

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 523	Symmetrical Components	3
ECE 525	Power System Protection and Relaying	3
ECE 526	Protection of Power Systems II	3
Select 1 from the following:		3
ECE 422	Power Systems Analysis	
ECE 452	Communication Systems	
ECE 476	Digital Filtering	
ECE 524	Transients in Power Systems	
ECE 529	Utility Applications of Power Electronics	
ECE 544	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.