

Fundamentals of Lights & Lasers



Course Description:

This course introduces the fundamentals of light, optics, and lasers. We will cover the nature and properties of light (such as energy, amplitude, wavelength, frequency, period, phase, propagation). We will also address geometrical optics (reflection, diffraction, imaging, thin lens formula, lens maker's equation), wave optics (interference, diffraction, polarization), and the basic principles and practical applications of lasers.



The Hubble Space Telescope (HST) is a great example of the future of light and laser technology. This amazing piece of equipment includes four main instruments that observe in the near ultraviolet, visible, and near infrared spectra.

Hubble's orbit outside the distortion of Earth's atmosphere allows it to take extremely high resolution images with negligible background light.

The HST was built by the United States space agency NASA, with contributions from the European Space Agency, and is operated by the Space Telescope Science Institute. The HST is one of NASA's Great Observatories.

The telescope is still operating as of 2016, and may last until 2030–2040.

Jobs in this industry are on a solid growth path allowing for great opportunities in the future.



To Register:

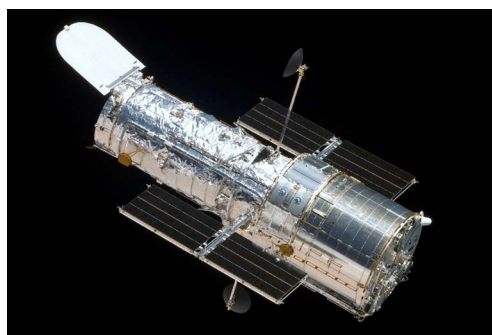
Visit [Lights & Lasers Registration](#)
Email Continuing.Education@frontrange.edu,
or call Laurie Rue at 970.204.8686
www.frontrange.edu/larimerCE



FRONT RANGE
COMMUNITY COLLEGE

Fundamentals of Lights and Lasers Modules:

- Module 1
Nature and Properties of Light
- Module 2:
Optical Handling and Positioning
- Module 3:
Light Sources and Laser Safety
- Module 4:
Basic Geometrical Optics
- Module 5:
Basic Physical Optics
- Module 6:
Principles of Lasers



Fundamentals of Lights and Lasers

To understand the photonics concepts in this course, students should have a basic understanding of algebra and trigonometry. If you feel that you need additional help in math – please contact us for tutoring or math videos.

Dates:

Tuesday and Thursdays
4:00 pm – 7:00 pm
April 12 – June 23, 2016

Location:

Akonia Holographics
2120 Miller Drive
Longmont, CO

Tuition: \$1200 + books