

## Introduction to Laser Therapy (D013041)

Due to Covid 19, the education and evaluation methods may vary from the information displayed in the schedules and course details. Any changes will be communicated on Ufora.

Course size (nominal values; actual values may depend on programme)  
Credits 4.0 Study time 100 h Contact hrs 30.0 h

### Course offerings and teaching methods in academic year 2020-2021

A (year)	Dutch	Gent	work placement	10.0 h
			lecture	20.0 h

### Lecturers in academic year 2020-2021

Cauwels, Rita	GE36	lecturer-in-charge
De Moor, Roeland	GE36	co-lecturer
Meire, Maarten	GE36	co-lecturer
Roeykens, Herman	GE36	co-lecturer

### Offered in the following programmes in 2020-2021

	crdts	offering
<a href="#">Master of Science in Dentistry</a>	4	A

### Teaching languages

Dutch

### Keywords

L.A.S.E.R., interactions, hard laser, soft laser, diagnosis, trauma, paediatric dentistry, surgery, endodontology, tooth bleaching.

### Position of the course

Laser technology became an indispensable part of medicine and has now multiple applications in the field of oral and dental medicine. This elective course should contribute to information and basic knowledge of what laser therapy means in our field. The added value of laser treatments in both soft and hard (dental) tissues consists of a more targeted, tissue-saving and refined work. However, the physical properties and characteristics of laser light mean that the necessary basic knowledge is required for an adequate application.

### Contents

1. Introduction to laser physics (parameters, wavelength, types...)
2. History of the laser in medicine / dentistry
3. Safety and hazards - working problem solving
4. Laser-tissue interaction
5. Biostimulation
6. Diagnostic applications
7. Applications in endodontology and restorative dentistry
8. Applications in paediatric dentistry and small surgery

### Initial competences

You can download the list of prerequisites on <https://oasis.ugent.be/oasis-web/curriculum/voorkennisvancursus?cursuscode=D013041&taal=en>.

Have successfully completed the course units of 1st master dentistry or have acquired the intended competences in a different way.

### Final competences

- 1 The student knows the physical properties of the lasers and is aware of the safety standards and dangers.
- 2 He knows the applications in the different sub-areas

### 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

Lecture, work placement

Extra information on the teaching methods

Lecture

Observational internship in UZ Ghent

Independent work / thesis or related to the observation or specified part

Learning materials and price

Teaching material (powerpoint)

References

Course content-related study coaching

Interactive support via digital learning platform.

Teacher available for feedback by appointment.

Evaluation methods

end-of-term evaluation and continuous assessment

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

Report

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

Report

Examination methods in case of permanent evaluation

Participation, report

Possibilities of retake in case of permanent evaluation

not applicable

Extra information on the examination methods

Thesis (50%) is a reflection of the observation course through a summary of the representative literature

Demonstrations, observation internship and internship report (50%)

Calculation of the examination mark

The final score at 20 is the sum of the different parts:

Thesis 50%,

Demonstrations, observation internship and internship report (50%)