**Course Topics**

**EEE 546 Advanced Fiber Optics**

**Catalog Course Description:** Theory of propagation in fibers, couplers and connectors, distribution networks, modulation, noise and detection, system

design, and fiber sensors.

**Prerequisite:** EEE 448 Fiber Optics (or equivalent)

**Prerequisites by Topic:**

1. Propagation in dielectric waveguides, including loss phenomena and dispersion.

2. Elementary ray theory.

3. Lasers, lightemitting

diodes, and photodetectors.

4. Introductory fiber optics.

**Course Topics:**

1. Couplers and connectors

2. Distribution networks and fiber components

3. Modulation

4. Noise and detection

5. System design

6. Singlemode fibers

7. Optical amplifiers

8. Fiber sensors