

Oral Exam Protocol

Subject:	Optical Engineering
Examiner's name:	Prof. Stork

General questions

Year:

Duration of the exam:

Was the subject obligatory? ☒

If not, can you recommend the subject? ☐

To whom would you recommend the subject?

Preparation

Did you attend the lecture/exercise? ☒

Do you think attending is necessary to achieve a good result? ☐

How long did you prepare?

Recommended literature:

What else do you recommend for preparation?

The examination

How would you describe the atmosphere of the exam?

How did examiner react to incorrect answers? Did he/she change the subject very often? Did you understand all the questions? Details or more general questions? Could you influence the exam by your answers?

The atmosphere is very friendly. The prof guides you to what he wants to hear.

Do you think the grading was fair and why do you think so?

Fair

Are you satisfied with your grade? ☒

Please summarize the questions asked during the examination.
If you remember please also write down the answer.

Here comes my experience of optical engineering viva.

Prof. started asking what optical engineering is. I think is the kick off for everybody. Then he went on mention optical elements and I said lens, mirrors. Then he picked lens. I have been asked to draw Plano-convex lens and compare the difference if it is flipped. Then there was discussion on spherical aberration: what is it, how to correct it, which single lens has the best spherical aberration (biconvex lens with slight asymmetry). Since I mentioned aspheric lens as one solution for spherical aberration, I have been asked how to model aspheric lenses mathematically. The answer is function of the spherical curvature and a polynomial that represents the difference between aspheric and spheric lens. The next part was about diffractive lens. I was somehow comfortable with it. What are they, how light is focused, their aspect, Fresnel zone plates, deriving the formula for focal length.

Don't panic, he will ask you something you may not now and he will give you clue and lead you to the answer.

Wish you good luck!