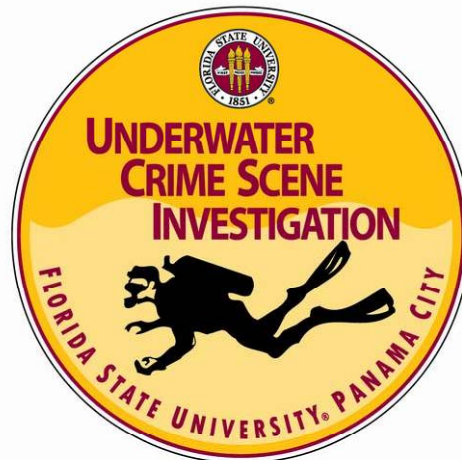




**FLORIDA STATE UNIVERSITY  
PANAMA CITY**  
SCHOOL OF CRIMINOLOGY AND CRIMINAL JUSTICE

## **UNDERWATER CRIME SCENE INVESTIGATION**



### **AN INTRODUCTION TO OUR ACADEMIC PROGRAM**

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## **PROGRAM OVERVIEW**

The School of Criminology and Criminal Justice at Florida State University's Panama City campus is offering a program in Underwater Crime Scene Investigation in conjunction with its Bachelor's Degree in Criminology. The program requires five courses, each with an accompanying laboratory, in addition to the five core Criminology/Criminal Justice courses, and the ten hours of electives required for the Bachelor's Degree. The program is designed to combine the knowledge, skills, and decision-making processes of both the investigator and the scientist for the purpose of investigating scenes of crimes and accidents in underwater environments.

The Underwater Crime Scene Investigation program of study also has a second foundation, that of competence while working in the water. In order to safely and effectively obtain data underwater, one must have a comprehensive knowledge of the marine environment and its hazards, and how to safely operate within it. One must also possess the physical skills necessary to operate a variety of equipment and peripheral technology and to solve life-threatening problems in the water. Such technical knowledge and skills come only through consistent practice in underwater laboratory courses.

## **UCSI CURRICULUM**

Descriptions of the five individual Underwater Crime Scene Investigation courses are provided below.

## **FORENSIC SCIENCE IN INVESTIGATION**

Criminal investigation is the lawful gathering and objective evaluation of information concerning a suspected illegal act. An investigation is a systematic method of inquiry requiring certain knowledge and skills on the part of the investigator. This is a survey course introducing the student to that knowledge and those basic skills. There are three sources of evidence -- people, records and objects. This first course focuses on the production of evidence from objects, the practice of which is commonly termed "forensic science."

Investigation is the assimilation and analysis of information from people, and from what people have left behind, in order to reconstruct events of the past. This course presents a general discussion of the types of crime, how crimes are committed, the information people generate while committing crimes, and how this information is used to prove a person committed a crime. The emphasis of the course is on the logic of investigation and the procedures used to formulate that logic.

Since this is a one-semester course, it will not be possible to cover all types of crime, nor all sources of information, in detail. Therefore, the general principles will be explored using six types of crime as examples. Although all sources of information are potentially useful in the investigation of any crime, certain types of information are used more frequently with certain types of crimes. While studying each of the six types of crimes, we

will focus attention on the type(s) of information generally associated with that type of investigation.

Forensic Science Aspects of Investigation is a professional course that builds on all of the courses the student has taken in Criminology. The theory of why people commit crimes leads to typologies for evidence generated. The skills of research methods are required to evaluate the errors that may exist in an investigation and thereby the probability of proof. The knowledge of police practices, legal aspects in law enforcement, and the workings of the court system provide the framework within which the forensic science investigator works.

There are no prerequisites for this course.

## **INTRODUCTION TO UNDERWATER INVESTIGATION**

This is the second in a series of five professional courses designed to apply scientific principles to the investigation of crime involving underwater evidence. This three-credit course, with an associated one-credit laboratory, builds upon the "Forensic Science Aspects of Investigation" course by changing the crime scene to an underwater environment. The lecture component will cover the principles of basic compressed-gas diving (known as SCUBA diving), as it is used in the examination and recovery of evidence from underwater crime scenes. The course will also delineate the similarities and differences of investigative techniques used in crime scene investigations on land, versus those used in an underwater environment.

The laboratory is designed to teach the basic skills of scuba diving in preparation for future courses in Science Diving, as well as possible further training in Public Safety Diving. In addition to the practical skills, this laboratory, with its strong emphasis on diving safety and dive planning, inculcates the responsibility of a person working underwater to not endanger himself, his partners, or the mission, by poor planning and inadequate preparation. The course prepares students for open water hyperbaric exposure using single-cylinder compressed air life-support systems, with wet suits for environmental protection.

## **SCIENTIFIC UNDERWATER INVESTIGATION**

The purpose of the Introduction to Underwater investigation II course is to provide students previously trained to work underwater in the "Introduction to Underwater Investigation I" course with the additional background knowledge and skills development required by the American Academy of Underwater Sciences to become a qualified Scientific Diver, and thus be eligible to conduct prolonged underwater investigations. The curriculum is purposely flexible to permit the introduction of new technology, while maintaining core features.

The course emphasizes the use of the scientific method in underwater data collection and interpretation. The course moves from a focus exclusively on the individual participant to a project/team perspective with tasks such as making safe project management decisions based on technical principles and legal ramifications. Training is provided on life support equipment designed for extended data collection time and the procedures required to cope with more challenging situations, such as overhead environments. Proficiency will be

developed in the use of NITROX gas mixtures and in the use of dry suits. The course includes an introduction to the basics of operating a program within an agency, to include boat operations, equipment choices, and procedures for safe underwater operations. Projects conducted will focus on forensic science problems, but the data collected are typical of those in other scientific disciplines, such as marine biology and archaeology.

## **UNDERWATER CRIME SCENE METHODOLOGY**

This course applies the various theories of the conduct of crime to physical materials generated during the commission of a crime, on or under the water, in order to produce information required to detect and prosecute crimes. The course also examines the theoretical bases for technology and techniques for underwater examinations and the life support equipment necessary to conduct those examinations.

Criminal investigation is the lawful gathering and objective evaluation of information concerning a possible illegal act or accident. Investigation is the assimilation and analysis of information from people, and from what they have left behind, in order to reconstruct events of the past. An investigation uses a systematic method of inquiry requiring certain knowledge and skills on the part of the investigator. This is a specialized course introducing you to that knowledge and those basic skills, as they apply to underwater evidence.

This course presents a general discussion of the types of crime and accidents that involve underwater evidence, how they are committed, the information people generate while committing those crimes or accidents, and how one proves a person committed the crime. Underwater Crime Scene Investigation is a professional course that builds on the core courses and investigation courses you have taken in Criminology, previous mathematics and physical science courses, and the basic and science diving courses.

## **UNDERWATER CRIME SCENE INVESTIGATION**

This course focuses on the development of the theoretical portion of protocols for applying advanced technology to solving specific problems encountered in underwater investigations. A variety of types of advanced technology currently in use for underwater scientific disciplines will be presented. The capabilities and limitations of each type of technology, for operation in different types of environments, will be explored. Particular emphasis is placed on making cost-benefit analyses to justify technology choices for an underwater crime scene examination program, or underwater crime prevention program.