UNIVERSITY OF OKLAHOMA  
College of Arts and Sciences  
Department of Chemistry & Biochemistry  
SYLLABUS: Organic Chemistry II: CHEM 3153  
Spring 2011

I. COURSE: CHEM 3153.001: MWF 9:30-10:20 AM, Physical Science 201  
Prerequisite: CHEM 3053, with a grade of C or better

II. INSTRUCTOR INFORMATION

<table>
<thead>
<tr>
<th>Professor:</th>
<th>Dr. Mark C. Morvant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office:</td>
<td>SLSRC 2190, PHSC 308A</td>
</tr>
<tr>
<td>Telephone:</td>
<td>(405) 325-9011</td>
</tr>
<tr>
<td>E-mail:</td>
<td><a href="mailto:mmorvant@ou.edu">mmorvant@ou.edu</a></td>
</tr>
<tr>
<td>Web Site:</td>
<td><a href="http://faculty-staff.ou.edu/M/Mark.C.Morvant-1/">http://faculty-staff.ou.edu/M/Mark.C.Morvant-1/</a></td>
</tr>
<tr>
<td>Desire2Learn:</td>
<td><a href="https://learn.ou.edu/index.asp">https://learn.ou.edu/index.asp</a></td>
</tr>
<tr>
<td>Office Hours:</td>
<td>PHSC 308A: WF 10:30-11:30</td>
</tr>
<tr>
<td></td>
<td>SLSRC 2190: TR 10:00-11:00</td>
</tr>
<tr>
<td>Action Center:</td>
<td>Wednesday 2:30-4:30, Wagner Hall 140/145</td>
</tr>
<tr>
<td></td>
<td>Thursday 5:00-7:00, Wagner Hall 140/145</td>
</tr>
</tbody>
</table>

III. TEXTBOOK AND OTHER MATERIALS:


Other: H-ITT Model TX3200 Response Pad *(Required)*

IV. COURSE DESCRIPTION:

Covers the fundamental concepts of organic structure and reactions of the principal functional groups Reaction mechanisms. A continuation of Organic Chemistry I focusing on alcohols, ethers, aromatic compounds, aldehydes, ketones, amines, and carboxylic acids and their derivatives. This course will emphasize the synthetic and mechanistic aspects of these compounds and introduce the spectroscopy of organic compounds.

This course is the second of a two-semester sequence in organic chemistry and will continue where the first semester ended. When some selection from the vast body of subject material is considered appropriate, the guiding principle is to choose those topics prerequisite to an understanding of biochemistry and a general understanding of organic chemistry in everyday life.

V. OBJECTIVES:

The overall objective is for the student to master the nomenclature, structure, synthesis, and reactions of the principal classes of organic compounds and to be able to describe organic spectroscopy techniques and interpret the spectra from these techniques. The secondary objectives of this course are to increase the students' knowledge of the involvement of organic chemistry in everyday life, prepare the students for biochemistry and upper level organic courses, and involve the students in critical thinking exercises through course assignments.
VI. EVALUATION:

The course grade will be determined by the average of Response Questions, Quizzes, 4 Exam grades and a Final Exam. The final letter grading for the lecture course will be as follows: A ≥ 90%, B = 89-80%, C = 79-70%, D = 69-60%, F = <60%.

COURSE GRADE:

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Response Questions</td>
<td>4 groups of 25</td>
<td>100</td>
</tr>
<tr>
<td>Quizzes</td>
<td>5@20</td>
<td>100</td>
</tr>
<tr>
<td>Exams</td>
<td>4@100</td>
<td>400</td>
</tr>
<tr>
<td>Final Exam</td>
<td>1@100</td>
<td>200</td>
</tr>
<tr>
<td><strong>Total Points Possible</strong></td>
<td></td>
<td><strong>800</strong></td>
</tr>
</tbody>
</table>

Exams:

The Exams will be 100-point fifty-minute long exams and will be given at the beginning of class. The exams will consist of mostly multiple-choice questions and, potentially, a few free response questions (short answer, essay, mechanism...). The instructor does reserve the right to give exams that are composed of all multiple-choice or all free response questions. The instructor also reserves the right to make different versions of an exam with different questions that cover the same course material and concepts.

The Final Exam will be worth 200 points and will be a comprehensive exam over the whole Organic Chemistry sequence, Organic I and Organic II. It will also be the ACS Organic Chemistry Exam. This exam is a national standardized exam that has been developed by the Examination Institute of the American Chemical Society. As such, it covers all topics that are considered essential for a student who has completed a year in Organic Chemistry. If necessary, the grades on the exam will be normalized to the class performance. The final exam will be a two-hour exam and will be multiple-choice.

It is very important that each student show up on time during Exam days. Every effort will be made by the instructor to distribute the exam materials in a timely fashion. Students that arrive to take the exam after the first student has turned in their exam and left the exam room will receive a zero, 0, for the exam. The late arrival to an exam shall be treated as an unexcused absence to an exam and the student shall receive a zero, 0, for the exam grade.

It is very important to write your name on your assignments and to bubble in your name on the scantron. If you do not write your name on your exam(assignments) or bubble in your full name (first and last name) on your exam(quiz) scantron, then you will receive a zero (0) for that exam/assignments. Also, there may multiple versions of the exams and it is essential for you to bubble in the form number on your scantron. If you do not bubble in your exam form number on your scantron, your grade will be reduced by 20%.

Quizzes:

The first quiz will be a Organic I Reactions Review Quiz. It will consist of problems covering the reactions and mechanisms in CHEM 3053. This material is an essential foundation to the material in Organic II and mastery of this material is important to a students’ success in Organic II. Students are encouraged to review the material from CHEM 3053 and should give their best effort on the quiz.
The other Quizzes will consist of three to five free response questions and will be worth twenty points. The questions on the quizzes will come from or be closely related to the practice problems from the text, the action center practice problems, or lecture “try this” problems. The quizzes will be given during the first ten minutes of class. Every attempt will be made to grade quizzes in a timely fashion, but it will often be several days before the quiz grades are posted on D2L. Quizzes will be returned to the students during class or can be picked up during the TA office hours.

Once the quiz has been graded, the grade for the quiz will be posted on the D2L site. Students have one week to inform the TA or Instructor that either the quiz was graded incorrectly or that the graded posted is incorrectly. Students must clearly write their names on their quizzes for he quiz to be graded.

**Response Questions:**

A student response system will be used in class and will be part of your grade. The questions will be given randomly through the semester, so it is important that each student bring their responder (clicker) to class each day. The questions will be worth 2 point each. A student must be present to receive credit for the response question. If a student is not present and an answer was registered for this responder, they will be reported for academic misconduct.

The response questions grades will be broken up into 4 groups of 25 points. There should be more that 25 points available in each time period. If a student answers all of the questions correctly, it is possible for the student to earn more than the 25 points for each grouping. If less than 25 points worth of questions are given during a time period then the total points will be reduced to the actual points available to earn.

The answer recorded by the response system is the final answer for grading purposes. Students who forget their responder or whose responder is not functioning properly will not receive credit for the response questions. If Professor does reserve the right to end use of the response system if it malfunctions on a regular basis or student complaints are too common. If the response system is discontinued, the grade system will be adjusted accordingly.

**Reading and Problems:**

The reading and practice problems are listed on the website and should be completed before the next class meeting. Failure to stay current on reading and practice problem assignments will greatly affect your ability to keep up during lecture and, therefore, will have an indirect affect on your grade in this course.

**Grade Adjustments:**

There is no curve in this course. The instructor reserves the right to make linear adjustments to exam grades in cases were an exam question was found to be in error or unreasonably difficult. Linear adjustments will not be made to increase the average on an Exam.

The grade you earn in the course shall be the grade that you receive in the course. There will be no letter grade increases for any circumstance. The instructor will round all averages to two significant figures (69.5 will round to 70 and 69.4 will round to 69) to determine the student's letter grade in the course (70 = C, 69 = D).
VII. GENERAL POLICIES:

Attendance Policy:

Attending every lecture is highly recommended and expected. Attendance will not be taken. Although attendance will not be taken directly, you must attend the lecture to submit your clicker question answer. Therefore, attending class will have an impact on your grade.

Class Conduct:

All students are expected to follow proper classroom behavior and treat other students and the instructor with respect. If the instructor deems a student’s actions or behavior disruptive to the class, the student will be asked to leave the class for that day.

Food and Drinks are not allowed in the classroom. Students that find it necessary to eat in class will be asked to leave the class for that day.

Cellular phones must be turned off in class. Ringing/Vibrating phones are disruptive to the class and you will be asked to leave the class if you forget to turn off your phone. If you find it necessary to text in class, you will be asked to leave the class for that day.

Make-up Policy:

Exams

No make-up Exam will be offered. If a student misses an exam for a University-sponsored or legally required activity, the student may use the Final Exam to replace the exam that they missed. Since the Final Exam is comprehensive, it will test the same material that the student had not been evaluated on due to missing the exam.

Examples of the Provost-approved university-sponsored activities are scholarly competitions, fine arts performances, and academic field trips. Examples of legally required activities are emergency military service and jury duty. The instructor also reserves the right to excuse an absence to an exam in cases of immediate medical emergencies and family deaths.

Students who miss an Exam and do not have an excused absence as stated above will receive a zero, 0, for that Exam.

The following are not reasons for an absence to be excused for an Exam: Over sleeping, Transportation difficulties, Scheduled Doctors/Dentist appointments, Arguments with significant others the night before an Exam, Being assigned to work by your employer (nonmilitary) during the Exam, Non-emergency medical concerns, Routine medical care of family or friends, Routine/Emergency veterinary care of pets/livestock, “extenuating circumstances”, Adverse affects of over the counter medications, Over consumption of alcohol, or Lack of sleep the night before an Exam due to studying for the Exam.

Quizzes

No make-up quizzes will be offered. Showing up late for a quiz will decrease the amount of time you have to complete the quiz, but the quiz must be turned in the original ten minutes has expired. If a student shows up to class once the time has expired to take the quiz, the student will receive a zero, 0, for the quiz grade.

If a student misses a quiz due to an excused absence, the instructor will calculate the student’s grade without that quiz included. It is the students responsibility to contact the Instructor and provide proper documentation for the absence. Not taking the quiz on time for any reasons other than an excused absence will result in a zero, 0, for that quiz.
Extra-credit:

The Professor does reserve the right to give extra credit. If the Professor chooses to provide extra credit all students will be given an equal opportunity for credit and it will most likely be based on performance in the course. Please take full advantage of your time in and out of class, as well as staying up to date on all reading and problem assignments. Performing well on the assignments and exams will negate the need for extra-credit.

Accommodations:

Any student in this course who has a disability that may prevent him or her from fully demonstrating his or her abilities should contact me personally as soon as possible so we can discuss accommodations necessary to ensure full participation and facilitate your educational opportunities. Students requiring academic accommodation should contact the Disability Resource Center for assistance at (405) 325-3852 or TDD: (405) 325-4173. For more information please see the Disability Resource Center website [http://www.ou.edu/drc/home.html](http://www.ou.edu/drc/home.html).

Emergency Contact:

In case of family or medical emergencies, students can leave a message on the instructor’s voice mail (405-325-9011) or by e-mail ([mmorvant@ou.edu](mailto:mmorvant@ou.edu)). Once the emergency has passed, the student is expected to meet with the instructor to confirm the emergency through documentation and discuss what material/assignments the student has missed and what steps would beneficial to aid the student in continued success in the course.

Optional Instructional Materials and Study Aides:

Obtaining and use of optional instructional materials and study aides is the sole responsibility of the student. The Instructor will do his best to inform all students of optional instructional material and possible study aides, but does not assume the responsibility for informing the student's of every possible study aid, making these available to all students, or insuring that the students use optional instructional materials or study aides.

Some of the possible optional instructional materials and study aides that may be available may include, but is not limited to: study guides for the text, solution manuals for the text, alternative texts in the library, old notes from previous semesters, old exams from previous semesters, flash cards, computer software, course summaries/outlines, online resources, UOSA tutors, and knowledgeable family or friends. It should also be noted that courses often changes overtime and materials from a previous semester may be different from the materials and content of the present semester.

Use of Electronic Devices during Exam:

Any use of an electronic device (iPod, PDA, Cell Phone, MP3 player, CD player, computer…) during clicker questions, quizzes, or exams is strictly prohibited. Any use of such a device will be considered an attempt to cheat on the exam and will result in a 0 on the assignment although more severe actions may be considered.

Calculators may be allowed on exams when needed, but only for mathematical operations. The use of programmable calculators to store or retrieve information during an exam will be considered an attempt to cheat on the exam. Also, if a calculator is discovered to have saved programs or information that could be used as an unfair advantage on the exam, this will
be considered an attempt to cheat on the exam. Programs or operators that aid in mathematical
operations such as a quadratic equation calculator may be used.

Academic Integrity and Honesty:

All students are expected to conform to college-level standards of ethics, academic
integrity, and academic honesty. By enrolling in this course, you agree to be bound by the
Academic Misconduct Code published in The University of Oklahoma Student Code
(www.ou.edu/studentcode/OUSStudentCode.pdf). For further clarification please see:
www.ou.edu/provost/integrity-rights/.

All members of the community recognize the necessity of being honest with themselves
and with others. Cheating in class, plagiarizing, lying and employing other modes of deceit
diminish the integrity of the educational experience. None of these should be used as a strategy
to obtain a false sense of success. The need for honest relations among all members of the
community is essential.

Grade Discussions

It is the student’s responsibilities to understand the grading system outlined in this
document. By enrolling in this course, the student agrees to the conditions of this grade system.

Any discussion of an exam or quiz grade should occur within one week of the exam or
quiz. Grades on the exams and quizzes will be final on the last day of the classes, May 6. Any
errors recording grades on D2L should be brought to the Instructor’s attention within one week
of the grade’s posting. Grades posted on D2L will be final on the last day of class, May 6. Once
the Final Exam has been administered, the course is effectively complete and no additional
assignments or extra credit will be offered.

The final grade in this course is discussed in the Evaluation section of this syllabus. The
grade in this course will not be based on effort of the student or other subjective interpretations
of a student’s difficulties in the course. Request for meetings to discuss or e-mails discussing
grades based on subjective measures may not be answered.

Changes in the Syllabus:

As the course develops, it might be desirable or necessary to make appropriate changes in
aspects of this syllabus. I reserve the right to do so.

VIII. QUIZ SCHEDULE

Quiz 1: Wednesday, January 26
Quiz 2: Friday, February 4
Quiz 3: Friday, February 25
Quiz 4: Wednesday, March 30
Quiz 5: Monday, April 18

IX. EXAM SCHEDULE

Exam 1: Friday, February 11
Exam 2: Wednesday, March 9
Exam 3: Friday, April 8
Exam 4: Friday, April 29
Final Exam: Wednesday, May 11, 7:30-9:30 pm
X. LECTURE SCHEDULE (Tentative)

The schedule below is a **preliminary** outline of the semester. It is **your responsibility** to keep up with changes to this schedule.

<table>
<thead>
<tr>
<th>WEEK OF</th>
<th>TOPIC</th>
<th>Textbook</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tues. 1/18</td>
<td>Course Intro. / Reactions of Arenes</td>
<td>Ch. 12</td>
</tr>
<tr>
<td>Mon. 1/24</td>
<td>Reactions of Arenes</td>
<td>Ch. 12</td>
</tr>
<tr>
<td>Mon. 1/31</td>
<td>Spectroscopy (NMR, IR, MS)</td>
<td>Ch. 13</td>
</tr>
<tr>
<td>Mon. 2/7</td>
<td>Spectroscopy / Organometallic Compounds</td>
<td>Ch. 13/14</td>
</tr>
<tr>
<td>Mon. 2/14</td>
<td>Organometallic Compounds / Alcohols, Diols, and Thiols</td>
<td>Ch. 14/15</td>
</tr>
<tr>
<td>Mon. 2/21</td>
<td>Alcohols, Diols, and Thiols / Ethers, Epoxides, and Sulfides</td>
<td>Ch. 15/16</td>
</tr>
<tr>
<td>Mon. 2/28</td>
<td>Aldehydes and Ketones Nucleophilic Acyl Addition</td>
<td>Ch. 17</td>
</tr>
<tr>
<td>Mon. 3/7</td>
<td>Aldehydes and Ketones Nucleophilic Acyl Addition</td>
<td>Ch. 17</td>
</tr>
<tr>
<td>Mon. 3/14</td>
<td>Spring Break</td>
<td>-</td>
</tr>
<tr>
<td>Mon. 3/21</td>
<td>Carboxylic Acids</td>
<td>Ch. 18</td>
</tr>
<tr>
<td>Mon. 3/28</td>
<td>Carboxylic Acid Derivatives</td>
<td>Ch. 19</td>
</tr>
<tr>
<td>Mon. 4/4</td>
<td>Carboxylic Acid Derivatives</td>
<td>Ch. 19</td>
</tr>
<tr>
<td>Mon. 4/11</td>
<td>Enols and Enolates</td>
<td>Ch. 20</td>
</tr>
<tr>
<td>Mon. 4/18</td>
<td>Enols and Enolates</td>
<td>Ch. 20</td>
</tr>
<tr>
<td>Mon. 4/25</td>
<td>Amines</td>
<td>Ch. 21</td>
</tr>
<tr>
<td>Mon. 5/2</td>
<td>Phenols</td>
<td>Ch. 22</td>
</tr>
</tbody>
</table>