

Bachelor of Science in Optical Sciences and Engineering[†]

College of Optical Sciences

Proposed Program Educational Objectives

Graduates of the Bachelor of Science in Optical Sciences and Engineering will be employed in industry, graduate school, or other service and will meet the following Program Educational Objectives:

- Objective 1:** Graduates will demonstrate a solid foundation in the basic principles of optics, mathematics, and physics necessary to understand a broad range of optical systems as evidenced by:
- Success in graduate studies
 - Promotions/raises
 - Professional visibility
 - Entrepreneurial activities related to optical systems
 - International activities (e.g., participation in international conferences, collaborative research, employment abroad, etc.)
- Objective 2:** Graduates will be able to apply the optical engineering and engineering tools needed in an optical engineering career. These tools will allow them to design, build, and test systems that will incorporate optics as an enabling technology as evidence by:
- Being able to identify specific optical systems to which they have directly contributed
 - Approval of graduate research, thesis, or dissertation projects
- Objective 3:** Graduates will be able to communicate effectively in oral, written, and graphical forms as needed in a multidisciplinary team. Graduates will contribute to society by following ethical standards and engaging in public and professional service activities. They will be able to succeed through their understanding and appreciation of the impact of engineering practice on society, the economy, and the environment as evidenced by:
- Publications
 - Presentations
 - Patents
 - Inventions
 - Awards

Objective 4: Graduates will exhibit strong skills in problem solving. Our graduates will demonstrate a solid foundation in optical engineering fundamentals, experience in the design process, and in-depth experience in a chosen area which leads to success in their chosen careers as evidenced by

- Obtaining graduate degrees
- Advancing in careers
- Becoming successful entrepreneurs,
- Contributing to cutting-edge research,
- Participating actively in professional societies

Note: We will seek approval of these proposed objectives with evidence statements through our undergraduate curriculum committee, faculty, and external constituents not later than May 2011.