



Standard Guide for Minimum Basic Education and Training of Individuals Involved in the Detection of Deception (PDD)¹

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1. Scope

1.1 This guide covers the minimum basic education and training required for an individual involved in the psychological detection of deception in using instruments which measure physiological responses in the areas of breathing or respiration, changes in electrodermal activity, and changes in pulse rate and relative blood pressure.

1.2 For additional standards promulgated by ASTM Committee, see Practice E 1954.

2. Referenced Documents

2.1 ASTM Standards:

E 1954 Practice for Conduct of Research in Psychophysiological Detection of Deception (Polygraph)²

3. Significance and Use

3.1 This practice is intended for use by any individual when reasonably expected to be the subject of litigation. The intent of this guide is to set forth the minimum requirements for education and training of an individual who administers psychophysiological examinations, and who renders an opinion as to attempted deception or truthfulness of a subject who has been tested.

3.2 Since polygraph standards have changed during the period from 1966 to January 1998, and the standards herein represent the current industry standards, individuals who can document that they were trained at a polygraph school which was fully accredited by the American Polygraph Association prior to January 1998, shall be deemed to have met the minimum professional standards for polygraph examiner training at the time they received their initial basic polygraph training.

3.3 Individuals who received basic polygraph training prior to January 1998 at a polygraph training school which was not fully accredited by the American Polygraph Association standards may be qualified, providing they can document that their

basic polygraph training was substantially equivalent in length and curriculum as required for American Polygraph Association polygraph school accreditation.

4. Minimum Requirements for Basic Polygraph Education and Training

4.1 Facility:

4.1.1 The training facility must be licensed or recognized, or both, and approved by the appropriate state, county, or municipal licensing authority, or both, wherein such authority exists. In addition, the facility must be approved by local agencies such as zoning, fire department inspection, health department, and have the local licenses or certification, or both, to operate such a school wherein such authority exists.

4.1.2 The facility housing the polygraph school must reflect an operation which provides a proper educational environment which should include, as a minimum, the following:

4.1.2.1 Controlled access to and from the classroom instruction and supervision areas.

4.1.2.2 Adequate and regulated heating, cooling, and lighting of all classroom/instructional student work areas.

4.1.2.3 Isolated and controlled facilities for student testing.

4.1.2.4 A classroom setting sufficient in size with available space for lectures/demonstrations for all enrolled students.

4.2 Instructional Aids, Supplies and Equipment

4.2.1 The polygraph school shall maintain a library with reference sources available to students that includes as a minimum:

4.2.1.1 The journal *Polygraph* published by the American Polygraph Association for at least the last 3 years.

4.2.1.2 Professional practitioner journals which relate to the application of polygraph sciences for at least the last 3 years.

4.2.1.3 Research articles or journals, or both, containing published research that document validity, reliability, and procedural data pertinent to the polygraph profession.

4.2.1.4 Reference and resource materials pertaining to psychology, physiology, psychophysiology, interviewing, interrogation, and the law as it relates to polygraph.

4.2.1.5 Polygraph texts and publications recognized within the polygraph profession for historical or contemporary contributions.

4.2.1.6 A school may satisfy the requirements above by providing students with official access to technical libraries that

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² *Annual Book of ASTM Standards*, Vol 14.02.

maintain said publications.

4.2.2 The school should have sufficient teaching aids and supplies available on site to effectively present the instructional materials to all students enrolled.

4.3 The polygraph course of instruction must meet one of the following:

4.3.1 The course must be no less than a minimum of 320 continuous classroom contact hours, conducted over a period of not less than 10 consecutive weeks.

4.3.2 The course must be no less than a minimum of 320 continuous classroom contact hours, conducted over a period of not less than 8 consecutive weeks in residence and followed by 2 additional weeks of credit earned by non-residence independent study. The independent study credit must be completed within 6 consecutive calendar months from the initial course starting date.

4.3.3 The student must be physically present at the school facility for not less than 90 % of the actual instruction time, with remedial studies required for any missed time.

4.3.4 The student may not be credited with completing more than 8 hours of instruction within any consecutive 24-h period. The student may not be *required* to attend more than 8 h of instruction during a 24-hour period.

4.3.5 The student may not be credited with completing more than 6 instruction days within any given instruction week consisting of 7 consecutive 24-h days. The student may not be *required* to attend more than 6 instruction days within any 7-day instruction week.

4.4 *Polygraph Instrumentation Requirements:*

4.4.1 The polygraph school shall be required to have available for all students sufficient polygraphs, fully operational and properly calibrated to reasonably allow all students sufficient instrument time to complete a minimum of 90 min of total chart time during the course. As a minimum, one instrument, either analog or computer, shall be available for each 3 students enrolled.

4.4.1.1 If the school advertises they teach polygraph exclusively using the computer, the school shall be required to have available for all students sufficient computer polygraphs to allow a minimum of 90 min of total chart time. As a minimum, one complete computer polygraph system shall be available for each 3 students enrolled.

4.4.1.2 All polygraphs assigned by any school for student use shall record visually, permanently, and simultaneously on continuously moving charts at least 3 physiological tracings: (1) pneumographic, (2) cardiosphygmographic, and (3) electrodermal activity. This shall not be interpreted to preclude the recording of additional physiological phenomena on the same chart. Computers displaying these three physiological tracings on a computer screen which may be printed, will meet this instructional requirement.

4.5 *School Record Requirements:*

4.5.1 Each polygraph school shall maintain the following student records permanently:

4.5.1.1 Date the course/instruction started.

4.5.1.2 Date classroom instruction completed or date the student withdraws and reason thereof.

4.5.1.3 Date of final certification or graduation from the

complete polygraph training program.

4.5.1.4 Method used and amount of Independent Credit awarded if any.

4.5.1.5 A written transcript reflecting performance of the student on all written examinations, internship, and practical skills.

4.5.1.6 The school shall require that each student conducts a minimum of one complete polygraph test which is video or audio recorded.

4.5.2 All other student records including charts conducted, one complete recorded polygraph test, student complaints, testing materials, documentation as to credit earned by a non-residence method, and any other documents required for professional inspection, shall be maintained for a period of not less than 3 years.

4.5.3 All records related to any student candidate who was not accepted for training shall be maintained for a period of not less than 3 years.

4.5.4 All records related to any student who withdraws, takes leave of absence or is suspended or expelled from the school for any reason shall be maintained for a period of not less than 3 years.

4.6 *Instructor Requirements:*

4.6.1 The selection, development, and retention of competent faculty at all levels are of major importance to the quality of a polygraph school.

4.6.1.1 A resume or curriculum vitae of each faculty member must be kept on file.

4.6.1.2 The school must demonstrate that the size of the faculty is sufficient to achieve the school's stated mission.

4.6.1.3 The school must present designated criteria for periodic evaluation of faculty members along with evaluation reports.

4.6.2 Instructor requirements in primary course materials, to include polygraph instruction in methodology, techniques for detection of deception, and instrumentation must meet or exceed the following requirements.

4.6.2.1 Must possess, as a minimum, a degree at the Baccalaureate level from a college or university accredited by the appropriate regional accreditation board(s). Individuals who are a Full Member, in good standing, of the American Polygraph Association who have been approved as a primary polygraph instructor at an American Polygraph Association accredited polygraph school for a period of 5 consecutive years prior to adoption of this guide and do not possess the required degree, shall be deemed qualified so long as they continue as a primary instructor with no breaks in service.

4.6.2.2 Must have administered a minimum of 200 polygraph examinations of the type in which they will be presenting instruction.

4.6.2.3 Must have completed a basic polygraph school course at a school which meets or exceeds the requirements set forth within ASTM standards. Exceptions are made for instructors who received their basic polygraph training prior to the acceptance of the above ASTM standards, providing the training was equivalent to the prevailing American Polygraph Association school standards at the time training was received.

4.6.2.4 Must have at least 3 years experience as a practicing polygraph examiner.

4.6.2.5 Exceptions to 4.6.2.1 which have been granted to persons on a case by case basis by the American Polygraph Association prior to January 1998, will be deemed to satisfy these requirements for instructors in primary polygraph areas.

4.6.2.6 An individual expelled for cause from the American Polygraph Association (APA) or any other professionally recognized National or State Polygraph Association, or anyone convicted of a felony or discharged from related employment for cause, may not qualify as a primary instructor. Similarly, individuals in a polygraph licensing state or who were licensed in any state, who have had their polygraph license revoked for cause may not qualify as a primary instructor.

4.6.3 An individual not meeting all of the criteria described in section 4.6.2 as necessary for primary instruction, may provide instruction in primary course work; however, they will not be considered as primary instructors and they may not substitute where the physical presence of the primary instructor is required under 4.6.4.5.

4.6.4 Individuals qualifying as primary instructors must be physically present with the students and must provide the instruction to the student no less than 75 % of the minimum hours of primary course material instructor required. This shall be interpreted as follows:

4.6.4.1 Minimum total required hours = no less than 320 continuous classroom hours in residence.

4.6.4.2 Required hours of supplemental instruction is = 64 h.

4.6.4.3 Required hours of primary instruction is = 256 h.

4.6.4.4 75 % of 256 = 191 h instruction requiring the physical presence of a primary instructor.

4.6.4.5 Therefore, it will be required that regardless of the course length, a primary instructor must be physically present with the students and provide student instruction during no less than 191 h of scheduled primary course material instruction.

4.6.4.6 At least 50 h of the total time of scheduled instruction in primary course materials must be taught by an additional primary instructor or instructors. Thus, any basic polygraph course will require at least two qualified primary instructors provide the primary instruction to the students.

4.6.4.7 Where a primary instructor is not required to be physically present, additional methods of presenting course material to students may be utilized, that is, guest instructors, and so forth.

4.6.5 Instructors for supplemental disciplines must meet the following requirements.

4.6.5.1 *Legal Issues*—Instructors teaching legal issues or legal aspects related to polygraph sciences must possess a law degree which is recognized by the appropriate national or regional bar association, or be, currently licensed to practice law by an appropriate governmental or regulatory licensing authority; and, be a member in good standing with the bar association in their state or residence where applicable. They need not be practicing polygraph examiners.

4.6.5.2 *Physiology Issues*—Instructors teaching physiological issues related to polygraph sciences must possess, as a minimum, a degree at the Masters level from a regionally

accredited college or university, in physiology or in a discipline defined as closely related or aligned with physiology, that is, psychophysiology, physiological psychology, and so forth. They need not be practicing polygraph examiners.

4.6.5.3 *Psychology Issues*—Instructors teaching psychological issues or aspects related to polygraph must possess, as a minimum, a degree at the Masters level from a regionally accredited college or university in psychology. They need not be practicing polygraph examiners.

4.6.5.4 *Research Methods*—Instructors teaching research methods or aspects related to polygraph must possess, as a minimum, a degree at the Baccalaureate level from a regionally accredited college or university, in the area of behavioral science or research. They need not be practicing polygraph examiners.

4.6.6 Documentation of instruction in all primary and supplemental course materials must be documented for each class presentation and must include, as a minimum, the following.

4.6.6.1 Name of instructor, date, and time of the instruction.

4.6.6.2 Method of instruction, that is, by primary instructor, by guest instructor, by videotape presentation, demonstration, practical exercises, and so forth.

4.6.6.3 Record of student attendance and testing of materials, if appropriate.

5. Polygraph Course Curriculum

5.1 Basic polygraph course curriculum requirements shall consist of a minimum of 320 instruction hours to include formal classroom instruction, in-house supervised instrument time, in-house research activities, as well as any other approved method of instruction.

5.2 Primary course work consists of polygraph methodology and techniques, and instrumentation, and the following minimum contact hours of instruction in major topics are required:

5.2.1 The History and Development in the Detection of Deception through scientific means — 8 h.

5.2.2 Mechanics of Instrument Operation including mechanics and functioning of the instrument components, instrument activation and operation, chart making, instrument maintenance and calibration, and related areas — 20 h.

5.2.3 Test Question Construction which includes semantics and test question formation — 30 h.

5.2.4 Polygraph Techniques including an understanding of multi-technique procedures and must include instruction for understanding the comparison question techniques; relevant-irrelevant techniques; peak of tension procedures; and other testing techniques which are generally accepted in the field as being valid testing techniques. Major emphasis and minor emphasis may be taught depending upon the orientation and philosophy of each respective polygraph school; however, all students must acquire a least introductory knowledge of different examination procedures prominently in use by polygraph examiners in the field today — 60 h.

5.2.5 Chart Analysis, including numerical chart evaluation must provide the student with at least an introductory knowledge of the different chart analysis procedures prominently in use by examiners today. The school may emphasize and teach

a major chart analysis procedure.

5.2.6 Interviewing/Post-test Procedures including skills development in the pre-test and post-test interview methods and procedure— 14 h.

5.2.7 Ethics to include a thorough understanding of the ethical obligations of the examiner to the polygraph examinee, to the examiner, and to the profession. Additionally, students must be familiarized with professional polygraph organizations on a national and local level that are concerned with the development of, and the ethics within the profession — 6 h.

5.2.8 Development of Student Skills including proficiency in chart work and test procedures. This should include a minimum of the student producing 90 min of charts to be maintained in the student's files and not including maintenance and calibration charts as described in 5.2.2. Students are prohibited from conducting live polygraph examinations until after they have completed the minimum requirements in primary course work and supplemental disciplines (320 h). This does not preclude students from conducting practice

examinations on each other or on role players — 57 h.

5.2.9 Topics to be determined at the School Director's Discretion — 16 h.

5.3 Instruction in the supplemental disciplines should consist of the following.

5.3.1 Legal issues relating to polygraph including appropriate federal, state and local matters along with matters relating to EPPA and ADA as appropriate — 8 h.

5.3.2 Psychological and physiological issues relating to polygraph to include basic psychology, physiological, and psychophysiological areas forming the foundations of polygraph sciences and appropriate research in those areas. Topics should include not less than 20 h in psychology, 20 h in physiology and 4 h in research area — 44 h.

5.3.3 Student Performance Evaluations in both academic and practical areas relating to polygraph — 12 h.

6. Keywords

6.1 forensic psychophysiology; polygraph instrumentation; polygraph training

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