

2021 NANOTECHNOLOGY ONLINE COURSE SYLLABUS

COURSE OVERVIEW

This course is designed to give students an overview of nanotechnology. The course consists of lectures, invited lectures, lab sessions, a challenge project and group presentations. Students will learn fundamentals of nanotechnology and fabrication methods from lectures. Many invited lecturers from various areas (faculty, engineer, and entrepreneur) will share their leading-edge research, real-world engineering and industrial startup experiences with students. Students will perform hands-on processing and characterization through lab @ home. Students will also experience nanotechnologies through demos and tours at the Singh Center for Nanotechnology and faculty labs at Penn. Each student will have public speech opportunities to present their experiments and a challenge project with peers.

HOURS

All lectures and labs will be done via Zoom. Attendance will be part of the grade.

Lecture and Lab (Mon – Fri) – 11:00 AM – 7:00 PM EDT, 8:00 AM – 4:00 PM PDT

Lunch – (mostly) 1:30 PM – 2:30 PM EDT, 10:30 AM – 11:30 AM PDT

Office hours (Mon – Fri) – 10:00 AM – 11:00 AM EDT and lunch time

COURSE HARDWARE & SOFTWARE REQUIREMENTS

Students are required to have their own computer or laptop with access to a microphone and a webcam (this is built-in on most modern machines). You must also have strong/ reliable internet service. Most course-specific lab materials and any software will be provided free of charge.