CHEMISTRY FUNDAMENTALS II (CHM2046.0001)
FALL SEMESTER 2014 (Aug 18 – Dec 9)
Lectures: Tue Thu: 9:00 – 10:15 am; CB2 101

Instructor: Dr. Donovan A. Dixon
Office hours: (Tue/Thur: 12:30 pm – 2:30 pm; Wed: 9:30 am - 12:30 pm)*
Office: CHM BLDG, RM 225
Email: Donovan.Dixon@ucf.edu; ph: 407-823-4052

Notes: Supplement for Chemistry Fundamental II; Donovan Dixon (ISBN 978-0-7575-9692-6)
Online homework/tutoring system: Mastering Chemistry course ID: MCDIXON52027
Please purchase an access code at the bookshop or at masteringchemistry.com to use along
with the course ID above. Always log in to mastering chemistry to see due dates for all
assignments. No extensions will be granted for missing the due dates.

NOTE: Beginning this semester, Fall 2014, ALL students' academic activity must be documented
at the beginning of each course. In order to document that every student BEGAN this course
(CHM2046) please complete the academic activity (ASSIGNMENT 0 in webcourses) by the end
of the first week of classes, or as soon as possible after adding this course, but no later than
August 27, 2014. Failure to do so will result in a delay in the disbursement of your financial aid.

Course Goal
To make chemistry fun, understandable, and relevant via the investigation of intermolecular
forces, the various properties of solutions, chemical kinetics and equilibria, thermodynamics,
electrochemistry, and nuclear chemistry.

This course also prepares students for taking a standardized American Chemical Society (ACS)
exam at the end of the semester, plus other chemistry and related science courses.

TOPICS
The topics to be covered in the course will include intermolecular forces, properties of solutions,
chemical kinetics, chemical equilibria, acid-base chemistry, chemical thermodynamics (enthalpy,
entropy, and Gibb's energy), electron transfer reactions, and nuclear chemistry.
At a minimum, this is chapter 11-19 in the course text.

ASSESSMENTS
A valid photo ID is required for each test/quiz. Only non-programmable, scientific calculators will
be allowed (e.g. TI-30X series). Failure to comply will result in the award of an automatic “F”.

Apart from the final exam, all tests/quizzes will be administered during regular class time in CB2
101 (see Table 2 for date/time of final). If you are absent for one test, the percentage grade from
your final test (test 5) will be substituted for the one missed test only. The percentage grade from
the final test (test 5) will replace the LOWEST test score, if a test was not missed, and the final
test grade is the higher grade.

There will be no make up test/quiz, except for attendance at University events and legitimate
medical emergencies! Documentation must always be provided.

Each regular course test is 50 minutes and will each be worth 100 points (%). Each quiz is 15
mins and worth 25 points.

Test/Quiz Dates: See Table 2, and the interactive feature in myUCF for the final examination
schedule (Fall exam schedule: http://registrar.ucf.edu/exam/2014/fall)
Tests/quizzes will be computer-graded, multiple-choice format, inclusive of calculations/conceptual questions taken from lectures, textbook (exercises, examples, suggested end-of-chapter homework problems) and other recommended resource material(s).

Each student must have a clean, flat, pink/raspberry NCS Test Form (scanntron) for each computer graded test/quiz, and the correct pencil. Use of a pen is not recommended.

On average, grades for quizzes and tests become available within a week, and are posted in the Grades section of webcourses.

Table 1: Grading

<table>
<thead>
<tr>
<th>Grading</th>
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<tbody>
<tr>
<td>4 in-course tests, 100 points each</td>
<td>400 points</td>
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<tr>
<td>Final test (ACS)</td>
<td>100 points</td>
</tr>
<tr>
<td>4 quizzes (25 points per quiz)</td>
<td>100 points</td>
</tr>
<tr>
<td>Assignments (Mastering Chemistry)</td>
<td>20 points</td>
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<tr>
<td>TOTAL</td>
<td>620 POINTS</td>
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</table>

Based on the preceding information, there is NO ‘curve’ for this chemistry course. The course is graded A, B, C, D, or F (There is No NC option. This is not an NC course. See myUCF!!).

Letter Grade: [90-100 % = A; 80-89.99% = B; 70-79.99% = C; 60-69.99% = D; < 60% = F]

Overall course grade will only be computed based on percentage points from tests, plus quizzes/assignments. The ± designation is used if necessary.

Success in CHM 2046!!

Please, never lobby/negotiate/petition for any grade! The course grade earned is based solely on grades (homework, quizzes, tests) obtained throughout the semester. There are no other factors/conditions! So please do the required WORK on a consistent basis.......

Attendance is required for all lectures. If you decide to skip classes, you will need to make the time to get any missed information/notes from a student in the class who was in attendance. The students who attend classes and work consistently from day one, usually have a higher success rate in the course. So, get to lectures early, concentrate, stay focused, and pay attention to the material being covered. It is therefore strongly recommended that all students attend all lectures!! Being regularly absent or a habitual late-comer is certainly not conducive to being successful.

Make the effort to UNDERSTAND the various facts/concepts/principles (including all important definitions/mathematical equations), which are vital in learning chemistry. Learn how to apply these in various problems. Memorizing is definitely NOT the solution!

Review all required material early and often, before class and after class - from the very first lecture. Do not wait until the last few hours before a test/quiz to do the necessary revision, as this is not the recommended way to learn the material for any course. Also, if you fall behind at the start, it is very difficult to catch up on the course material.

Review the worked exercises and examples in the textbook. Also at the end of each chapter are lists of key terms, concepts and equations. These are helpful review tools.
Find time to work on the end-of-chapter problems. Perfect practice makes perfect. Review these as many times as necessary to gain a full understanding of the subject matter. About 2-3 hrs per day of careful review and practice, etc, are required to be successful, as there are no shortcuts.

Do make use of the University and Departmental resources provided to enhance students' success. These however, should not be substituted or used as an excuse for not attending lectures!!

*All students are expected to have an understanding of basic algebra. Additionally, it is assumed that all students in this course have learnt/understood ALL relevant material from Chem. 1 (see text, chapters 1-10). This is extremely essential in understanding the material in this course, chem. fund II. Therefore, if needed, the revision of that body of knowledge from chem. 1 is always the responsibility of every student, regardless of when or where that course was actually taken.*

All constants, data, and a periodic table will be supplied for each quiz/test, as appropriate.

**Table 2: Proposed Schedule**

Please note that the information listed here are subject to change depending on the pace at which the topics are covered. Important or significant changes will be announced in class and/or posted in the announcement section of webcourses, if needed.

<table>
<thead>
<tr>
<th>Week #: Date</th>
<th>Chapters from Supplement and</th>
<th>Tro Textbook (3rd cdn)</th>
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<tbody>
<tr>
<td>1: Aug 19, 21</td>
<td>Chapter 1 Supplement</td>
<td>Chapter 11.1 – 11.9; 11.11 - 11.13</td>
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<tr>
<td>2: Aug 26, 28</td>
<td>Chapter 1 Supplement</td>
<td>Chapter 11</td>
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<tr>
<td>3: Sept 2, 4</td>
<td>Chapter 2 Supplement</td>
<td>Chapter 12.1 - 12.7</td>
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<td></td>
<td>Quiz 1 (Tue. Sept. 2)</td>
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<td>4: Sept 9, 11</td>
<td>Chapter 3 Supplement</td>
<td>Chapter 13.1 - 13.7</td>
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<td></td>
<td>Test 1 (Tue. Sept. 9)</td>
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<td>5: Sept 16, 18</td>
<td>Chapter 3, 4 Supplement</td>
<td></td>
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<tr>
<td>6: Sept 23, 25</td>
<td>Chapter 4 Supplement</td>
<td>Chapter 14.1 - 14.9</td>
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<td>Quiz 2 (Tue. Sept. 23)</td>
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<tr>
<td>7: Sep 30, Oct 2</td>
<td>Chapter 5 Supplement</td>
<td>Chapter 15.1 - 15.11</td>
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<tr>
<td></td>
<td>Test 2 (Tue. Sept 30)</td>
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<td>8: Oct 7, 9</td>
<td>Chapter 5, 6 Supplement</td>
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<tr>
<td>9: Oct 14, 16</td>
<td>Chapter 6 Supplement</td>
<td>Chapter 16.1 – 16.5; 16.8</td>
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<td>10: Oct 21, 23</td>
<td>Chapter 6, 7 Supplement</td>
<td>Chapter</td>
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<td></td>
<td>Quiz 3 (Tue. Oct. 21)</td>
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<tr>
<td>11: Oct 28, 30</td>
<td>Chapter 7 Supplement</td>
<td>Chapter 17.1 - 17.9</td>
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<td></td>
<td>Test 3 (Tue. Oct. 28)</td>
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<td>12: Nov 4, 6</td>
<td>Chapter 8 Supplement</td>
<td>Chapter 18.1 – 18.8</td>
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<tr>
<td>13: Nov 11, 13</td>
<td>Chapter 8, 9 Supplement</td>
<td>Chapter 18, 19</td>
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<td></td>
<td>Quiz 4 (Thurs. Nov. 13)</td>
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<tr>
<td>14: Nov 18, 20</td>
<td>Chapter 9 Supplement</td>
<td>Chapter 19.1 – 19.12</td>
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<td>Test 4 (Thurs. Nov. 20)</td>
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<td>15: Nov 25</td>
<td>Review (time permitting)</td>
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<td>Dec 3 – 9</td>
<td>Final: Thursday, Dec. 4, 2014 (7:00 am – 9:50 am) in CB2 101</td>
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Textbook Problems
Do the relevant odd-numbered problems/exercises (or others) at the end of each chapter in the
text (chapters 11-19). Please see webcourses for this information.

Students Registered with the UCF SDS Office

Please supply appropriate documentation and meet with Instructor to discuss accommodations, if
necessary.

Other Policies and Expectations

As a courtesy, this course is also managed and supplemented using webcourses. Please check
regularly for any announcements, the posting of partial class notes, an electronic copy of the
syllabus (original, or if revised), and for any other vital information that may be of relevance to the
organization of the course. Please do not use webcourses for sending emails.

In order to avoid disturbing other students/disrupting the class, plan to arrive at all lectures on
time. If you must leave early for any reasons, please do so quietly and discreetly.

ALL cell phones and ALL other electronic equipment/gadgets must be turned off and properly
stored. In that case there will be no video/audio recording, nor picture taking (flash bulbs). Also,
do not indulge in audible talking, as other students historically find such practices extremely
distracting.

The many topics to be covered in this course represent a substantial body of work. As such, it is
incumbent on all students to master these in order to be successful. No ’extra’ work or
assignments of any type can therefore be added to the schedule outlined in Table 2.

Academic Honesty

Only the required materials for taking tests and quizzes are allowed. As a reminder, graphing
calculators are not allowed (no exceptions).

Academic integrity is expected at all times in this course. Therefore, do not allow other students
to copy your work, and do not copy other students’ work. Offenders will be reported to the
appropriate University Office, so that the appropriate disciplinary action(s) can be taken.
Please read and understand the relevant sections of the UCF’s Undergraduate Catalog.

Miscellaneous

a) Please make an appointment if unable to make the regular office hours (see top of page 1).
b) Drop/swap deadline on myUCF: Thursday, August 21 at 11:59 pm
c) Add deadline on myUCF: Friday, August 22 at 11:59 pm
d) Fall Holidays: Tuesday, November 11 (Veteran’s Day); November 27 (Thanksgiving)
e) Withdrawal deadline: Monday, October 27, 2014
f) Classes end: Monday, December 1, 2014
g) Study Day: Tuesday, December 2, 2014
h) Finals week: December 3-9, 2014

N.B.
Please be reminded that the Instructor reserves the right to modify/change any part of this
schedule/syllabus if the need arises!