

# FORENSIC SCIENCE (FOSC)

## **FOSC 6001 - Survey of Advanced Forensic Science (3 Credits)**

An introductory survey of forensic sciences, including criminalistics, investigation and identification, and methods of crime laboratory analysis for crime scene investigators and security officers. This course is not required if the student has taken at least two undergraduate courses in criminalistics (FOSC 2100) and crime scene investigation and identification (FOSC 3000) or their equivalents. Offered: Fall, Spring, Summer.

Lecture hours: 3

Other hours: 3

## **FOSC 6002 - Advanced Criminalistics (w/lab)/Crim.IU (3 Credits)**

Advanced Criminalistics(w/Lab) Criminalistics III (w/Lab) and IR ect; Microscopy and SEM EDX of trace evidence; Identification of arson residues, explosives, glass, soils, fibers, paints, and blood stains. Computer bases laboratory report and graphic. Offered: Fall, Spring, Summer.

Lecture hours: 3

## **FOSC 6008 - Advanced DNA Technology (w/lab) (3 Credits)**

The course introduces Criminal Justice graduate students to the current technology of forensic DNA typing and highlights areas of recent innovation and development that will be determinant for the future trends in DNA profiling. The course will cover DNA tandem repeats- Short tandem repeats (STR) and the Variable number of tandem repeats (VMTR). DNA profiling, various capillary electrophoresis (CE) detection chemistry, and gels. Quality control and Quality assurance as applied in DNA analysis will be discussed. Combined DNA Indexing System (CODIS) and other Forensic DNA typing resources will be reviewed.

Restrictions:

Enrollment limited to students with a semester level of Graduate.

Lecture hours: 2

Lab hours: 1

## **FOSC 6009 - Advanced Toxicology (w/lab) (3 Credits)**

This course is on the detection and quantitation of drugs and inorganic toxins by using advanced theory and practice of analytical, organic and inorganic chemical analysis and instrumental methods. The course draws attention to drug alcohol effects and to the current practices of breath testing using an intoxilizer. Finally, this course examines current theories of drug abuse from toxicology, pathology and pharmacology of drugs. Laboratory report is required for credit. Offered: Fall, Summer.

Restrictions:

Enrollment limited to students with a semester level of Graduate.

Lecture hours: 3

Lab hours: 1

## **FOSC 6012 - Advanced Trace and Transfer Evidence/Forensic Electron Microscopy (w/lab) (3 Credits)**

This advanced course is a continuation of two previous three-hundred level course (FOSC 3010) and includes laboratory practices of major applications of the SEM-EDX technology in Forensic casework. Laboratory report is required for credit. Offered: Spring, Summer.

Restrictions:

Enrollment limited to students with a semester level of Graduate.

Lecture hours: 3

Other hours: 3

## **FOSC 7000 - Advanced Ballistics and Associated Technologies (w/lab) (3 Credits)**

This course is on advanced theories and laboratory practices of ballistics as applied to various firearms and conventional missiles and related problems in shooting/war crimes. Laboratory report is required for credit. Offered: Fall, Summer.

Lecture hours: 3

Other hours: 3