

Career Opportunity

Optical Design Engineer

**Fibertek has a career opportunity available for
an Optical Design Engineer for Space Based Science Instruments at NASA Goddard
Space Flight Center in Greenbelt, Maryland**

Job Overview:

The Optical Design Engineer will provide engineering support as part of the NASA Hydrospheric and Biospheric Science Support Services (HBS) program.

Working at NASA Goddard Space Flight Center, scientists and engineers design a wide variety of instruments and sensors for spaced based science. The Optical Design Engineer will design all aspects of the optical portion of these instruments which can involve inventing creative solutions to some challenging problems in optics.

Qualified candidate will possess a wide variety of experience in optical design including reflective and refractive telescopes, objectives, and spectrometers. Candidate will need to be familiar with material selection, mounting technology, and tolerancing for harsh thermal environments including thermal compensation strategies. Candidate will need to be familiar with the effects of radiation on optical materials and design for performance over mission life times and have expertise in optical coating technologies and coating capabilities as well as laser damage thresholds. Candidate will be familiar with active optical compensation and components including adaptive optics and beam steering components. The Optical Design Engineer will work closely with mechanical engineers to provide budgets for assembly and environmental tolerances. The Optical Design Engineer will perform stray light analysis and design baffles and filters to suppress solar background. The Optical Design Engineer will need to be familiar with sensor technology and work closely with sensor engineers to tailor the optical system to meet the sensor requirements.

General Duties:

- Interface with the science customer to develop an understanding of the science goals to assure appropriateness of the solution
- Identify key performance parameters and develop optical system requirements
- Produce creative and innovative optical solutions
- Manage optical system design and flow down requirements budgets to assure all requirements are satisfied
- Produce all aspects of the optical system design including prescription, design for environment, tolerance analysis, and stray light analysis
- Prepare and present design work to the engineering team and the science customers
- Manage schedule, requirements changes, and material sourcing
- Perform multiple programs at one time

Qualifications:

- Masters degree or Ph. D. in Optics
- 10-15 years experience designing optical systems



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- 5 years experience designing optics for space based instruments
- Expertise in optical design software such as Code V, Oslo, or Zemax
- Thorough knowledge of emerging optical technologies including manufacturing, coating, materials, microlenses, and diffractive optics
- Experience in optical system design including environmental tolerancing and stray light analysis
- Excellent communication skills
- Track record of producing innovative solutions to challenging optical problems
- U.S. citizenship required

To explore this opportunity further, please send your resume to hr@fibertek.com.

Fibertek, Inc. is an equal opportunity and affirmative action employer. Applicants are considered regardless of race, sex, disability, veteran status or any other protected characteristic in accordance with applicable law.