

INFORMATION SYSTEMS

CYBER SECURITY

This major is 60 credits • *2018-2019 Catalog Year*

Revised: 10-8-2018

CAREERS & POST-GRADUATE WORK

Recent Heidelberg graduates with this degree are doing ...

- Helpdesk Support
- Cyber Defense Engineer
- Software Developer
- IT Assistant

MAJOR ACADEMIC PLAN (MAP): A SAMPLE 4-YEAR PLAN

This MAP is a guide for students preparing for course selections. This is a suggested schedule. Actual course selections should be made with the advice of your advising specialist or faculty advisor. For course descriptions, pre-requisites, and rotations (e.g., fall or spring only classes, classes taught in alternate years), consult the Heidelberg University Undergraduate Catalog.

FIRST-YEAR FALL

Course	Prerequisites	Hrs	Notes
HEI 101: Advise, Inspire, Mentoring Program		1	Required of all first-year students.
WRI 101: College Writing II	Placement	3	
CPS 150: Fundamentals of Computer Science	Placement into, completion of, or concurrent enrollment in a 100 level or higher math course.	3	Mathematics Placement Assessment score determines placement in MTH courses and eligibility for non-MTH Quantitative Literacy (Q) courses.
MTH 119: Statistics	Placement	3	
General Education/Honors Support Courses		5	
Total Credits:		15	

FIRST-YEAR SPRING

Course	Prerequisites	Hrs	Notes
HEI 102: Advise, Inspire, Mentoring Program	HEI 101	0	Required of all first-year students.
CPS 201: Computational Problem Solving	MTH 119 or placement into MTH 121	3	
IST 110: Introduction to Information Systems		3	
COM 100: Public Speaking and Engagement		3	
General Education/Honors Support Courses		6	
Total Credits:		15	

SECOND-YEAR FALL

Course	Prerequisites	Hrs	Notes
IST 320: Issues in Information Systems Security	CPS 201	3	
CPS 325: Data Communications & Networking	CPS 201	3	
ECO 251: Principles of Microeconomics	Sophomore Standing	3	

Course	Prerequisites	Hrs	Notes
ACC 201: Financial Accounting	Sophomore Standing and one college math course	3	
General Education/Honors Support Courses		3	Consider completing the Foreign Language Requirement : Students not in the Honors Program must complete a foreign language to the 102-level or equivalent. Placement is based on the Foreign Language Assessment and some students may need to begin at the 101-level.
Total Credits:		15	

SECOND-YEAR SPRING

Course	Prerequisites	Hrs	Notes
IST 316: Spreadsheet Modeling	CPS 150 or MTH 119	3	
PHI 218: Ethics in Professional Life		3	
MTH 219: Statistics II	C- or better in MTH 119	3	
ECO 252: Principles of Macroeconomics	Sophomore Standing	3	
General Education/Honors Support Courses		3	
Total Credits:		15	

THIRD-YEAR FALL

Course	Prerequisites	Hrs	Notes
IST 318: IS Architecture, Strategy, & Management	CPS 150 or IST 110	3	
IST 342: Systems Development	CPS 201, COM 100 & WRI 101	3	
IST 314: Database Management	CPS 201	3	
WRI 251: Business & Professional Writing OR WRI 254: Writing to Inform OR WRI 260: Writing for Non-Specialists Audiences	WRI 101, exemption exam, or Honors Program	1	WRI 251, 254, and 260 meet for six weeks; students can take all three in one semester, but only one is required.
POL 313 – National Security Investigations Or POL 389 – Intelligence Operations		3	
General Education/Honors Support Courses		2	
Total Credits:		15	

THIRD-YEAR SPRING

Course	Prerequisites	Hrs	Notes
IST 340: Systems & Network Administration	CPS 201 and CPS 325	3	
CPS 345: Computer & Network Security	CPS 201 and CPS 325	3	
General Education/Honors Support Courses		9	
Total Credits:		15	

FOURTH-YEAR FALL

Course	Prerequisites	Hrs	Notes
MGT 300: Principles of Management OR MGT 360: Operations Management	C- or better in ACC201, ECO251, ECO252, MTH119 and 219 or MTH 312 or BAE 368, WRI101, COM100	3	
CPS/IST Elective		3	Choose from pick list on final page.
General Education/Honors Support Courses		9	
Total Credits:		15	

FOURTH-YEAR SPRING

Course	Prerequisites	Hrs	Notes
CPS 490: Capstone	Computer Science or Information Systems major and senior standing	1	
CPS/IST Elective		3	
General Education/Honors Support Courses		11	
Total Credits:		15	

PROGRAM PICK LIST: ELECTIVES

- CPS 290: Topics in Computing
- CPS 301: Computer Organization
- CPS 301: Operating Systems
- CPS 311: Data Structures
- CPS 312: Programming Languages
- CPS 330: Web Application development
- CPS 350: Topics in Computer Science
- CPS 370: Internship
- CPS 401/2: Independent Study OR CPS/IST 475/6: Honors Course
- IST 340: Systems & Network Administration