

FORENSIC SCIENCE

Academic Year

2014-2015

School

School of Science, Engineering and Technology [School Web site](#)

School Dean

Winston F. Erevelles, Ph.D. werevelles@stmarytx.edu

Department

Chemistry

Department Chair

Susan Oxley, Ph.D. soxley@stmarytx.edu

Description of Program/Major

St. Mary's newest major, forensic science is an exciting field and one of the country's fastest growing job markets. Solving crime requires knowledge of biological, chemical, physiological, social and individual factors. St. Mary's program integrates biological science, social science and professional preparation so students are uniquely prepared for this cuttingedge area of study.

Forensic science is the application of science to the law. It relies on the physical and behavioral sciences for investigating and solving crimes and examining physical trace evidence. The School's forensic science degree with a chemistry or biology option emphasizes the integration of academic preparation and realworld problem solving with a focus on ethical and professional commitment.

Degree Requirements

Core Curriculum (SMC)

St. Mary's University Core (30 Hours)

All St. Mary's Core SMC13## "Reflection" courses must be completed before registering for SMC23## "Practice" courses. "Reflection" courses can be taken in any order followed by "Practice" courses in any order.

SMC 1301	Foundations of Civilization	3
SMC 1311	Foundations of Reflection: Self	3
SMC 1312	Foundations of Reflection: Nature	3
SMC 1313	Foundations of Reflection: Others	3
SMC 1314	Foundations of Reflection: God	3
SMC 2301	Foundations of Practice: Ethics	3
SMC 2302	Foundations of Practice: Civic Engagement and Social Action	3
SMC 2303	Foundations of Practice: Fine Arts and Creative Process	3
SMC 2304	Foundations of Practice: Literature	3
SMC 4301	Capstone Seminar: Prospects for Community and Civilization	3

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School Specific Core (SSC)

School of Science, Engineering, and Technology Specific Core (21 Hours)

Speech	SE 1321 (for international students), SE 1341, SE 2333, SE 3391	3
Composition and Rhetoric (grade of "C" or better)	EN 1311, EN 1313 (for international students)	3
Foreign Languages	Six hours at the sophomore level (2311, 2312) in a Foreign Language previously studied for a minimum of one year; Or, 6 hours of introductory level (1311, 1312) in a Foreign Language not previously studied; Or, 12 hours of CLEP credit for a language previously studied.	6
Social Science	BA 1310, BA 3325, CJ 2300, CJ 3300, EC 2301, EC 2303, PO 1311, PO 1312, PO 1314, PS 1301, PS 3386, SC/CR 1311, SC 3321, HU 3300, HU 3303	3
Theology	Advanced Theology 33XX	3
Fine Arts	AR, DM, MU or Literature: EN 2321, 2322, 2353, 2354, 2355, 2356	3

Four Year Degree Plan

[Sample Degree Plan, Forensic Science-Biology Option \(BS\)](#)

[Sample Degree Plan, Forensic Science-Chemistry Option \(BS\)](#)

Department Courses and Descriptions

CR 1311

Introductory Sociology (3)

An introduction to the scope and methods of sociology, emphasizing the concepts of social structure, organization, institution, culture and socialization, and including analyses of primary and secondary groups, sex roles, social control, stratification, minorities, collective behavior, and population dynamics. Prerequisite for all courses in the Criminology program.

CR 2308

Police Role in Crime&Delinquen (3)

Study of police strategies and practices in the prevention and control of crime among juveniles.

CR 2399

Topics in Criminal Justice (3)

Topics in Criminal Justice (for elective credit only)

CR 3303

International Justice system (3)

A cross-national study of crime and crime control.

CR 3305

Law and Society (3)

Study of the interaction between the U.S. legal and social cultures.

CR 3306

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Qualitative Research Methods (3)

An introduction to the methods used to conduct qualitative research in natural social settings. An examination of the methods of ethnography, participant observation/non-participant observation, focus group, interview, and use of documentary sources included. Students may have the opportunity to engage in hands-on research. Additional topics include data coding, data analysis, and research ethics. Prerequisites: Junior standing

CR 3310

Corrections in the Community (3)

Study of probation, parole, and other community-reintegration procedures.

CR 3312

Correctional Counsel&Treatment (3)

Study of the scope and purposes of correctional treatment and techniques of correctional counseling.

CR 3313

Correctional Institutions (3)

Study of the philosophy, organizational structure and practices of correctional institutions.

CR 3314

Substance Abuse (3)

Introduction to chemical dependency and the factors associated with the abusive use of chemicals; factors associated with helping the chemically dependent person.

CR 3320

Social Stratification (3)

An analysis of social stratification utilizing social class as the unit of study. The course will focus on the structure of social classes in the U.S. as a major factor influencing individual and group life chances with regards to education, crime, health, and disease, world views and life styles.

CR 3323

Victimology (3)

Study of crime victims and their interaction with offenders, criminal justice officials, and the public.

CR 3324

Juvenile Delinquency (3)

An examination of juvenile delinquency in the U.S.: its nature, extent, causes, effects, prevention and rehabilitation. Sociological approaches to delinquency are emphasized, but psychological and legal approaches are also considered.

CR 3325

Criminology (3)

An overview of the study of crime and the development of criminology. The nature, extent, causes, effects, rehabilitation and prevention of crime are examined from a sociological perspective. Psychological, legal, and philosophical approaches to crime are also considered.

CR 3326

Interviewing Techniques (3)

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An introduction to principles, strategies, techniques and practical skills involved in interviewing. Major types of interviews are considered, including information-gathering, information-providing, and counseling. Personal involvement and experience in conducting and evaluating actual interviews.

CR 3327

Mediation Techniques (3)

Study of methods and techniques of conflict resolution, communications, mediation, and diversity awareness. Upon completion of CJ 3327, students wishing to receive a Certificate of Training as a mediator must complete either CJ 4303 (Internship) or 100 hours of volunteer service as a mediator in an appropriate setting approved by supervising faculty.

CR 3330

Research Methods Crim Justice (3)

Study of methods and techniques of social research with an emphasis on criminology and criminal justice.

CR 3331

Computer Tech in Criminal Just (3)

Integrating computer application and research methods. Prerequisite: CJ 3330 or concurrently enrolled in CJ 3330.

CR 3332

Statistics in Criminology (3)

An introduction to inferential and descriptive statistics in the field of criminology. The course provides students with first-hand experience in the use of statistics and statistical packages.

CR 3335

Survey of Forensic Science (3)

Course is designed to present an overview of the different areas of the Forensic Sciences. These areas include but are not limited to Pathology, Crime Scene Investigation, Ethics, Criminalistics, and Technology.

CR 3336

Crime Scene Investigation (3)

Introduction to techniques of crime scene investigation. Emphasis will be on scene diagramming, search techniques, and presentation of different categories of evidence.

CR 3337

Forensic Criminology (3)

This course blends the physical sciences with the science of criminology in the understanding, investigation, and the deterrence of crime.

CR 3338

Forensic Lab Techniques (3)

Laboratory and field exercises pertaining to the forensic sciences.

CR 3339

Forensic Victimology (3)

This course provides an understanding of the field of victimology as it is used to address investigative and forensic issues and problems.

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CR 3343

The Family (3)

A study of the family as an institution and social system, including discussions of dating and mate selection, premarital and extramarital sex, birth control, abortion, illegitimacy, family planning, spousal relationships, interracial and interfaith marriages, socialization, social control, and change.

CR 3351

Social Psychology (3)

Theories and research on social factors in behavior, including such topics as attitudes, perception, leadership, and attraction.

CR 3360

Sex Crimes & Violent Crimes (3)

The application of the forensic sciences to the investigation of sex crimes.

CR 3361

Urban Sociology (3)

An analysis of cities, their historical development and social organization. Topics include urbanization in developed and developing societies, urban stratification and lifestyles, and urban, metropolitan and regional planning.

CR 3362

Demography and Ecology (3)

The demographic study of human populations, including fertility, mortality, migration, age, sex, class composition. The ecological study of relations between human societies and their environments. Analysis of environmental problems and proposed solutions.

CR 3371

Minority Relations (3)

A study of ethnic, religious and racial relations in the U.S. and other countries. Topics include power relationships, prejudice, discrimination, ethnic stratification, migration, assimilation and pluralism. Minorities to be considered include Blacks, Mexican-Americans and Native Americans.

CR 4302

Senior Seminar in Criminal Jus (3)

Capstone course designed to evaluate knowledge and skills acquired by criminal justice and crimi nology students about their discipline. Students will design, analyze, write, and present a re search project. The student must demonstrate knowledge of computer applications to research methodologies. In addition, the student must demonstrate critical thinking, problem-solving, oral and written communication skills, and the ability to effectively work within groups.

CR 4303

Internship in Crimi Just&Crimi (3)

The student must acquire a minimum of 160 hours of practical experience in an approved criminal justice or social service agency. Unless an exception is made, this course is to be taken between the junior and senior years.

CR 4304

Indept Study in Criminology (3)

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Based on the student's professional and academic interest, the instructor will design an individualized reading course for the student.

CR 4305

Special Topics in Criminal Jus (3)

Selected topics in criminal justice or criminology.

CR 4308

Internship in Forensic Science (3)

Fieldwork experience in a criminal justice or related agency. A minimum of 160 hours of work experience is required.

Department Faculty

[Forensic Science Faculty Website](#)

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