 146	Programming Principles ¹	
MIS 300	Challenges of Computer Technology ¹	3
MIS 301	Practical Computer Security ¹	3
MIS 323	Data Base Systems ¹	3
MIS 353	Business Data Communications and Technologies ¹	3
MIS 413	Systems Analysis ¹	3
MIS 443	Project Management ¹	3
MIS 453	Fundamentals of Enterprise Architecture ¹	3
Subtotal		27
Required Math Courses		
ECON 219	Business Analytics I ²	3
or MGMT 219	Business Analytics I	
Subtotal		3
Required Business Environment Courses		
ACCT 209	Financial Accounting ¹	3
ECON 201	Principles of Macroeconomics ¹	3
or ECON 202	Principles of Microeconomics	
MGMT 320	Operations Management ¹	3
MGMT 351	Organizational Behavior ¹	3
MIS 265	Management Information Systems ¹	3
Subtotal		15
Electives		
Select one of the following seven areas below:		9-10
Business (p. 2)		
Geographic Information Systems (GIS) (p. 3)		
Health Care Administration Management (p. 3)		
Programming (p. 3)		
Safety (p. 3)		
Security (p. 3)		
Web Technology (p.)		
Digital Media (p. 3)		
Big Data (p. 3)		
Subtotal		9-10
Total Hours		54-55

- ¹ Course counts for 50% of Major and Major GPA
- ² Course counts for 50% of Major and not for Major GPA
- * Some courses may require pre-requisites. Please see course descriptions to determine if there are any pre-requisites for that specific course.

Business

Code	Title	Hours
Select one of the following:		
MRKT 338	E-Commerce ¹	3
or MGMT 352	Supply Chain Management	
Upper division ²		3
Select one of the following:		
Upper division ²		3

MIS 450	Internship ¹	
Total Hours		9

¹ Course counts for 50% of Major and Major GPA

² Any upper division course from BSBA discipline.

Geographic Information Systems (GIS)

Code	Title	Hours
GES 115	Introduction to Geospatial Technologies ¹	3
GES 325	Introduction to Geographic Information Science ¹	3
GES 315	Cartography I ¹	3
Select one of the following:		3
GES 410	Remote Sensing ¹	
GES 425	Advanced Geographic Information Systems ¹	
GES 450	Internship ¹	
Total Hours		12

¹ Course counts for 50% of Major and Major GPA

Health Care Administration Management

Code	Title	Hours
HCAM 230	US Healthcare Systems ¹	3
MIS 403	Introduction to Healthcare Information Systems ¹	3
Select one of the following:		3
HCAM 300/400 level	Any upper division HCAM course ^{1,2}	
MIS 450 or HCAM 450	Internship ¹ or Internship-Health Care Administration & Management	
Total Hours		9

¹ Course counts for 50% of Major and Major GPA

² Except HCAM 360

Programming

Code	Title	Hours
CPSC 246	Advanced Programming Principles ¹	3
CPSC 374	Algorithms and Data Structures ¹	3
Select one of the following:		3
CPSC 300/400 level	Any upper division CPSC course not used above ¹	
MIS 450	Internship ¹	
Total Hours		9

¹ Course counts for 50% of Major and Major GPA

Safety

Code	Title	Hours
SAFE 118	Introduction to Safety ¹	3
SAFE 418	Security in the Workplace ¹	3
Select one of the following:		3

MGMT 354 or MIS 450	Human Resources Management ¹ Internship	
Total Hours		9

¹ Course counts for 50% of Major and Major GPA

Security

Code	Title	Hours
CSS 120	Introduction to Private Security ¹	3
MIS 333	Introduction to Computer Forensics ¹	3
MIS 401 or MIS 450	Information Systems Security ¹ Internship	3
Total Hours		9

¹ Course counts for 50% of Major and Major GPA

Web Technologies

Code	Title	Hours
CPSC 217	Advanced Web Programming ¹	3
CPSC 337	Introduction to Web Graphics ¹	3
Select one of the following:		3
CPSC 317	Server-Side Scripting ¹	
MRKT 338	E-Commerce ¹	
MIS 450	Internship ¹	
Total Hours		9

¹ Course counts for 50% of Major and Major GPA

Digital Media

Code	Title	Hours
Select three of the following:		
COMM 248	Interactive Multimedia 1	
COMM 258	Interactive Multimedia 2	
COMM 307	Social Media	
MIS 450	Internship	
Total Hours		9

Big Data

Code	Title	Hours
Select three of the following:		
MIS 328	Exploring Big Data for Business I	
MIS 423	Advanced Business Database Systems	
MIS 428	Exploring Big Data for Business II	
Total Hours		9

Co-curricular and Experiential Learning

Students are encouraged to explore additional curricular and co-curricular opportunities. There is a strong correlation between long-term student success and participation in the following types of programs and activities:

1. International study programs (short-term, semester, and year-long)
2. High-Impact Practice (HIP) designated classes
3. Student-faculty research

4. Student leadership development
5. Service-learning classes
6. Career education and development
7. Internships
8. Volunteering in healthcare industry related settings
9. Job Shadowing

Important Curriculum Guide Notes

This Curriculum Guide is provided to help SRU students and prospective students better understand their intended major curriculum. Enrolled SRU students should note that the My Rock Audit may place already-earned and/or in progress courses in different, yet valid, curriculum categories. Enrolled SRU students should use the My Rock Audit Report and materials and information provided by their faculty advisers to ensure accurate progress towards degree completion. *The information on this guide is current as of the date listed. Students are responsible for curriculum requirements at the time of enrollment at the University.*

PASSHE - Pennsylvania State System of Higher Education Institutions

INFORMATION SYSTEMS - BS (2240)

This program is effective as of Summer 2023

Revised 04.11.2023

UCC 01.31.2023

Recommended Four-Year Plan

Course	Title	Hours
First Year		
Fall		
MIS 210	Productivity Software	3
ENGL 102	Critical Writing	3
ESAP 101	FYRST Seminar *	1
SUBJ 139	Foundations of Academic Discovery ¹	3
Rock Studies 2 Requirements (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)		3
Rock Studies 2 Requirements (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)		3
Hours		16
Spring		
ENGL 104	Critical Reading	3
ECON 219	Business Analytics I	3
or MGMT 219	or Business Analytics I	
MIS 265	Management Information Systems	3
Rock Studies 2 Requirements (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)		3
Rock Studies 2 Requirements (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)		3
Hours		15
Second Year		
Fall		
ACCT 209	Financial Accounting	3
Select one of the following:		3
MIS 211	Information Systems Application Development	
CPSC 130	Introduction to Computing and Programming	

CPSC 146	Programming Principles	
Select one of the following:		3
COMM 200	Civil Discourse: Theory & Practice	
PHIL 110	Ethics and Civil Discourse	
POLS 235	Civil Discourse and Democracy	
Rock Studies 2 Requirements (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)		3
Rock Studies 2 Requirements (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)		3
Hours		15

Spring		
MGMT 351	Organizational Behavior	3
MIS 323	Data Base Systems	3
ECON 201	Principles of Macroeconomics	3
or ECON 202	or Principles of Microeconomics	
Rock Studies 2 Requirements (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)		3
Rock Studies 2 Requirements (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)		3
Hours		15

Third Year		
Fall		
MIS 300	Challenges of Computer Technology	3
MIS 301	Practical Computer Security	3
MGMT 320	Operations Management	3
MIS 323	Data Base Systems (or free elective)	3
Elective		3
Hours		15

Spring		
MIS 353	Business Data Communications and Technologies	3
MGMT 351	Organizational Behavior	3
Information Systems Elective		3
Elective		3
Elective		3
Hours		15

Fourth Year		
Fall		
MIS 413	Systems Analysis	3
Rock Studies 2 Requirements (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)		3
Information Systems Elective		3
Elective		3
Elective		3
Hours		15

Spring		
MIS 443	Project Management	3
MIS 453	Fundamentals of Enterprise Architecture	3
Information Systems Elective		3
Elective		3

Elective	3
Hours	15
Total Hours**	121

¹ Course offered in multiple subjects; cannot take course in first major subject.

* Students are encouraged to take ESAP 101 as a Free Elective.

*** This document is meant to serve as a guide. Some planners may show more than 120 credits because faculty have created flexibility in choosing courses. However, only 120 credits are required to obtain a degree. Please consult with your academic adviser and refer to your curriculum guide prior to registering for courses. This plan should be reviewed, and verified, by you and your academic adviser at least once each academic year.*

Major Code: 2240

Revised: 05.24.2023