



COURSE SPECIFICATION

Faculty of Medicine– Mansoura University

(A) Administrative information

(1) Program offering the course.	General surgery MS
(2) Department offering the program.	General surgery
(3) Department responsible for teaching the course.	General surgery
(4) Part of the program.	First Part Master degree General Surgery
(5) External evaluator(s)	Prof. Dr. Alaa Khalil Zagazig Faculty of Medicine
(6) Date of approval by the Department's council	27/5/2013
(7) Date of last approval of program specification by Faculty council	9/8/2016
(8) Course title.	Statistics and research methodology
(9) Course code.	SUR 520 SRM
(10) Total teaching hours.	15

(B) Professional information

(1) Course Aims.

The broad aims of the course are as follows: (either to be written in items or as a paragraph)

- 1- To prepare the candidates to acquire the required knowledge and application of statistics and research methodology.
- 2- To enable the candidate to apply the principles of statistics in biomedical research.

Within the overall aim, the objectives of the Program are as follows.

1. Teaching the basics of statistics and research methods.
2. Teach the candidate the indications for each statistical test and how to design clinical trials.
3. Educate the candidate about the importance of statistics in interpreting clinical data and linking them to meaningful conclusions.

(2) Intended Learning Outcomes (ILOs):

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

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

A- Knowledge and Understanding

- A1. To recognize the basics of statistics and research methods.
- A2. Recognize the essential indications for each statistical test.
- A3. Explain the various terminologies in the field of statistics
- A4. Explain the methods of study design and sample size calculation

2- Intellectual activities (I)

The Postgraduate Degree provides opportunities for candidates to achieve and demonstrate the following intellectual qualities:

B- Intellectual skills

- B1. Recognize the meaning of each statistical test findings and their importance.
- B2. Recognize when and how to use statistics in research.
- B3. Realize the possible sources of bias in the study and how to address them.
- B4. Recognize the integration of various statistical tests to reach a final diagnosis.
- B5. Know how to design a study and the different types of clinical trials.

(3) Course content:

Subjects					
<u>1 Scope</u> <u>2 History</u> <u>3 Overview</u> <u>4 Statistical methods</u> <u>4.1 Experimental and observational studies</u> <u>4.2 Levels of measurement</u> <u>4.3 Key terms used in statistics</u> <u>4.4 Examples</u> <u>5 Specialized disciplines</u> <u>6 Statistical computing</u> <u>7 Misuse</u> <u>8 Statistics applied to mathematics or the arts</u>	15				15

(4) Teaching methods:

4.1. Lectures

(5) Assessment methods:

5.1. written exam for assessment of knowledge and intellectual activities.

5.2. M.C.Q exam for assessment of understanding and intellectual activities.

Assessment schedule:

Final exam at the end of the first semester.

MCQ exam at the end of the first semester.

Percentage of each assessment to the total mark.

Written exam: 80 marks

M.C.Q: 20 marks.

Other assessment without marks: logbook

(6) References of the course.

6.1. **Hand books:** Departmental book

6.2. **Text books:** Textbook of biostatistics.

6.3. **Journal.**

6.1. **Websites.**

6.1. **Others**

(7) Facilities and resources mandatory for course completion.

Lecture halls

(8) Evaluation of Program's intended learning outcomes (ILOs):

Evaluator	Tools*	Signature
Internal evaluator (s) Prof.Dr. Mohamed Farid Prof.Dr.Mohamed Abdelwahab Prof.Dr. Moh. Daaa El-Zawahry	Focus group discussion Meetings	
External Evaluator (s) Prof.Dr. Alaa khalil	Reviewing according to external evaluator checklist report.	
Senior student (s)	none	
Alumni	none	

Stakeholder (s)	none	
Others	none	

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

We certify that all information required to deliver this program is contained in the above specification and will be implemented. All course specification for this program are in place.	
Program coordinator: Dr. Sameh Hany Emile Lecturer of General Surgery. Mansoura University	Signature & date:
Head of the department: Prof. Dr. Nazem Shams Professor of General and surgical oncology. Mansoura University	Signature & date:
Dean: Prof.Dr. El-Said Abdelhady	Signature & date:
Executive director of the quality assurance unit: Prof.Dr. Seham Gad El-Hak	Signature & date: