Quantum and Nanotechnology Specialization

Nikolay Zhelev, Director

Quantum and Nanotechnology graduate specialization, housed within the Applied Physics master's program, is an innovative, industry-focused program that equips students with advanced skills in quantum science, nanofabrication, radio-frequency electronics, and cryogenic technology. Building on the success of the University of Oregon's nationally recognized Applied Physics Master's program, this specialization combines rigorous coursework, hands-on training, and a nine-month paid industry internship. It prepares graduates for high-demand careers in quantum computing, superconducting quantum circuits, nanoelectromechanical systems (NEMS), photonics, and advanced materials research.

Graduate Specialization in Quantum and Nanotechnology

Code	Title	Credits
Required Courses		
PHYS 533	Radiofrequency and Low-noise Measurements	4
PHYS 589	The Physics Behind Quantum Computers	4
PHYS 595	Nanofabrication	4
PHYS 681	Cryogenic and Quantum Measurements	4
PHYS 682	Optical Quantum Lab	4
PHYS 691	Industry Projects in Quantum and Nanotechnology	4
Successful completion of Applied Physics Master's requirements, including internship.		
Total Credits		**24**