

## International Internship in Photonics (E099230)

**Course size** (nominal values; actual values may depend on programme)

**Credits** 10.0      **Study time** 300 h      **Contact hrs** 0.0 h

### Course offerings in academic year 2016-2017

A (year)      English  
B (semester 1)      English

### Lecturers in academic year 2016-2017

Beeckman, Jeroen      TW06      lecturer-in-charge  
Ottevaere, Heidi      VUB      co-lecturer

### Offered in the following programmes in 2016-2017

	crdts	offering
<a href="#">Bridging Programme European Master of Science in Photonics</a>	10	A, B
<a href="#">European Master of Science in Photonics</a>	10	A, B

### Teaching languages

English

### Keywords

Training, photonics, internship, international

### Position of the course

The student spends a period of at least 10 and preferably 12 weeks (during the summer holidays) in a company or research institute outside Belgium as a trainee with the objective of gaining practical experience in an international context. The subject of the training needs to be related to photonics. The training is concluded by a training report. Note that the Master's Dissertation can not be carried out within the same company or research institute.

This course can not be combined in the curriculum with the Internship in Photonics (E099220).

### Contents

Training, training report.

The traineeship abroad focuses on the industrial and/or research engineering activities of the student. The student is mastering the knowledge and possesses or acquires the technical skills needed to successfully accomplish a variety of tasks. The training entity supervisor assigns a wide range of tasks to the trainee to broaden the student's experience and horizon. In a hands-on way, the student thus familiarizes with the company's task chain. The student is a versatile trainee able to analyse problems and implement solutions. The student's communicative ability is well-developed and he/she can work in an international team.

The student is a responsible person showing the necessary reliability, autonomy and initiative. The student can use all the above mentioned skills to perform an internship and act as is expected from a young engineer.

### Initial competences

Basic concepts of photonics, microphotonics, optical materials, physics of semiconductor technologies and devices, optical sensors, optical communication systems and photonic innovation as well as basic hands-on training in photonics. Registration for the International Internship in Photonics is allowed if one has already successfully accomplished 45 ECTS of the European Master of Science in Photonics programme.

### Final competences

1 Project planning: ability to formulate objectives, report efficiently, keep track of end-

- goals and progress of the project.
- 2 Ability to work in a team in a multi-disciplinary working-environment and start to take the lead.
  - 3 Report on technical or scientific subjects orally, in writing and in graphics.
  - 4 Act in an ethical, professional and social way.
  - 5 Show perseverance, drive for innovation and a sense for the creation of added value.
  - 6 Master and apply advanced knowledge in the own field of engineering in case of complex problems.
  - 7 Select and apply the proper models, methods and techniques.
  - 8 Analyse own results and results of others in an objective manner.
  - 9 Flexibility to adapt to changing professional circumstances.
  - 10 Master the complexity of technical systems by the use of system- and process models.
  - 11 Transform incomplete, contradictory or redundant data into useful information.
  - 12 Insight in and awareness of the importance of entrepreneurship in society.

### **Conditions for credit contract**

Access to this course unit via a credit contract is determined after successful competences assessment

### **Conditions for exam contract**

This course unit cannot be taken via an exam contract

### **Teaching methods**

Work placement

### **Extra information on the teaching methods**

Absence should be authorized following the rules of UGent and the training entity. The student immediately informs the training entity supervisor and the academic supervisor by e-mail and sends within 24 hours a proof of his absence (e.g. a medical certificate) to the training entity supervisor and the academic supervisor by e-mail. The original medical certificate is sent to the Faculty Student Administration (FSA) of the faculty of Engineering and Architecture.

In case of absence for a longer period, the academic coordinator/promoter together with the academic in charge and the supervisor of the training entity can consider an extension of the training period.

### **Learning materials and price**

### **References**

### **Course content-related study coaching**

### **Evaluation methods**

continuous assessment

### **Examination methods in case of periodic evaluation during the first examination period**

### **Examination methods in case of periodic evaluation during the second examination period**

### **Examination methods in case of permanent evaluation**

Report

### **Possibilities of retake in case of permanent evaluation**

examination during the second examination period is not possible

### **Extra information on the examination methods**

Continuous assessment

Two weekly progress reports to training entity supervisor and responsible lecturer

Final report

### **Calculation of the examination mark**

The evaluation mark is based upon on the evaluation of the intermediate reports, the final report and on the evaluation form and the feedback provided by the supervisor of the training entity.