

INTRODUCTION TO STUDY GUIDES

For ABC CERTIFICATION EXAMINATIONS

Why the ABC GKE is Important

Discussions of professional ethics are always a component of the training of a forensic scientist, whether part of a training program for new scientists in a crime laboratory or an academic curriculum. From the start of professional life, forensic scientists learn the importance of disclosure and being unbiased. Forensic scientists are taught to be governed only by “objective” science and not by the often “subjective” nature of the legal system.

These philosophical tenets of being an ethical forensic scientist represent only one part of the *ethical* equation. Forensic scientists have a responsibility to ensure that the information they present is accurate and that conclusions reached are scientifically valid. Laboratory reports generated and courtroom testimony given by forensic scientists have an effect on the outcome or direction of a trial or investigation and thus have repercussions for victims of crime, criminal defendants, and society at large. Providing erroneous or misleading scientific information potentially has grave consequences. The greatest fear of the forensic science profession is realized when a forensic scientist is partially or directly responsible for a miscarriage of justice. There is no greater priority of the forensic scientist than competence. Given the role that forensic scientists now play in the criminal justice system, a demonstration of competency is a societal obligation. Competent forensic scientists are also less subject to manipulation at the crime scene, in the laboratory, or on the witness stand by others with a stake in the outcome of a criminal investigation or trial. In other words, competence helps a forensic scientist stay unbiased.

Competence also plays an important role in the credibility of the forensic scientist. Forensic science is playing a larger role in the criminal justice system than ever before. In many types of crimes, prosecutors will not prosecute and juries will not convict without forensic evidence. Assuming such a major role in the disposition of justice has caused attorneys, juries, the media, and the general public to increase scrutiny of forensic scientists and forensic laboratories. This scrutiny has led many laboratories to seek accreditation through ASCLD-LAB (American Society of Crime Laboratory Directors – Laboratory Accreditation Board). At least one state, New York, has legislatively mandated that all public forensic laboratories within the state be accredited. By being accredited, the laboratory demonstrates that it is performing at a level of quality acceptable to the profession. Accreditation brings the laboratory credibility. Users of the accredited laboratory can feel confident that the results and conclusions reached by the laboratory are reliable.

What about the individual forensic scientist working in the laboratory? Is the scientist credible simply because he/she works in an accredited laboratory? Certainly it doesn't hurt but laboratory accreditation does not measure the knowledge base of the individual

scientist. It does not measure the ability of a scientist to critically think through forensic problems or to problem solve. Credibility of the individual is ultimately the responsibility of the individual.

Credibility of the individual can be established by a demonstration of competency. One of the stated purposes of the American Board of Criminalistics is to “*establish professional levels of knowledge, skills, and abilities.*” Passage of the General Knowledge Examination (GKE) will show that the individual has obtained a level of knowledge of criminalistics that the professional community deems necessary for the practitioner. A demonstration of technical knowledge is a professional obligation. Being ABC certified will infer competency and credibility to peers, attorneys, judges, and juries. ABC certification will be particularly helpful to young forensic scientists during the voir dire portion of courtroom testimony where it is not always certain that a young scientist will be qualified as an expert.

Certification does not belong to your laboratory, school, or employer. It belongs to you alone. The benefits of certification will follow you throughout your professional life. This statement of competence and credibility will be a helpful introduction when searching for future career opportunities.

Is a general knowledge examination necessary in an age of specialization?

Although forensic scientists are working in an age of specialization, each subject area does not operate in a vacuum. It is very important that anyone who examines evidence, for instance, to be able to recognize types of physical evidence and their potential importance even when the analysis of a particular type of evidence is beyond the expertise of the individual. It may help prevent the loss of critical evidence. Similarly, knowing if certain fingerprint development agents can adversely affect biological material may help the forensic scientist to give advice to investigative personnel on fingerprinting a weapon that may contain biological material. Furthermore, the analysis of any type of physical evidence cannot have meaning unless it can provide interpretative information about the crime scene from which it came. Thus, a working knowledge of crime scene documentation and reconstruction is important for laboratory forensic scientists even when crime scene work is not a part of their daily function. Being a criminalist is so much more than performing a particular set of tasks. Each case is, in some way, unique. The circumstances surrounding a criminal act including the nature of the act, the location of the crime scene, and the number of people involved in a crime, are so varied that the types of physical evidence that can be generated are endless. It is also important to be able to synthesize all of the information obtained by individual specialists into a comprehensive explanation of the significance of the physical evidence in a case. This role should not be left to the investigator or lawyer, but to a forensic scientist who can assess the significance of a fiber match which includes dye analysis, fiber type determination, fiber persistence and transferability information, and the information from the firearms examiner who examined a fired bullet after the fibers were removed. The nature of our profession thus requires criminalists to have general knowledge in order to be effective.

Preparing for the GKE

The exam covers eight major subject areas that span the discipline of criminalistics. Much of the knowledge, skills, and abilities (known collectively as KSAs) required of the criminalist are similar in each of the eight major subject areas. Areas such as evidence collection and preservation, laboratory safety, and communication are concerns to all criminalists regardless of discipline. Preparation is the key to success on the GKE. In this regard, we offer several recommendations:

1. Take it seriously.

Taking the GKE is not an impossible endeavor but it is challenging. The mission of the GKE is so central to the ideas about competency and credibility for our profession that the exam must have a level of difficulty for it to be meaningful. Passage of the GKE will require commitment on your part for several months. Being lax about studying will almost certainly result in failure.

2. Read the references on the reading list.

The questions on the examination are taken from the reading list. The list is extensive and comprehensive but there are many instances where there is overlapping material.

Begin with those texts offering a general treatment of the material (for instance, De Forest et al., *Forensic Science: An Introduction to Criminalistics* and R. Saferstein, *Criminalistics: An Introduction to Forensic Science*) and progress to those references offering an in-depth knowledge of various subject areas (for instance, the *Forensic Science Handbook* series edited by R. Saferstein). Understanding the more advanced references will be easier once an introductory knowledge of the material is obtained. If it is not possible to read the entire reading list, make sure that you have read at least one source covering each of the KSAs and specialty areas.

3. Form weekly study groups with your peers.

It will be helpful to register for the GKE with a group of people from your laboratory, school, or organization. Weekly study groups can then be formed which can be used as a vehicle for learning and for discussing problem areas. The format of these study groups can vary based on the needs and knowledge of the members of the group. One suggested format is that individual members on a rotating basis will present overview talks of each topic to the group. Prior to each presentation, the members of the group will prepare by reading the sections of the reading list covering the presented topic. These presentations should provide ample opportunity for discussion of the topic among members of the group. It would also be helpful to persuade your lab director to set aside 1 or 2 hours a week for study sessions. Members of the study group or other experienced and/or certified criminalists should also prepare practice questions for the entire group. It is important for individuals not only to study the material but to test themselves also.

4. Time frame

The ABC certification process requires that individuals submit application and all sitting fees 60 days prior to the examination. Given the amount of material covered by the GKE, the application date should not be the time that individuals planning to take the examination begin preparing. Although the time of needed for preparation depends on a person's level of existing knowledge and experience, it is not unreasonable to suggest a six-month study period. At the start of the six-month period, individuals should prepare an outline of the material listing dates when the studying for each area should be completed. This outline could be used individually or in conjunction with a study group. A six-month period provides enough time to examine the material without rushing or cramming.

5. Examine laboratory reports

It will be helpful in the preparation for the exam to read laboratory reports written by others covering the range of specialty areas and to understand the reasons behind the conclusions in the report. This will augment and reinforce the knowledge obtained from the study material.

6. Read the study guide.

The ABC has prepared this study guide for your benefit. It will provide helpful hints and information regarding the content of the examination. Read and pay close attention to it.