

Course Competencies Template - Form 112

GENERAL INFORMATION	
Name: Rosa M. Fernandez/Michael Boulos	Phone #: 305-237-8451
Course Prefix/Number: CHS-2XXX	Course Title: Forensic Science II
Number of Credits: 3	
Degree Type :	□ B.A. □ B.S. □ B.A.S ⊠ A.A. ⊠ A.S. □ A.A.S. ⊠ C.C.C. □ A.T.C. □ C.T.C.(V.C.C.)
Date Submitted/Revised:	Effective Year/Term: 2009-1
☑ New Course Competency	
Course to be designated as a General Education course (part of the 36 hours of A.A. Gen. Ed. coursework): 🗌 Yes 🛛 🛛 🗠	
The above course links to the following Learning Outcomes:	
 ☑ Communication ☑ Numbers / Data ☑ Critical thinking ☐ Information Literacy ☐ Cultural / Global Perspective 	 ☐ Social Responsibility ☐ Ethical Issues ⊠ Computer / Technology Usage ☐ Aesthetic / Creative Activities ☐ Environmental Responsibility
Course Description (limit to 50 words or less, <u>must</u> correspond with course description on Form 102): This is a continuation of Forensic Science I. Students will learn topics which include but are not limited to: drug identification and toxicology; document analysis; death determination; soil examination methodology; forensic anthropology; tool marks and casts/impressions. Prerequisite: CHS 1XXXC (4 hr. lect)	
Prerequisite(s): CHS-1XXXC	Co requisite(s): None

Course Competencies: (for further instruction/guidelines go to: http://www.mdc.edu/asa/curriculum.asp)

Competency 1: The student will demonstrate knowledge of drug identification and toxicology as it relates to forensic science by:

- 1. Identifying the five types of controlled substances.
- 2. Relating the signs and symptoms of overdose with a specific class of drugs or toxins.
- 3. Describing the role of toxins in death causation.
- 4. Conducting drug and urine analysis.
- 5. Identifying agents that may be used in bioterrorism.

Competency 2: The student will demonstrate knowledge of document analysis as it pertains to forensics by:

- 1. Describing handwriting characteristics.
- 2. Identifying the major goals of a forensic handwriting analysis.
- 3. Describing technologies used in handwriting analysis.
- 4. Distinguishing among forgery, counterfeiting, and fraudulence.

Revision Date: _______

Reviewed By Director of Academic Programs Date:

Competency 3: The student will demonstrate knowledge of how time and cause of death is determined by:

- 1. Defining death.
- 2. Distinguishing among manners of death: natural, accidental, suicidal, and homicidal.
- 3. Differentiating among cause, manner, and mechanisms of death.
- 4. Explaining the development of rigor, algor, and livor mortis that occur after death.
- 5. Calculating approximate time of death.
- 6. Explaining how environmental factors can be used to estimate time of death.

Competency 4: The student will demonstrate knowledge of sand and soil examination relevant to forensic investigations by:

- 1. Recognizing various sand and soil types.
- 2. Describing methods for examining sand and soil samples.
- 3. Explaining how sand and soil evidence can link suspects to crime scenes.
- 4. Performing sand and soil analysis.

5. Recognizing the importance of isotope ratios of elements found in microbial communities to the geographic origins of soil samples.

Competency 5: The student will demonstrate knowledge of the field of forensic anthropology by:

- 1. Describing bone formation.
- 2. Distinguishing between male and female skeletal remains.
- 3. Describing the type of evidence that can be deciphered through analyzing bones.
- 4. Explaining how genetic origin can be determined from facial structures.
- 5. Describing the role of mitochondrial DNA in bone identification.

Competency 6: The student will demonstrate the use of glass as forensic evidence by:

- 1. Explaining how glass is formed.
- 2. Identifying the different types of glass.
- 3. Describing characteristics and physical properties of glass.
- 4. Explaining how glass is used as evidence.

Competency 7: The student will demonstrate the use of casts and impressions in criminal investigations by:

- 1. Distinguishing among latent, patent, and plastic impressions.
- 2. Describing how foot, shoe, and tire impressions are made.
- 3. Explaining how types of impressions can be used as trace evidence.

Competency 8: The student will demonstrate knowledge of tool marks in a forensic investigation by:

- 1. Describing the major types of tool mark impressions.
- 2. Explaining tool mark examination and analysis.
- 3. Describing tool mark evidence collection, preservation, and documentation.