

POWER SYSTEM PROTECTION AND RELAYING GRADUATE ACADEMIC CERTIFICATE

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
ECE 5230	Symmetrical Components	3
ECE 5250	Power System Protection and Relaying	3
ECE 5260	Protection of Power Systems II	3
Select 1 from the following:		3
ECE 4220	Power Systems Analysis	
ECE 4520	Communication Systems	
ECE 4760	Digital Filtering	
ECE 5240	Transients in Power Systems	
ECE 5290	Utility Applications of Power Electronics	
ECE 5440	Supervisory Control and Critical Infrastructure Systems	
Total Hours		12

Courses to total 12 credits for this certificate

1. Develop solid understanding of the theory of symmetrical components as applied to power systems fault analysis.
2. Develop a deeper understanding of power generation and system apparatus models for fault analysis.
3. Learn advanced fault analysis techniques.
4. Learn power systems protection and relaying fundamentals.
5. Learn to apply advanced methods for protection of transmission lines, distribution systems, buses, transformers, generators and other apparatus.
6. Gain understanding of protection challenges and solutions for inverter-based resources such as photovoltaic, wind and battery storage systems.
7. Learn how telecommunication systems are applied to improve protection system performance.