

PHO 252
Fiber Optic Systems and Devices LAB
1 credit

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B 213, Fiber Lab

The goal of this lab course is to provide you with hands-on experience with fiber handling and testing. Beginning with POF, you will progress through multi-mode to single mode fiber connectorization and connector evaluation. You will also learn to use the fusion splicer and to test fiber links with an optical time domain reflectometer (OTDR). You will also measure fiber characteristics (numerical aperture and attenuation) and experiment with fiber devices.

If possible, we will also travel to at least one CT manufacturer to observe fiber being drawn and tested.

REPORTS:

The requirements of each lab report will be given at the time the experiment is performed. In general, you will be expected to make and record observations, take data and neatly enter it into a data table, analyze and report results and offer suggestions for improvement. Reports (except for equations) must be typed.

List of lab experiments

- 1 Plastic Fiber
- 1 Plastic Fiber testing
- 2 Numerical aperture.doc
- 3 attenuation.doc
- 4 MM connector 1.doc
- 4 MM Connector 2.doc
- 5 connector losses
- 6 Single mode connector.doc
- 7 otdrlab.doc
- 8 fiberoptic sensor.doc
- 9 homemade coupler.doc