



Faculty of Medicine
Suez Canal University

Department of Psychiatry and Neurology
Program Specification-Neurology MD

PROGRAM SPECIFICATIONS

Program Title:

Doctorate of Neurology

Code:

NPNP



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University : **Suez Canal University**

Faculty(s) : **Faculty of Medicine**

Program Specification

A- Basic Information

1- Program Title: **MD of Neurology**

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

3- Department (s): **Psychiatry and Neurology, pathology, physiology and community medicine**

4- Coordinator: **Prof. Ahmed Abdelaziz**

5- External Evaluator(s): Prof.

6- Last date of program specifications approval: 17/11/2008

7- Date of program specification revision approval: **Jan.2018**

8- Number of credit points for this degree: **180 CP**

B- Professional Information

1- Program Aim

The overall goals of the program are to develop a neurologist with the following characteristics:

- Capable of familiarizing the clinical presentation of common neurological disorders, taking history to elicit precise symptoms , distinguishing clinical syndromes and formulating clinical cases.
- Performs detailed neurological examination and practical application in general medical practice.
- Acquires knowledge of differential diagnosis of neurological disorders, laboratory data evaluation and clinical management of these diseases.
- Introduces the diagnostic evaluation and management of urgent neurological illness.
- Acquires skills and appreciates the clinical value of Electroencephalography, Evoked potentials, nerve conduction, electromyographic studies, lumbar puncture and brain imaging (CT, MRI).
- Continuously acquires the new issues in neuroscience.



- Understands the role of research in clinical decision making, knowledge generation and continuing education.

2. Intended Learning Outcomes (ILOs) of the program

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

a- Knowledge and Understanding:

- a1 Demonstrate knowledge in basic sciences related to practice in his field
- a2 Recognize the aspects of neurology practice as modified by patient age and other patient population characteristics, especially aspects of pediatric and geriatric practice..
- a3 Discuss the general medical problems which may play a role in the neurological disorders.
- a4 List preventive strategies in neurologic disorders.
- a5 Identify principles of clinical research design, implementation and interpretation.
- a6 Underline the various levels of quality and evidence in medicine and their translation into evidence-based practice.
- a7 Identify the principles of critical appraisal and problem solving issue.
- a8 Recognize a study that can be used to validate methodologies and parameters of clinical utility for the implementation and continuing use of new evidence-based analysis in the local setting.
- a9 Recognize basics of advanced statistics and medical ethics
- a10 Demonstrate knowledge of the medico legal aspect of the specialty

b- Intellectual Skills

- b1. Assess critically the scientific literature.
- b2. Apply the principles of evidence based medicine in practice.
- b3. Use multiple sources, including information technology, to optimize lifelong learning and support patient care decisions.
- b4. Develop personally effective strategies for the identification and remediation of gaps in medical knowledge needed for effective practice.
- b5. Use laboratory problems and clinical inquiries to identify process improvements to increase patient safety.
- b6. Use proficiency programs to improve neurologic practices.
- b7. Integrate the results of history, physical and laboratory test findings into a meaningful diagnostic formulation.
- b8. Integrate knowledge of the natural history and pathophysiology and the basic scientific principles and evidence base underpinning the current practice.
- b9. Interpret pertinent laboratory, and imaging materials for the patient.
- b10. Analyze critically to recognize the impact of their own value judgments and those of patients.
- b11. Prioritize problems.
- b12. Analyze, interpret, objectively evaluate and prioritize information, recognizing its limitations.
- b13. Demonstrate insight into research and scientific method through:



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- a. critical appreciation of methodology;
 - b. formulating research questions that are pertinent to medicine;
 - c. choice and application of appropriate quantitative and qualitative methodologies;
 - d. collecting, analyzing, interpreting data and solve medical problems
 - e. Evaluate the relationship between evidence, audit and observed variation in clinical practice.
 - f. Write scientific paper related to his MD thesis
- b14. Exhibit creativity/resourcefulness in their professional learning, scientific endeavor and clinical practice.
 - b15. Assess risk in relation to their own work and profession
 - b16. Regularly improve their practical performance using sound up to date knowledge
 - b17. Cope with uncertainty by:
 - accepting that uncertainty is unavoidable in the practice of medicine;
 - Using appropriate cognitive and intellectual strategies to deal with uncertainty when it arises.
 - b18. Apply Professional decision making
 - b19. Demonstrate the ability to extract and apply evidence from scientific studies to patient care.
 - b20. Use reliable and current information in diagnosis and treatment.
 - b21. Determine clinically optimal cost effective neurology testing and therapeutic strategies
 - b22. Determine principles of clinical risk assessment and management.
 - b23. Diagnose general medical disorders that affect mental and behavioral functioning.
 - b24. Diagnose clinical features, epidemiology and etiology of the main neurologic disorder of childhood and adolescence and women

C. Professional and Practical Skills

- c.1 Perform all required examinations related to specialty
- c.2 Demonstrate clinical skills related to specialty
- c.3 Interact with others without discriminating on the basis of religious, ethnic, sexual, or educational differences.
- c.4 Assemble positive work habits, including punctuality, dependability, and professional appearance.
- c.5 Propose principles of confidentiality with all information transmitted both during and outside of a patient encounter.
- c.6 Prepare issues pertaining to the use of human subjects in research.
- c.7 Set up and evaluate all laboratory tests required in the course specifications
- c.8 Use different resources for information that help him in diagnosis

d- General and Transferable Skills

- d 1 Write an articulate, legible, and comprehensive yet concise consultation note. Provide a clear and informative report, including a precise diagnosis whenever possible, a differential diagnosis when appropriate, and recommended follow-up or additional studies as appropriate.



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- d 2 Provide good communication skills (verbal and nonverbal) to the patients and their family members and perform this communication in an appropriate fashion.
- d 3 Conduct both individual consultations and presentations at multidisciplinary conferences that are focused, clear, and concise.
- d 4 Choose effective modes of communication (listening, nonverbal, explanatory, questioning) and mechanisms of communication (face-to-face, telephone, e-mail, written), as appropriate.
- d 5 Obtain informed consent including effective communication to patients and their family about (admission, pharmacological treatment, laboratory activities), alternative approaches and possible complications of different lines of managements
- d 6 Help other residents obtain proficiency in neurology medicine and plan for their development.
- d 7 Work well with other medical teamwork present in inpatient, outpatient and emergency room.
- d 8 Demonstrate presentation skills
- d 9 Preform Evaluation for subordinates, peers & program
- d 10 Present information clearly in written, electronic and oral forms
- d 11 Communicate ideas and arguments effectively;
- d 12 Manage time and resources and set priorities;
- d 13 Apply the principles of scientific research
- d 14 work within a changing environment;
- d 15 Teach effectively and act as a mentor to others
- d 16 Work effectively within a team.
- d 17 Use computers and information technology efficiently
- d 18 Treat patients in a manner consistent with the most up-to-date information on diagnostic and therapeutic effectiveness.
- d 19 Demonstrate self learning and evaluation skills

3- Academic Standards

3a -External References for Standards (Benchmarks)

- Generic Academic Reference Standards (ARS) for post graduate program

3b -Comparison of Provision to External References

4- Curriculum Structure and Contents

4a- Program duration: The program lasts for a minimum of 3 academic years and maximum 7 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:

MD Program Credit points (CP) structure:

Total needed credit points for getting MD degree 180 CP



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The program consists of **First part 30 CP, Thesis 50 CP, and Second part 100 CP**

1- The first part of the program: 30 CP, its duration (15 weeks) for one academic semester.
The first part comprises the following:

- 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 8 CP.
- b. Two electives each one has 2 CP. The students should select one elective which has not been selected in the Master Degree.
- c. The specialized courses in pathology, planned and held in the pathology Department. It includes 9 CP.
- d. The specialized courses in physiology, planned and held in the physiology Department. It includes 9 CP.

- **MD thesis:**50 CP, no scores for thesis. The candidate has the right to register his/her thesis protocol after 6 months from the degree registration. The first time for thesis defense after 2years from the date of the faculty council approval on the thesis protocol.

2- The second part of the program: 100 CP, its duration (75 weeks) for 5 consecutive academic semesters. The second part comprises the specialized courses in neurology, planned and held in the Neuropsychiatry Department. This part lasts for 2 years ending by written and practical exams.

5. Program Courses

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

***Student should select two courses of the following as an elective course:**

Two elective courses each one has 2 CP. The students should select two elective which has not been selected before in the Master Degree.

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)

****every credit point equal 20 marks**



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5.1: Level/Year of Program: first part of MD program (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		
NPNP56	pathology	9	1	3 hours	135	45	
NPNP55	physiology	9	1	3 hours	135	45	
BR	Research methodology and Biostatistics	8	1	3 hours	160		
E	Two Elective courses*	2+2	1+1	1 hour+1 hour	40+40		
Total		30 credit points			600 marks**		

5.2- Level/Year of Program: Second part of MD program (100 CP)

Courses			Assessment					
Code No.	Course Title	No. of Credit points	Written Exam			Oral exam	Practical or clinical Exam	Continues assessment *(Portfolio)
			No of Papers	Duration	Marks			
NPNP57	• Scientific and theoretical Course in Neurology	30	3	3 hours +3 hours+ 1.5 hour (case)	225 225 90	180	540	540
	• Practical training in Advances of neurology	60						



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	***Scientific activities	10 (not included in the total marks)							
Total		100 credit points			1800**marks				

***Portfolio its scores distributed in the different parts of the portfolio and its total score included among total mark of second part**

****every credit point equal 20 marks**

*****Scientific activities are not included in the total marks**

5.3 Thesis: 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 Masters in Neuropsychiatry with a grade of GOOD at least.
- 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.
- 7.4 Observations to assess practical and presentation skills.
- 7.5 Portfolio to assess the cognitive, psychomotor and the affective domains.

8- Weighting of Assessments

Type of exam	
First part (30 credit points= 600 mark)	
• Written exam	440
• Oral and practical exam	160
• Total	600
Second part (100 credit points including 10 credit points not included in the total marks =1800 mark)	
• Oral exam	180
• Practical exam	300
• Written exam	780
• Portfolio	540
<u>Total</u>	1800



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9- Regulations for Progression and Program Completion

- The regulations for program completion follow the general regulations for the Faculty of Medicine, Suez Canal University for MD approved by the Supreme Council of Universities. The program is considered complete with the accomplishment of 2 summative assessment (for the first and the second parts) and the defense of a thesis developed and submitted for the purpose of acquiring the degree.
- First part (40%)
- Passing level 60% of total marks of the exam and at least 50% passing level of the total written exam marks
- Second part (60%)
- Passing level 60% of total marks of the exam
- Passing level 60% total of practical and oral exam
- Thesis/Assay
- Passing discussion is required for MD degree

10- Evaluation of Program Intended Learning Outcomes (ILOs)

Evaluator	Tool	Sample
1- Postgraduate students	Needs assessment questionnaires	Random sample of participants
2- Alumni (N/A since this is the first time to implement the program)	N/A	N/A
3- Stakeholders	Self-administered questionnaires DELPHI Focus groups	According to the method
4- External Evaluator(s) (External Examiner(s))	External audit of the program specifications	
5- Other		

Head of Department

Prof. Ashraf Tantawy

Course coordinator

Prof. Ahmed Abdelaziz

Date:



A comparison of Neurology intended learning outcomes of MD program to the Generic Academic Reference Standards (ARS) for postgraduate programs

The overall goals of the program are to enable students to:

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- Continuously acquires the new issues in neuroscience.
- Understands the role of research in clinical decision making, knowledge generation and continuing education.

The curriculum will enable trainees to become competent in the:

1. Apply the principles of evidence based medicine in practice.
- 2-Apply multiple sources, including information technology, to optimize lifelong learning and support patient care decisions.
- 3-Develop personally effective strategies for the identification and remediation of gaps in medical knowledge needed for effective practice.
- 4-Demonstrate laboratory problems and clinical inquiries to identify process improvements to increase patient safety.
- 5-Apply proficiency programs to improve neurologic practices.
- 6-Regularly improve their practical performance using sound up to date knowledge.
- 7-Demonstrate Professional decision making.
- 8- Provide good communication skills (verbal and nonverbal) to the patients and their family members and perform this communication in an appropriate fashion.



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Benchmark	Program ILOs Covered (By No.)
2.1: Knowledge and understanding	
By the end of the postgraduate MD program the candidate should be able to know and understand the following:	
2.1.01 Theories, basic and specific knowledge related to his specialty as well as basic sciences related to practice in his field	a1, a2
2.1.02 basis, methods and ethics of scientific researches and its different tools	d9
2.1.03 Basic of ethics and medico legal aspects of professional practice, related to the specialty	d9, d10
2.1.04: basis and principles of quality in professional practice related to the specialty	a2, b6, b13
2.1.05 Related information concerned with the effects of professional practice on the environment and methods of environmental maintenance and development	a6
2.2- Intellectual Skills	
By the end of the postgraduate MD program the candidate should be able to:	
2.2.01 Analyze and evaluate knowledge to solve problems related to his specialty	b7,9,11,13
2.2.02 solve specific problems with available data	b7,9,11,13
2.2.03 Perform scientific research adding new information	b13
2.2.04 Writing scientific papers	b13 thesis
2.2.05 Risk assessment in professional practices	b15, 22
2.2.06 Plan to improve performance related to specialty	b4,6
2.2.07 professional decision making in relation to different professional sequences	b3,18
2.2.08 Be innovative and creative	b14, Thesis
2.2.09 discuss on basis and evidence	a6,8 b2, 8,19
2.3- Practical and Clinical Skills	
By the end of the postgraduate MD program the candidate should be able to:	
2.3.01 Demonstrate essential practical skills related to his specialty	c1,2
2.3.02 Write and evaluate professional reports	d1
2.3.03 Evaluate different methods and tools available related to specialty	c7
2.3.04 Use technology to serve professional practice	b3
2.3.05 plan to develop professional practice and improve performance of others	d6,9,15
2.4 General and transferable skills	
By the end of the postgraduate MD program the candidate should be able to	
2.4.01 Communicate ideas and arguments effectively	d1,11
2.4.02 Use information technology to serve in the development of professional practice	d1,10,17
2.4.03 Educate and evaluate performance of others	d6,9,15
2.4.04 self evaluation and lifelong learning	d19
2.4.05 Use different resources to obtain knowledge and information.	c8
2.4.06 Work effectively within team and lead a team effectively	d16
2.4.07 Patron scientific meetings and manage time effectively	d12

Head of the department