

Advanced Specialization in Forensic Psychophysiology

Syllabus and Training Guide for the Practicum / Mandatory Internship Program (V2)

1. Introduction and Academic Framework

Within the framework of the educational agreement signed between the **European Polygraph Academy (EPA)** and **Sapientia University of Andorra**, this academic syllabus and practical development plan is established for specializations in Forensic Psychophysiology. This strategic alliance addresses the necessity of providing the security sector, corporate justice, and credibility assessment field with an autonomous, rigorous European academic framework of the highest scientific standard.

The backbone of this specialization is the **Professional Training in Forensic Psychophysiology** course, which entails a total academic workload of **525 lecture hours**. This program is structured through an advanced hybrid model, where the theoretical and methodological excellence acquired via distance learning finds its definitive consolidation in a face-to-face, mandatory practical immersion phase.

2. Admission Requirements and Europolygraph Learning Partners (ELP)

Access to the practical phase is not automatic. It is designed as an academic privilege strictly restricted to students who have successfully completed and passed the comprehensive theoretical and methodological phase implemented through EPA's virtual platform and e-learning environment. Upon completion of this phase, the academic registry issues the corresponding **Certificate of Eligibility for the Practicum**.

To ensure an optimal transition into the professional environment, the mandatory internship phase takes place in a decentralized manner at the headquarters and facilities of the designated **ELP (Europolygraph Learning Partners)**. These partner centers represent leading companies and institutions in the psychophysiological sector with which EPA maintains an active relationship of continuous training, technical auditing, and ongoing consultancy.

Practicum Duration and Hourly Workload: The program comprises between **24 and 40 lecture hours of direct interaction**. These hours are conducted in a face-to-face, individualized format (or in strictly reduced groups) at the ELP center selected by the student, ensuring an optimal learning environment regarding physical conditions, laboratory resources, and personalized instructor-student dynamics.

3. Thematic Blocks and Professional Competencies

The mandatory internship program has been designed in a linear, progressive manner to guide the future forensic psychophysiologicalist from pure instrumentation to autonomous diagnostic decision-making.

Block I: Workspace Environment, Forensic Instrumentation, and Examinee Preparation

- **The Workspace Area:** Rigorous design and control of environmental and structural variables within the examination room. Mitigation of distracting stimuli, relative acoustic isolation, and strategic positioning of furniture.
- **Instrumentation and Specialized Software:** Meticulous description of the polygraph instrument and its digital interface. Hardware architecture, data communication channels, and preventive operational maintenance.

- **Practical Sensor Attachment:** Ergonomic and technically precise placement of sensors on the subject. Operational adaptation according to physical build, anatomical postures, and varying sizes of different examinees.
- **Signal Calibration and Acquisition across Physiological Channels:**
 - *Pneumo*: Monitoring of upper and lower respiratory patterns (thoracic and abdominal).
 - *EDA*: Recording of Electrodermal Activity (skin conductance and/or skin resistance).
 - *Cardio*: Recording of cardiovascular activity (relative blood pressure, pulse, and blood volume).
 - *Motor Activity (Countermeasures)*: Implementation of the motion/seat sensor for the active detection of physical, psychological, or pharmacological countermeasures.
- **Optimal Psychophysical Conditions of the Examinee:** Screening protocols. Identification of the impact, interference, and counterproductive effects of ingesting legal substances (caffeine, nicotine, alcohol, prescribed or self-medicated drugs) and illegal substances (narcotics) on the reactive patterns during credibility assessment.
- **Legal and Ethical Guarantees:** Normative regulations governing the profession. Detailed explanation and signing of the *Informed Consent* form. Strict preservation of the examinee's fundamental rights and individual guarantees.

Block II: Examination Structure and ASTM-Validated Techniques

The core operation mandates that every evaluation complies strictly with international standardization guidelines defined by the *American Society for Testing and Materials* (ASTM).

1. **Pre-Test Interview Phase:** Clinical development of the preparatory interview. Establishing formal rapport, providing a detailed explanation of the psychophysiological mechanics of the test, and exhaustive clarification of the facts under analysis. This phase aims to eliminate ambiguity for the examinee and establish the appropriate psychological stimulation framework.
2. **Design of Question Protocols (Test Formats):** Precise formulation under forensic syntactic rules of the different stimulus types:
 - Irrelevant or Neutral Questions (*I / N*)
 - Sacrifice Relevant Questions (*SR*)
 - Comparison or Control Questions (*C*)
 - Relevant Questions (*R*)
3. **Acquaintance / Stimulation Test Application:** Mandatory execution of the *Stimulation Test (STIM TEST / ACQT)* as a tool for the subject's psychological calibration and empirical demonstration of the viability of the physiological recording channels.
4. **Selection and Implementation of Validated Techniques:** Intensive practice on the structure and application of internationally approved standard formats:
 - *DLST* (Directed Lie Screening Test)
 - *AFMGQT* (Air Force Modified General Question Technique)
 - *UTAH* (In its 3-question or 4-question Zone Comparison Test formats)
 - *CIT* (Concealed Information Test)
5. **Post-Test Interview Phase:** Methodology for approach and closure following chart acquisition. Strategies for gathering additional information in employment screening (exploratory evaluations / triage) and specific criminal investigations.

Block III: Numerical Analysis and Chart Evaluation

The analysis does not rely on subjective impressions, but rather on the rigorous application of empirical algorithms and manual scoring systems. The student will master scoring fundamentals based on identifying specific morphological features:

Physiological Channel	Evaluated Morphological Features	Scoring Systems
Respiratory System (Pneumo)	Apnea, respiratory amplitude suppression, sudden changes in the baseline, alteration of the inspiration/expiration ratio, and increase in the cycle duration.	- 3-position Numerical Scale. - 7-position Numerical Scale. - Objective Decision Rules (Empirical spot-scoring systems).
Electrodermal System (EDA)	Amplitude of the skin conductance response (SCR), curve complexity (secondary responses or double peaks), activation duration, and return to baseline.	
Cardiovascular System (Cardio)	Elevation and maintenance of the diastolic baseline, evident pulse rate alterations, variations in pulse amplitude, and response latency.	

Block IV: Forensic Report Writing and Diagnostic Verdicts

Translating metric findings into a legal document requires absolute impartiality, clarity, and technical precision. The student will be trained in:

- **Issuing Diagnostic Verdicts:** Categorical classification of results based on numerical thresholds of decision rules (*No Deception Indicated* - *NDI*, *Deception Indicated* - *DI*, or *Inconclusive* - *INC*) for both screening/triage tests and specific criminal investigations.
- **Final Report Structure:** Formal drafting of the expert pericial or technical report, including background information, methodology utilized, protocol questions, analysis of physiological reactions, and definitive pericial conclusions, fully qualifying the student to sign with professional validity.

4. Final Evaluation System and Certification

The successful completion of the Practicum requires passing a **Final Evaluation of Autonomous Operational Competence**. Under the direct and face-to-face observation of an EPA-accredited instructor or mentor, the student will bear the responsibility of conducting a **complete, real polygraph examination** (covering from the pre-test phase to the final diagnostic verdict).

This pericial evaluation will be mandatorily ****recorded on video**** by the instructor. This recording serves as undeniable documentary evidence that the student has developed the clinical, technical, and methodological skills required to operate autonomously in the professional market.

Finally, the assigned instructor will submit the finalized technical evaluation to the academic board of the **European Polygraph Academy** for the joint issuance of the academic degree, officially recognized by **Sapientia University of Andorra**.