CYBERSECURITY

2021/2022
Four-Year Academic Plan
Calculus I & ENGL-102 ready

University of Idaho
College of Engineering

Courses in italics are prerequisites **Courses in bold are co-requisites**

See course catalog for complete degree requirements and additional information at uidaho.edu/registrar/classes/catalogs. Last updated 11/30/20

FRESHMAN	SEMESTER ONE		SEMESTER TWO		
*CYB 110	Cybersecurity and Privacy	3	*CS 120	Computer Science I *MATH 143, CS 112 or sufficient test scores*	4
*CS 112	Computational Thinking	3	*MATH 176	*Discrete Mathematics* *C or better in MATH 143 or sufficient test scores*	3
ELECTIVE	Free Elective	3	COMM 101	*Fundamentals of Public Speaking*	2
ENGL 102	College Writing and Rhetoric *ENGL 101 or sufficient test scores*	3	PHIL 103	Ethics	3
ELECTIVE	Humanities / Social Science Elective *Must fulfill U of I General Degree Requirements (J-3)*	3	ELECTIVE	*Science Elective w/Lab* *See listing below*	4
	Total Credits	**15**		**Total Credits**	**16**

SOPHOMORE	SEMESTER ONE		SEMESTER TWO		
*CS 121	Computer Science II *CS 112,* **MATH 176**	3	*CS 240	Computer Operating Systems *CS 121, CS 150,* **CS 270**	3
*CS 150	Computer Organization & Arch. *CS 120*	3	*CS 270	System Software *CS 121*	3
*CYB 210	Cybersecurity Management	3	*CYB 220	Secure Coding and Analysis *CS 121*	3
ELECTIVE	Humanities / Social Science Elective *Must fulfill U of I General Degree Requirements (J-3)*	3	ELECTIVE	Science Elective with Lab *See listing below*	4
MATH 160 or MATH 170	Survey of Calculus or Calculus I *C or better in MATH 143/144 or sufficient test scores*	4	STAT 251 or STAT 301	Probability & Statistics *MATH 143 or MATH 175*	3
	Total Credits	**16**		**Total Credits**	**16**

JUNIOR	SEMESTER ONE		SEMESTER TWO		
CYB 310	Cybersecurity Technical Foundations *CYB 110, CS240*	3	CS 383	Software Engineering *CS 210, CS 240, CS 270 or permission*	3
CYB 330	Networking and Control Systems *CYB 210, CS240*	3	CYB 340	Network Defense *CYB 310, CYB 330*	3
CYB 380	Cybersecurity Lab I *CS 240,* **CYB 310, CYB 330**	3	CYB 350	Operating System Defense *CYB 310*	3
ELECTIVE	Free Elective	3	CYB 381	Cybersecurity Lab II *CYB 310, CYB 380,* **CYB 340, CYB 350**	3
ENGL 317	Technical Writing *ENGL 102, Junior standing or permission*	3	ELECTIVE	Free Elective	3
	Total Credits	**15**		**Total Credits**	**15**

SENIOR	SEMESTER ONE		SEMESTER TWO		
CYB 401	Cybersecurity as a Profession *Senior Standing in CS*	1	CYB 440	Software Vulnerability Analysis *CYB 220, CYB 310*	3
CYB 420	Computer and Network Forensics *CYB 310*	3	CYB 481	Senior Capstone Design II *CS 383, CYB 381, CYB 480, ENGL 317*	3
CYB 480	Senior Capstone Design I *CS 383, CYB 381, ENGL 317, Senior Standing*	3	ELECTIVE	Free Elective *Must fulfill U of I General Degree Requirements (J-3)*	5
ELECTIVE	Free Elective	3	ELECTIVE	Humanities / Social Science Elective *Must fulfill U of I General Degree Requirements (J-3)*	3
ELECTIVE	Humanities / Social Science Elective *Must fulfill U of I General Degree Requirements (J-3)*	3			
	Total Credits	**13**		**Total Credits**	**14**

SCIENCE ELECTIVES WITH LABS

BIOL 114 Organisms and Environments
CHEM 111/111L Principles of Chemistry I + Lab
ENVS 101/102 Intro. Environ. Sci. + Field Activities
GEOG 100/100L Physical Geography + Lab
GEOL 102 + 102L Historical Geology + Lab
PHYS 211 + 211L Engineering Physics I + Lab
SOIL 205 + 206 The Soil Ecosystem + Lab

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Pre-Calculus Ready

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*CS 112	Computational Thinking	3	*MATH 176	*Discrete Mathematics* *C or better in MATH 143 or sufficient test scores*	3
MATH 143	College Algebra *C or better in MATH 108 or sufficient test scores*	3	COMM 101	*Fundamentals of Public Speaking*	2
ENGL 102	College Writing and Rhetoric *ENGL 101 or sufficient test scores*	3	PHIL 103	Ethics	3
ELECTIVE	Humanities / Social Science Elective *Must fulfill U of I General Degree Requirements (J-3)*	3	ELECTIVE	*Science Elective w/Lab* *See listing below*	4
	Total Credits	**15**		**Total Credits**	**16**

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*CS 150	Computer Organization & Arch. *CS 120*	3	*CS 270	System Software *CS 121*	3
*CYB 210	Cybersecurity Management	3	*CYB 220	Secure Coding and Analysis *CS 121*	3
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CYB 380	Cybersecurity Lab I *CS 240,* **CYB 310, CYB 330**	3	CYB 350	Operating System Defense *CYB 310*	3
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CYB 480	Senior Capstone Design I *CS 383, CYB 381, ENGL 317, Senior Standing*	3	ELECTIVE	Free Elective *Must fulfill U of I General Degree Requirements (J-3)*	6
ELECTIVE	Free Elective	3	ELECTIVE	Humanities / Social Science Elective *Must fulfill U of I General Degree Requirements (J-3)*	3
ELECTIVE	Humanities / Social Science Elective *Must fulfill U of I General Degree Requirements (J-3)*	3		**Total Credits**	**15**
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PHYS 211 + 211L Engineering Physics I + Lab
SOIL 205 + 206 The Soil Ecosystem + Lab

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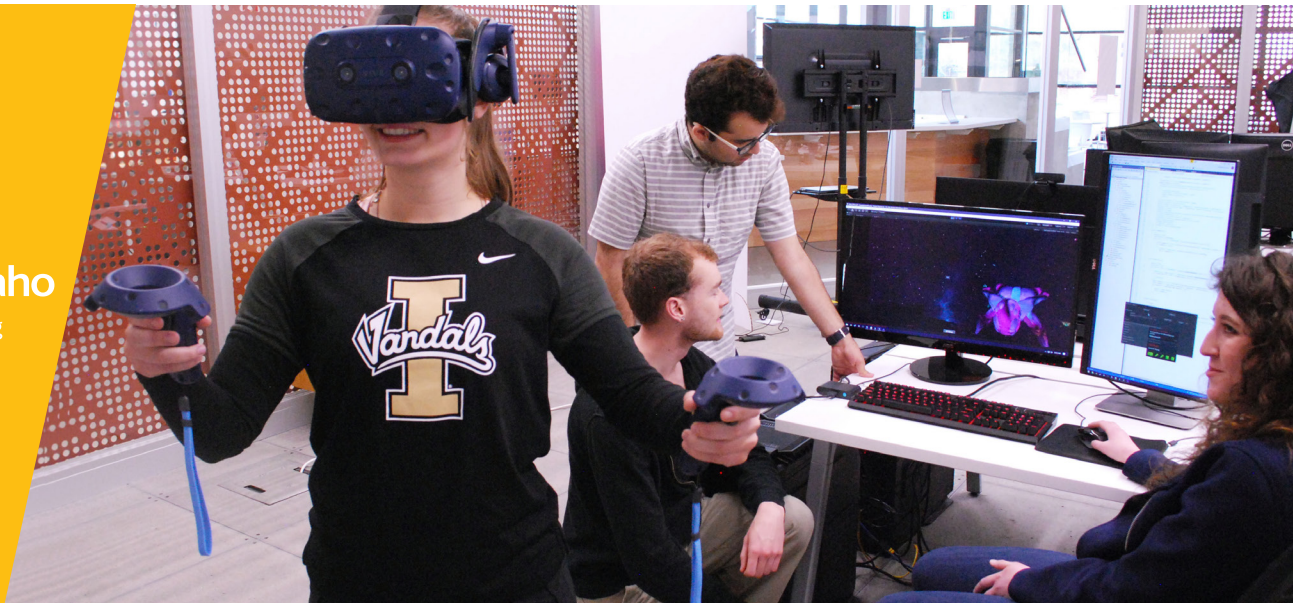

COMPUTER SCIENCE

Transform ideas into working computer programs that solve real problems in areas such as robotics, cybersecurity, social media, video games, computer networks, and control systems for aircraft and vehicles.

ABOUT YOUR DEGREE PATH

Computer Science majors have one-on-one interaction with professors. Work with faculty to tailor your education to your interests, and the opportunity to be involved in award-winning, cutting edge research with a department of national distinction.

Choose from advanced courses in computer and network security, games and virtual environments, embedded systems, distributed and network computing, fault tolerant systems, artificial intelligence, evolutionary computing, computer architecture, software engineering, and database systems.

Apply your skills to help others in almost every other discipline including medicine, performing arts, engineering, biology, business, political science and others.

MATCH YOUR INTERESTS

- Robotics
- Video Games and Virtual Environments
- Artificial Intelligence
- Cybersecurity
- Automation
- Communication Networks
- Biological Modeling
- Collaborative Virtual Environments
- Computer Hardware and Software
- Embedded Systems
- Reconfigurable Computing
- Large Scale Data Management

YOUR DEGREE IS ACCREDITED

Our undergraduate Computer Science program is accredited by the Computing Accreditation Commission of ABET, www.abet.org.

DEPARTMENT OF COMPUTER SCIENCE
208-885-6592 csinfo@uidaho.edu uidaho.edu/engr/cs