

## INTERNSHIP IN PHOTONICS

### GENERAL INFO

#### **1. General description**

The Internship in Photonics focuses on industrial and/or research engineering training of the student in a company or research institute in/outside of Belgium. Students can take a 5 erts and/or a 10 erts internship in the model learning track. He/she spends a period of at least 5 and/or 10 weeks respectively (preferably during the summer holidays between MA1 & MA2 or after MA2) in a company or research institute as a trainee with the objective of gaining practical experience in a research-related and/or industrial work environment.

The training entity supervisor will assign 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 and will acquire the necessary knowledge and technical skills needed to successfully accomplish a variety of tasks as is expected from a young engineer:

- apply and implement basic concepts of photonics, microphotonics, optical materials, physics of semiconductor technologies and devices, optical sensors, optical communication systems and photonic innovation
- analyse problems and implement solutions
- develop social, commercial and communication skills in an international business/research environment
- learn to collaborate in a culturally diverse team
- perform the tasks at hand in a reliable and autonomous way
- show initiative and independence: pose questions, see opportunities, present solutions

The subject of the training needs to be related to photonics and will be determined together with the internship responsible of the Photonics MSc programme and the training entity supervisor.

#### **2. Application**

Students who are interested in the Internship in Photonics will be assisted in finding an internship and need to contact prof. Heidi Ottevaere by email as soon as possible: [heidi.ottevaere@vub.be](mailto:heidi.ottevaere@vub.be).

#### **3. Requirements**

- students are allowed to do an Internship in Photonics if they have already successfully accomplished 50 ECTS of the Master of Science in Photonics programme
- the research performed within the scope of the Internship in Photonics must be different from the Master Thesis Project research topic

#### **4. General Timeline**

- between Jan 15th & Febr 10th: individual meeting to discuss internship options
- between Febr 10th and Febr 20th: get final approval such that hosting entity can be contacted
- deadline application Erasmus Grant: <https://student.vub.be/en/ir#internship> (Internship Abroad Section)
- deadline registration at Faculty: <https://student.vub.be/en/ir#internship> (Important documents when requesting an internship Section)
- deadline finalize contract: <https://student.vub.be/en/ir#internship> (Important documents when requesting an internship Section)

#### **5. Competences**

- Project planning: ability to formulate objectives, report efficiently, keep track of end-goals and progress of the project
- Ability to work in a team in a multi-disciplinary working-environment
- Report on technical or scientific subjects orally, in writing and in graphics
- Act in an ethical, professional and social way
- Show perseverance, drive for innovation and look for opportunity to create added value
- Master and apply advanced knowledge in the own field of engineering in case of complex problems
- Select and apply the proper models, methods and techniques
- Analyse own results and results of others in an objective manner
- Flexibility to adapt to changing professional circumstances
- Master the complexity of technical systems by the use of system- and process-models
- Transform incomplete, contradictory or redundant data into useful information
- Insight in and awareness of the importance of entrepreneurship in society

#### **6. Academic Registration**

Depending on their personal track students should add the internships to their curriculum during the following semesters:

Short Internship in Photonics:

*SEM 1/3 - course code 4023550ENR*

*SEM 2/4 - course code 4023551ENR*

Long Internship in Photonics:

*SEM1/3 - course code 4023546ENR*

*SEM2/4 - course code 4023547ENR*

*Please contact Majorie Jammaers for enrolment instructions as soon as the internship(s) plan has been decided: [majorie.jammaers@vub.be](mailto:majorie.jammaers@vub.be).*

## **7. Practical guidelines**

In order to get credits for the Internships in Photonics, a written report should be submitted to the academic coordinator ([heidi.ottevaere@vub.be](mailto:heidi.ottevaere@vub.be)). The exact deadline, size and format of the report will be communicated in due time. Please also provide a copy of the report to the supervisor(s) of the company/research institute.

In addition an oral presentation will be scheduled shortly after the submission of the report depending upon the availability of all participants (student and academic supervisor). This oral presentation is only for students who followed the 10 ECTS version of the internship.

Finally a monthly update should be given via email to Prof. Ottevaere summarizing the progress of the work as well indicating possible problems.

The report has to include a description of the company/institution where the student completed the internship, as well the specific tasks that needed to be done.

The following elements should be included:

- Description of the department of the company/institution where the work has been done
- Technical description of the work done (main part)
- Observations of social and/or human kind
- Conclusions with emphasis on how the internship has given added value to your education

The evaluation of the internship will be based on the feedback received from internship supervisor(s) as well as on the written report and the oral presentation (only for 10 erts version).

The written report and oral presentation (only for 10 erts version) will be treated in a confidential way as in all cases an internship agreement has been signed covering intellectual property.

## **8. Contact**

Academic coordinator for Internship in Photonics:  
prof. Heidi Ottevaere, [heidi.ottevaere@vub.be](mailto:heidi.ottevaere@vub.be)

Photonics Programme Officer:  
Majorie Jammaers, [majorie.jammaers@vub.be](mailto:majorie.jammaers@vub.be)

Faculty webpage on internships: <https://student.vub.be/en/ir#internship>  
Master Photonics website: [www.studyphotonics.com](http://www.studyphotonics.com)