Cape Cod Community College

Departmental Syllabus

Prepared by the Department of Funeral Service
Date of Departmental Approval: June 11, 2018
Date approved by Curriculum and Programs: June 19, 2018 **Effective: Fall 2018**

1. **Course Number:** FSR105
   Course Title: Embalming Chemistry

2. **Description:** Presents an introduction to general chemistry and biochemistry as applied to the embalming process. Essential characteristics of carbohydrates, lipids, and proteins are discussed. The biochemistry of decomposition and representative chemicals used by the embalmer and their characteristics and functions are discussed with special emphasis on the chemistry of preservation, disinfection and cosmetology.

3. **Student Learning Outcomes** (instructional objectives, intellectual skills)**:**
   Upon successful completion of this course, students are able to do the following:

   - Identify the characteristics of solutions, colloids, suspensions, and the processes of diffusions and osmosis.
   - Explain the essential characteristics of autolysis, hydrolysis, fermentation, and putrefaction as it relates to the chemistry of decomposition.
   - Define organic chemistry and describe the characteristics of organic compounds as they relate to embalming chemistry.
   - Compare and contrast the essential characteristics of carbohydrates, lipids, and proteins.
   - Differentiate among the representative chemicals in embalming fluid (arterial, cavity, and accessory) and describe their respective functions.

4. **Credit(s):** 3 Credits

5. **Satisfies General Education Requirement:** No

6. **Prerequisite(s):** None. Co-requisite FSR131 (Embalming I) and FSR133 (Embalming Clinical)

7. **Semester(s) Offered:** Fall

8. **Suggested General Guidelines for Evaluation:** Quizzes, Assignments, Midterm and Final Examinations

9. **General Topical Outline** (Optional)**:**
   Introduction to General Chemistry
   States and Types of Matter
   Atomic Structure
   Chemical Shorthand: Symbols, Formulas, Equations
   Radiation Chemistry
   Oxygen
   Hydrogen
   Water
   Solutions
   Acids, Bases, Salts, and Ionization
   Hydrates and Hydrolysis
   Introduction to Organic Chemistry
   Hydrocarbons
   Alcohols and Ethers
   Aldehydes and Ketones
   Carboxylic Acids and Esters
   Amines and Amides
   Introduction to Biochemistry
   Proteins
   Enzymes
   Carbohydrates
   Lipids
   Composition of Embalming Fluids