

PLTT - Photonics and Laser Technology

PLTT 100 Introduction to Photonics and Advanced Manufacturing: 3 Credits (3 Lec)

This course gives an introduction/overview of photonics and manufacturing processes and covers the necessary background material for subsequent courses. The course discusses basic laboratory safety and ethics considerations, communication skills, basic technical mathematics, problem solving skills, and industry relevant software. The course includes visits to/from local companies for industry days that involve demonstrations and hand-on experiences introducing a sampling of the advanced topics introduced in this course.

PLTT 101 Fundamentals of Light and Lasers: 5 Credits (3 Lec, 2 Lab)

COREQUISITE: M 121Q. (Sp) This course is designed to provide the foundation required to prepare technicians in the areas of optics, electro-optics, laser, and photonics. The course is designed for use as the introductory course in the A.A.S. program for Photonics and Laser Technology

PLTT 191 Special Topics: 1-3 Credits (1-3 Lec)

This 14-week course gives an introduction/overview of photonics and manufacturing processes and covers the necessary background material for subsequent courses. The course discusses basic laboratory safety and ethics considerations, communication skills, basic technical mathematics, problem solving skills, and industry relevant software. The course includes several visits to/from local companies for industry days that involve demonstrations and hand-on experiences introducing a sampling of the advanced topics introduced in this course.

PLTT 201 Laser Systems and Applications I: 5 Credits (3 Lec, 2 Lab)

PREREQUISITE: PLTT 101. This course introduces the operation principles and characteristics of several different laser types and their practical applications. Lasers are a major subcategory of Photonics, therefore this is a required course for students enrolled in Gallatin College's A.A.S in Photonics and Laser Technology

PLTT 202 Laser Systems and Applications II: 5 Credits (3 Lec, 2 Lab)

PREREQUISITES: PLTT 101 and PLTT 201

The intent of this class is to build upon the concepts learned in PLTT 201 and continue to reinforce to the students the operation principles and characteristics of other widely used laser sources and photonics based devices and their practical applications.

Repeatable up to 5 credits.

PLTT 298 Internship/Cooperative Education: 2 Credits (2 Lab)

PREREQUISITES: PLTT 101, PLTT 201, ETEC 101, ETEC 106, ETEC 250

This course gives the student a minimum of 150 hours of guided experience in a local professional or cooperative education setting. It provides monitored experience working with photonics devices, test and measurement equipment, processes and other industry partners.

Repeatable up to 5 credits.