



**COURSE SPECIFICATION
OF LASER PHYSICS & USES**
Faculty of Medicine– Mansoura University

(A) Administrative information

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|---|---|
| (1) Programme offering the course. | Postgraduate Doctorate degree of plastic surgery/ PSUR600 |
| (2) Department offering the programme. | Plastic and reconstructive surgery Department |
| (3) Department responsible for teaching the course. | Plastic and reconstructive surgery Department |
| (4) Part of the programme. | Second Part |
| (5) Date of approval by the Department`s council | 11/7/2016 |
| (6) Date of last approval of programme specification by Faculty council | 9/8/2016 |
| (7) Course title. | Laser physics & uses |
| (8) Course code. | PSUR 633LPH |
| (9) Total teaching hours. | 30 lecturers hours throughout the 4 semesters |

(B) Professional information

(1) Course Aims:

The broad aims of the course are as follows: This course provides fellows with the ability to:

1- To provide basics and advances of LASER therapy and its uses in the field of plastic surgery.

(2) Intended Learning Outcomes (ILOs):

Intended learning outcomes (ILOs); Are four main categories: knowledge & understanding to be gained, intellectual qualities, professional/practical and transferable skills.

On successful completion of the course, the candidate will be able to:

A- Knowledge and Understanding

A 14- Understand the basic principles of LAER therapy.

A 15- Recognize pathology, complications and safety with LASER therapy.

A 16- know the indications and contraindications of LASER therapy.

A 17- know the different types of LASER therapy in plastic surgery.

B- Intellectual skills

B11 -Integrate the basic principles of LASER therapy with clinical examination and patient needs to reach the proper diagnosis and to make an appropriate plan for management.

B12 – Analyze expected complications with LASER therapy and know how to deal with.

(3) Course content.

| Subjects | Lectures 3hrs/week For 10 weeks | Clinical | Laboratory | Field | Total Teaching Hours (30 hrs) |
|--|---------------------------------------|----------|------------|-------|----------------------------------|
| ▪ Physical properties of LASER | 3 hrs/wk for one week | | | | 3 hrs/ one week |
| ▪ Histologic effect of LASER therapy | 3 hrs/wk for one week | | | | 3 hrs/ one week |
| ▪ Ablative and non-ablative LASER | 3 hrs/wk for one week | | | | 3 hrs/ one week |
| ▪ LASER safety measures | 3 hrs/wk for one week | | | | 3 hrs/ one week |
| ▪ LASER therapy for cutaneous vascular anomalies | 3 hrs/wk for one week | | | | 3 hrs/ one week |
| ▪ LASER therapy for pigmented skin lesions | 3 hrs/wk for one week | | | | 3 hrs/ one week |
| ▪ LASER therapy for facial resurfacing | 3 hrs/wk for one week | | | | 3 hrs/ one week |
| ▪ LASER therapy for hair removal | 3 hrs/wk for one week | | | | 3 hrs/ one week |
| ▪ Complications of LASER therapy | 3 hrs/wk for one week | | | | 3 hrs/ one week |
| ▪ Contraindications of LASER therapy | 3 hrs/wk for one week | | | | 3 hrs/ one week |

(4) Teaching methods.

4.1. Lectures.

(5) Assessment methods.

5.1. Final written exam

Assessment schedule.

At the end of 36th month

Percentage of each Assessment to the total mark.

Written exam:.....40.....

MCQ10.....

- Written exam is directed to measure knowledge and intellectual skills
- MCQ exam is directed to measure knowledge and intellectual skills

(6) References of the course.

6.1: Hand books:...

- Oxford handbook of plastic and reconstruction surgery,
- plastic surgery secrets

6.2: Text books:.....

- Michigen manual of plastic surgery.....
- Grabb and Smith's plastic surgery

6.3: Journals:

- Plastic and reconstructive surgery (PRS) ...
- Annals of plastic surgery

(7) Facilities and resources mandatory for course completion.

- Laptop and data show projector
- Laser pointer and white board
- Comfortable and well prepared classroom

Course coordinator: Dr. Mohammed Hassan Elfahar

Head of the department: Prof. Mohammed Radwan Elhadidy

Date: