



Faculty of Medicine
Suez Canal University

Cardiothoracic Department
Program Specification- MSc

PROGRAM SPECIFICATIONS

Program Title:

Master Degree of
Cardiothoracic Surgery

Code:
CSCS



Program Specification

A- Basic Information

1- Program Title: **Master Degree of Cardio-thoracic Surgery (CTS)**

2- Program Type: **Single** Double Multiple

3- Department (s): **Cardio-thoracic surgery (CTS) Department**

4- Coordinator: **Dr. Mohamed Amro.**

5- External Evaluator(s) : Prof. Ahmed Mohamed Deebes

6- **Date of specification approval:** The bylaws of the Master program in CTS in the Faculty of Medicine, Suez Canal University were approved by the Supreme Council of Universities in 2016.

7-**Date of specification revision approval:** October 2019.

8- **Number of credit points for this degree: 120 CP**

B- Professional Information

1- Program Aim

By the end of the course candidate should:

1. Provide students with adequate knowledge and skills in research methodology that enable them to design experiments, analyze data, and review literature critically
2. Identify and justify the basic components of the research framework, relevant to the tackled research problem.
3. Provide students with adequate knowledge and skills in research ethics that enable them to design researches with high ethical consideration
4. Have the capacity to understand, develop and apply selected diagnostic modality to confirm or exclude the clinical diagnosis of common diseases.
5. Have solid grounding in the making of operative decisions for common diseases.
6. Design a research article that can estimate short term outcome of recent procedures under supervision.

2- Intended Learning Outcomes (ILOs) of the program

By the end of this program, participants should be able to:



a- Knowledge and Understanding:

- a1 Demonstrate basic knowledge of research ethics
- a2 Demonstrate basic knowledge of biostatistics
- a3 Describe the normal structure and function of the cardio-respiratory system on the macro and micro levels.
- a4 List the abnormal structure, function, growth and development of cardio-respiratory system
- a5 Define the natural history of surgical and cardiothoracic diseases.
- a6 Recognize the causation of cardio-respiratory diseases and their pathogenesis.
- a7 List the clinical picture and differential diagnosis and treatment of general and cardiothoracic surgery illness..
- a8 Identify the common diagnostic and laboratory techniques necessary to establish diagnosis of surgical and cardio-respiratory illnesses.
- a9 Describe recent advances in the various therapeutic methods/alternatives used for cardio-respiratory diseases.
- a10 Mention the principles and fundamentals of ethics and legal aspects of professional practice in the field of cardiothoracic surgery.
- a11 Illustrate Principles, methodologies, tools and ethics of scientific research
- a12 Identify new methods, tools and ways of professional practice.
- a13 Recognize the basis and principles of quality related to instrumentation in the field of cardiothoracic surgery.
- a14 Demonstrate decision related to breaking news, end of life and terminal care

b) Intellectual Skills

By the end of the program, the student is expected to be able to:

- b1 Apply the basic statistical and ethical requirements for the completion of research thesis
- b2 Implement the appropriate research methodology
- b3 Interpret data acquired through history taking to reach a provisional diagnosis for surgical and cardio-respiratory problems.
- b4 Select from different diagnostic alternatives the ones that help reaching a final diagnosis for surgical and cardio-respiratory problems.
- b5 Conduct research studies, that adds to knowledge.
- b6 Formulate scientific papers in the area of cardiothoracic surgery
- b7 Assess risk in professional practices in the field of surgical and cardiothoracic surgery
- b8 Identify surgical and cardio-respiratory problems and find solutions.
- b9 Manage Scientific discussion based on scientific evidences and proofs.
- b10 Criticize researches related to cardiothoracic surgery
- b11 Discuss complications of tools used in the field of cardiothoracic surgery

c) Professional and Practical Skills

By the end of the program, the student is expected to be able to:

- c1. Perform the basic and modern professional skills in the area of general and cardiothoracic surgery.



- c2. Write and evaluate of medical reports.
- c3. Evaluate and develop of methods and tools existing in the area of cardiothoracic surgery
- c4. Use technological methods to serve the professional practice.
- c5. Plan for the development of professional practice and development of the performance

d) General and Transferable Skills

By the end of the program, the student is expected to be able to:

- d1. Communicate effectively the different types of effective communication.
- d2. Use information technology to serve the development of professional practice
- d3. Teach others and evaluating their performance.
- d4. Perform self-assessment and identify personal learning needs from different sources for information and knowledge
- d5. Use different sources for information and knowledge.
- d6. Work in a team and team's leadership.
- d7, Manage scientific meetings administration according to the available time.

3- Academic Standards

3a - External References for Standards (Benchmarks)

- 1. The generic Academic Reference Standards (ARS) of NAQAAE for Postgraduate

3b - Comparaison of Provision to External References

see attached

4- Curriculum Structure and Contents

4a- Program duration: the program lasts for a minimum of 2 academic years and maximum 5 years, as specified in the internal bylaws for postgraduate studies based on credit points system in the Faculty of Medicine, Suez Canal University approved on February 7th, 2016.

4b- Program structure:

Master Program Credit points (CP) structure:

Total needed credit points for getting master degree 120 CP

The program consists of **First part 30 CP, Thesis 30 CP, and Second part 60 CP**

- 1. The first part of the program: 30 CP, its duration (15 weeks) for one academic semester. It includes
 - a. A course in Research Methodology planned and held in the Community Medicine Department of the Faculty of Medicine, Suez Canal University. This part includes 4 CP.
 - b. A courses in Research ethics planned and held in the Forensic and Toxicology Department of the Faculty of Medicine, Suez Canal University. This part includes 2 CP.



- c. One elective course, the students should select one elective among six courses. This part includes 2 CP.
 - d. The specialized courses in Anatomy, planned and held in the Anatomy Department. It includes 3 CP.
 - e. The specialized courses in Physiology, planned and held in the Physiology Department. It includes 3 CP.
 - f. The specialized courses in pharmacology, planned and held in the pharmacology Department. It includes 3 CP.
 - g. The specialized courses in pathology, planned and held in the pathology Department. It includes 3 CP.
 - h. The specialized courses in microbiology, planned and held in the microbiology Department. It includes 3 CP.
One of the following 3 courses (i, j, k)
 - i. The specialized courses in General Surgery ICU, planned and held in the General ICU Department. It includes 3 CP.
 - j. The specialized courses in Cardiothoracic Surgery ICU, planned and held in the CTS ICU Department. It includes 3 CP
 - k. The specialized courses in Cardiothoracic Surgery support planned and held in the CTS Department. It includes 3 CP
 - l. The specialized courses in General Surgery, planned and held in the General Surgery Department. It includes 4 CP
2. The second part of the program: 60 CP, its duration (45 weeks) for 3 consecutive academic semesters. The second part comprises the specialized courses in Cardiothoracic Surgery, planned and held in the CTS Department. This part lasts for 1.5 years ending by written and practical exams.

4bi- No. of hours per week: 2 CP / week which equivalent 50 hours/ week, including lectures, student prepared presentations, applied cases , self-learning and hands-on training.

4bii- No. of credit Points: the Master program is 120 Credit Points

Every credit point include 25 working hour (30% = 7 hours for face to face learning activities, and 70% =18 hours for self-learning activities).

5- Program courses

5.1- Level/Year of Program: First part of MSc (30 CP)



Courses			Assessment				
Code No.	Course Title	No. of Credit points	Written Exam			Oral exam	Practical or clinical Exam
			No of Papers	Duration	Marks		
RB	Research methodology and Biostatistics	4	1	2 hours	80		
RE	Research Ethics	2	1	1 hour	40		
CSCS01	Anatomy	3	1	1 hour	45	15	
CSCS02	Physiology	3	1	1 hour	45	15	
CSCS03	Pharmacology	3	1	1 hour	45	15	
CSCS04	Pathology	3	1	1 hour	45	15	
CSCS05	Microbiology	3	1	1 hour	45	15	
CSCS06	General Surgery ICU	3	1	1 hour	45	15	
CSCS07	Or Cardiothoracic ICU	3	1	1 hour	45	15	
CSCS08	Or Cardiothoracic Surgery support	3	1	1 hour	45	15	
CSCS09	General surgery	4	1	2 hours	35	10	35
E	Elective	2	1	1 hour	40		
Total		30 credit points			600 marks**		

***E: Student should select one course of the following as an elective course:**

One elective course has 2 CP. The students should select one

. ****Every credit point equal 20 marks**

E01	Evidence Based medicine	(Community Department)
E02	Scientific Writing	(Medical Education Department)
E03	Quality in Medical Education	(Medical Education Department)
E04	Infection Control	(Microbiology Department)
E05	Critical Appraisal	(Community Department)
E06	Communication Skills	(Medical Education Department)



5.2- Level/Year of Program: Second part of MSc program (60 CP)

Code No.	Course Title	No. of Credit points	Written Exam			Oral	clinical Exam	Continues assessment *(Portfolio)
			No of papers	Duration	Marks			
CSCS10	• Advanced Course in Cardiothoracic surgery	15	2	3 hours For each paper	165 for each paper	110	330	330
	• Practical training in Cardiothoracic surgery	40						
	Scientific activities	5 (not included in the total marks)						
Total		60 credit points			1100 score			

***Portfolio its scores distributed in the different parts of the portfolio and its total score included among total mark of second part
Scientific activities are not included in the total marks**

5.3 Thesis: 30 CP, not included in the total marks for master degree, the candidate has the right to register the thesis protocol during the first 6 months from the degree registration. The thesis defense is allowed after 6 months from the date of the faculty council approval on the thesis protocol and passing the first part exam.

A faculty senior & junior supervisor from the staff members are nominated by the department council to prepare a proposal of the thesis protocol after the selection of a subject that is complementary to the research plans of the department. Data collection, methodologies, study question, time table, ethical considerations and budget are formulated by the candidate under guidance of his supervisors into a research project. The research protocol is then peer reviewed by two different staff members nominated by the Head of the department who share their ideas and comments with the supervisors to reach to the final form. The research protocol is discussed then openly in one of the department councils to be approved and diverted to the Faculty research committee where it is subjected to a critical appraisal to meet the research basic standards set by the committee. The final approvals of the research protocol are then issued by the committee of post graduate studies, the Faculty and University Council to be registered.



6-Program Admission Requirements

- The program accepts candidates with Bachelor degree in Medicine and Surgery with minimum good grade.
- Registration for the program opens 2 times/year, according to the internal bylaws for postgraduate studies of the Faculty of Medicine, Suez Canal University.

7- Student Assessment Methods

- 7.1 Written (MEQ) to assess the cognitive domain.
- 7.2 MCQs to assess the cognitive domain
- 7.3 Oral Viva Cards to assess higher cognitive and attitude domains.
- 7.3 Observations to assess practical and presentation skills.
- 7.4 Portfolio to assess the cognitive, psychomotor and the affective domains.

8- Weighting of Assessments

Total marks for master degree 1700

Type of exam	
First part (30 credit points= 600 mark)	
• Written exam	465
• Oral exam	100
• Practical exam	35
• Total	600
Second part (60 credit points including 5 credit points not included in the total marks =1100 mark)	
• Written exam	330
• Oral exam	110
• Practical exam	330
• Portfolio	330

9- Regulations for Progression and Program Completion

The regulations for program completion follow the regulations of Master degree of medical education in the Faculty of Medicine, Suez Canal University approved by the Supreme Council of Universities.

First part

Passing level 60% of total marks of the exam

At least 50% passing level of the total written exam marks



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Second part

Passing level 60% of total marks of the exam

Passing level 60% is prerequisite for MSC degree

Thesis/Assay

Passing thesis defense is prerequisite for getting MSc. Degree

10-Evaluation of Program Intended Learning Outcomes (ILOs)

Evaluator	Tool	Sample
1- Postgraduate students	Needs assessment questionnaires	Random sample of participants
2- Alumni	Self-administered questionnaires	Comprehensive sample
3- Stakeholders	Self-administered questionnaires	Random sample
4-External Evaluator(s) (External Examiner(s))	External audit of the program specifications	
5- Other		

Head of Department

Prof. Hany El-Domiatty

Date: