

# CYBERSECURITY (PH.D.)

---

Students will learn the foundations of cybersecurity theory and application as well as the interaction between the two. By understanding the extent and limitation of current knowledge in cybersecurity, the graduate will learn to understand what issues are important and why. Students will acquire the methodological skills to resolve important open problems and tackle challenging new projects. Students will learn to present problems and solutions both orally and in writing. For examples of active research areas, please visit the Computer Science Department's website (<https://www.uidaho.edu/engr/departments/cs/>).

Code	Title	Hours
CYB 5070/ CS 5007	CS and Cyber Research Methods	3
CYB 5200	Digital Forensics	3
CYB 5360	Advanced Information Assurance Concepts	3
CYB 5400	Advanced Networking & Security	3
CYB 5010	Cybersecurity Graduate Seminar	3
Electives as approved by Major Professor		18
CYB 6000	Doctoral Research and Dissertation	45
<b>Total Hours</b>		<b>78</b>

## Courses to total 78 credits

Within a few years of graduation graduates of the program will be advancing in their chosen career path and benefiting society by:

1. identifying, formulating, and solving cybersecurity problems through application of their knowledge of cybersecurity, mathematics, computer science, and the scientific method in their chosen career path, and will be continuing to expand their awareness of the role of cybersecurity in multiple disciplines;
2. equip students with the skills and knowledge to conduct in-depth analysis of sophisticated cyber threats, develop novel threat detection techniques, and design effective mitigation strategies, including modeling, designing, implementing and verifying cybersecurity systems to meet specified requirements, security parameters, and real-world constraints;
3. communicating effectively with team members, constituents, and/or the public;
4. continuing the process of life-long learning by further extending their knowledge and professional capabilities;
5. contributing to society through active engagement with professional societies, schools, civic organizations or other community activities;