TRAINING BROCHURE

Course on Modern optics for optical designers - part 2



Provisional reservation

Book now



Modern optics for optical designers - part 2

Price:	€ 4,400 excl. VAT *
Duration:	15 weekly half days
Contact:	training@hightechinstitute.nl, +31 85 401 3600
Pitch:	https://youtu.be/CLTk0RWCtE0

Intro

Optics is the 'enabling technology' of the 21st century. To design optical systems, to specify and test optical components, to integrate optical components into products, requires knowledge and skills that can be learned in this Course on Modern Optics for Optical Designers (CMOP).

Over the years the CMOP course has become one of the most comprehensive optical courses in Western Europe, unique in its concept, covering the theoretical basics, practical optical system design and a broad overview of optical applications.

The Course on Modern Optics for Optical Designers is composed of two parts. Part 1 discusses the basics of optics and a number of applications. Part 2 discusses optical system design.

Objective

After completion of both parts of the course, the participant will have a thorough knowledge of modern optical concepts, their applications and the design of optical systems, the engineering problems and solutions.

Target audience

The course is intended for optical designers working in research and development of optical systems. Educational level should be technical university (MSc in physics, electronics, mechanics). Prerequisite: basic knowledge of optics and practical experience in optical systems. For Part 2 is required that the knowledge, discussed in Part 1, is available. If Part 1 has not been attended, contact High Tech Institute.



Certified by



Certification

This course is certified by the European society for precision engineering & nanotechnology (euspen) and the Dutch Society for Precision Engineering (DSPE) and leads to the ECP2certificate if results are sufficient.

Trainers

Oliver Dross MSc Dr. Ing. Jack van den Eerenbeemd Maarten van Lierop BSc Dr. Jean Schleipen Alejandro Villegas Lopez MSc PhD Ferry Zijp BSc

* Prices are subject to change. Price correction will be applied at the end of the year.



Program

Part 2

System design (15 lessons):

- Paraxial optics;
- Geometrical optics;
- Imaging systems;
- Exercises, Q&A;
- Optical design with Zemax;
- Lens design;
- Optical engineering;
- Optical detection;
- Illumination for optical detection;
- Non-imaging optics;
- Measuring and testing.

Tour and closing session.

The length of each Part of the CMOP course is 15 half days from 9:00 AM till 12:00 AM in a period of 25 weeks. Study load excluding class sessions: homework 6 - 8 hours a week.

Methods

Lectures, self-study, individual assessments, group assignments, tour.

Course material: course notes and books.

Frequency

Once per year

More information



Video about trainer Jack van den Eerenbeemd

A 2-minute video with Jack van den Eerenbeemd about his experience with optical systems.

Watch video

Trainer Stefan Bäumer, who is an optics fanatic, about spreading knowledge

"How do electromagnetic waves and diffraction affect optical systems? What are the polarization effects? These questions all pass in review."

Remarks from participants:

- "Most important items I've learned: Thorough build-up of geometrical optics, different application aspects, Zemax experience real experts." > Nikolaos Sotiropoulos - ASML
- "The course provides a good balance between theory and applications. Lecturers are also experts in their field which make them very valuable teachers for us engineers. There is an open atmosphere in the course with enough time for questions and discussions." > Pieter de Buck - ASML
- "Great course, good diversity and properly distributed over the various topics." > Joris de Graaf Sioux
- "Brilliant and very instructive course! Assignments fitted well with the course material. I greatly benefitted from the course learnings in my current role." > Pieter Smid ASML Netherlands B.V.