COMPUTER INFORMATION SYSTEMS, CYBERSECURITY OPTION, BS

Bachelor of Science in Computer Information Systems, Cybersecurity (244305BS)

More on the Computer Information Systems major (https://www.uakron.edu/bit/cis)

Program Contacts
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- CAST Advising, Polsky Building Room 203, 330-972-7220

Program Description
The Computer Information Systems (CIS) offers associate and baccalaureate programs that introduce students to basic computing concepts while allowing them to develop the applied skills required by the workforce. Courses start the student along the path for professional certifications. There are options, minors, and certificates available. CIS courses are taught in cutting edge computer labs so students can learn and practice skills. The CIS program offers high level training for the information technology professionals. Schedules offer a range of day and evening classes.

Department of Business and Information Technology Policy Notes
- Students must attain a “C” or better in each course in their major area (2440).
- The Department of Business and Information Technology requires a cumulative GPA of 2.0 GPA and a minimum of 15 earned credit hours for Inter- and Intra-College Transfer into all Associate and Bachelor’s degree programs.
- Prior to enrolling in classes for the B.S. degree you must contact an advisor in Polsky 301.

Career Information
Graduates of the BS CIS – Cybersecurity program are expected to qualify for such positions as law enforcement professionals, computer forensic specialists, data security analysts, systems security administrators, and network security administrators in government, business, information technology, and other industries.

For additional information, please visit the Bureau of Labor Statistics (www.bls.gov) or visit the Career Center in Simmons Hall, Room 301 (www.uakron.edu/career/).

Transfer to the College of Applied Science and Technology
To be admitted to the College of Applied Science and Technology, a student must have a GPA of 2.0. A student can complete the transfer process through an appointment with an Academic Advisor in the college in which they reside.

The following information has official approval of the Department of Business and Information Technology and The College of Applied Science and Technology, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others. The transfer process is completed through an appointment with your academic advisor. The College of Applied Science and Technology recommends that students take the General Education courses listed in this recommended sequence. Transfer students should consult their Advisor to identify courses that are equivalent.

1st Year
Fall Semester
2020:121 English
2235:100 Introduction to Digital Forensics
2440:145 Introduction to Unix/Linux
2440:201 Networking Basics 1,3
2440:202 Router and Routing Basics 1,3

Total Hours: 15

Spring Semester
2020:222 Technical Report Writing
2030:152 Technical Mathematics II
2030:153 Technical Mathematics III
2440:121 Introduction of Logic/Programming
2440:203 Switching Basics and Wireless 2,3
2440:204 WAN Technologies 2,3

Total Hours: 16

2nd Year
Fall Semester
2030:256 Diversity in American Society
2235:280 Cybercrime
2420:263 Professional Communications and Presentations
2440:247 Hardware Support 1
Natural Science Requirement

Total Hours: 15

Spring Semester
2030:216 Applied Finite Mathematics
2040:241 Technology & Human Values
2235:281 Computer Forensic Methods 2
2440:240 Computer Information Systems Internship 2,4
2440:248 Server Hardware Support 2

Total Hours: 15

3rd Year
Fall Semester
2030:361 Applied Cryptography
2235:283 Cyber Warfare

Total Hours: 15
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>2235:381</td>
<td>Computer Forensic Methods II</td>
<td>3</td>
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<tr>
<td>2440:340</td>
<td>Network Forensics I</td>
<td>3</td>
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<td>2440:388</td>
<td>Humanities Requirement</td>
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<td><strong>Total Hours</strong></td>
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<td><strong>Spring Semester</strong></td>
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<tr>
<td>2235:383</td>
<td>Ethical Hacking</td>
<td>3</td>
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<tr>
<td>2440:331</td>
<td>Programming for Cybersecurity</td>
<td>3</td>
</tr>
<tr>
<td>2440:443</td>
<td>Advanced UNIX/Linux</td>
<td>3</td>
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<tr>
<td>2440:388</td>
<td>Network Forensics II</td>
<td>3</td>
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<td></td>
<td>Natural Science Requirement with Lab</td>
<td>4</td>
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<td></td>
<td><strong>Total Hours</strong></td>
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<tr>
<td><strong>Summer Semester</strong>’applicable**</td>
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<tr>
<td>2030:461</td>
<td>Applied Cryptanalysis</td>
<td>3</td>
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<td>2040:243</td>
<td>Contemporary Global Issues</td>
<td>3</td>
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<td>2440:440</td>
<td>Intrusion Detection</td>
<td>3</td>
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<td>2440:490</td>
<td>CIS Senior Networking Projects</td>
<td>3</td>
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<td><strong>Total Hours</strong></td>
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<tr>
<td><strong>Arts Requirement</strong>’<strong>applicable</strong></td>
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<tr>
<td>2440:300</td>
<td>Network Authentication and Security</td>
<td>3</td>
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<td>2440:431</td>
<td>UNIX-based Systems Security</td>
<td>3</td>
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<td>2440:442</td>
<td>Wireless Forensics I</td>
<td>3</td>
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<td></td>
<td>Arts or Humanities Requirement</td>
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<td><strong>Total Hours</strong></td>
<td><strong>15</strong></td>
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1. Traditionally Fall Only (See Program Contact).
2. Traditionally Spring Only (See Program Contact).
3. Course is a 7.5 week course.
4. Eligible students will be involved in a paid co-op experience during the summer semester of the third year of the program. Co-op positions will enhance the cybersecurity skills of students and provide them with relevant and practical work experience in the cybersecurity industry. Students must have a cumulative GPA of 3.0 or higher in their 2440, 2235, and 2030 courses at the end of the 2nd Year Fall semester and must maintain a GPA of 3.0 or higher through 3rd Year Spring semester to be eligible for the Co-op.

5. All students pursuing a bachelor’s degree at the University of Akron must complete the General Education requirements. For efficient completion of UA General Education requirements, it is recommended that students choose an Arts or Humanities course to fulfill the Global Diversity tag for CIS bachelor’s programs.

Policy Alert: By the end of your first 48 credit hours attempted, you must have completed your required General Education English, Mathematics, and Communications (Speech) requirements.

Note:

- Students entering the Computer Information Systems programs (Cybersecurity, Digital Forensics, Networking, and Programming) must pass department placement exams or complete the following bridge course prior to enrolling in the program.
  - Bridge Course: 2440:105 Introduction to Computers and Application Software.

• This paid co-op experience course will be offered as a special section of 2440:240 CIS Internship for those who qualify.

• Those students who have a cumulative GPA under 3.0 must complete a standard section of 2440:240 Computer Information Systems Internship. This will also include those who did not maintain a cumulative GPA of 3.0 or higher from the 2nd Year Fall semester through the 3rd Year Spring semester.