CRITICAL INFRASTRUCTURE RESILIENCE GRADUATE ACADEMIC CERTIFICATE

With the growing need for a highly skilled and well-versed cyber security workforce, especially in sectors of our nation's critical infrastructure, there is a need for guidance and recognition of accomplishment in graduate studies in this area from multiple disciplines. The critical infrastructure graduate certificate is offered in the Technology Management program. Masters' students in technology management, computer science, electrical and computer engineering, or nuclear engineering, as well as non-degree-seeking professionals, will be eligible to earn this interdisciplinary certificate.

The first course listed is required. The remaining are electives that meet specific objectives. Group 1 of electives covers fundamentals of security and risk management. Group 2 of electives provides domain-specific engineering fundamentals of cyber-physical systems. Group 3 of electives provides computer security concepts and skills.

All required coursework must be completed with a grade of B or better (O-10-b (https://catalog.uidaho.edu/general-requirements-academic-procedures/o-miscellaneous/)).

Code	Title	Hours
TM 517	Critical Infrastructure Security and Resilience Fundamentals	3
Select 6 credits of electives from the following:		6
CS 536	Advanced Information Assurance Concepts	
ECE 469	Resilient Control of Critical Infrastructure	
INDT 470	Homeland Security	
INDT 472	National Incident Management Systems	
TM 529	Risk Assessment	
TM 516	Nuclear Rules and Regulations	
Select 3 credits of electives from the following:		3
CHE 445	Digital Process Control	
CS 452	Real-Time Operating Systems	
ECE 340	Microcontrollers	
ECE 443	Distributed Processing and Control Networks	
ECE 444	Supervisory Control and Critical Infrastructure Systems	
ECE 470	Control Systems	
ECE 477	Digital Process Control	
INDT 333	Industrial Electronics and Control Systems	
ME 481	Control Systems	
TM 514	Nuclear Safety	
Select 3 credits of electives from the following:		3
CS 438	Network Security	
CS 439	Applied Security Concepts	
CS 447	Digital Forensics	
Total Hours		**15**

Courses to total 15 credits for this certificate