FORENSIC MEDICINE (FMED)

FMED 499 — Basic Human Biology in Forensic Medicine
This course is for students enrolled in the Pathway program for the MS Forensic Medicine degree. The course is designed for non-biomedical bachelor degree students as a preparatory course preceding the forensic medicine curriculum. Part one of this course is an overview of general biology that is pertinent to forensic medicine, and part two is human anatomy and physiology. Basic medical histology will be incorporated into the later part of this course. This course is graded on a pass/fail basis. *Note: Students enrolled in this course must successfully complete the course with a passing grade of > 80% to continue in the Forensic Medicine program. The grade of "P" earned in this course once successfully completed is not calculated in the student's cumulative grade point average.
3 credits
OnLine

FMED 500 — Pathology for Forensic Medicine
The course provides a systematic approach to the pathological basis of the principles of forensic medicine. The course begins with an overview of cell injury, death, adaptation, repair and regeneration. It continues with a survey of the dermatological, skeletal, neurological, endocrine, immunological, cardiorespiratory, vascular, gastrointestinal, renal, urological and reproductive systems. Special emphasis is given to conditions of the cardiovascular, cardiorespiratory and central nervous systems that cause death.
4 credits
OnLine

FMED 501 — Principles of Forensic Medicine I
The course begins with an overview of the field of Forensic Medicine. This includes discussion of the history of forensic science and medicine. Also discussed are the roles of medical examiners, coroners and non-physician medicolegal death investigators. General principles of crime scene investigation are introduced. Instruction then moves to the science behind Forensic Medicine. Topics in this section include: post-mortem changes, Fingerprinting, blood spatter and odontology. Also taught here are: Entomology, Ritualistic Crimes, Anthropology and Firearms.
6 credits
Prerequisites: FMED 500
In-Person

FMED 502 — Principles of Forensic Medicine II
This course continues the overview of the field of Forensic Medicine. Topics covered in this course include forensic study of toxicology, shotgun and shotgun wounds, blunt and sharp force trauma, asphyxiation, arson, drug death and narcotics. Students also learn about forensic medicine aspects of motor vehicle accidents, clandestine graves, explosions and bombs, bioterrorism, and mass fatalities. This course covers trace evidence analysis and DNA analysis in conducting medicolegal investigations. Students will be given an outline of criminal law and of considerations in preparing and delivering court testimony. The course also includes investigation of special crimes including child abuse, sexual assault, arson, and deaths of persons in custody. Finally, this course covers techniques of providing grief assistance.
6 credits
Prerequisites: FMED 501, FMED 500
In-Person

FMED 504 — Research Design & Methodology
This course provides a foundation in research design, concepts and methodology with an emphasis on epidemiology. Students will evaluate the relationship of research design frameworks and research outcomes. The application of biostatistics and epidemiology concepts to the interpretation of the medical literature is also discussed.
4 credits
Prerequisites: FMED 500, FMED 501, FMED 502
OnLine

FMED 505 — Bioethics in Professional Practice
This course introduces students to the field of biomedical ethics and related medico-legal concepts. Material is presented to provide students with a basic understanding of the legal obligations and ethical responsibilities of the health care provider. Topics include research involving human participants and animals, medical and health care ethics, and the implications of applied genetics and biotechnology.
4 credits
Prerequisites: FMED 500, FMED 501, FMED 502, FMED 504, FMED 506
OnLine

FMED 506 — Evidence-Based Approach to Forensic Medicine
This course introduces students to the emerging field of evidence-based medicine. It begins with a history of the field. Students learn how to ask a clinically relevant question so that it may be answered. Next, they learn how to use that question to formulate an effective literature search to find the best answer to the question. In the next phase, students learn how to evaluate the importance and validity of the evidence. Finally, they learn how to use the evidence-supported answer in a manner that matches the values and views of their patients
4 credits
Prerequisites: FMED 500, FMED 501, FMED 502, FMED 504
OnLine

FMED 508 — Capstone: Integrative Experience
The capstone integrative experience project is a project that could involve field experience and/or research in the area of forensic medicine. The objective is to afford students the opportunity to apply the knowledge and skills they have acquired through their academic course work in a real life setting in an area of personal interest within the scope of forensic medicine. This project will culminate in a final paper at the conclusion of the experience.
8 credits
Prerequisites: FMED 502 or FMED 513
Hybrid

FMED 513 — Law and Evidentiary Procedure
This course introduces students to the field of law and jurisprudence as it relates to the forensic field. Cases are utilized to highlight and address points. Topics studied are as follows: introduction the law, sociological jurisprudence, legal sociology, procedural law, constitutional law, criminal & civil law, equal protection under the law, courts, jurisdiction, rules of evidence, legal system, constitutional rights, legislation, judicial decision, mootness, statute of limitations, immunity, common law, criminal procedures/proceedings, contracts, law of torts, administrative federal/state/municipal agencies, and forensic science as it related to evidence. Cases are utilized regarding: hair analysis, fiber analysis, ballistics, tool marks, Soil/glass/paint evidence, footprints/tire impressions, fingerprints, blood splatter analysis, DNA analysis, forensic anthropology and forensic entomology.
4 credits
Prerequisites: FMED 500, FMED 501, FMED 502, FMED 504, FMED 506, FMED 505
OnLine

FMED 599 — Independent Study
1-3 credits