



## SAUDI FELLOWSHIP TRAINING PROGRAM

### CLINICAL NEUROPHYSIOLOGY

#### Promotion Examination

##### Examination Format:

- A written examination shall consist of one paper with not less than 100 MCQs with a single best answer (one correct answer out of four options). Up to 10% of unscored items can be added for pretesting purposes.
- The examination shall contain type K2 questions (interpretation, analysis, reasoning, and decision-making) and type K1 questions (recall and comprehension).
- The examination shall include basic concepts and clinical topics relevant to the specialty.
- Clinical presentation questions include history, clinical findings, and patient approach. Diagnosis and investigation questions; include the possible diagnosis and diagnostic methods. Management questions; including treatment and clinical management, either therapeutic or nontherapeutic, and complications of management. Materials and Instruments questions; including material properties, usage, and selection of instruments and equipment used. Health maintenance questions; include health promotion, disease prevention, risk factors assessment, and prognosis.





### Passing Score:

The trainee's performance is assessed in each of the evaluation formulas according to the following scoring system:

Score	Less than 50%	50% – 59.4%	60% - 69.4%	More than 70%
Description	Clear Fail	Borderline Fail	Borderline Pass	Clear Pass

1. To upgrade the trainee from a training level to the next level, she/he must obtain at least a **Borderline Pass** in each evaluation form.
2. The program director may recommend to the local supervision committee to request the promotion of the trainee who did not meet the previous promotion requirement according to the following:
  - A. In case the trainee gets a **Borderline Fail** result in one of the evaluation forms, the remaining evaluation forms must be passed with **Clear Pass** in at least one of them.
  - B. In case the trainee gets a **Borderline Fail** result in two of the evaluation forms to a maximum, provided they do not fall under the same theme (Knowledge, Attitude, Skills). The remaining evaluation forms must be passed with **Clear Pass** in at least two of them.
  - C. The promotion must be approved in this case by the scientific council for the specialization.





### Blueprint Outlines:

No.	Sections	Percentage
1	Electroencephalography (EEG)	40%
2	Evoke Potentials Modalities (EVP)	15%
3	Nerve Conduction Study (NCS)	15%
4	Electromyography (EMG)	20%
5	Intraoperative Monitoring (IOM)	5%
6	Research, Ethics & Professionalism and Patient Safety	5%
Total		100%

### Notes:

- Blueprint distributions of the examination may differ up to +/-5% in each category.
- Percentages and content are subject to change at any time. See the SCFHS website for the most up-to-date information.





## Suggested References:

### EEG Standards and Technology

1. Tyner FS, Knott Jr, Mayer WB. Fundamental of EEG Technology. Volume 1 and 2.
2. John S. Ebersole. Timothy A. Pedley. Current Practice of Clinical Electroencephalograph. Lippincott, Williams, and Wilkins.
3. Fisch BJ. Fisch & Spehlmann's EEG Primer, 3rd ed. Elsevier/North Holland: New York, 1999. (ISBN0444821481)
4. Blume WT, Holloway GM, Kaibara M, Young GB. Atlas of Pediatric and Adult Electroencephalography. Lippincott Williams & Wilkins: Philadelphia, 2010. (ISBN16205476056)
5. Schomer DL, Lopesda Silva F(eds). Niedermeyer's Electroencephalography: Basic Principles, Clinical Applications, and Related Fields, 6th edition. Lippincott Williams & Wilkins: Philadelphia, 2011. (ISBN0781789427)
6. Stern JM. Atlas of EEG Patterns. Lippincott Williams & Wilkins: Philadelphia, 2013. (ISBN1451109636)

### Evoke Potentials (EPs)

1. Misulis KE, Fakhoury T. Spehlmann's Evoked Potential Primer. 3rd Edition. Butterworth-Heinemann: Boston, 2001. (ISBN 075067338)
2. Chiappa K. Evoked Potentials in Clinical Medicine. 3rd edition. Raven Press, New York, 1997. (ISBN 0397516592)
3. Ebersole JS, Husain AM, Nordli DR Jr. (ed). Current Practice of Clinical Electroencephalography, 3rd Edition. Lippincott Williams & Wilkins: Philadelphia, 2014. (ISBN 145113195X)
4. Yamada,T., Meng E. Practical Guide for Clinical Neurophysiologic Testing: EP, LTM, IOM, PSG and NCS. Lippincott Williams & Wilkins: Philadelphia, 2011. (ISBN 1609137140)

### EMG/NCS

1. Preston, David & Shapiro, Barbara. Electromyography and Neuromuscular Disorders. 2nd Edition 2005 and 3rd Edition 2013.
2. Crout, Barbara O. & Flicek, Charles W. Nerve Conduction Studies from A-Z. 1997.
3. Daube, Jasper R., MD. Clinical Neurophysiology (Contemporary Neurology Series). 2nd Edition. Oxford University Press. 2002.
4. DeLisa, Joel A. & Lee, Hang J. Manual of Nerve Conduction Study and Surface Anatomy for Needle Electromyography. 4th Edition. 2004.
5. Dumitru, Daniel; Amato, Anthony; Zwartz, Machiel. Electrodiagnostic Medicine. 2nd Edition. 2002.
6. Kimura, J. Electrodiagnosis in Diseases of Nerve and Muscle: Principles and Practice. 3rd Edition. New York. Oxford University Press. 2001.





## IOM

1. Moller, AR. Intraoperative Neurophysiologic Monitoring. 3rd Edition. Humana Press., 2011. (ISBN 1441974350) 10
2. Nuwer, MR (ed), Intraoperative Monitoring of Neural Function: Handbook of Clinical Neurophysiology. Elsevier, 2008. (ISBN 044451824X)
3. ASET Intraoperative Monitoring: Basics and Performance Issues; Intraoperative Monitoring: Sensory, Nerve and Muscle.

## Crash Courses:

- Outline of each course including suggested reading references given by the provider.

## **Note:**

This list is intended for use as a study aid only. SCFHS does not intend the list to imply endorsement of these specific references, nor are the exam questions necessarily taken solely from these sources.

