



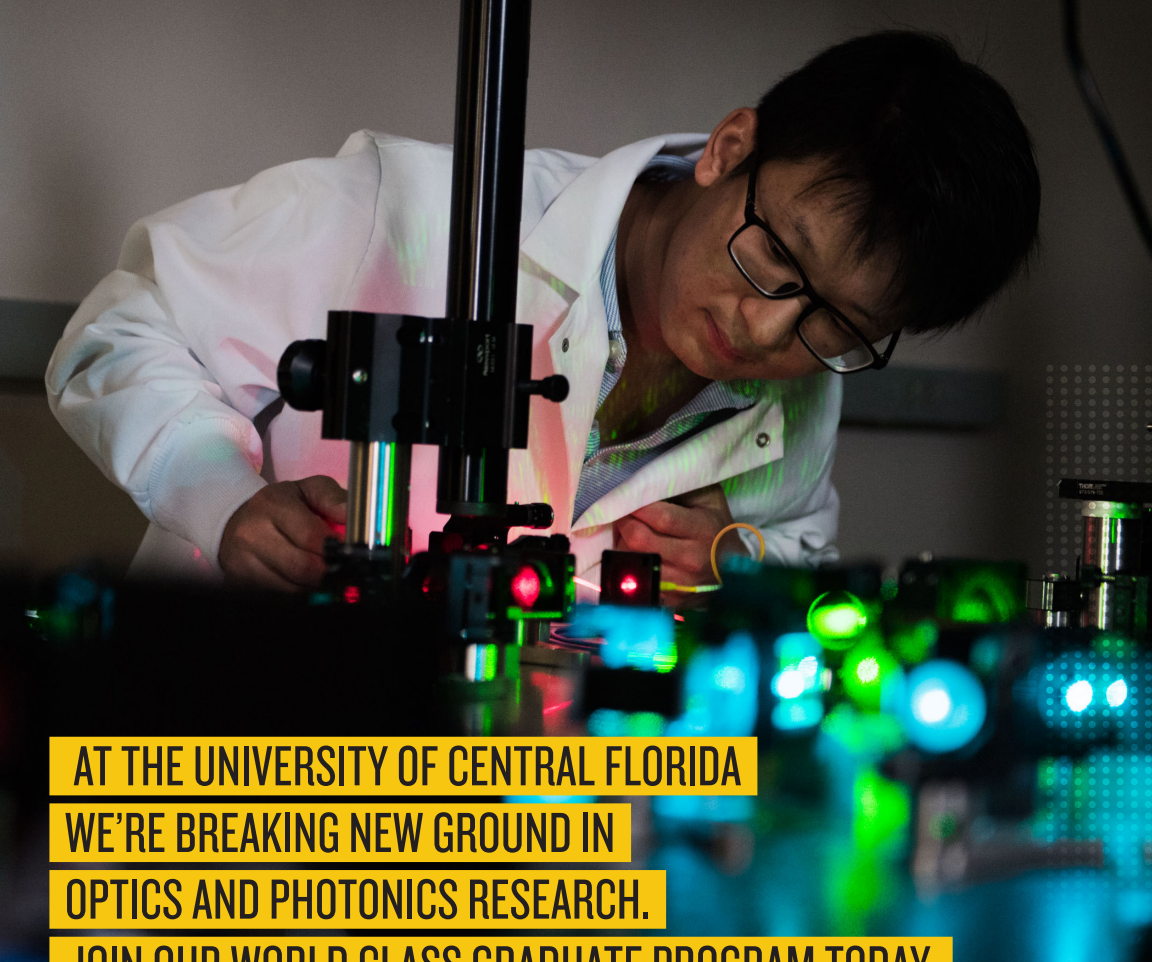
UCF



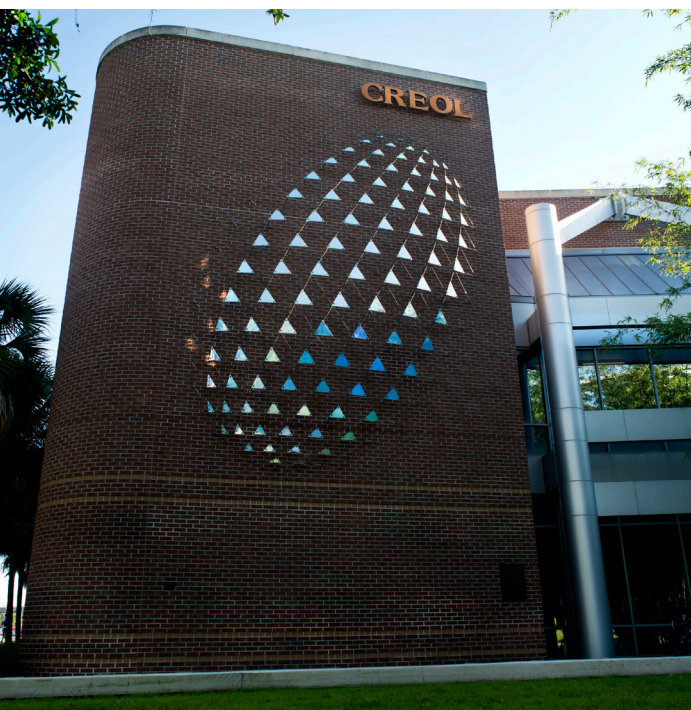
ENGINEERING

**A BRIGHT FUTURE**

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**AT THE UNIVERSITY OF CENTRAL FLORIDA  
WE'RE BREAKING NEW GROUND IN  
OPTICS AND PHOTONICS RESEARCH.  
JOIN OUR WORLD CLASS GRADUATE PROGRAM TODAY.**



CREOL, The College of Optics & Photonics at UCF is one of the world's foremost institutions for research and education in optical and photonic science and engineering. Our master's and doctoral students work alongside world-renowned faculty researchers to pioneer new technology in ultrafast lasers, fiber optics, displays, biomedicine and beyond. Through strong industry partnerships, our graduates become highly sought after by innovative companies like Apple, Microsoft, Google, Facebook, Northrop Grumman, Lockheed Martin and Harris Corporation.



## PROGRAM HIGHLIGHTS

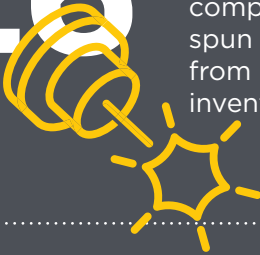
# 12<sup>TH</sup>

Ranked graduate program in Optical Physics by *U.S. News & World Report*



# 26

Photonics and optics companies spun off from CREOL inventions



# 300

Patents held by college faculty

# \$

# 113,000

Average salary for North American optical and photonics jobs.

(SPIE 2017 OPTICS & PHOTONICS GLOBAL SALARY REPORT)

# \$

# 3 TRILLION

Public revenue created by U.S. companies focused on optics and photonics

(THE NATIONAL ACADEMIES REPORT "OPTICS AND PHOTONICS, ESSENTIAL TECHNOLOGIES FOR OUR NATION" 2013)





## WHAT CAN YOU DO WITH A GRADUATE DEGREE IN OPTICS AND PHOTONICS?

UCF researchers are changing the paradigm of what's possible in optics and photonics. Join a graduate program where the next level of technology in lasers, optical fibers, integrated photonics, nonlinear and quantum optics, as well as imaging, sensing and display is being developed right now. In as little as one year, you'll be primed for an exciting career in industry or research that will pay off with big rewards.

### **OPTICS AND PHOTONICS, M.S. MASTER'S PROGRAM**

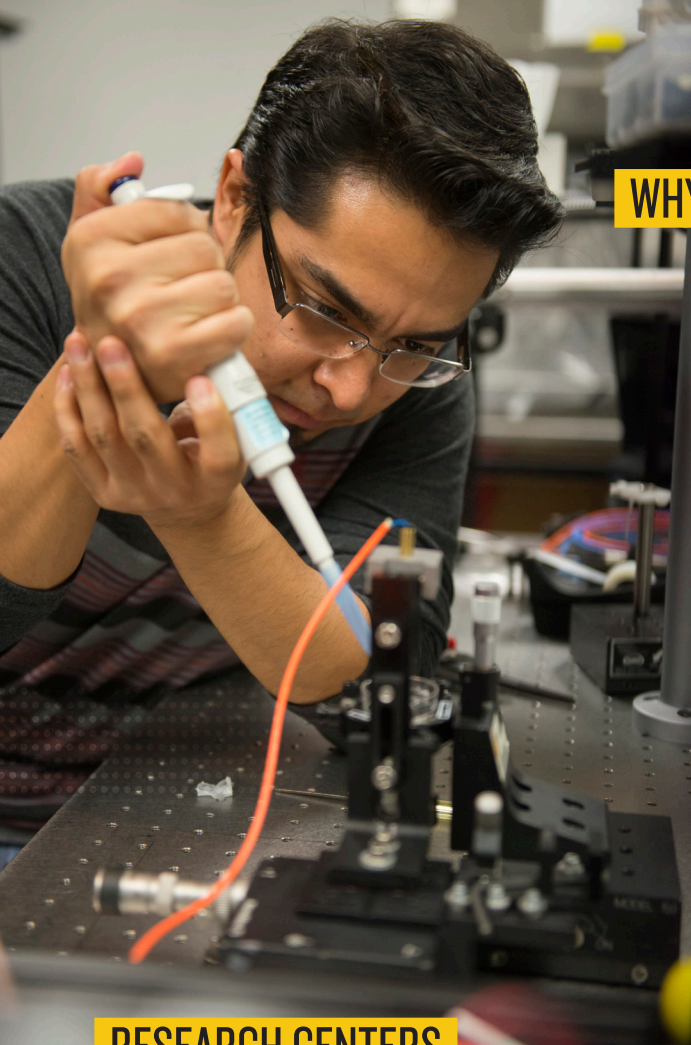
The Masters of Science in Optics and Photonics is for students with a bachelor's degree in optics, electrical engineering, physics or a closely related field who want a career in industry or to go on to earn a doctorate. Both thesis and non-thesis options are available.

### **OPTICS AND PHOTONICS, PH.D. DOCTORAL DEGREE**

The Optics and Photonics Ph.D. program provides the highest-quality education in optical science and engineering, empowering students to conduct scholarly, fundamental and applied research, while participating in the development of technology-based industries.

### **OUR STUDENTS GET HIGH-PAYING JOBS IN EXCITING INDUSTRIES**

- Communications, information processing and data storage
- Defense and national security
- Energy
- Health and medicine
- Advanced manufacturing
- Advanced photonics measurements and applications
- Strategic materials for optics
- Displays



## WHY CHOOSE UCF?

CREOL, The College of Optics & Photonics was the first college in the United States solely devoted to optics and lasers. The college has grown rapidly and now has 52 faculty members and faculty with joint appointments, 64 research scientists and 148 graduate students with research activities covering all aspects of optics, photonics and lasers. Research expenditures total more than \$10 million annually, with more than 20 percent of the funding originating from industry partnerships. With that level of funding and industry backing, there's no limit to what you can discover!

## RESEARCH CENTERS WITHIN THE COLLEGE

### **CENTER FOR RESEARCH AND EDUCATION IN OPTICS AND LASERS, CREOL**

CREOL was launched in 1987 to become one of the world's leading institutions for research and education in optical and photonic science and engineering.

### **TOWNES LASER INSTITUTE**

TLI develops the next generation of laser-light engines for applications in medicine, advanced manufacturing and defense.

### **FLORIDA PHOTONICS CENTER OF EXCELLENCE**

FPCE focuses on the emerging technologies of nanophotonics, biophotonics, advanced imaging and 3-D displays, and ultra-high bandwidth communications.

### **INSTITUTE FOR THE FRONTIER OF ATTOSECOND SCIENCE AND TECHNOLOGY**

iFAST is dedicated to research, education and outreach in attosecond physics and optics.





# GET THE BEST MASTER'S DEGREE IN OPTICS AND PHOTONICS FOR YOUR FUTURE

## CREOL, THE COLLEGE OF OPTICS & PHOTONICS

BUILDING 53  
UNIVERSITY OF  
CENTRAL FLORIDA  
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STREET  
ORLANDO, FL  
32816-2700  
407-823-6800  
CREOL@UCF.EDU

CREOL, The College of Optics & Photonics offers an exceptional combination of accomplished faculty, advanced facilities and local industry leaders. Our students graduate to accept lucrative jobs with industry-leading firms and take advantage of the university's strong entrepreneurial culture to start their own companies. For physicists and engineers with ambitions to drive the future of technology, a graduate degree from UCF delivers an unmatched fusion of excellence, value and results.

## OUR CREOL RESEARCHERS:

- **Hold the record for the world's shortest laser pulse** — 53 attoseconds — that will allow scientists to capture images of fast-moving electrons in atoms and molecules with unprecedented sharpness.
- **Develop infrared lasers** that can detect toxic chemicals in the atmosphere to alert communities of a biological or chemical attack.
- Develop new anti-glare touchscreens inspired by moth eyes.
- Demonstrate new laser technology with the potential to substantially improve the efficiency, beam quality, and resilience of semiconductor laser arrays.
- Invented the first-ever, active user-controlled color-changing fabric. The fabric allows the user/wearer to change the color or pattern of the fabric through their smartphone.

FOR MORE INFORMATION, VISIT [CREOL.UCF.EDU](https://www.creol.ucf.edu)