

<b>Faculty In Charge Of Course:</b>	Ana E. Lopez, M.D.
<b>Participating Faculty:</b>	Ana E. Lopez, M.D., Luis A. Sanchez, M.D. and Assistant Medical Examiners
<b>Location:</b>	Harris County Institute of Forensic Sciences
<b>Offered:</b>	Blocks 1, 2, 4-11, 13
<b>Max. # Students/Period:</b>	1

### Course Objective

The student will gain an overall appreciation for the process of death investigation, both from a medical and legal standpoint and in the clinical realm. Specifically, the student will understand the following concepts:

1. Cause of death, manner of death and mechanism of death
  - a. The student will understand how and when clinicians should sign death certificates for their own patients.
2. Proper approach to death certificate completion and the concept of etiologically specific terminology for death certificates
3. The role of autopsy and scene investigation in determination of cause and manner of death
  - a. The spectrum of information that can be obtained from autopsy will be demonstrated. Importantly, the limitations of autopsy interpretation will also be presented. The student will understand the necessity of evaluating autopsy data in light of scene/circumstantial evidence.
4. Criteria necessitating medical and legal investigation of death (“reportable deaths”)
  - a. The student will understand which deaths need to be reported to the Medical Examiner/ Justice of the Peace. The student will learn that as a clinician, he/she cannot complete the death certificate in these cases and that investigation of the death will be relegated to the proper authorities. The student will understand the role of law enforcement investigation in the overall investigation of death.
5. The importance of proper death investigation in prosecution of criminal cases and adjudication of civil cases
6. The importance of chain of custody
7. Role of toxicology in determination of cause and manner of death
8. Public health role of Medical Examiner/Justice of the Peace
  - a. In this area, the student will gain an appreciation of issues relating to infectious diseases, and how infectious disease deaths are reported to the health department. This public health role also includes a quality control function in the clinical realm; specifically, the student will understand the collaborative role of the Medical Examiner in providing feedback to clinicians regarding treatment effects, treatment outcomes, and treatment complications.

### Activities Of Elective

The course objectives will be met primarily through observation. That is, the student will participate in and observe the activities of a busy medical examiner office.

On a daily basis, all cases under medical examiner jurisdiction will be reviewed in a multidisciplinary conference (8:00 am). During this conference (attended by a multidisciplinary group of staff physicians, residents, investigators, toxicologists, anthropologists, and photographers), the circumstances of deaths, scene findings (including photographs) and preliminary examination information will be presented by the assistant medical examiners, forensic pathology fellows, residents, medical students, and forensic investigators. Additional presenters may include lay investigators, nurse investigators and physician assistants. At this meeting, the need for autopsy or external examination will be discussed, as well as any special procedures that may be anticipated during the autopsy. The need for any follow-up investigation will also be evaluated. Each case will be assigned to an Assistant Medical Examiner. The meeting then concludes with a review of autopsy findings (including photographs) from cases evaluated the prior day. During this portion of the meeting, wording for cause/manner of death will be discussed. Further, the multidisciplinary nature of the conference allows for discussion of the necessity for toxicology studies, anthropology studies, histology, additional medical history, and so forth for overall evaluation of the death. Each day, the medical examiners will evaluate approximately 10 to 18 deaths at this conference.

After the morning meeting, the medical student(s) will join the Assistant Medical Examiners (or Deputy Chief) in a variety of activities. These will include: attendance during autopsies, including traumatic (homicide, accident and suicide) and natural deaths, case peer-review conferences, pre-trial conferences, neuropathology consults, cardiopathology consults, and other consultations with various subject-matter experts. The student will also have the opportunity to attend death scenes (accompanying an investigator), and to travel to the Harris County Criminal or Civil Court to watch staff physicians testify in murder trials or civil litigation.

During the course of the 1-month experience, the student(s) will be exposed to the various laboratory disciplines available in the Medical Examiner Office with a brief rotation. These disciplines include histology, entomology, anthropology, toxicology, drug chemistry, DNA, trace evidence and firearms. Students will have the opportunity to spend additional time and frequent rotation with forensic investigations. Additional intensive experience in Forensic Anthropology will also be available.

At the conclusion of the student’s rotation the student will present a didactic conference to the Medical Examiner staff (physicians and/or investigators) on a forensic topic of their choosing. In lieu of this presentation, the student may choose to participate in a research project, supervised by one of the staff physicians or laboratory supervisors.

**How Is Student Evaluated:**

The student will interact with various staff members throughout the rotation. Interaction during autopsy observation, and associated with courtroom testimony will be assessed as to the student's fund of prior medical knowledge, their enthusiasm, and in their motivation to attain new knowledge regarding the skills and disease processes being taught. Further, the student will be observed by investigative staff and/or physicians during their experiences at death scenes. During the latter, professionalism will be a key characteristic that will be assessed. The student's ability to search relevant literature and information technology resources will be assessed in one of two ways. The student will either present a public didactic session for medical examiner staff on a forensic topic of their choosing; alternatively, the student will participate in an ongoing research project with one of the medical examiner staff. Students will complete a baseline assessment at the beginning of the rotation in the form of a multiple-choice format pretest. Students will complete an end of rotation assessment during the final week of the rotation in the form of a multiple-choice format posttest.

**Who Evaluates Students:**

The Residency Training Director will have the most direct and ongoing interaction with the medical student. The medical student will report to the Residency Training Director with unforeseen absences and so forth. Accordingly, the Residency Training Director will be responsible for evaluation of the student. However, because the rotation experience involves many of the faculty at the Medical Examiner Office, input from other staff will be welcome and will be taken into account in the evaluation process.