The technology, cybersecurity and policy PhD degree is designed for highly-motivated students seeking to conduct research at the intersection of many emerging technology and includes cybersecurity, policy and human factors. By working with cognate disciplines TCP students can achieve the PhD degree with focus areas such as: economics, linguistics, social sciences and policy disciplines more generally. Enrolled students develop the necessary skills to conduct research, along with a domain discipline focused study plan in the specific technical areas of their interests. Research foci often mirror one of the established areas of research in the program, such as wireless systems, policy and cybersecurity.

The profile of selected applicants may include those that have already earned a master's degree or have substantial work experience in the private or public sectors in the cybersecurity, information communications or telecommunications fields. The PhD program may also be of interest to academically qualified students coming straight from a range of undergraduate programs who will earn an MS degree as they progress toward the PhD degree. The future is open to interdisciplinary possibilities in technology, cybersecurity and policy.

For more information, visit the TCP Program (https://www.colorado.edu/program/tcp) webpage.

### Requirements

#### Course Requirements

Students must complete a total of at least 60 credits at the graduate-level (i.e., courses taken subsequent to receiving their MS and doctoral dissertation credits) in order to fulfill the requirements for a PhD degree.

The following course requirements are subject to change; for the most current information, see the department's TCP Program (https://www.colorado.edu/program/tcp) webpage.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
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<tbody>
<tr>
<td>CYBR 5300</td>
<td>Introduction to CyberSecurity</td>
<td>3</td>
</tr>
<tr>
<td>CYBR 5200</td>
<td>Introduction to Wireless Systems</td>
<td>3</td>
</tr>
<tr>
<td>CYBR 5400</td>
<td>Principles of Internet Policy</td>
<td>3</td>
</tr>
<tr>
<td>CYBR 5510</td>
<td>Technology: Commercial Strategy and Operations</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td>18</td>
</tr>
</tbody>
</table>

Options include:

- CYBR 5320 Cybersecurity Network Analytics
- CYBR 5330 Digital Forensics
- CYBR 5350 Security Auditing and Penetration Testing
- CYBR 5410 Telecommunications Law and Policy

#### Preliminary Examination

The preliminary examination consists of two components: a preliminary paper and successful demonstration of proficiency of TCP core courses. All students must complete both the prelim paper and all TCP core courses by their fourth semester (the spring semester of their second year, unless they have successfully petitioned the TCP PhD Preliminary Examination Committee for an exception by the end of the first month of the fall semester of their second year).

#### Comprehensive Examination

Students who have passed the preliminary examination at the PhD level and completed the required coursework (a total of 30 credits) are eligible to take the comprehensive examination the following year, roughly 12 months after the preliminary examination. The comprehensive exam consists of an oral presentation of a written thesis proposal that is reviewed and approved by the student's thesis committee. The thesis proposal should describe the problem statement, research methodology, and proposed research plan, along with a brief review of the background of the topic and summary of early results. The research plan should break down the research into development phases and include a tentative schedule for the completion of each research phase.

#### PhD Dissertation

Following the semester in which the comprehensive exam is passed, the student must be continuously registered each fall and spring for dissertation hours until the student successfully defends his or her dissertation or formally withdraws from the program. These students are required to register for at least 5 credit hours per semester of dissertation research (on campus), or for at least 3 credit hours per semester if dissertation research takes place off campus (distance).