

Ph.D. Program in Optics

The Ph.D in Optics Program will have a deep focus in the areas of laser spectroscopy, biophotonics and nanophotonics, and develop many challenging and exploratory projects based on optical nanotechnology and its applications to aid the health related sciences.

Students in the Ph.D program will be required to complete a dissertation and an oral defense of it. The Ph.D Program in Optics has a typical duration of four to seven years for full-time students.

The program will be the first of its kind in the State of Delaware and the region and amongst about a dozen institutions in the nation that offer a Ph.D. in optics. Furthermore, it is designed to be linked with other related research and academic programs in the region, as well as the biotechnology and pharmaceutical companies in and around Delaware.

The foundations for the Ph.D Program in Optics – which was established in 2008 – were laid by the DSU Center for Research and Education in Optical Sciences and Applications (CREOSA). Given the interdisciplinary opportunities that optics presents, students in the Ph.D. Program in Optics will have the same opportunities.

Interested students, researchers and engineers can obtain more information by visiting www.creosa.desu.edu [1] or by contacting the DSU Department of Physics at (302) 857-6659.

CREOSA Research Projects

Laser-Induced Breakdown Spectroscopy – Dr. Nouredine Melikechi, Dr. Aristides Marcano, Dr. Vesna Zelikovic

Photothermal Lens Spectroscopy – Dr. Aristides Marcano, Dr. Nouredine Melikechi

Optical Solitons – Dr. Anjan Biswas, Dr. Dawn Lott

Single-Molecule Spectroscopy – Dr. Chandran Sabanayagam

Electromagnetically Induced Transparency and Slow Light – Dr. Gour Pati

Nanophotonics – Dr. Chandran Sabanayagam, Dr. Gour Pati

Data Mining of Spectroscopy Data – Dr. Dragoljub Pokrajac

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Links

[1] <http://www.creosa.desu.edu>