Center for Individualized Learning
Individualized Degree Program (IDP)

Incubator Program in Cybersecurity
Extended Major – BS (no minor required)

Program Description

The new B.S. in Cybersecurity is one of a very few social sciences based B.S majors in Cybersecurity across the nation. The new program aims at providing students with in-depth knowledge and background as well as practical skills in policy-making regarding assessing, managing cyber threats as well as investigating, prosecuting and punishing cyber criminals.

The new program is jointly offered by the Departments of Criminal Justice & Criminology (CJC, CPS), Computer Information System (CIS, CB), and Mathematical and Computer Sciences (CS, CLAS). The Department of Criminal Justice and Criminology will house and administer this tri-college, multi-disciplinary program.

The new B.S. in Cybersecurity provides students with a rare chance to obtain a social-sciences-based B.S. degree in cybersecurity as well as a bright future of employment. Mainly, students will learn:

- Digital techniques and tools such as cyber threat analysis and information sharing, cyber laws/regulations to manage and secure cyberspace, prevent, detect, and recover from cybercrimes;
- Investigative skills and prosecuting knowledge of cybercrimes and criminals, as well as human behaviors such as “fraud indicators” or suspicious behavior;
- Theoretical understanding of cybercrimes and criminal behavior, as well as controlling cybercrimes through prevention and punishment;
- The impact of social media on the criminal justice system, and therefore the significance of cybersecurity, and
- The impact of cybercrimes and criminals and their victims on the criminal justice system.

The new B.S. Cybersecurity couples its unique content as mentioned above with an emphasis on work-readiness skills as well as a flexible course delivery (i.e., in the classroom, online, or hybrid classes).

Faculty Liaison(s) from Key Departments:
Dr. Janos Fustos – Computer Information Systems
Dr. Steve Beatty – Computer Science
Dr. Liying Li – Criminal Justice
RECOMMENDED GENERAL STUDIES COURSEWORK

All students must complete the standard General Studies requirements for their catalog year.
A minimum grade of “C” is required for a course to count toward the major. The B.S. in Cybersecurity program does not allow plus and minus grades.

(The specific courses listed will fulfill prerequisites needed for later coursework):

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written Communication</td>
<td>6</td>
</tr>
<tr>
<td>Oral Communication</td>
<td>3</td>
</tr>
<tr>
<td>Quantitative Literacy</td>
<td>MTH 1310 – 4</td>
</tr>
<tr>
<td>Arts and Humanities</td>
<td>PHI 3370 – 3</td>
</tr>
<tr>
<td>Historical</td>
<td>3</td>
</tr>
<tr>
<td>Natural and Physical Sciences</td>
<td>6</td>
</tr>
<tr>
<td>Social and Behavioral Sciences I</td>
<td>CJC 1010 – 3</td>
</tr>
<tr>
<td>Social and Behavioral Sciences II</td>
<td>PSY 1001 – 3</td>
</tr>
<tr>
<td>Global Diversity</td>
<td>(can be met with a course in another General Studies area)</td>
</tr>
</tbody>
</table>

**Total General Studies (GS) 34-37**

**Multicultural Requirements**

**Total GS and Multicultural Requirements 37 - 40**

Pre-major recommendations: (Total 6 credit hours – these are prerequisites for courses listed below.)
CJC 1010 (Introduction to the Criminal Justice System) – 3
CIS/CSS 1010 (Introduction to Computers) - 3 (Students can waive CIS/CSS 1010 by passing a placement test)

**CJC Recommended Courses: (Total 27 credit hours)**
CYB 2001 (Cyber Laws and Regulations) – 3 (prefix and course proposed for Fall 2017)
CJC 2500 (Criminal Investigation) – 3 (course proposed for Fall 2017)
CJC 3210 (White-Collar Crime) – 3
CJC 3420 (Organized Crime) – 3
CJC 3800 (Federal Law Enforcement) – 3
CYB 3980 (Internship) – 6 (prefix proposed for Fall 2017)
CYB 4000 (Capstone Seminar [Senior experiences]) – 3 (prefix and course proposed for Fall 2017)
One elective CJC course (Choose from any CJC upper division courses) - 3

**CIS Recommended Courses: (Total 18 credit hours)**
CIS 2010 (Foundations of Information Systems) - 3
CIS 2110 (Structured Problem Solving in Information Systems) - 3
CIS 3230 (Telecommunication Systems and Networking) - 3
CIS 3500 (Information Systems Security) – 3
CIS 4500 (Information Systems Security Tools and Techniques) - 3
CIS 4550 (Information Systems Security Management and Information Assurance) - 3
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSS 2751</td>
<td>Principles of Cybersecurity</td>
<td>3</td>
</tr>
<tr>
<td>CSS 2752</td>
<td>Information Assurance</td>
<td>3</td>
</tr>
<tr>
<td>CSS 2753</td>
<td>Network Security</td>
<td>3</td>
</tr>
<tr>
<td>CSS 2754</td>
<td>Host Security</td>
<td>3</td>
</tr>
<tr>
<td>CSS 3751</td>
<td>Application Security</td>
<td>3</td>
</tr>
<tr>
<td>CSS 3752</td>
<td>Computer Forensics</td>
<td>3</td>
</tr>
</tbody>
</table>

Total recommended credit hours = 63, plus 6 credits of prerequisites.

*Note:* These recommendations include 39 upper division hours. All students must complete 40 upper division hours as part of the entire degree so 1 additional upper division credit will be needed either in General Studies or as general electives.