

# CH-103-60-2 College Chemistry

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| <b>Term:</b>       | Fall Evening 2011   |
| <b>Location:</b>   | Pearl Harbor  |
| <b>Time:</b>       | Thursday, 1730 - 2140   |
| <b>Instructor:</b> | Ms. Showman   |
| <b>Email:</b>      | angelique.showman@adjunct.chaminade.edu                       |
| <b>Textbook:</b>   | Timberlake & Timberlake, <b>Basic Chemistry Third Edition</b> |

## Course Description

A one semester introduction to chemistry for students who wish to strengthen their understanding of basic concepts in chemistry before beginning the general chemistry sequence or for students working towards associate degrees. Emphasis will be placed on problem solving. Topics covered will include: chemical measurements, properties of atoms and molecules, chemical reactions, chemical calculations, acids and bases, properties of gases and thermochemistry.

## Course Objectives

This course is designed to familiarize you with the concepts of chemistry that may be used as a basis for other more intensive courses in other science fields.

## Course Requirements

Scientific hand-held calculator with log function  
Timberlake & Timberlake, **Basic Chemistry Third Edition** (Highly Recommended: Timberlake & Timberlake, Basic Chemistry Third Edition Study Guide)

## Class Policies

As a courtesy to other students, cellular phones, smart phones, PDAs (personal digital assistant), pagers and any other electronic device with the potential to make noise must be turned off or put on silent (not vibrate) during the duration of the class. Please refrain from texting or web surfing during class, as this can be distracting to others including the instructor. If you are on-call or have an emergency and need to use your phone, quietly leave the classroom to conduct your business. During exams, these devices need to be turned off; if during an exam, your electronic device makes noise (this includes vibrating), you may be asked to turn in your exam and leave the room while the rest of the class finishes. The use of any other electronic device other than an approved scientific calculator during the exam will be considered a form of academic dishonesty and will result in a failing grade for that exam.

## Grading and Exams

**Exams:** Two midterms and one final comprehensive exam. The final exam will focus mostly on the final chapters covered in the class; however, knowledge and skills developed in earlier chapters are the basis for understanding of the material presented later in the course. Scientific hand-held calculator is allowed. No other electronic devices are permissible including cellular or smart phones (iPhone, Blackberry, etc.).

Midterm 1 – 100 points

Midterm 2 – 100 points

Final Exam – 150 points

**Midterm Exams:** You have one hour and 30 min to complete these exams.

**Final Exam:** You have the entire class period to complete the final exam.

**Applied Chemistry Paper:** Watch the documentary *Food Inc.* Robert Kenner, producer/director 2008. Select three chemicals mentioned in the film (check with me first) and research the chemical formula, and briefly explain the application of the chemical, any health or environmental issues associated with the chemical (i.e. use, production, disposal or byproducts formed, etc.). Additionally, provide a one to two paragraph review of the film expressing your opinion (do you agree, disagree, does this change the way you will eat, why or why not?). You must cite any sources that you use; failure to cite references is plagiarism and a form of academic dishonesty. This is no more than two maybe three pages, double spaced, and font size 12.

Applied Chemistry Paper – 50 points

We will also have a short class discussion regarding the film and what you learned about the chemicals researched. This will be on the final exam.

**Homework:** Questions will be assigned during each class covering the material from the lecture. These questions will help you to understand the material and will be the basis of your quizzes and exams.

**Quizzes:** There will be a quiz on last week's material at the beginning of every class with the exception of exam dates. Quizzes are worth 10 points (2 questions at 5 points each) and are added to your exam scores.

**Grading:** Based on 400 points.

Letter grade: A = 90 - 100%

B = 80 - 89%

C = 70 - 79%

D = 60 - 69%

F = 59% and below

## Tentative Class Schedule and Important Dates

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|---------------------|---|
| Lecture 1 (Apr 7):  | Chapter 1 Chemistry in Our Lives<br>Chapter 2 Measurements<br>Chapter 3 Matter and Energy                                     |
| Lecture 2 (Apr 14): | Quiz 1: Chapters 2 and 3<br>Chapter 4 Atoms and Elements<br>Chapter 5 Electronic Structure and Periodic Trends                |
| Lecture 3 (Apr 21): | Quiz 2: Chapters 4 and 5<br>Chapter 6 Inorganic and Organic Compounds: Names and Formulas<br>Chapter 7 Chemical Quantities    |
| Lecture 4 (Apr 28): | <b>Midterm I:</b> Chapters 2, 3, 4, 5, 6, 7<br>Chapter 8 Chemical Reactions of Inorganic and Organic Compounds                |
| Lecture 5 (May 5):  | Quiz 3: Chapter 8<br>Chapter 9 Electronic Structure and Periodic Trends<br>Chapter 10 Molecular Structure: Solids and Liquids |
| Lecture 6 (May 12): | Quiz 4: Chapter 9 and 10<br><b>Paper Due</b><br>Chapter 11 Gases<br>Chapter 12 Solutions                                      |
| Lecture 7 (May 19): | <b>Midterm II:</b> Chapters 8, 9, 10, 11, 12<br>Discussion: <i>Food Inc.</i>  |
| Lecture 8 (May 26): | Chapter 13 Chemical Equilibrium<br>Chapter 14 Acids and Bases   |
| Lecture 9 (Jun 2):  | Quiz 5: Chapter 13 and 14<br>Chapter 15 Oxidation-Reduction<br>Chapter 16 Nuclear Radiation                                   |
| Lecture 10 (Jun 9): | <b>Final Exam:</b> All with emphasis on Chapters 13, 14, 15, 16 and <i>Food Inc.</i>  |

**Class schedule is subject to change and will be announced in class as needed.**