

THE UNIVERSITY OF TEXAS AT TYLER  
**SYLLABUS FOR CHEM 1105**  
Fall 2009

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Office Hours:  
M,W,F 9:00 AM -10:00 AM  
T, R 9:30 AM-11:00 AM  
and other times by appointment

## I. INTRODUCTION

Chemistry is an experimental science. Chemical knowledge has resulted from experimental observations and studies made by thousands of scientists. In the chemistry laboratory, students will examine, test, and establish for themselves the chemical principles studied in class and from textbooks; will collect experimental data; and will use their reasoning to draw logical conclusions about the meaning of these data.

The prerequisite for this course is credit for or concurrent enrollment in Introductory Chemistry I (CHEM 1305).

This course will have a significant online presence at [www.blackboard.uttyler.edu](http://www.blackboard.uttyler.edu)

## II. OBJECTIVES/LEARNING OUTCOMES

Throughout the semester you will be required to communicate a working knowledge of general, organic and biological chemistry at the introductory level.

By the end of the course you should be able to

- 1) perform basic laboratory techniques in a safe manner
- 2) calculate quantities based on chemical equations,
- 3) determine the shape of simple molecules or ions,
- 4) describe relationships between manipulated and measured variables,
- 5) draw and name simple organic structures, and
- 6) recognize different organic functional groups.

## III. INSTRUCTIONAL MATERIALS

Lab Manual: INTODUCTORY CHEMISTRY I LABORATORY MANUAL. Available for purchase at the UT Tyler Bookstore.

Text: General, Organic and Biological Chemistry: An integrated approach by Kenneth Raymond

Laboratory Notebook-Available from the Student Affiliates of the American Chemical Society

Safety Goggles. Available from the Student Affiliates of the American Chemical Society Industrial quality safety goggles must be worn in the laboratory at all times.

**Scientific Calculator**-students may not share calculators or use cell phones as a calculator on a test or quiz.

#### IV. LABORATORY SAFETY

**Safety goggles must be worn in the laboratory at all times.** Students who do not have safety goggles will not be allowed in the laboratory.

It is strongly recommended that students wear laboratory coats or aprons in the lab at all times. Students wearing open-toed shoes and/or shorts will not be allowed in the laboratory.

Students who perform unauthorized experiments or who remove chemicals or equipment from the lab may be dropped from the course or have their grades lowered.

#### V. LABORATORY REQUIREMENTS

Attendance is required in the laboratory. Unexcused absences will result in grades of zero for any work missed during those absences. Only students with OFFICIAL excused absences will be allowed to make-up work missed during the absences. It is the students' responsibility to see the instructor to make up any work missed during absences.

Students are required to keep a laboratory notebook of the course. This notebook is to be a complete record of all experiments performed in the lab during this semester. Laboratory notebooks periodically will be turned in for grading. Do not use the report sheets to document data in the lab.

Students will be responsible for maintaining cleanliness in the desk areas. In addition, several students will be assigned clean-up responsibilities during each lab session that include shelves, sinks, hoods, and reagent table. Students who neglect their clean-up responsibility will have their grades significantly lowered for that day's work. Therefore, it is important that students assigned to clean-up have their work approved by the lab instructor before leaving lab.

Students are responsible for laboratory equipment furnished by the Department of Chemistry. Students will be required to purchase any missing or damaged equipment.

In some experiments carried out in the laboratory, students will be instructed to hand in substances. Hand in the substances using a suitably stoppered container which is appropriately labeled. See example below.

MARY SNODGRASS  
CHEM 1111.001  
ETHYL IODIDE  
YIELD 27.6 G (75.2%)

**The last day to withdraw from the course without penalty is September 9, 2009.** The last day to withdraw from the course with an automatic grade of "W" is October 30, 2009. To withdraw from the course, a student should initiate the withdrawal with the instructor.

## VI. HOW TO SUCCEED IN THIS COURSE

The grading of experiments will be based on the evaluations of students' laboratory performances, experimental results, and laboratory reports (i.e., analyses and presentations of results.)

Carefully review the experimental procedure prior to the experiment. The laboratory experiments are such that the average student can complete the work during the assigned time. This can be accomplished only if a reasonable amount of study and preparation has been done before coming to the laboratory. Plan what is to be done in each experiment before coming to the lab. It will save much time and will aid in avoiding serious mistakes.

Each experiment will have a pre-lab quiz. To perform well on the quizzes, you must carefully read the experimental procedure, study the suggested material and pay attention to the pre-lab lecture.

Informal lab reports must be turned in by the end of the lab period.

Formal lab reports are due at the beginning of the next lab period after the experiments are carried out.

Reports turned in late are subject to the loss of 5% for each 24 hour period late. Reports more than 2 weeks late will not be accepted. Reports not turned in will result in a grade of 0, so turning in a late report is better than not turning it in at all.

Due dates for lab reports remain **unchanged**, even if the student must conduct the experiment on a different day than his/her assigned day.

## VI. STUDENT RIGHTS AND RESPONSIBILITIES

To know and understand the policies that affect your rights and responsibilities as a student at UT Tyler, please follow this link: <http://www.uttyler.edu/wellness/StudentRightsandResponsibilities.html>

## VII. GRADE REPLACEMENT/FORGIVENESS

If you are repeating this course for a grade replacement, you must file an intent to receive grade forgiveness with the registrar by the September 9, 2009. Failure to do so will result in both the original and repeated grade being used to calculate your overall grade point average. Undergraduates will receive grade forgiveness (grade replacement) for only three course repeats; graduates, for two course repeats during his/her career at UT Tyler.

## VIII. STUDENT ACADEMIC CONDUCT

In this course students are encourage to study and to prepare for quizzes, examinations, and laboratories with other students. However, when taking quizzes and examinations or writing laboratory reports, students are to work alone. ***Cheating will not be tolerated.*** The university regulations are very explicit about academic dishonesty, and these regulations will be fully enforced. ***During quizzes and examinations, a code of honor will apply under which students are to work alone and neither give help to others nor receive help from any sources.*** Students also are expected to help enforce this code. Students are encouraged to obtain a copy of *A Student Guide to Conduct and Discipline at UT Tyler*, available in the Office of Student Affairs.

## **IX. DISABILITY SERVICES**

In accordance with federal law, a student requesting accommodation must provide documentation of his/her disability to the Disability Support Services counselor. If you have a disability, including a learning disability, for which you request an accommodation, please contact Ida MacDonald in the Disability Support Services office in UC 282, or call (903) 566-7079.

## **X. SOCIAL SECURITY AND FERPA STATEMENT**

It is the policy of The University of Texas at Tyler to protect the confidential nature of social security numbers. The University has changed its computer programming so that all students have an identification number. The electronic transmission of grades (e.g., via e-mail) risks violation of the Family Educational Rights and Privacy Act; grades will not be transmitted electronically.

## **XI. STATE-MANDATED COURSE DROP POLICY**

Texas law prohibits a student who began college for the first time in Fall 2007 or thereafter from dropping more than six courses during their entire undergraduate career. This includes courses dropped at another 2-year or 4-year Texas public college or university. For purposes of this rule, a dropped course is any course that is dropped after the 12th day of class (September 9, 2009).

Exceptions to the 6-drop rule include, but are not limited to, the following: totally withdrawing from the university; being administratively dropped from a course; dropping a course for a personal emergency; dropping a course for documented change of work schedule; or dropping a course for active duty service with the U.S. armed forces or Texas National Guard

Petitions for exemptions must be submitted to the Registrar's Office and must be accompanied by documentation of the extenuating circumstance. Please contact the Registrar's Office if you have any questions.

## **XII. STUDENT ABSENCE FOR UNIVERSITY-SPONSORED EVENTS AND ACTIVITIES**

If you intend to be absent for a university-sponsored event or activity, you (or the event sponsor) must notify the instructor at least two weeks prior to the date of the planned absence. At that time the instructor will set a date and time when make-up assignments will be completed.

## **XIII. RELIGIOUS OBSERVANCE ABSENCE**

Students who anticipate being absent from a class due to religious observances are requested to inform the instructor by the second class meeting of such absences.

#### XIV. LABORATORY GRADE COMPUTATION AND PERCENTAGE TO GRADE RATIO

Examinations (2)	30%
Formal Lab Reports	20%
Informal Lab Reports	20%
Pre-lab quizzes	20%
Lab Notebook	10%
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<b>TOTAL</b>	<b>100%</b>

Percentages	Achievement Level	Grade
90-100	Excellent	A
80-89	Good	B
70-79	Satisfactory	C
60-69	Poor	D
0-59	Failure	F

#### XV. LAB SCHEDULE

August 24-28	No Labs	
August 31 – September 4	Introduction to Labs, Syllabus	SafetyVideo
September 7 – 11	Experiment 1	Measurements and Math
September 14 – 18	Experiment 2	Alchemy
September 21 – 25	Experiment 3	Density
September 28 – October 1	Experiment 4	Separation of a Mixture*
October 5 – 9	Experiment 5	Model Kit Lab
October 12 – 16	Exam 1	
October 19 – 23	Experiment 6	Emissions Spectra
October 26 – 30	Experiment 7	Qualitative Organic Scheme*
November 2 – 6	Experiment 8	Ester Synthesis
November 9 -13	Experiment 9	Chromatography*
November 16 – 20	Make-Up Lab**	
November 23 – 27	No Labs – Thanksgiving Break	
November 30 – December 4	Lecture Course Project	
December 7 -11	Exam 2	
December 14 – 18	No Labs – Final Week	

\*Formal Report

\*\*Only students with an excused absence may perform the make-up experiment