Instructor – Jennifer Tencate; jten cate@niu.edu
Office Hours – in FR 326: TR: 09:00a – 10:00a
F: 09:00a – 12:00p (or by appointment)

On-Line Course Information: Blackboard (https://webcourses.niu.edu)
Connect (McGraw Hill, through purchase of new book or purchased separately).

Lecture and Recitation Schedule:
Lecture: MWF @ 8:00 – 8:50 AM, FR 143
Recitation:  
R001 Tuesday @ 11:00 – 11:50 PM FR 205, R003 Tuesday @ 12:30 – 01:20 PM FR 205
R002 Tuesday @ 02:00 – 02:50 PM FR 205, R004 Tuesday @ 03:30 – 04:20 PM FR 205

Tutors and Lab TA Office Hours: The Department of Chemistry and Biochemistry maintains a free Tutor
Room for General Chemistry students. The Tutor Room is in Faraday 247 and the schedule will be posted
online (http://www.chembio.niu.edu/chembio/aboutus/help_room.shtml) and outside the help room door.
Students are also encouraged to ask laboratory TAs for assistance in understanding the lecture material.
Paid Tutors - Names of tutors for hire are available from Lydia Mueller in Faraday 319 (Dept. office).

Exams and Grading
Exams - Tentative dates for the three 100-point hour exams are indicated in the lecture schedule (see next page). The lowest exam grade will be dropped. There will be no make-up exams unless prior arrangements have been made with the instructor. A missed exam will count as the dropped exam.

Recitation/HW – The recitation grade (150 points possible) will be based on four 10-point quizzes, eight 10-
point homework assignments and attendance (30 points possible). There will be no make-up quizzes. The homework will be administered online using Connect. Students are encouraged to use the LearnSmart study modules in Connect. Extra credit will be assigned for each completed LearnSmart module.

Connect Homework –The online homework is accessed through blackboard. You will need the enrollment key (provided with book purchase or purchased separately). Please note posted deadlines for assignments.

Final Exam - The 200 point final exam will be comprehensive and will be given on Monday, May 4th from 8-
9:50 AM. It will consist of 100 points (Exam 4) and 100 points cumulative final.

Total points = 550 points (hourly exams = 300, with lowest exam dropped; homework/recitation = 150;
final exam = 100 cumulative

Grading scale: A > 93%; A- = 90-92%; B+ = 87-89%; B = 83-86%; B- = 80-82%; C+ = 77-79%, C = 70-76%;
D = 60-69%; F < 60%

NIU abides by Section 504 of the Rehabilitation Act of 1973 which mandates reasonable accommodations be
provided for qualified students with disabilities. If you have a disability and may require some type of
instructional and/or examination accommodation, please contact me early in the semester so that appropriate
accommodations can be arranged as needed. If you have not already done so, you will need to register with the
Disability Resource Center (DRC), which is located on the 4th floor of the University Health Services Building
(815-753-1303).

Academic Integrity. Good academic work must be based on honesty. The attempt of any student to present as his or her
own work that which he or she has not produced is regarded by the faculty and administration as a serious offense.
Students are considered to have cheated if they copy the work of another during an examination or turn in a paper or an
assignment written, in whole or in part, by someone else. Students are responsible for plagiarism, intentional or not, if they copy material from books, magazines, or other sources without identifying and acknowledging those sources or if they paraphrase ideas from such sources without acknowledging them. Students responsible for, or assisting others in, either cheating or plagiarism on an assignment, quiz, or examination may receive a grade of F for the course involved and may be suspended or dismissed from the university.

TENTATIVE LECTURE SCHEDULE

<table>
<thead>
<tr>
<th>WEEK</th>
<th>CHAPTER/TOPIC</th>
<th>Exam</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Feb. 3-7</td>
<td>14: Entropy and Free Energy</td>
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<tr>
<td>5. Feb. 10-14</td>
<td>14: Continued / 15: Chemical Equilibrium</td>
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<tr>
<td>6. Feb. 17-21</td>
<td>15: Chemical Equilibrium (cont.)</td>
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<tr>
<td>7. Feb. 24-28</td>
<td>16: Acids, Bases, and Salts</td>
<td>Quiz (Recitation)</td>
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<tr>
<td>8. Mar. 2-6</td>
<td>16: Continued</td>
<td>Exam II (F) Mar 7</td>
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<tr>
<td>9. Mar. 9-13</td>
<td>SPRING RECESS</td>
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<tr>
<td>10. Mar. 16-20</td>
<td>16: Continued / 17: Acid/Base/Solubility Equilibria</td>
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<tr>
<td>12. Mar. 30 – Apr. 3</td>
<td>18: Continued</td>
<td>Quiz (Recitation)</td>
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<tr>
<td>13. Apr. 6-10</td>
<td>19: Chemical Kinetics</td>
<td>Exam III (F) April 10</td>
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<tr>
<td>14. Apr. 13-17</td>
<td>19: Continued</td>
<td></td>
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<tr>
<td>15. Apr. 20-24</td>
<td>20: Nuclear Chemistry</td>
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<tr>
<td>16. Ap. 27-May 1*</td>
<td>20: Continued (as needed)</td>
<td>Quiz (Recitation)</td>
</tr>
<tr>
<td>Final May 4th</td>
<td>8-9:50AM</td>
<td>Exam IV and FINAL</td>
</tr>
</tbody>
</table>

*MLK Day Jan 20 (University Closed); Spring Recess March 9-16, May 2nd Reading Day (no class)

CHEMISTRY 211 - GENERAL EDUCATION AND COURSE CONTENT OBJECTIVES

General Education Course Objectives

○ Improve ability to think critically and logically
○ Improve ability to reason quantitatively and to perform basic chemical computations
○ Improve ability to interpret mathematical models
○ Learn how to use the scientific method and theories to understand chemical phenomena
○ Develop an appreciation for the importance of the role of chemistry in everyday life
○ Develop an understanding of the historical development of the field of chemistry

Content Objectives of this Course

○ Become familiar with the properties of solutions and be able to calculate concentrations of species in solution
○ Understand the concepts behind chemical kinetics and reactions rates
○ Understand acid-base and ionic equilibria, and appreciate real-world applications of these equilibria
○ Understand entropy, free energy, and the direction of chemical reactions
○ Understand the difference between voltaic and electrolytic cells, and be able to calculate the cell potential of a voltaic cell
○ Understand the nuclear properties of isotopes, including nuclear reactions, and the practical applications of nuclear chemistry.