Optical Engineering Program Educational Objectives

The Norfolk State University Engineering faculty will provide a state-of-the-art optical engineering education capable of producing engineers that will:

- Devise technical solutions based on sound principles in science and engineering;
- Be effective communicators of technical information within professional settings or to broader audiences;
- Be ethically responsible members of the engineering community and cognizant of societal impacts of engineering solutions;
- Continue their professional development in business settings or through advanced degree attainment.

Optical Engineering Student Outcomes

The Optical Engineering faculty has identified 7 core student learning outcomes that will fully support the ability of graduates to successfully pursue modern engineering opportunities beyond the undergraduate level. The faculty has further developed its curriculum to help students achieve the intended program outcomes. Students who successfully complete the Optical Engineering Program curriculum will be able to demonstrate the following:

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering
situations and make informed judgements, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts

5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives

6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgement to draw conclusions

7. an ability to acquire and apply new knowledge, as needed, using appropriate learning strategies

Optical Engineering Program Statistics

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