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	Radio-frequency 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**