INFORMATION SYSTEMS (AAS)

Business & Information Technology

Program website (https://www.harpercollege.edu/academics/business/info-systems/information-systems-degree.php)

Program Overview

The 60 credit-hour curriculum prepares students for various data analysis, data management, software, and web development positions in the field of information systems, or transfer to a four-year institution. Students take courses in information systems, software development, web development, and general education.

Program Requirements

First Semester		Hours
CAS 160	Introduction to Business Software Packages	3
CIS 101	Introduction to Computer Information Systems	3
CIS 106	Computer Logic and Programming Technology	3
ENG 101	Composition I	3
Mathematics [1]		3
	Hours	**15**
Second Semester		
CIS 143	Introduction to Database Systems	3
CIS 206 or CSC 121	Applied Programming or Computer Science I	4
ENG 102	Composition II [2]	3
Information Systems elective(s) (p. 1)		3
WEB 110 or WEB 150	Internet Fundamentals or Web Foundations	3
	Hours	**16**
Third Semester		
Information Systems elective(s) (p. 1)		8
NET 121 or NET 122	Computer Networking or Internet Protocols	3
SPE 101	Fundamentals of Speech Communication [2]	3
	Hours	**14**
Fourth Semester		
CIS 211	IT Project Management	3
CIS 245	Data Analysis	3
Information Systems elective(s) (p. 1)		6
SOC 101	Introduction to Sociology +	3
	Hours	**15**
	Total Hours	**60**

1 Students must take at least three credit hours in a mathematics course at the level of MTH 103 or above. MTH 165 or MTH 225 is recommended.

2 Students who have previously completed another course which satisfies AAS General Education electives (https://catalog.harpercollege.edu/catalog/programs/aas-general-education-electives/) requirements should contact the CIS coordinator before taking this course.

\+ This course meets the World Culture and Diversity graduation requirement.

Information Systems Electives

Students must take a combination of at least 16 credit hours, selected from any of the following:

Business Emphasis

Code	Title	Hours
ACC 100	Introductory Accounting	3
ACC 101	Introduction to Financial Accounting	4
ACC 102	Introduction to Managerial Accounting	3
MGT 111	Introduction to Business Organization	3

Information Systems Emphasis

Code	Title	Hours
CIS 206	Applied Programming	4
CIS 216	Applied Object-Oriented Programming	4
CIS 220	Topics in Computer Information Systems	1-6

Computer Science and Mathematics

Code	Title	Hours
CSC 122	Computer Science II	4
CSC 214	Java Programming	4
CSC 216	Data Structures and Algorithm Analysis	4
CSC 217	Assembler Programming and Machine Organization	4
MTH 124	Finite Mathematics	3
MTH 134	Calculus for Business and Social Sciences	4
MTH 200	Calculus I	5
MTH 220	Discrete Mathematics	3
MTH 225	Business Statistics	4

Networking and Information Assurance Emphasis

Code	Title	Hours
NET 240	Linux Server Administration	3
NET 260	Windows Server Administration	3
NET 270	Cisco Networking	3
NET 280	Cybersecurity Fundamentals	3

Students pursuing the Networking and Information Assurance emphasis must complete NET 121 in the second semester and move WEB110/WEB 150 to the third semester.

Life Skills Emphasis

Code	Title	Hours
FYS 101	First Year Seminar	1-3

Web Development Emphasis

Code	Title	Hours
WEB 110	Internet Fundamentals	3
WEB 150	Web Foundations	3
WEB 200	Web Scripting Foundations	3

WEB 235	Interactive Scripting	3
WEB 250	Server-Side Scripting	3

Program Learning Outcomes

- Apply computer hardware, software, and information systems concepts and techniques to a variety of business environments.
- Apply common business productivity software to business functions, including word processing, spreadsheet, database, and presentation applications.
- Analyze business problems and develop corresponding structured code.
- Design, normalize, and administer relational databases.
- Initialize, plan, execute, control, and close a project.
- Apply appropriate statistical methods to a given problem.
- Demonstrate professional and effective communication skills.