جراحة التجميل والحروق

درجة الدكتوراة في جراحة التجميل والحروق

PROGRAMME SPECIFICATION

Faculty of Medicine– Mansoura University

(A) Administrative information

(١) Programme Title & Code	Postgraduate Doctorate degree of plastic surgery/ PSUR٦٠
(٢) Final award/degree	M.D
(٣) Department (s)	١. Plastic and reconstructive surgery Department ٢. Human Anatomy and Embryology ٣. Pathology department
(٤) Dean of Mansoura Faculty of Medicine	Prof. Nisreen Salah Omar
(٥) Executive Director of the Quality Assurance Unit	Prof. Nisreen Shalaby
(٦) Coordinator	Prof. Omar Shouman Dr. Mohamed Abdelshaheed
(٧) External evaluator (s)	Prof. Nader El-meligi (Tanta university)
(٨) Date of approval by the Department`s council	١٠/٨/٢٠٢٠
(٩) Date of last approval of programme specification by Faculty council	٣٠/٩/٢٠٢٠

(B) Professional information

(١) Programme Aims:

The broad aims of the Programme are as follows:

١- To provide the basic and applied knowledge about anatomy of different parts of the body.

٢- To provide fellows with the basic and applied knowledge about pathological changes associated with different diseases related to plastic surgery.

٣- To provide knowledge about pathological changes occurring with some surgical maneuvers.

٤- To provide fellows with the skills required to perform as well-trained, productive independent consultants and primary care providers for burned patients, patients in need for reconstruction of any part of the body or those in need for aesthetic surgery. These goals are optimally met in a three-year program.

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

٦- To provide basic knowledge about how to deal with a burned patient admitted to intensive care unit.

٧- To provide knowledge about basic principles of tissue engineering and biologic materials used.

٨- To provide basic knowledge about stem cells and its applications in the field of plastic surgery.

(٢) Intended Learning Outcomes (ILOs):

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

A- Knowledge and Understanding

Candidates must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social behavioral sciences, as well as the application of this knowledge to patient care. On successful completion of the programme, the candidate will be able:

A ١- Recognize the basic principles of structure of the different parts of the body. Matches knowledge of anatomy to the patient in need for surgical repair of the injured part and those in need for reconstruction of the lost part.

A ٢- Recognize the pathology of different diseases related to plastic surgery and pathological changes occurring with some surgical maneuvers.

A ٣- Analyze the pathophysiological changes occurring in burned patients.

A ٤- Understand the basic principles of reconstructive surgery.

A ٥- Recognize pathology, complications and management of burn cases.

A ٦- know the basic principles of aesthetic surgery.

A ٧- know the basic principles of hand and maxillofacial surgery.

A ٨- Understand the basic principles of microsurgery.

A ٩ - Identify recent advances and areas under research in the field of plastic and reconstructive surgery.

A١٠- Identify basics of health and patient's safety and safety procedures during practice.

A١١- Identify proper patient care and patient's rights to obtain the optimum health care and effective treatment.

A١٢- Identify basics of ethics, medicolegal aspects, malpractice and common medical errors in plastic and reconstructive surgery.

A ١٣- Recognize principles and basic concepts of quality in professional practice including planning, improvement of performance and control of practicing outcomes.

A ١٤- Understand the basic principles of LAER therapy.

A ١٥- Recognize pathology, complications and safety with LASER therapy.

A ١٦- know the indications and contraindications of LASER therapy.

A ١٧- know the different types of LASER therapy in plastic surgery.

A ١٨- Understand the basic principles of ICU equipments.

A ١٩- know the indications of ICU admission.

A ٢٠- know the basic principles of ICU infection control.

A ٢١- know the basic principles of patient resuscitation in ICU.

A ٢٢- Understand the basic principles of tissue engineering.

A ٢٣- Understand the basic principles of cell and tissue culture.

A ٢٤- know the different biologic materials used in tissue engineering.

A ٢٥- Understand the basic principles of stem cells and its applications in the field of plastic surgery.

B- Intellectual skills

B١ - Integrate the anatomy of the skin, musculoskeletal system, nerves and vessels of the human body with clinical examination and utilize major clinical applications of anatomical facts to reach proper diagnosis.

B٢- Apply the surface landmarks of the joints , bones , muscles, tendons and nerves in clinical examination of these parts and during surgical repair or reconstructive procedures.

B٣ - Integrate the pathological facts during clinical examination and interpret radiological studies and histopathological studies in order to reach a proper diagnosis and a proper plan for surgical interference.

B٤ -Integrate the basic principles of plastic and reconstructive surgery with clinical examination and patient needs to reach the proper diagnosis and to make an appropriate plan for management.

B٥ – Analyze expected complications and know how to deal with.

B٦- Make decisions needed in different situations based on evidence-based medicine in plastic and reconstructive surgery.

B٧- Resolve specialized problems with non-availability of some data.

B٨- Consider effects of personal, social and cultural factors in the disease process and patient management.

B٩- Apply ethical issues and resolve ethical dilemmas in relation to clinical practice.

B١٠- Demonstrate appropriate professional attitudes and behaviors in different practice situations.

B١١ -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.

B١٢ – Analyze expected complications with LASER therapy and know how to deal with.

B١٣ – Analyze expected complications with ICU admission and know how to deal with.

B١٤ – Analyze the arterial blood gases (ABG) and correct deficits.

B١٥–Analyze expected cell responses to surface and architecture of tissue engineering scaffolds.

C- Professional/practical skills

C ١- Apply the anatomical facts during clinical examination and interpret radiological and nerve conduction studies in order to reach a proper diagnosis and a proper plan for surgical interference.

C ٢- In general terms, by the end of the coarse, candidates have to demonstrate:

C ٢a- Theoretical and practical knowledge related to surgery in general and to their specialty practice.

C ٢b- Technical and operative skills.

C ٢c- Clinical skills and judgement

C ٣- Manage burn cases and deal with complications.

C ٤- Apply the basic principles of plastic and reconstructive surgery.

C ٥- Deal with hand and maxillofacial trauma.

C ٦- Understand the new updates in aesthetic surgery and LASER therapy.

C٧-Apply sound ethical principles in practice (e.g., informed consent, confidentiality, veracity, provision or withholding of care).

C ٨-Apply the basic principles of LASER therapy in plastic and reconstructive surgery.

C ٩- Deal with LASER equipments.

C ١٠- Manage complications associated with LASER therapy

C ١١- Dressing of burned patients admitted to ICU.

C ١٢- Prepare the patient for surgery.

C ١٣- Manage complications associated with ICU admission.

C ١٤- Resuscitation of the patient whenever needed

D- Communication & Transferable skills

D ١- Be prepared for the lifelong learning needs of the profession in plastic and reconstructive surgery.

D ٢- Use different resources to gain knowledge and information related to plastic and reconstructive surgery.

D ٣- Retrieve, manage, and manipulate information by all means.

D ٤- Use different resources to gain knowledge and information related to plastic and reconstructive surgery.

D ٥- Present clearly, and effectively a scientific topic in front of audience using computer and power point skills.

D ٦- Communicate ideas and arguments effectively.

D ٧- Demonstrate caring/respectful behaviors with patients and staff.

D ٨- Work effectively within a team and leadership teams in health care team or other various professional contexts.

D٩-Communicate effectively in its different forms with other specialties and generate the ethos of a multidisciplinary approach in the clinical setting.

D ١٠- Manage and lead scientific meetings

D١١- Analyze and use numerical data including the use of simple statistical methods.

D١٢- Organize workload in order to meet deadlines.

(٣) Academic standards:

Academic standards for the programme are attached in Appendix I. in which **NARS** issued by the National Authority for Quality Assurance & Accreditation in Education are used. External reference points/Benchmarks are attached in Appendix II.

٣.a- External reference points/benchmarks are selected to confirm the appropriateness of the objectives, ILOs and structure of assessment of the programme:

- The intercollegiate surgical curriculum (the approved UK framework for surgical Training). The responsibility for setting this curriculum standards rests with the Royal Colleges of Surgeons which operate through the Joint Committee on Surgical Training (JCST) and its ten Specialty Advisory Committees (SACs) and Core Surgical Training Committee (CSTC).

https://www.iscp.ac.uk/documents/syllabus_PLAS_٢٠١٣.pdf

٣.b- Comparison of the specification to the selected external reference/ benchmark:

- All program aims of the Benchmarks (as regard plastic surgery) are covered by the current program.
- The program courses are matched by ٧٥% to those offered by the curriculum except in the context of credit hours, and the type of degree offered.

(٤) Curriculum structure and contents:

٤.a- Duration of the programme (in months): ٣٦ months

٤.b- programme structure:

** The programme consists of two parts;*

The first part:

Anatomy related to Plastic Surgery

Pathology related to Plastic Surgery.

The second part composed of two courses;

One of them is a compulsory course

The other course (out of three) is optional.

*Candidates should fulfill a total of ٦٠ credit hours.

●٤.b.١: Number of credit hours (minimum) :

First part: ٥ credit hours.

Second part: ٣٥ credit hours.

Thesis: ١٥ credit hours.

Activities included in the log book: ١٥ credit hours.

(٥) Programme courses:

First part (one semester =١٥ weeks duration/٦ months)

a- Compulsory courses:

Course Title	Course Code	NO. of hours per week					Total teaching hours/١٥ weeks	Programme ILOs covered (REFERRING TO MATRIX)
		Theoretical		Laboratory /practical	Field	Total		
		Lectures	seminars					
Anatomy related to Plastic Surgery	PSUR ٦٠١ PSUR ٦٣٣ APS	٢	------	------	----	٢	٣٠	A ١,٤,٩,١٣ B ١,٢ C ١ D ١,٢,٣,٤
Pathology related to Plastic Surgery	PSUR ٦٠٥ PSUR ٦٣٣ PPS	٣	------			٣	٤٥	A ٢,٣,٥,٧ B ٥,٨ C ٣,٥,٨ D ١,٢,٤
Advanced studies in the medical field. * a- Scientific research methodology b- Medical statistics c- Use of computer in medical education		٣				٣	١٥hrs/٥ weeks	A ٩,١٠,١١,١٢, ١٣ B ٦,٧,٨ C ٢a,٧ D ١,٢,٣,٤, ٥,٦,٧,١٠,١١

* Advanced studies in medical fields consist of one hour lecture, ٣days/week for ٥ weeks.

b- Elective courses: none

Second part (٦٠ weeks duration= ٤ semesters)

a- Compulsory courses:

١. **Plastic Surgery**

b- Elective courses:

The candidate has to choose one of the following optional courses:

١. **Laser physics & uses**
٢. **Intensive care for burned patient**
٣. **Tissue culture & tissue engineering**

Course Title	Course Code	NO. of hours per week				Total teaching hours/٣٠ weeks	Programme ILOs covered (REFERRING TO MATRIX)
		Theoretical		Clinical /practical	Total		
		Lectures	seminars*				
Plastic Surgery:	**PSUR ٦٣٣ PS**					٢٤٠ lectures or tutorials hours and ٢١٠ clinical hours /٦٠ weeks	A ١,٢,٤,٥,٦,٧,٨ ٩ B ١,٢,٤,٥,٦,٧,٩ ١٠ C ٣,٤,٥ All D
١. Third Semester		٤ hrs /week		٤ hr /week	٨ hrs /week	١٢٠hrs/١٥wks	
٢. Fourth Semester		٤ hrs /week		٤ hr /week	٨ hrs /week	١٢٠hrs/١٥wks	
٣- Fifth Semester		٤ hrs /week		٤ hr /week	٨ hrs /week	١٢٠hrs/١٥wks	
٤- Sixth Semester		٤ hrs /week		٤ hr /week	٨ hrs /week	٩٠hrs/١٥wks	
Optional courses:							
١. **Laser physics & uses**	**PSUR ٦٣٣ LPH**	٣ hrs /week		-	٣ hrs /week	٣٠ lectures hours	A ١٤,١٥,١٦ ١٧ B ١١,١٢ C ٦,٨,٩,١٠
٢. **intensive care for burned patient.**	**PSUR ٦٣٣ ICB**	٢ hrs /week		٤ hrs /week	٦ hrs /week	١٥lectures hours and ٣٠ clinical hours	A ١٨,١٩,٢٠ ٢١ B ١٣,١٤ C ١١,١٢,١٣ ١٤
٣. **Tissue culture & tissue engineering**	**PSUR ٦٣٣ TCE**	٣ hrs /week		-	٣ hrs /week	٣٠ lectures hours	A ٢٢,٢٣,٢٤ ٢٥ B ١٥ C ٧
Thesis						١٥ credit	A ٤,٥,٦,٩, ١٠,١١,١٢ B ٥,٦,٧,٨,٩, ١٠ C ٣,٤,٥,٧
Log book activities						١٥ credit	A ٣,٦,٩,١٨, ١٩ B ٣,٤,٥,٦,٧, ١٠ C ٢b,٢c,٧

Programme-Courses ILOs Matrix

Programme ILOs are enlisted in the first row of the table (by their code number: a١, a٢……etc), then the course titles or codes are enlisted in first column, and an "x" mark is inserted where the respective course contributes to the achievement of the programme ILOs in question.

P.S. All courses` specifications are attached in Appendix III.

Course Title/Code	Programme ILOs																																
	A١	A٢	A٣	A٤	A٥	A٦	A٧	A٨	A٩	A١٠	A١١	A١٢	A١٣	A١٤	A١٥	A١٦	A١٧	A١٨	A١٩	A٢٠	A٢١	A٢٢	A٢٣	A٢٤	A٢٥	B١	B٢	B٣	B٤	B٥	B٦	B٧	B٨	B٩
Anatomy related to Plastic Surgery	x			x					x				x													x	x						
Pathology related to Plastic Surgery		x	x		x		x																					x		x			
Plastic Surgery	x	x		x	x	x	x	x	x																	x	x		x	x	x	x		x
Laser physics & uses														x	x	x	x																
intensive care for burned patient.																		x	x	x	x												
Tissue culture & tissue engineering																						x	x	x	x								
Advanced studies in the medical field									x	x	x	x	x																	x	x	x	

Course Title/Code	Programme ILOs																																		
	B ١٠	B ١١	B ١٢	B ١٣	B ١٤	B ١٥	C١	C٢	C٣	C٤	C٥	C٦	C٧	C٨	C٩	C ١٠	C ١١	C ١٢	C ١٣	C ١٤	D ١	D ٢	D ٣	D ٤	D ٥	D ٦	D ٧	D ٨	D ٩	D ١٠	D ١١	D ١٢
Anatomy related to Plastic Surgery							x														x	x	x	x									
Pathology related to Plastic Surgery									x		x			x							x	x		x									
Plastic Surgery	x																				x	x	x	x	x	x	x	x	x	x	x	x	x	x
Laser physics & uses		x	x																							x		x	x	x			
intensive care for burned patient.				x	x												x	x	x	x													
Tissue culture & tissue engineering						x							x																					
Advanced studies in the medical field							x						x								x	x	x	x	x	x	x			x	x			

(٦) Programme admission requirements:

●General requirements:

According to the faculty postgraduate bylaws Appendix IV.

●Specific requirements (if applicable):

No specific requirements

(٧) Regulations for progression and programme completion:

● Student must complete minimum of ٦٠ credit hours in order to obtain the M.D. degree, which include the courses of first and second parts, thesis and activities of the log book.

● Courses descriptions are included in Appendix III.

● Registration for the M.D. thesis is allowed ٦ months from the day of registration to the programme and must fulfill a total of ١٥ credit hours including material collection, patients selection and evaluation, laboratory work, patients follow-up, and meetings with supervisors.

Log book fulfillment:

● Student must fulfill a minimum of ١٥ credit of log book activities including;

١. Rotational clinical training in the outpatients clinics of plastic and reconstruction surgery. Clinical training must include also in-patients hospital requests.

٢. Rotational clinical training in emergency hospital.

٣. Attendance of surgical operations.

٤. Conferences attendance and speaking.

● Student must present at least ١٠ lectures.

● Lectures must be documented in the log book and signed by the lecturer.

● Works related to thesis must be documented in the log book and signed by the supervisors.

●Any workshops, conferences and scientific meetings should be included in the log book and candidate must attend ٤٠ weekly department meeting,

Final exam:

First part

Tools	Mark	Percentage of the total mark
Written exam: - **Anatomy related to Plastic Surgery** - **Pathology related to Plastic Surgery** } ٢ papers with time allowed ٣ hours each	١٠٠ ١٠٠	٥٠% ٥٠%
Oral exam: ---		
Practical exam: -----		
Total marks: ٢٠٠		

Second part

Tools	Mark	Percentage of the total mark
Written exam - Plastic surgery (٢ papers with time allowed ٣ hours each) - Optional module (one paper with time allowed ١.٥ hours) - Commentary (one paper with time allowed ١.٥ hours)	 ٢٤٠ ٥٠ ٦٠	 ٤٣.٦٣% ٩.٠٩% ١٠.٩%
Oral exam	١٠٠	١٨.١٨%
Practical exam	١٠٠	١٨.١٨٪
Total marks: ٥٥٠		

(٨) Evaluation of Programme's intended learning outcomes (ILOs):

Evaluator	Tools*	Signature
Internal evaluator	**Focus group discussion Meetings**	
External Evaluator **Prof. Nader El-meligi**	**Reviewing according to external evaluator checklist report.**	
Senior student	**Personal communication**	
Alumni	**none**	
Stakeholder	**none**	
others	**none**	

* TOOLS= QUESTIONNAIRE, INTERVIEW, WORKSHOP, COMMUNICATION, E_MAIL

We certify that all information required to deliver this programme is contained in the above specification and will be implemented. All course specification for this programme are in place.	
Programme coordinator: Prof. Omar Shouman Dr. Mohamed Abdelshaheed	Signature & date:
Dean of the Mansoura Faculty of Medicine Prof. Nisreen Salah Omar	Signature & date:
Executive Director of the Quality Assurance Unit Prof. Nesrien Shalabi	Signature & date:

Plastic surgery department

COURSE SPECIFICATION

OF

ANATOMY RELATED TO PLASTIC SURGERY

(PSUR ٦٠١

PSUR ٦٣٣ APS)

COURSE SPECIFICATION
OF ANATOMY RELATED TO PLASTIC SURGERY
Faculty of Medicine- Mansoura University

(A) Administrative information

(١) Programme offering the course:	Postgraduate Doctorate degree of plastic surgery/ PSUR٦٠٠
(٢) Department offering the programme:	Plastic and reconstructive surgery Department
(٣) Department responsible for teaching the course:	Human Anatomy and Embryology Department
(٤) Part of the programme:	First Part
(٥) Date of approval by the Department`s council	١٠/٨/٢٠٢٠
(٦) Date of last approval of programme specification by Faculty council	٢٠/٩/٢٠٢٠
(٧) Course title:	Anatomy related to plastic surgery
(٨) Course code:	PSUR ٦٠١ – PSUR ٦٣٣ APS
(٩) Total teaching hours:	٣٠ hrs/ ١٥ weeks

(B) Professional information

(١) Course Aims:

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

١- To provide the basic and applied knowledge about anatomy of different parts of the body.

(٢) 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 ١- Recognize the basic principles of structure of the different parts of the body. Matches knowledge of anatomy to the patient in need for surgical repair of the injured part and those in need for reconstruction of the lost part.

B- Intellectual skills

B١ - Integrate the anatomy of the skin, musculoskeletal system, nerves and vessels of the human body with clinical examination and utilize major clinical applications of anatomical facts to reach proper diagnosis.

B٢- Apply the surface landmarks of the joints , bones , muscles, tendons and nerves in clinical examination of these parts and during surgical repair or reconstructive procedures.

C ١- Apply the anatomical facts during clinical examination and interpret radiological and nerve conduction studies in order to reach a proper diagnosis and a proper plan for surgical interference.

D- Communication & Transferable skills

D ١- Be prepared for the lifelong learning needs of the profession in plastic and reconstructive surgery.

D ٢- Use different resources to gain knowledge and information related to plastic and reconstructive surgery.

(٣) Course content:

Subjects	Lectures ٢hrs/week For ١٥ weeks	Clinical	Laboratory	Field	Total Teaching Hours (٣٠ hrs/ ١٥ weeks)
▪ Anatomy of the facial skeleton and the scalp	٢ hrs/wk for one week				٢ hrs/ one week
▪ Anatomy of the face (forehead- nose)	٢ hrs/wk for one week				٢ hrs/ one week
▪ Anatomy of the face (eyelids)	٢ hrs/wk for one week				٢ hrs/ one week
▪ Anatomy of the face (lips-ear)	٢ hrs/wk for one week				٢ hrs/ one week
▪ Facial nerve anatomy and muscles of facial expression	٢ hrs/wk for one week				٢ hrs/ one week
▪ Facial fat compartments	٢ hrs/wk for one week				٢ hrs/ one week

▪ Muscles, vessels and nerves of the upper limb	٢ hrs/wk for one week				٢ hrs/ one week
▪ Flaps of the upper limb	٢ hrs/wk for one week				٢ hrs/ one week
▪ Brachial plexus	٢ hrs/wk for one week				٢ hrs/ one week
▪ Anatomy of the hand	٢ hrs/wk for one week				٢ hrs/ one week
▪ Anatomy of the breast	٢ hrs/wk for one week				٢ hrs/ one week
▪ Anatomy and flaps of the chest wall	٢ hrs/wk for one week				٢ hrs/ one week
▪ Muscles, vessels and nerves of the lower limb	٢ hrs/wk for one week				٢ hrs/ one week
▪ Flaps of the lower limb	٢ hrs/wk for one week				٢ hrs/ one week
▪ Anterior abdominal wall and external genetalia	٢ hrs/wk for one week				٢ hrs/ one week

(٤) Teaching methods:

٤.١:.Lectures. ……

(٥) Assessment methods:

٥.١: Final written exam & MCQ exam

……

Assessment schedule:

At the end of ٦th month (first semester)…… ……

Percentage of each Assessment to the total mark:

Written exam: ……٨٠ marks …… MCQ exam ……. ٢٠ marks ……

(٦) References of the course:

٦.١: Hand books:…..Lecture notes handed to student

٦.٢: Text books:…… Gray's anatomy.

Standring, S. (Ed.). (٢٠٢١). *Gray's anatomy e-book: the anatomical basis of clinical practice*. Elsevier Health Sciences.

Chicago

٦.٣: Journals: ……Am J of anatomy……

(٧) Facilities and resources mandatory for course completion:

-Laptop and data show projector

-Laser pointer and white board

-Comfortable and well prepared classroom

Programme coordinator: Prof. Omar Shouman Dr. Mohamed Abdelshaheed	Signature & date:
Dean of the Mansoura Faculty of Medicine Prof. Nisreen Salah Omar	Signature & date:
Executive Director of the Quality Assurance Unit Prof. Nesrien Shalabi	Signature & date:

COURSE SPECIFICATION
OF PATHOLOGY RELATED TO PLASTIC SURGERY
Faculty of Medicine– Mansoura University

(A) Administrative information

(١) Programme offering the course:	Postgraduate Doctorate degree of plastic surgery/ PSUR٦٠٠
(٢) Department offering the programme:	Plastic and reconstructive surgery Department
(٣) Department responsible for teaching the course:	Pathology Department
(٤) Part of the programme:	First Part
(٥) Date of approval by the Department`s council	١٠/٨/٢٠٢٢٠
(٦) Date of last approval of programme specification by Faculty council	٢٠/٩/٢٠٢٠
(٧) Course title:	Pathology related to plastic surgery
(٨) Course code:	PSUR ٦٠٥ – PSUR ٦٣٣ PPS

(٩) Total teaching hours:	٤٥ hrs/ ١٥ weeks

(B) Professional information

(١) Course Aims:

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

١- To provide fellows with the basic and applied knowledge about pathological changes associated with different diseases related to plastic surgery.

٢- To provide knowledge about pathological changes occurring with some surgical maneuvers.

(٢) 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 ١- Recognize the pathology of different diseases related to plastic surgery and pathological changes occurring with some surgical maneuvers.

A ٢- Analyze the pathophysiological changes occurring in burned patients.

B- Intellectual skills

B١ - Integrate the pathological facts during clinical examination and interpret radiological studies and histopathological studies in order to reach a proper diagnosis and a proper plan for surgical interference.

Subjects	Lectures ٣hrs/week For ١٥ weeks	Clinical	Laboratory	Field	Total Teaching Hours (٤٥ hrs/ ١٥ weeks)
▪ Pathology of burn	٣ hrs/wk for one week				٣ hrs/ one week
▪ Wound healing	٣ hrs/wk for one week				٣ hrs/ one week
▪ Skin graft and cartilage graft	٣ hrs/wk for one week				٣ hrs/ one week
▪ Premalignant, malignant and pigmented skin lesions	٣ hrs/wk for one week				٣ hrs/ one week
Cutaneous vascular anomalies and LASER therapy	٣ hrs/wk for one week				٣ hrs/ one week
▪ Hand infections and hand tumors	٣ hrs/wk for one week				٣ hrs/ one week
▪ Dupuytren's disease and rheumatoid arthritis	٣ hrs/wk for one week				٣ hrs/ one week
▪ Tissue expansion-distraction osteogenesis-bone graft	٣ hrs/wk for one week				٣ hrs/ one week
▪ Craniofacial anomalies	٣ hrs/wk for one week				٣ hrs/ one week
▪ Collagen-Elastin-TEN syndrome	٣ hrs/wk for one week				٣ hrs/ one week
▪ Pressure sores-Necrotizing fasciitis-Diabetic foot	٣ hrs/wk for one week				٣ hrs/ one week
▪ Pathology of peripheral nerve injury a nerve entrapment syndromes	٣ hrs/wk for one week				٣ hrs/ one week
▪ Jaw swelling and salivary gland tumors	٣ hrs/wk for one week				٣ hrs/ one week
▪ Benign breast lesions and Gynecomastia	٣ hrs/wk for one week				٣ hrs/ one week
▪ Fat graft-Albinism-sun damage	٣ hrs/wk for one week				٣ hrs/ one week

(٣) Teaching methods:

٤.١:.Lectures. ……

(٤) Assessment methods:

٥.١: Final written exam & MCQ exam ……

Assessment schedule:

At the end of ٦th month (first semester)…… ……

Percentage of each Assessment to the total mark:

Written exam: ……٨٠ marks …… MCQ exam …….. ٢٠ marks ……

(٥) References of the course:

٦.١: Hand books:…..Lecture notes handed to student

…..Washington manual of surgical pathology Hoda, S. A., & Zhong, E. (٢٠١٩). The Washington Manual of Surgical Pathology.

٦.٢: Text books:……Robbin's basic pathology Kumar, V., Abbas, A. K., & Aster, J. C. (٢٠١٧). *Robbins basic pathology e-book*. Elsevier Health Sciences.

…...Rosai and Ackerman's surgical pathology Rosai, J. (٢٠١١). *Rosai and Ackerman's surgical pathology e-book*. Elsevier Health Sciences.

(٦) Facilities and resources mandatory for course completion:

-Laptop and data show projector

-Laser pointer and white board

-Comfortable and well prepared classroom

Programme coordinator: Prof. Omar Shouman Dr. Mohamed Abdelshaheed	Signature & date:
Dean of the Mansoura Faculty of Medicine Prof. Nisreen Salah Omar	Signature & date:
Executive Director of the Quality Assurance Unit Prof. Nesrien Shalabi	Signature & date:

COURSE SPECIFICATION
OF PLASTIC SURGERY
Faculty of Medicine– Mansoura University

(A) Administrative information

(١) Programme offering the course:	Postgraduate Doctorate degree of plastic surgery/ PSUR٦٠٠
(٢) Department offering the programme:	Plastic and reconstructive surgery Department
(٣) Department responsible for teaching the course:	Plastic and reconstructive surgery Department
(٤) Part of the programme:	Second Part
(٥) Date of approval by the Department`s council	١٠/٨/٢٠٢٠
(٦) Date of last approval of programme specification by Faculty council	٢٠/٩/٢٠٢٠
(٧) Course title:	Plastic surgery
(٨) Course code:	PSUR ٦٣٣ PS
(٩) Total teaching hours:	٢٤٠ lectures or tutorials hours and ٢١٠ clinical hours /٦٠ weeks (٢٣ credit hours in ٤ semesters)

(B) Professional information

(١) Course Aims:

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

١- To provide fellows with the skills required to perform as well-trained, productive independent consultants and primary care providers for burned patients, patients in need for reconstruction of any part of the body or those in need for aesthetic surgery. These goals are optimally met in a three-year program.

(٢) 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 ١- Understand the basic principles of reconstructive surgery.
A ٢- Recognize pathology, complications and management of burn cases.
A ٣- know the basic principles of aesthetic surgery.
A ٤- know the basic principles of hand and maxillofacial surgery.
A ٥- Understand the basic principles of microsurgery.
A ٦ - Identify recent advances and areas under research in the field of plastic and reconstructive surgery.
A٧- Identify basics of health and patient's safety and safety procedures during practice.

A٨- Identify proper patient care and patient's rights to obtain the optimum health care and effective treatment.

A٩- Identify basics of ethics, medicolegal aspects, malpractice and common medical errors in plastic and reconstructive surgery.

A ١٠- Recognize principles and basic concepts of quality in professional practice including planning, improvement of performance and control of practicing outcomes.

B- Intellectual skills

B١ -Integrate the basic principles of plastic and reconstructive surgery with clinical examination and patient needs to reach the proper diagnosis and to make an appropriate plan for management.

B٢ – Analyze expected complications and know how to deal with.

B٣- Make decisions needed in different situations based on evidence-based medicine in plastic and reconstructive surgery.

B٤- Resolve specialized problems with non-availability of some data.

B٥- Consider effects of personal, social and cultural factors in the disease process and patient management.

B٦- Apply ethical issues and resolve ethical dilemmas in relation to clinical practice.

B٧- Demonstrate appropriate professional attitudes and behaviors in different practice situations.

B- Professional/practical skills

C ١- In general terms, by the end of the course, surgeons have to demonstrate:

C ١a- Theoretical and practical knowledge related to surgery in general and to their specialty practice.

C ١b- Technical and operative skills.

C ١c- Clinical skills and judgement

C ٢- Manage burn cases and deal with complications.

C ٣- Apply the basic principles of plastic and reconstructive surgery.

C ٤- Deal with hand and maxillofacial trauma.

C ٥- Understand the new updates in aesthetic surgery and LASER therapy.

C٦-Apply sound ethical principles in practice (e.g., informed consent, confidentiality, veracity, provision or withholding of care).

D- Communication & Transferable skills

D ١- Be prepared for the lifelong learning needs of the profession in plastic and reconstructive surgery.

D ٢- Use different resources to gain knowledge and information related to plastic and reconstructive surgery.

D ٣- Retrieve, manage, and manipulate information by all means.

D ٤- Use different resources to gain knowledge and information related to plastic and reconstructive surgery.

D ٥- Present clearly, and effectively a scientific topic in front of audience using computer and power point skills.

D ٦- Communicate ideas and arguments effectively.

D ٧- Demonstrate caring/respectful behaviors with patients and staff.

D ٨- Work effectively within a team and leadership teams in health care team or other various professional contexts.

D٩-Communicate effectively in its different forms with other specialties and generate the ethos of a multidisciplinary approach in the clinical setting.

D ١٠- Manage and lead scientific meetings

D ١١- Analyze and use numerical data including the use of simple statistical methods.

D١٢- Organize workload in order to meet deadlines.

(٣) Course content:

Third Semester (٦credit hours) (١٥ weeks)					
Subjects	**Lectures (٤ credit hrs/ ١٥ wks)**	**Clinical (٢ credit hr/ ١٥ wks)**	**Lab**	**Field**	**Total Teaching Hours**
▪ Wound healing	٤hrs/wk for ١week				٤ hrs (٤ hrs lectures)
▪ Necrotizing fasciitis	٤hrs/wk for ١week	٢hrs/wk for ١week			٦ hrs (٤ hrs lectures and ٢ hrs clinical)
▪ Pressure sores	٤hrs/wk for ١week	٦hrs/wk for ١week			١٠ hrs (٤ hrs lectures and ٦ hrs clinical)
▪ Hypertrophic and keloid scars	٤hrs/wk for ١week	٢hrs/wk for ١week			٦ hrs (٤ hrs lectures and ٢ hrs clinical)
▪ Burn wound dressing	٤hrs/wk for ١week	٦hrs/wk for ١week			١٠ hrs (٤ hrs lectures and ٦ hrs clinical)
▪ Acute burn	٤hrs/wk for ١week	٤hrs/wk for ١week			٨ hrs (٤ hrs lectures and ٤ hrs clinical)
▪ Complications of burn	٤hrs/wk for ١week	٤hrs/wk for ١week			٨ hrs (٤ hrs lectures and ٤ hrs clinical)
▪ Surgical management of burned patient	٤hrs/wk for ١week	٤hrs/wk for ١week			٨ hrs (٤ hrs lectures and ٤ hrs clinical)
▪ Burn reconstruction and rehabilitation	٤hrs/wk for ١week	٤hrs/wk for ١week			٨ hrs (٤ hrs lectures and ٤ hrs clinical)
▪ Electric injury	٤hrs/wk for ١week	٤hrs/wk for ١week			٨ hrs (٤ hrs lectures and ٤ hrs clinical)
▪ Skin graft.	٤hrs/wk for ١week	٤hrs/wk for ١week			٨ hrs (٤ hrs lectures and ٤ hrs clinical)
▪ Other tissue grafts.	٤hrs/wk for ١week	٤hrs/wk for ١week			٨ hrs (٤ hrs lectures and ٤ hrs clinical)
▪ Local flaps and Z-plasty.	٤hrs/wk for ١week	٤hrs/wk for ١week			٨ hrs (٤ hrs lectures and ٤ hrs clinical)
▪ Pedicled and free flaps.	٤hrs/wk for ١week	٨hrs/wk for ١week			١٢ hrs (٤ hrs lectures and ٨ hrs clinical)
▪ Tissue expansion.	٤hrs/wk for ١week	٤hrs/wk for ١week			٨ hrs (٤ hrs lectures and ٤ hrs clinical)

Fourth Semester (٦credit hours) (١٥ weeks)					
Subjects	**Lectures (٤ credit hrs/ ١٥ wks)**	**Clinical (٢ credit hr/ ١٥ wks)**	**Lab**	**Field**	**Total Teaching Hours**
▪ Maxillofacial trauma.	٤hrs/wk for ١week	٤hrs/wk for ١week			٨ hrs (٤ hrs lectures and ٤ hrs clinical)
▪ Jaw swellings. ▪ Mandibular reconstruction.	٤hrs/wk for ١week	٤hrs/wk for ١week			٨ hrs (٤ hrs lectures and ٤ hrs clinical)
▪ Facial nerve palsy management.	٤hrs/wk for ١week	٤hrs/wk for ١week			٨ hrs (٤ hrs lectures and ٤ hrs clinical)
▪ Reconstruction of the ear-nose-eyelids.	٤hrs/wk for ١week	٦hrs/wk for ١week			١٠ hrs (٤ hrs lectures and ٦ hrs clinical)
▪ Reconstruction of the lip-cheek-scalp.	٤hrs/wk for ١week	٦hrs/wk for ١week			١٠ hrs (٤ hrs lectures and ٦ hrs clinical)
▪ Cleft lip and palate.	٤hrs/wk for ١week	٤hrs/wk for ١week			٨ hrs (٤ hrs lectures and ٤ hrs clinical)
▪ Craniofacial clefts.	٤hrs/wk for ١week	٢hrs/wk for ١week			٦ hrs (٤ hrs lectures and ٢ hrs clinical)
▪ Craniosynostosis.	٤hrs/wk for ١week	٢hrs/wk for ١week			٦ hrs (٤ hrs lectures and ٢ hrs clinical)
▪ Genioplasty.	٤hrs/wk for ١week	٤hrs/wk for ١week			٨ hrs (٤ hrs lectures and ٤ hrs clinical)
▪ Velopharyngeal incompetence.	٤hrs/wk for ١week	٤hrs/wk for ١week			٨ hrs (٤ hrs lectures and ٤ hrs clinical)
▪ Nerve compression syndromes.	٤hrs/wk for ١week	٤hrs/wk for ١week			٨ hrs (٤ hrs lectures and ٤ hrs clinical)
▪ Facial resurfacing.	٤hrs/wk for ١week	٢hrs/wk for ١week			٦ hrs (٤ hrs lectures and ٢ hrs clinical)
▪ Blepharoplasty. ▪ Tissue fillers.	٤hrs/wk for ١week	٤hrs/wk for ١week			٨ hrs (٤ hrs lectures and ٤ hrs clinical)
▪ Rhinoplasty.	٤hrs/wk for ١week	٤hrs/wk for ١week			٨ hrs (٤ hrs lectures and ٤ hrs clinical)
▪ Abdominoplasty. ▪ Liposuction.	٤hrs/wk for ١week	٦hrs/wk for ١week			١٠ hrs (٤ hrs lectures and ٦ hrs clinical)

Fifth Semester (٦credit hours) (١٥ weeks)					
Subjects	**Lectures (٤ credit hrs/ ١٥ wks)**	**Clinical (٢ credit hr/ ١٥ wks)**	**Lab**	**Field**	**Total Teaching Hours**
▪ Augmentation mammoplasty.	٤hrs/wk for ١week	٤hrs/wk for ١week			٨ hrs (٤ hrs lectures and ٤ hrs clinical)
▪ Reduction mammoplasty.	٤hrs/wk for ١week	٤hrs/wk for ١week			٨ hrs (٤ hrs lectures and ٤ hrs clinical)
▪ Breast reconstruction.	٤hrs/wk for ١week	٤hrs/wk for ١week			٨ hrs (٤ hrs lectures and ٤ hrs clinical)
▪ Male breast.	٤hrs/wk for ١week	٤hrs/wk for ١week			٨ hrs (٤ hrs lectures and ٤ hrs clinical)
▪ Oncoplastic surgery.	٤hrs/wk for ١week	٤hrs/wk for ١week			٨ hrs (٤ hrs lectures and ٤ hrs clinical)
▪ Premalignant and malignant skin lesions.	٤hrs/wk for ١week	٤hrs/wk for ١week			٨ hrs (٤ hrs lectures and ٤ hrs clinical)
▪ Pigmented skin lesions.	٤hrs/wk for ١week	٢hrs/wk for ١week			٦ hrs (٤ hrs lectures and ٢ hrs clinical)
▪ Lower limb trauma. ▪ Lower limb reconstruction.	٤hrs/wk for ١week	٤hrs/wk for ١week			٨ hrs (٤ hrs lectures and ٤ hrs clinical)
▪ Foot reconstruction.	٤hrs/wk for ١week	٤hrs/wk for ١week			٨ hrs (٤ hrs lectures and ٤ hrs clinical)
▪ Chronic wounds.	٤hrs/wk for ١week	٤hrs/wk for ١week			٨ hrs (٤ hrs lectures and ٤ hrs clinical)
▪ Hypospadias. ▪ Penile reconstruction	٤hrs/wk for ١week	٤hrs/wk for ١week			٨ hrs (٤ hrs lectures and ٤ hrs clinical)
▪ Perineal reconstruction.	٤hrs/wk for ١week	٤hrs/wk for ١week			٨ hrs (٤ hrs lectures and ٤ hrs clinical)
▪ Flaps of the anterior trunk. ▪ Flaps of the back.	٤hrs/wk for ١week	٤hrs/wk for ١week			٨ hrs (٤ hrs lectures and ٤ hrs clinical)
▪ Cutaneous vascular anomalies.	٤hrs/wk for ١week	٦hrs/wk for ١week			١٠ hrs (٤ hrs lectures and ٦ hrs

					clinical)
▪ Hair transplant.	٤hrs/wk for ١week	٤hrs/wk for ١week			٨ hrs (٤ hrs lectures and ٤ hrs clinical)

Sixth Semester (٥credit hours) (١٥ weeks)					
Subjects	**Lectures (٤ credit hrs/ ١٥ wks)**	**Clinical (١ credit hr/ ١٥ wks)**	**Laboratory**	**Field**	**Total Teaching Hours**
▪ Hand trauma.	٤hrs/wk for ١week	٦hrs/wk for ١week			١٠ hrs (٤ hrs lectures and ٦ hrs clinical)
▪ Hand fractures.	٤hrs/wk for ١week	٦hrs/wk for ١week			١٠ hrs (٤ hrs lectures and ٦ hrs clinical)
▪ Brachial plexus.	٤hrs/wk for ١week	٢hrs/wk for ١week			٦ hrs (٤ hrs lectures and ٢ hrs clinical)
▪ Congenital hand deformities.	٤hrs/wk for ١week	٤hrs/wk for ١week			٨ hrs (٤ hrs lectures and ٤ hrs clinical)
▪ Acquired hand conditions.	٤hrs/wk for ١week	٢hrs/wk for ١week			٦ hrs (٤ hrs lectures and ٢ hrs clinical)
▪ Soft tissue and bony reconstruction of the hand.	٤hrs/wk for ١week	٤hrs/wk for ١week			٨ hrs (٤ hrs lectures and ٤ hrs clinical)
▪ Thumb reconstruction	٤hrs/wk for ١week	٢hrs/wk for ١week			٦ hrs (٤ hrs lectures and ٢ hrs clinical)
▪ Fingertip injuries	٤hrs/wk for ١week	٢hrs/wk for ١week			٦ hrs (٤ hrs lectures and ٢ hrs clinical)
▪ Tendon transfer	٤hrs/wk for ١week	٢hrs/wk for ١week			٦ hrs (٤ hrs lectures and ٢ hrs clinical)
▪ Psychological aspects of plastic surgery	٤hrs/wk for ١week				
▪ Lymphoedema.	٤hrs/wk for ١week				
▪ LASER in plastic surgery.	٤hrs/wk for ١week				
▪ Soft tissue sarcoma.	٤hrs/wk for ١week				
▪ Alloplastic materials.	٤hrs/wk for ١week				
▪ Stem cells in plastic surgery.	٤hrs/wk for ١week				

(٤) Teaching methods:

٤.١:……Lectures……

٤.٢:……Tutorials……

٤.٣: ……problem-based learning scenarios (case presentations)……

٤.٤:……Clinical training……..

(٥) Assessment methods:

٥.١: Written exam..… for assessment of…. (A١,٢,٤,٥,٦,٧,٨,٩,١٤,١٥,١٦,١٧, B١,٢,٤,١١,١٣)

٥.٢: Written commentary…. for assessment of…..(A ٢,٤ , B ٤,٥,٧,١٣)

٥.٣: Oral exam……. for assessment of…….(A ١,٢,٤,٩, B ٥,٧,١٠, D ٣)

٥.٤: Clinical exam…. for assessment of…(A ١,٢,٤, B ٣, D٥,٦,٧,٩)

٥.٥: Dissertation that clearly sets out the need for their research, justifies the research methods, presents results, and discusses the findings ……. for assessment of……(A ٤,٥,٦,٩,١٠,١١, B ٥,٦,٧,٨,٩,١٠,١١, C٣,٤,٥,٧)

٥.٦: Log book…. for assessment of ……(A٣,٦,٩,١٨,١٩, B ٣,٤,٥,٦,٧,١٠, C ٢b,٢c,٧)

Assessment schedule:

Assessment ١:…at the end of…….٣٦th month:……

Assessment ٢:… at the end of ……٣٦th month ……

Assessment ٣: …at the end of…….٣٦th month:……

Assessment ٤: …at the end of…….٣٦th month:……

Assessment ٥: …after ٢٤ month from the day of thesis registration according to the faculty bylaws.

Assessment ٦: …….throughout the course duration……

Percentage of each Assessment to the total mark :

Written exam:……٢٤٠/٥٥٠……%: (٤٣.٦٣)……

Written commentary…. .٦٠/٥٥٠……%: (١٠.٩٠)……

Clinical exam:……١٠٠/٥٥٠…… ……%:: (١٨.١٨)……

Oral exam:……١٠/٥٥٠…… ….%:: (١٨.١٨)……

Other assessment without marks: ……dissertation, log book

(٦) References of the course:

٦.١: Hand books:… -Oxford handbook of plastic and reconstruction surgery, ...

- Oxford handbook of hand surgery **……**
- plastic surgery secrets **……**

٦.٢: Text books:……

- Michigen manual of plastic surgery Brown, D. L., & Borschel, G. H. (Eds.). (٢٠٠٤). *Michigan manual of plastic surgery*. Lippincott Williams & Wilkins.
- Grabb and Smith's plastic surgery Chung, K. (٢٠١٩). *Grabb and Smith's plastic surgery*. Lippincott Williams & Wilkins.
- Green's operative hand surgery Wolfe, S. W., Pederson, W. C., Kozin, S. H., & Cohen, M. S. (٢٠٢١). *Green's operative hand surgery*. Elsevier Health Sciences.
- Guyuron's plastic surgery: indications, operations and outcomes Achauer, B. M., Eriksson, E., Vander Kolk, C., Coleman, J. J., Russell, R. C., & Guyuron, B. (Eds.). (٢٠٠٠). *Plastic surgery: indications, operations, and outcomes* (Vol. ٣). Mosby Incorporated.
- Georgiade plastic, maxillofacial and reconstructive surgery Georgiade, G. S., Riefkohl, R., & Levin, L. S. (١٩٩٧). *Georgiade plastic, maxillofacial, and reconstructive surgery*. Lippincott Williams & Wilkins.
- Grabb's encyclopedia of flaps Strauch, B., Vasconez, L. O., Hall-Findlay, E. J., & Lee, B. T. (Eds.). (٢٠٠٩). *Grabb's encyclopedia of flaps* (Vol. ٣). Lippincott Williams & Wilkins.
- Total burn care Herndon, D. N. (٢٠١٢). Preface to the fourth edition of total burn care. In *Total Burn Care: Fourth Edition* (pp. ix-ix). Elsevier Inc..

٦.٣: Journals: - Plastic and Reconstructive Surgery (PRS) **…**

- Annals of plastic surgery **……..**
- British journal of plastic surgery.....
- Burns **……..**
- ESPRS (Egyptian Society of Plastic and Reconstructive Surgery) .....

- Journal of reconstructive microsurgery.....
- Microsurgery .....
- Journal of hand surgery (JHS).....

٦.٤: Others ……Attending meetings & Conferences…… ……

(٧) Facilities and resources mandatory for course completion:

١- Teaching tools: -Computers and laptop for lectures presentation
-Data show projector and screen
- Laser pointer and white board
-Comfortable well prepared classroom with comfortable desks, good source of aeration and good illumination.

٢- Outpatient clinic for collection of clinical cases

Programme coordinator: Prof. Omar Shouman Dr. Mohamed Abdelshaheed	Signature & date:
Dean of the Mansoura Faculty of Medicine Prof. Nisreen Salah Omar	Signature & date:
Executive Director of the Quality Assurance Unit Prof. Nesrien Shalabi	Signature & date:

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

(A) Administrative information

(١) Programme offering the course:	Postgraduate Doctorate degree of plastic surgery/ PSUR٦٠٠
(٢) Department offering the programme:	Plastic and reconstructive surgery Department
(٣) Department responsible for teaching the course:	Plastic and reconstructive surgery Department
(٤) Part of the programme:	Second Part
(٥) Date of approval by the Department`s council	١٠/٨/٢٠٢٠
(٦) Date of last approval of programme specification by Faculty council	٣٠/٩/٢٠٢٠
(٧) Course title:	Laser physics & uses
(٨) Course code:	PSUR ٦٣٣LPH
(٩) Total teaching hours:	٢ credit hours throughout the ٤ semesters

(B) Professional information

(١) Course Aims:

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

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

(٢) 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 ١- Understand the basic principles of LAER therapy.
A ٢- Recognize pathology, complications and safety with LASER therapy.
A ٣- know the indications and contraindications of LASER therapy.
A ٤- know the different types of LASER therapy in plastic surgery.

B- Intellectual skills

B١ -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.
B٢ – Analyze expected complications with LASER therapy and know how to deal with.

C- Professional/practical skills

C ١-. Apply the basic principles of LASER therapy in plastic and reconstructive surgery.

C ٢- Deal with LASER equipments.

C ٣- Manage complications associated with LASER therapy

(٣) Course content:

Subjects	Lectures ٣hrs/week For ١٠ weeks	Clinical	Laboratory	Field	Total Teaching Hours (٣٠ hrs)
▪ Physical properties of LASER	٣ hrs/wk for one week				٣ hrs/ one week
▪ Histologic effect of LASER therapy	٣ hrs/wk for one week				٣ hrs/ one week
▪ Ablative and non-ablative LASER	٣ hrs/wk for one week				٣ hrs/ one week
▪ LASER safety measures	٣ hrs/wk for one week				٣ hrs/ one week
▪ LASER therapy for cutaneous vascular anomalies	٣ hrs/wk for one week				٣ hrs/ one week
▪ LASER therapy for pigmented skin lesions	٣ hrs/wk for one week				٣ hrs/ one week
▪ LASER therapy for facial resurfacing	٣ hrs/wk for one week				٣ hrs/ one week
▪ LASER therapy for hair removal	٣ hrs/wk for one week				٣ hrs/ one week
▪ Complications of LASER therapy	٣ hrs/wk for one week				٣ hrs/ one week
▪ Contraindications of LASER therapy	٣ hrs/wk for one week				٣ hrs/ one week

(٤) Teaching methods:

٤.١:.Lectures. ……

(٥) Assessment methods:

٥.١: Final written exam ……

Assessment schedule:

At the end of ٣٦th month …… ……

Percentage of each Assessment to the total mark:

Written exam:……٥٠/٥٥٠…… ….%:: (٩٠٩)……

(٦) References of the course:

٦.١: Hand books:… -Oxford handbook of plastic and reconstruction surgery Kay, S., Wilks, D., & McCombe, D. (Eds.). (٢٠٢٠). *Oxford Textbook of Plastic and Reconstructive Surgery*. Oxford University Press.

- plastic surgery secrets Weinzweig, J. (٢٠١٠). *Plastic surgery secrets plus*. Elsevier Health Sciences.

٦.٢: Text books:……- Michigen manual of plastic surgery Brown, D. L., & Borschel, G. H. (Eds.). (٢٠٠٤). *Michigan manual of plastic surgery*. Lippincott Williams & Wilkins.

- Grabb and Smith's plastic surgery Chung, K. (٢٠١٩). *Grabb and Smith's plastic surgery*. Lippincott Williams & Wilkins.

٦.٣: Journals: - Plastic and reconstructive surgery (PRS) …

- Annals of plastic surgery ……..

(٧) Facilities and resources mandatory for course completion:

-Laptop and data show projector

-Laser pointer and white board

-Comfortable and well prepared classroom

Programme coordinator: Prof. Omar Shouman Dr. Mohamed Abdelshaheed	Signature & date:
Dean of the Mansoura Faculty of Medicine Prof. Nisreen Salah Omar	Signature & date:
Executive Director of the Quality Assurance Unit Prof. Nesrien Shalabi	Signature & date:

COURSE SPECIFICATION

OF INTENSIVE CARE FOR BURNED PATIENT

Faculty of Medicine– Mansoura University

(A) Administrative information

(١) Programme offering the course:	Postgraduate Doctorate degree of plastic surgery/ PSUR٦٠٠
(٢) Department offering the programme:	Plastic and reconstructive surgery Department
(٣) Department responsible for teaching the course:	Plastic and reconstructive surgery Department
(٤) Part of the programme: (٥)	Second Part
(٦) Date of approval by the Department`s council	١٠/٨/٢٠٢٠
(٧) Date of last approval of programme specification by Faculty council	٢٠/٩/٢٠٢٠
(٨) Course title:	intensive care for burned patient
(٩) Course code:	PSUR ٦٣٣ ICB
(١٠) Total teaching hours:	٢ credit hours throughout the ٤ semesters (١٥ lectures hours and ٣٠ clinical hours in ٨ weeks)

(B) Professional information

(١) Course Aims:

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

١- To provide basic knowledge about how to deal with a burned patient admitted to intensive care unit.

(٢) 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

A١- Understand the basic principles of ICU equipments.
A٢- know the indications of ICU admission.
A٣- know the basic principles of ICU infection control.
A٣- know the basic principles of resuscitation.

B- Intellectual skills

B١ – Analyze expected complications with ICU admission and know how to deal with.
B٢ – Analyze the arterial blood gases (ABG) and correct deficits.

C- Professional/practical skills

C١- Dressing of burned patients admitted to ICU.

C٢- Prepare the patient for surgery.

C٣- Manage complications associated with ICU admission.

C٤- Resuscitation of the patient whenever needed

(٣) Course content:

Subjects	Lectures (١ credit hrs/ ٨ wks)	Clinical (١ credit hr/ ٨ wks)	Laboratory	Field	Total Teaching Hours
▪ Indications of ICU admission	٢hrs/wk for ١week	٤hrs/wk for ١week			٦ hrs (٢ hrs lectures and ٤ hrs clinical)
▪ ABG analysis	٢hrs/wk for ١week	٤hrs/wk for ١week			٦ hrs (٢ hrs lectures and ٤ hrs clinical)
▪ Monitoring of patient in ICU	٢hrs/wk for ١week	٤hrs/wk for ١week			٦ hrs (٢ hrs lectures and ٤ hrs clinical)
▪ ICU infection control and safety measures	٢hrs/wk for ١week	٤hrs/wk for ١week			٦ hrs (٢ hrs lectures and ٤ hrs clinical)
▪ Dressing of burned patients in ICU	٢hrs/wk for ١week	٤hrs/wk for ١week			٦ hrs (٢ hrs lectures and ٤ hrs clinical)
▪ Resuscitation of the patient	٢hrs/wk for ١week	٤hrs/wk for ١week			٦ hrs (٢ hrs lectures and ٤ hrs clinical)
▪ Bronchoalveolar lavage	٢hrs/wk for ١week	٤hrs/wk for ١week			٦ hrs (٢ hrs lectures and ٤ hrs clinical)
▪ Preparation of the patient for surgery and postoperative monitoring	١hrs/wk for ١week	٢hrs/wk for ١week			٣ hrs (١ hrs lectures and ٢ hrs clinical)

(٤) Teaching methods:

٤.١:.Lectures. ……

(٥) Assessment methods:

٥.١: Final written exam …….....

Assessment schedule:

At the end of ٣٦th month …… ……

Percentage of each Assessment to the total mark:

Written exam:……٥٠/٥٥٠…….. ….%:: (٩٠٩)……

(٦) References of the course:

٦.١: Hand books:… -Oxford handbook of plastic and reconstruction surgery Kay, S., Wilks, D., & McCombe, D. (Eds.). (٢٠٢٠). *Oxford Textbook of Plastic and Reconstructive Surgery*. Oxford University Press.

- plastic surgery secrets Weinzweig, J. (٢٠١٠). *Plastic surgery secrets plus*. Elsevier Health Sciences.

٦.٢: Text books:…….- :…….- Michigen manual of plastic surgery Brown, D. L., & Borschel, G. H. (Eds.). (٢٠٠٤). *Michigan manual of plastic surgery*. Lippincott Williams & Wilkins.

- Grabb and Smith's plastic surgery Chung, K. (٢٠١٩). *Grabb and Smith's plastic surgery*. Lippincott Williams & Wilkins.

Total burn care Herndon, D. N. (٢٠١٢). Preface to the fourth edition of total burn care. In *Total Burn Care: Fourth Edition* (pp. ix-ix). Elsevier Inc..

٦.٣: Journals: - Plastic and reconstructive surgery (PRS) …

- Annals of plastic surgery ……..

- IPRAS (International journal of Plastic, Reconstructive and Aesthetic Surgery).....

- Burns ……..

٦.٤: **Others** ……Attending meetings & Conferences…… ……

(٧) Facilities and resources mandatory for course completion:

-Laptop and data show projector

-Laser pointer and white board

-Comfortable and well prepared classroom

Programme coordinator: Prof. Omar Shouman Dr. Mohamed Abdelshaheed	Signature & date:
Dean of the Mansoura Faculty of Medicine Prof. Nisreen Salah Omar	Signature & date:
Executive Director of the Quality Assurance Unit Prof. Nesrien Shalabi	Signature & date:

COURSE SPECIFICATION
OF TISSUE CULTURE & TISSUE ENGINEERING
Faculty of Medicine– Mansoura University

(A) Administrative information

(١) Programme offering the course:	Postgraduate Doctorate degree of plastic surgery/ PSUR٦٠٠
(٢) Department offering the programme:	Plastic and reconstructive surgery Department
(٣) Department responsible for teaching the course:	Plastic and reconstructive surgery Department
(٤) Part of the programme:	Second Part
(٥) Date of approval by the Department`s council	١٠/٨/٢٠٢٠
(٦) Date of last approval of programme specification by Faculty council	٢٠/٩/٢٠٢٠
(٧) Course title:	Tissue culture & tissue engineering
(٨) Course code:	PSUR ٦٢٢ TCE
(٩) Total teaching hours:	٢ credit hours throughout the ٤ semesters

(B) Professional information

(١) Course Aims:

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

١- To provide knowledge about basic principles of tissue engineering and biologic materials used.

٢- To provide basic knowledge about stem cells and its applications in the field of plastic surgery.

(٢) 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 ١- Understand the basic principles of tissue engineering.

A ٢- Understand the basic principles of cell and tissue culture.

A ٣- know the different biologic materials used in tissue engineering.

A ٣- Understand the basic principles of stem cells and its applications in the field of plastic surgery.

B- Intellectual skills

B١ – Analyze expected cell responses to surface and architecture of tissue engineering scaffolds.

(٣) Course content:

Subjects	Lectures ٣hrs/week For ١٠ weeks	Clinical	Laboratory	Field	Total Teaching Hours (٣٠ hrs)
▪ Basic principles of tissue engineering	٣ hrs/wk for one week				٣ hrs/ one week
▪ Cell and tissue culture	٣ hrs/wk for one week				٣ hrs/ one week
▪ Biologic materials in tissue culture	٣ hrs/wk for one week				٣ hrs/ one week
▪ Basic principles of tissue transplantation	٣ hrs/wk for one week				٣ hrs/ one week
▪ Skin bank	٣ hrs/wk for one week				٣ hrs/ one week
▪ Gene therapy	٣ hrs/wk for one week				٣ hrs/ one week
▪ Cell responses to surface and architecture of tissue engineering scaffolds	٣ hrs/wk for one week				٣ hrs/ one week
▪ Angiogenesis and vascularity for tissue engineering applications	٣ hrs/wk for one week				٣ hrs/ one week
▪ Role of stem cells in plastic surgery	٣ hrs/wk for one week				٣ hrs/ one week
▪ Growth factors and cytokines and their role in tissue engineering	٣ hrs/wk for one week				٣ hrs/ one week

(٤) Teaching methods:

٤.١:.Lectures. .....

(٥) Assessment methods:

٥.١: Final written exam .....

Assessment schedule:

At the end of ٣٦th month …… ……

Percentage of each Assessment to the total mark:

Written exam:……٥٠/٥٥٠…….. ….%:: (٩٠٩)……

(٦) References of the course:

٦.١: Hand books:… -Oxford handbook of plastic and reconstruction surgery Kay, S., Wilks, D., & McCombe, D. (Eds.). (٢٠٢٠). *Oxford Textbook of Plastic and Reconstructive Surgery*. Oxford University Press.

- plastic surgery secrets Weinzweig, J. (٢٠١٠). *Plastic surgery secrets plus*. Elsevier Health Sciences.

٦.٢: Text books:…….- :…….- Michigen manual of plastic surgery Brown, D. L., & Borschel, G. H. (Eds.). (٢٠٠٤). *Michigan manual of plastic surgery*. Lippincott Williams & Wilkins.

- Grabb and Smith's plastic surgery Chung, K. (٢٠١٩). *Grabb and Smith's plastic surgery*. Lippincott Williams & Wilkins.

٦.٣: Journals: - Plastic and reconstructive surgery (PRS) …

- Annals of plastic surgery ……..
- IPRAS (International journal of Plastic, Reconstructive and Aesthetic Surgery).....
- Burns ……..
- Tissue engineering ……..

٦.٤: Others ……Attending meetings & Conferences…… ……

(٧) Facilities and resources mandatory for course completion:

-Laptop and data show projector

-Laser pointer and white board

-Comfortable and well prepared classroom

Programme coordinator: Prof. Omar Shouman Dr. Mohamed Abdelshaheed	Signature & date:
Dean of the Mansoura Faculty of Medicine Prof. Nisreen Salah Omar	Signature & date:
Executive Director of the Quality Assurance Unit Prof. Nesrien Shalabi	Signature & date:

مقارنة ما يقدمه البرنامج من نتائج تعليمية مستهدفة مع المعايير المرجعية لبرنامج الدكتوراه فى جراحة التجميل

أ ـ المعرفة والفهم:

المقررات التى تحقق المعايير الأكاديمية للبرامج	ILOs مخرجات التعلم المستهدفة	(ARS) Benchmark المعايير الأكاديمية لجامعات انجلترا	(NARS) المعايير القومية الأكاديمية القياسية العامة لبرامج قطاع الدراسات العليا (درجة الدكتوراه فى جراحة التجميل)
-Applied Anatomy related to plastic surgery -Applied Pathology related to plastic surgery -plastic surgery -LASER in plastic surgery -Tissue engineering -ICU in burn	A8,9,14, 15,16,17, 19,20,21	-There are many advances in the field of plastic surgery as: -supermicrosurgery. -free lymphatic tissue transfer. -skin bank. -LASER therapy	1. The theories, concepts and modern knowledge in the field of specialization and other related field
-Applied Anatomy related to plastic surgery -Applied Pathology related to plastic surgery -plastic surgery -LASER in plastic surgery -Tissue engineering -ICU in burn	A11,12,13 B6	-Demonstrates understanding of the basic principles of audit, clinical risk management & evidence based practice -Understanding of basic research principles, methodology & ethics, with a potential to contribute to research -Evidence of active participation in audit -Evidence of contributing to teaching & learning of others	2. The basics, methodologies, ethics of scientific research and its versatile tools
-Applied Anatomy related to plastic surgery -Applied Pathology related to plastic surgery -plastic surgery -LASER in plastic surgery -Tissue engineering -ICU in burn	A1,2,3,4, 5,6,12 B9 C6,D7	To understand the ethical and legal obligations of a surgeon To understand consent and ethical issues in burned patients certified DNAR (do not attempt resuscitation)	3. The moral and legal ethics of the professional practice in the area of Plastic surgery
-Applied Anatomy related to plastic surgery -Applied Pathology related to plastic surgery -plastic surgery -LASER in plastic surgery -Tissue engineering -ICU in burn	A13 D6	Competence in the management of patients presenting with a range of symptoms and elective conditions as specified in the core syllabus for the specialty of plastic surgery.	4. The concepts and principles of quality of the professional practice in the area of Plastic surgery
-Applied Anatomy related to plastic surgery -Applied Pathology related to plastic surgery -plastic surgery -LASER in plastic surgery -Tissue engineering	A10, B5	-Acquire experience in the management of a post surgical patient on the critical care, high dependency and post- operative wards. -Gain experience in the evaluation and management of a patient undergoing	5. The knowledge on the effects of professional practice on the environment and ways of development and maintenance of the environment

ب ـ القدرات الذهنية :

المقررات التي تحقق المعايير الأكاديمية للبرامج	مخرجات التعلم المستهدفة ILOs	(ARS) Benchmark المعايير الأكاديمية لجامعة	(NARS) المعايير القومية الأكاديمية القياسية العامة لبرامج قطاع الدراسات العليا (درجة الدكتوراه فى جراحة التجميل)
-Applied Anatomy related to plastic surgery -Applied Pathology related to plastic surgery -plastic surgery -LASER in plastic surgery -Tissue engineering -ICU in burn	B7 D11	-Clinical assessment and management of the pre-operative, post-operative and critically ill patient -Analysis and interpretation of investigations, including specific diagnostic tests.	1) Analyze and evaluate of information in the field of specialization and make full use of such information to solve problems
-Applied Anatomy related to plastic surgery -Applied Pathology related to plastic surgery -plastic surgery -LASER in plastic surgery -Tissue engineering -ICU in burn	B1,2,3,4 5,6 D2,5	-Capacity to think beyond the obvious, with analytical and flexible mind -Capacity to bring a range of approaches to problem solving -Clinical assessment and management of the pre-operative, post-operative and critically ill patient	2) Solve specific problems on the basis of limited and contradictory information
-Applied Anatomy related to plastic surgery -Applied Pathology related to plastic surgery -plastic surgery -LASER in plastic surgery -Tissue engineering -ICU in burn	B11-13 D5,6	-Demonstrates understanding of the basic principles of audit, clinical risk management & evidence based practice -Understanding of basic research principles, methodology & ethics, with a potential to contribute to research -Evidence of active participation in audit -Evidence of contributing to teaching & learning of others	3) Carry out a research studies to add new information to the knowledge
-Applied Anatomy related to plastic surgery -Applied Pathology related to plastic surgery -plastic surgery -LASER in plastic surgery -Tissue engineering -ICU in burn	B4,5 D5,6	-Demonstrates understanding of the basic principles of audit, clinical risk management & evidence based practice -Understanding of basic research principles, methodology & ethics, with a potential to contribute to research -Evidence of active participation in audit -Evidence of contributing to teaching & learning of others	4) Write scientific papers

-Applied Anatomy related to plastic surgery -Applied Pathology related to plastic surgery -plastic surgery -LASER in plastic surgery -Tissue engineering -ICU in burn	A6 B4,5	-To manage patient care in the peri-operative period. -To assess and manage preoperative risk. -To take part in the conduct of safe surgery in the operating theatre environment. -To assess and manage bleeding including the use of blood products. -To care for the patient in the post-operative period including the assessment of common complications.	5) Assess and analyze risks in the field of specialization
-Applied Anatomy related to plastic surgery -Applied Pathology related to plastic surgery -plastic surgery -LASER in plastic surgery -Tissue engineering -ICU in burn	B8,9 C1-6	Professional behaviour and leadership skills o To provide good clinical care o To be a good communicator o To teach and to train o To keep up to date and know how to analyse data o To understand and manage people and resources within the health environment o To promote good Health o To understand the ethical and legal obligations of a surgeon	6) Plan to improve performance in the field of specialization
-Applied Anatomy related to plastic surgery -Applied Pathology related to plastic surgery -plastic surgery -LASER in plastic surgery -Tissue engineering -ICU in burn	C1-6 D2	-Capacity to monitor and anticipate situations that may change rapidly -Demonstrates effective judgement and decision-making skills -The objective of the training programme is to produce trained plastic surgeons, who will have the clinical knowledge, the surgical expertise and the professional skills necessary for consultant practice.	7) Make good decisions in different professional aspects
-Applied Anatomy related to plastic surgery -Applied Pathology related to plastic surgery -plastic surgery -LASER in plastic surgery -Tissue engineering -ICU in burn	B11,12,13, 14,15 C1-6	-To assess the surgical patient -To elicit a history that is relevant, concise, accurate and appropriate to the patient's problem -To produce timely, complete and legible clinical records. -To assess the patient adequately prior to operation and manage any preoperative problems appropriately	8) Have innovation/creativity

		-To propose and initiate surgical or non-surgical management as appropriate. -To take informed consent for straightforward cases.	
-Applied Anatomy related to plastic surgery -Applied Pathology related to plastic surgery -plastic surgery -LASER in plastic surgery -Tissue engineering -ICU in burn	C1-6	-Candidates should be up to date and fit to practise safely -Preparation of the surgeon for surgery *Effective and safe hand washing, gloving and gowning *Administration of local anaesthesia *Accurate and safe administration of local anaesthetic agent -Preparation of a patient for surgery *Creation of a sterile field *Antisepsis *Draping	9) Discuss and negotiate in high level of confidence based upon proofs and evidences

ج ـ المهارات العملية:

المقررات التى تحقق المعايير الأكاديمية للبرامج	مخرجات التعلم المستهدفة ILOs	(ARS) Benchmark المعايير الأكاديمية لجامعة	(NARS) المعايير القومية الأكاديمية القياسية العامة لبرامج قطاع الدراسات العليا (درجة الدكتوراه فى جراحة التجميل)
-Applied Anatomy related to plastic surgery -Applied Pathology related to plastic surgery -plastic surgery -LASER in plastic surgery -Tissue engineering -ICU in burn	C1-6 D1,2	Professional behaviour and leadership skills o To provide good clinical care o To be a good communicator o To teach and to train o To keep up to date and know how to analyse data o To understand and manage people and resources within the health environment o To promote good Health	1) Apply modern and principle professional skills in the area of specialization
-Applied Anatomy related to plastic surgery -Applied Pathology related to plastic surgery -plastic surgery -LASER in plastic surgery -Tissue engineering	C2,4	Candidates should be efficient in writing of operation and medical records	2) Write and evaluate technical reports

-Applied Anatomy related to plastic surgery -Applied Pathology related to plastic surgery -plastic surgery -LASER in plastic surgery -Tissue engineering -ICU in burn	C4,7,8,9, 10,11,12,13,14 D4,6	Ability to assess the patient and manage the patient, and propose surgical or non-surgical management.	3) Adopt assessment methods and tools existing in the area of specialization.
-Applied Anatomy related to plastic surgery -Applied Pathology related to plastic surgery -plastic surgery -LASER in plastic surgery -Tissue engineering -ICU in burn	C2 D1,5	-To assess the surgical patient -To elicit a history that is relevant, concise, accurate and appropriate to the patient's problem -To produce timely, complete and legible clinical records. -To assess the patient adequately prior to operation and manage any preoperative problems appropriately. -To propose and initiate surgical or non-surgical management as appropriate. -To take informed consent for straightforward cases.	4) Use of the appropriate technological means to serve the professional practice.

د- مهارات الاتصال:

المقررات التى تحقق المعايير الأكاديمية للبرامج	مخرجات التعلم المستهدفة ILOs	(ARS) Benchmark المعايير الأكاديمية لجامعة	(NARS) المعايير القومية الأكاديمية القياسية العامة لبرامج قطاع الدراسات العليا (درجة الدكتوراه فى جراحة التجميل)
-Applied Anatomy related to plastic surgery -Applied Pathology related to plastic surgery -plastic surgery -LASER in plastic surgery -Tissue engineering -ICU in burn	D6,7,9	-Plastic surgeons work closely with their colleagues in orthopaedic surgery, head and neck surgery, orthodontics, Anaesthesia and Intensive Care. -To have sufficient understanding of these conditions so as to know what and to whom to refer in a way that an insightful discussion may take place with colleagues whom will be involved in the definitive management of these conditions.	1) Communicate effectively in different aspects
-Applied Anatomy related to plastic surgery -Applied Pathology related to plastic surgery -plastic surgery -LASER in plastic surgery -Tissue engineering	D1,5,6,10	Professional behaviour and leadership skills o To provide good clinical care o To be a good communicator o To teach and to train	2) Demonstrate efficient IT capabilities in such a way that serves in the development of the professional practice

-ICU in burn		o To keep up to date and know how to analyse data o To understand and manage people and resources within the health environment o To promote good Health	
-Applied Anatomy related to plastic surgery -Applied Pathology related to plastic surgery -plastic surgery -LASER in plastic surgery -Tissue engineering -ICU in burn	D1,2,4	-Takes responsibility for own actions -Demonstrates respect for the rights of all -Demonstrates awareness of ethical principles, safety, confidentiality & consent -Capacity to operate effectively under pressure & remain objective In highly emotive/pressurised situations -Awareness of own limitations & when to ask for help	3) Adopt self-assessment and Adopt life-long learning
-Applied Anatomy related to plastic surgery -Applied Pathology related to plastic surgery -plastic surgery -LASER in plastic surgery -Tissue engineering -ICU in burn	D2,3,4	Learning & Development: • Shows realistic insight into plastic surgery and the personal demands of a commitment to surgery • Demonstrates knowledge of training programme & commitment to own development • Shows critical & enquiring approach to knowledge acquisition, commitment to self-directed learning and a reflective/analytical approach to practice.	4) Use different resources for information and knowledge
-Applied Anatomy related to plastic surgery -Applied Pathology related to plastic surgery -plastic surgery -LASER in plastic surgery -Tissue engineering -ICU in burn	D1,3,5,6,7,10	Professional behaviour and leadership skills o To provide good clinical care o To be a good communicator o To teach and to train o To keep up to date and know how to analyse data o To understand and manage people and resources within the health environment	5) Collaborate effectively within multidisciplinary team and lead team works

		o To promote good Health	
-Applied Anatomy related to plastic surgery -Applied Pathology related to plastic surgery -plastic surgery -LASER in plastic surgery -Tissue engineering -ICU in burn	D10,12	-Capacity to manage time and prioritise workload, balance urgent & important demands, follow instructions -Understands importance & impact of information systems	6) Manage the scientific meetings and manage time

أمراض التخاطب

درجة الماجستير في أمراض التخاطب

PROGRAM SPECIFICATION

Faculty of Medicine- Mansoura University

(A) Administrative information

(1) Programme Title & Code	Postgraduate Master degree of Phoniatrics/ PHON 500
(2) Final award/degree	M.Sc.
(3) Department (s)	Otorhinolaryngology Department
(4) Coordinator	Prof. Dr. Tamer Samir Abou-Elsaad Professor of Phoniatrics - Faculty of Medicine-Mansoura University.
(5) External evaluator (s)	Prof.Dr. Yehia Amin Abo-Ras Professor of Phoniatrics- Alexandria University.
(6) Date of approval by the Department`s council	6/4/2020
(7) Date of last approval of programme specification by Faculty council	20/9/2020

(B) Professional information

Phoniatrics is the medical specialty for communication disorders, concerned with diseases and disorders of voice, speech, language, hearing (in so far as hearing impairment has its effects on any of the areas previously mentioned) and swallowing.

The specialty is based on the anatomical, physiological, diagnostic and therapeutic principles of Otorhinolaryngology and also on other medical disciplines (e.g. neurology, psychiatrics, pediatrics, dentistry, orthodontics) and non-medical sciences (e.g. linguistics, phonetics, psychology, behavior sciences, pedagogics, acoustics, communication sciences). These fundamentals guarantee that physical, developmental, functional and behavioral aspects of verbal communication can be taken care of in Phoniatrics with competence.

(1) Programme Aims:

The broad aims of the Programme are as follows:

1- The training program for Phoniatrician is designed to provide the candidate with the basic knowledge and skills necessary to be competent as to the whole of prophylaxis, diagnostics, therapeutics, rehabilitation, medical report, teaching and research, with reference to the diseases and disorders previously mentioned.

2- The training program will ensure that the candidate will be able to work with clients of all ages, including children and adults, and provide a variety of services skillfully in rehabilitation centers, medical clinics, and in private practice.

3- The training program is carried out in a consistent and logical manner to make them adequately prepared to practice in research laboratories, community centers, colleges and universities, and state and federal agencies.

4- The final evaluation should reflect the candidate ability to practice competently and independently.

5- The candidate should recognize the ethical principles related to the practice in this specialty.

6- Maintenance of abilities necessary for continuous medical education.

(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.

A- Knowledge and Understanding:

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

A1. Enlarge the basic medical knowledge and made more thorough primarily by the study in detail of the anatomy, physiology and pathological physiology of the functions of voice, speech, language, hearing, and swallowing.

A2. Comprehend the neurophysiological principles of the central encoding, decoding, memory and integration processes in speech, hearing, and swallowing.

A3. Know the genetic principles and the influence of the environment in the development of language, speech, hearing, and swallowing abilities.

A4. Identify the developmental and aging processes as to voice, language, speech, hearing, and swallowing.

A5. Understand the psychological and behavioral aspects of verbal communication.

A6. Acquire specific knowledge in the epidemiology, etiology, pathogenesis, prophylaxis, clinical physiology, diagnostics, differential diagnostics, therapeutics and rehabilitation of the voice disorders that include:

A6a. Congenital voice disorders.

A6b. Developmental voice disorders.

A6c. Non-organic (functional) voice disorders with and without secondary organic lesions in the larynx, including occupational dysphonia and also singers' voice.

A6d. Dysphonia caused by hormones.

A6e. Dysphonia as a result of organic alterations in the larynx.

A6f. Voice disorders due to neurological and psychiatric diseases, including vocal fold paralysis.

A6g.Voice disorders after operation or trauma of the larynx.

A7. Acquire specific knowledge in the epidemiology, etiology, pathogenesis, prophylaxis, clinical physiology, diagnostics, differential diagnostics, therapeutics and rehabilitation of the speech disorders that include:

A7a. Organic and functional articulation disorders.

A7b. Nasality, including cleft palate.

A7c. Dysfluency (stuttering and cluttering)

A7d. Dysartheria due to neurological (central, peripheral) and muscular diseases.

A8. Acquire specific knowledge in the epidemiology, etiology, pathogenesis, prophylaxis, clinical physiology, diagnostics, differential diagnostics, therapeutics and rehabilitation of the language disorders that include:

A8a. Delayed language development in children due to (but not limited to) hearing disorders (central and peripheral), mental retardation, brain damaged motor handicapped child (cerebral palsy), autism spectral disorder(ASD), attention deficit hyperactive disorders (ADHD), Specific language impairment (SLP).

A8b. Learning disability due to disorders of reading, writing and calculating (dyslexia, dysgraphia).

A8c. Dysphasia, aphasia.

A9. Acquire specific knowledge in the epidemiology, etiology, pathogenesis, prophylaxis, clinical physiology, diagnostics, differential diagnostics, therapeutics and rehabilitation of the swallowing disorders (Dysphagias) due to problems in the oral, and/or pharyngeal stages of swallowing (structural lesions, neurological disorders).

A10. Acquire selected knowledge from other disciplines required for phoniatricians (acoustics, electronics, phonetics, linguistics, pedagogics, psychology and behavior sciences) through attending of relevant basic science courses. This will form the starting point for the formation of a Phoniatrician and also the basis for interdisciplinary cooperation and to carryout research work.

A11. Acquire the basic knowledge for common ENT problems in the domain of phoniatrics and for basic general surgical skills.

A12. Acquire the basic knowledge for evaluating of children with outpatient health problems, disabilities and milestones delay.

A13. Acquire the basic knowledge in evaluation and management of psychiatric patients in the domain of phoniatrics.

A14. Acquire the basic knowledge for interpreting a basic and computerized audiological report.

A15. Acquire teaching abilities relevant to disorders of voice, speech, language and swallowing in order to participate in planning and implantation of that field.

A16. Know the Legal and medicolegal aspects in practise of phoniatric disorders as well as medical ethics.

A17. Acquire specific knowledge in the epidemiology, etiology, pathogenesis, prophylaxis, clinical physiology, diagnostics, differential diagnostics, and line of treatments of endocrine disorders related to patients with communication and swallowing disorders.

A18. Acquire specific knowledge in the epidemiology, etiology, pathogenesis, prophylaxis, clinical physiology, diagnostics, differential diagnostics, therapeutics of mental retardation and brain damaged motor handicapped child (cerebral palsy).

A19. Acquire specific knowledge in different types of grafts.

A20. Acquire specific knowledge in different types of flaps.

A21. Acquire advanced knowledge in surgical management of the cleft palate (primary and secondary repair).

A22. Identifies the type of teeth malocclusion and its effect on the speech.

A23. Identifies lines of management of teeth malocclusion in order to correct the underling speech disorder.

A24. Identifies the types of obturators used in management of different speech and swallowing disorders.

A25. Recognize how to design and select a psychometric test for specific patient group. Identify the methods of application of a psychometric test. Comprehend the validity and reliability of a psychometric test.

A26. Identify the principles of data collection, presentation and analysis of data. Identify the research methodologies related to communication and swallowing disorders.

A27. Identify the causes, diagnosis and lines of management of vocal fold immobility.

A28. Identify the diagnosis, differential diagnosis, classification and lines of management of cancer larynx.

A29. Identify the causes, diagnosis and lines of management of open and closed nasality.

A30. Identify the causes, diagnosis and lines of management of conductive and sensori-neural hearing impairment.

B- Intellectual skills :

B1. Outlines the therapeutic measures in the field of diseases of voice, speech, language and swallowing and applies them surgically, pharmacologically and behaviorally in order to be able to draw and perform the strategy of the therapy in the field efficiently.

B2. Collects complete, clear and organized information about the patient's ailments in order to be able to analyze it and formulate a preliminary idea concerning the etiological diagnosis of ailments.

B3. Analyses the speech (verbal) message of the patient concerning voice, phonology, semantic, syntax, and morphology in order to be able to describe precisely the type and degree of pathological aspects of communication.

B4. Analyses and relates the results of all different items of the battery of investigations in order to reach at an etiological diagnosis and possible differential diagnosis utilizing his/her theoretical background that draws charts for different groups of aliments in the field of phoniatrics.

B5. Outlines the role of pharmacological therapeutic agents in treatment of diseases of voice, speech, language and swallowing in order to be able to describe them when needed.

B6. Recognizes the methods of voice therapy in order to criticize the efficiency and pitfalls of each.

B7. Grasps the principles of behavior therapy in order to introduce efficiently these measures in the therapeutic programs given to patients.

B8. Grasps the principles of general language stimulation in order to be able to give efficient family guidance programs to help families that have children with delayed language development to participate efficiently in the therapeutic program.

B9. Grasps the principles of language rehabilitation of dysphasic patients in order to include it efficiently in the comprehensive rehabilitation program for these patients, including family guidance.

B10. Grasps the principles of language rehabilitation for the hearing impaired patient in order to include it efficiently in the comprehensive program for rehabilitation of the hearing handicapped.

B11. Identifies the role of prosthetic devices and aids in the therapeutic program for diseases of voice, speech, language and swallowing in order to be able to use it efficiently when indicated.

B12. Acquaints himself with the methodology of scientific research in the field of voice, speech, language and swallowing disorders in order to carry out efficiently academic and field research work.

B13. Assess the developmental milestones of children and classify their different types of disabilities.

B14. Recognizes high risk children for disabilities and determine the degree of handicap.

B15. Determines the cause of the neurological deficit in the domain of phoniatric disorders and selects the proper investigation and interpretation of radiological findings (CT and MRI of the brain).

B16. Interprets the electroencephalogram (EEG).

B17. Outlines the role of pharmacological therapeutic agents in treatment of endocrine diseases elated to voice, speech, language and swallowing in order to be able to describe them when needed.

B18. Outlines the role of pharmacological therapeutic agents in treatment of epilepsy and other pediatric neurological disorders.

B19. Outlines the selection chriteria for management of velopharyngeal insufficiency.

B20. Determines the surgical procedure for velopharyngeal insufficiency patients.

B21. Outlines the role of Orthodonitics and prosthodontics agents in treatment of diseases related to speech and swallowing in order to be able to describe them when needed.

C- Professional/practical skills:

C1. Examines patients with disorders of voice, speech, language and swallowing clinically and instrumentally and performs related formal tests on those patients in order to reach detailed etiological diagnosis and suggests prognosis.

C2. Examines the ear, nose, pharynx and larynx as well as the nervous system efficiently in order to detect organic changes and evaluate its significance and in order to associate between these signs and the symtomatology collected previously.

C3. Examines the larynx by means of stroboscope in order to study vocal fold's vibration during phonation and to detect the pathological picture of these vibrations and its significance.

C4. Performs the available standardized psychological tests in order to draw a diagnostic profile for the various perceptual, affective, social, cognitive aptitudes as well as the performance abilities of the patients.

C5. Carries out the various measurements and investigations using the available instrumental diagnostic procedures in order to support the preliminary diagnosis objectively.

C6. Practices micro-laryngoscopy in order to be able to perform efficiently the necessary micro laryngeal surgical procedures on the vocal folds and the larynx in general.

C7. Practices rehabilitation methods for speakers' and singers' voice.

C8. Practices rehabilitation methods for nasality.

C9. Practices rehabilitation of the laryngectomized patients.

C10. Practices habilitation methods in delayed language development.

C11. Practices rehabilitation methods for the correction of articulation errors.

C12. Practices rehabilitation methods for learning disabilities.

C13. Practices rehabilitation methods for stutterers and clutterers.

C14. Practices rehabilitation methods in dysphasia and aphasia.

C15. Practices rehabilitation methods in dysartherias.

C16. Practices rehabilitation methods in oro-pharyngeal dysphagias.

C17. Practices habilitation for hard of hearing children, including auditory training and habilitation of cochlear implantee.