

## **Blueprint for QEEG Certification**

The purpose of the Board is to certify the competence of individuals in obtaining and/or interpreting a QEEG. The applicant should do the following (these steps can be taken out of order):

Step 1 – Contact a diplomate or diplomates of the Board to arrange for him/her to review 5 QEEGs and a summary of each written by the applicant. The diplomate reviews the 5 QEEGs and summaries to determine that they are technically adequate and provides confirmation and referral of the candidate to the QEEG Board.

Step 2 – Attend an accredited didactic course (see below).

Step 3—Take and pass the board exam with a score of 70% or higher.

The exam will cover the following areas (percent of questions):

- 1. Editing raw EEG and artifacts (10%)
  - a. Physiologic
  - b. Extra-physiologic
  - c. Movements in the environment
- 2. Drug Effects (10%)
  - a. Understand the effects of various drugs on the EEG/QEEG data.
- 3. Database Analysis; (25%)
  - Know the best subject inclusion and exclusion criteria for building a database
  - b. Understand fundamental statistical consideration within databases
  - c. Have knowledge about t-tests, alpha and P levels, correlational relationships
    Understand z-score measures
- 4. Clinical and Cognitive Aspects (30%)
  - a. Understand developmental changes in the EEG
  - b. Understand the origins of the EEG
  - c. Know what EEG signatures should be referred out to other professionals

- d. Be knowledgeable about Brodmann area functions and network connections
- e. Have an understanding of LORETA interpretation and training
- f. Be knowledgeable about general cognitive and clinical changes that take effect after neurofeedback training based upon publications.
- g. Understand how clinical presentation may affect the EEG.
- 5. Montages and Spectral and Topographic Aspects of the EEG (25%)
  - Have a working knowledge of the montages, transforms and power displays along with the specific perspectives they can provide a reader of QEEG output.
  - b. Understand what defines the various montages and the circumstances of their use.
  - Understand sources in the brain from which various frequency bands normally emanate.
  - d. Understand phase and coherence, how they relate and what they can mean in the interpretation of the QEEG.

Accredited coursework will adhere to the following blueprint in a 36-hour course.

- I. Recording & Editing raw EEG and artifact detection (2 hours)
- II. Basic Neurophysiology & Neuroanatomy; (4 hours)
- III. Medication/Drug effects (2 hours)
- IV. Database Analysis (4.5 hours)
- V. Clinical and Cognitive Aspects (6.5 hours)
- VI. Montages & Spectral and Topographic Aspects of the EEG (3 hours)
- VII. QEEG Analysis & Neurofeedback Application; (6 hours)
- VIII. Ethical & Professional Conduct (2 hours)
- IX. Practicum, including artifact detection (6 hours)

Approved by the International QEEG Certification Board December 16, 2018