**PHOE 140: Intro. to Advanced Manufacturing and Photonics**

This course, which includes both online and in-class components, gives an overview of modern photonic manufacturing processes and covers necessary background material for subsequent courses. The course discusses basic safety and ethics considerations, employment opportunities, communication skills, and a review of basic technical mathematics, problem solving skills, and software (Microsoft Excel and Office), as well as demonstrations and hand-on experiences introducing a sampling of advanced topics.

This course covers topics in three main areas:

(i) Review of background material, including math, statistics, and basic computer skills.

(ii) An overview of manufacturing and industry, including basic safety considerations and basic career skills.

(iii) An overview of photonics and the role that technicians play in the photonics industry.

A general overview of photonics and its applications in science, medicine, industry and other areas can be found here:

<https://spie.org/Documents/Membership/SPECTARIS_Photonics.pdf>