CYBERSECURITY (BS)

The BS in Cybersecurity prepares students to evaluate and manage an organization’s computer, information and network security, as well as develop a solid information technology infrastructure.

Program Requirements | Quarter Hours
---|---
Liberal Studies Requirements | 76
Major Requirements | 96
Open Electives | 20
Total hours required | 192

Learning Outcomes

Students will be able to:

- Identify the information security services provided by "Confidentiality," "Integrity," and "Availability" (CIA).
- Analyze the security controls present in an environment and identify any improvements needed to implement fully a defense-in-depth model.
- Design an enterprise infrastructure that implements a defense-in-depth model.
- Develop security policies for an enterprise environment.
- Interpret how some of the legal and regulatory requirements impact an enterprise environment.
- Evaluate the threat sources, attack vectors and asset vulnerabilities in an enterprise environment via a risk assessment.

Liberal Studies Requirements

Honors program requirements can be found in the individual Colleges & Schools section of the University Catalog. Select the appropriate college or school, followed by Undergraduate Academics and scroll down.

First Year Program | Hours
---|---
Chicago Quarter | 
LSP 110 or LSP 111 | DISCOVER CHICAGO or EXPLORE CHICAGO | 4
Focal Point | 
LSP 112 | FOCAL POINT SEMINAR | 4
Writing | 
WRD 103 | COMPOSITION AND RHETORIC I | 4
WRD 104 | COMPOSITION AND RHETORIC II | 4
Quantitative Reasoning | 
Not Required |  
Sophomore Year | 
Race, Power, and Resistance | 
LSP 200 | SEMINAR ON RACE, POWER, AND RESISTANCE | 4
Junior Year | 
Experiential Learning | 
Required | 4
Senior Year | 
Capstone | 
CSEC 395 | INFORMATION SYSTEMS SECURITY ENGINEERING II (FORMERLY CNS 395) | 4

1 Students must earn a C- or better in this course.

Learning Domains

Arts and Literature (AL) (https://catalog.depaul.edu/undergraduate-core/liberal-studies-program/liberal-studies-learning-domains/arts-and-literature/)
- 3 Courses Required

Historical Inquiry (H) (https://catalog.depaul.edu/undergraduate-core/liberal-studies-program/liberal-studies-learning-domains/historical-inquiry/)
- 2 Courses Required

- Not Required

Philosophical Inquiry (PI) (https://catalog.depaul.edu/undergraduate-core/liberal-studies-program/liberal-studies-learning-domains/philosophical-inquiry/)
- 2 Courses Required (See note below)

Religious Dimensions (RD) (https://catalog.depaul.edu/undergraduate-core/liberal-studies-program/liberal-studies-learning-domains/religious-dimensions/)
- 2 Courses Required (See note below)

Scientific Inquiry (SI) (https://catalog.depaul.edu/undergraduate-core/liberal-studies-program/liberal-studies-learning-domains/scientific-inquiry/)
- 1 Lab Course Required

Social, Cultural, and Behavioral Inquiry (SCBI) (https://catalog.depaul.edu/undergraduate-core/liberal-studies-program/liberal-studies-learning-domains/social-cultural-and-behavioral-inquiry/)
- 3 Courses Required

Notes

Students must take one of the following ethics courses: CSC 208 (PI), IT 228 (PI), PHL 248/MGT 248 (PI) or REL 228/MGT 228 (RD)

Specified required courses within Liberal Studies may have grade minimums (e.g. C- or better). Please consult your advisor or your college and major requirements.

Courses offered in the student’s primary major cannot be taken to fulfill LSP Domain requirements. If students double major, LSP Domain courses may double count for both LSP credit and the second major. Students who choose to take an experiential learning course offered by the major may count it either as a general elective or the Experiential Learning requirement.

In meeting learning domain requirements, no more than one course that is outside the student’s major and is cross-listed with a course within the student’s major, can be applied to count for LSP domain credit. This policy does not apply to those who are pursuing a double major or earning BFA or BM degrees.
## Major Requirements

### Course Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Quarter Hours</th>
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</thead>
<tbody>
<tr>
<td>CMNS 201</td>
<td>BUSINESS AND PROFESSIONAL COMMUNICATION</td>
<td>4</td>
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<tr>
<td>CSEC 228</td>
<td>LEGAL, ETHICAL AND SOCIAL ISSUES IN INFORMATION SECURITY</td>
<td>4</td>
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<tr>
<td>CSEC 320</td>
<td>COMPUTER FORENSIC AND INCIDENT RESPONSE</td>
<td>4</td>
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<td>CSEC 340</td>
<td>FUNDAMENTALS OF INFORMATION ASSURANCE</td>
<td>4</td>
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<td>CSEC 378</td>
<td>HOST BASED SECURITY</td>
<td>4</td>
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<tr>
<td>CSEC 388</td>
<td>SECURITY TESTING AND ASSESSMENT (FORMERLY CNS 388)</td>
<td>4</td>
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<tr>
<td>CSEC 394</td>
<td>INFORMATION SYSTEMS SECURITY ENGINEERING I (FORMERLY CNS 394)</td>
<td>4</td>
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<tr>
<td>CSEC 395</td>
<td>INFORMATION SYSTEMS SECURITY ENGINEERING II (FORMERLY CNS 395)</td>
<td>4</td>
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<tr>
<td>CSC 233</td>
<td>CODES AND CIPHERS</td>
<td>4</td>
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<td>or CSC 333</td>
<td>CRYPTOLOGY</td>
<td>4</td>
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<tr>
<td>CSC 241</td>
<td>INTRODUCTION TO COMPUTER SCIENCE I</td>
<td>4</td>
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<tr>
<td>CSC 242</td>
<td>INTRODUCTION TO COMPUTER SCIENCE II</td>
<td>4</td>
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<tr>
<td>CSC 300</td>
<td>DATA STRUCTURES I</td>
<td>4</td>
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<tr>
<td>CSC 301</td>
<td>DATA STRUCTURES II</td>
<td>4</td>
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<tr>
<td>CSC 355</td>
<td>DATABASE SYSTEMS</td>
<td>4</td>
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<tr>
<td>CSC 373</td>
<td>COMPUTER SYSTEMS I</td>
<td>4</td>
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<tr>
<td>CSC 374</td>
<td>COMPUTER SYSTEMS II</td>
<td>4</td>
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<tr>
<td>IT 263</td>
<td>APPLIED NETWORKS AND SECURITY</td>
<td>4</td>
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<tr>
<td>MAT 140</td>
<td>DISCRETE MATHEMATICS I</td>
<td>4</td>
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<tr>
<td>NET 363</td>
<td>INTRODUCTION TO LOCAL AREA NETWORKS (FORMERLY TDC 363)</td>
<td>4</td>
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<tr>
<td>NET 365</td>
<td>NETWORK INTERCONNECTION TECHNOLOGIES (FORMERLY TDC 365)</td>
<td>4</td>
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<tr>
<td>NET 377</td>
<td>FUNDAMENTALS OF NETWORK SECURITY (FORMERLY TDC 377)</td>
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<tr>
<td>NET 379</td>
<td>TELECOMMUNICATION AND NETWORK SECURITY PRACTICUM (FORMERLY TDC 379)</td>
<td>4</td>
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</table>

Select eight (8) credit hours of Major Electives 8

Major Electives can be chosen from the following:

- Any 300-level CSEC, NET, CSC, SE, IS or IT courses
- CSC 281 WORKSHOP: JAVA FOR PROGRAMMERS
- CSC 282 WORKSHOP: LINUX FOR PROGRAMMERS

1 Students may take CSC 243 and 1 Additional Open Elective in lieu of CSC 241 and CSC 242.

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## Open Electives

Open elective credit also is required to meet the minimum graduation requirement of 192 hours.

## Degree Requirements

Students in this degree must meet the following requirements:

- Complete a minimum of 192 credit hours (generally 48 courses)
- Earn a grade of C- or higher in WRD 103, WRD 104, and all Major and Minor courses
- Earn a grade of D or higher in all other Liberal Studies and Open Elective courses
- Maintain a cumulative GPA of 2.0 or higher

See www.cdm.depaul.edu (http://www.cdm.depaul.edu) to see sample schedule of course requirements on a year-by-year basis.

Students must earn a grade of C- or higher in all major elective courses.

Students may take CSC 243 and 1 Additional Open Elective in lieu of CSC 241 and CSC 242.