CHEMISTRY 101

Dr. Steven Merwin Kennedy
318 Caputo Hall
717-871-7418
Email: Steven.Kennedy@millersville.edu

Office hours: please see D2L for my weekly schedule. Meetings outside of my weekly office hours are available; they should be arranged via email or remind.

COURSE DESCRIPTION & GENERAL INFORMATION
Chemistry 101 provides a descriptive and conceptual foundation of non-mathematical scientific and chemistry vocabulary and ideas invaluable in understanding the molecular world. The course surveys some impacts that chemicals have on the world around us; this includes examples of specific chemical benefits or risks and examples of how chemical science helps to elucidate phenomena. This course has two additional broad goals: first, to develop an appreciation for the molecular world and the fundamental role it plays in daily life; second, to better understand some of the major scientific and technological issues relevant to society.

This course satisfies part of MU’s GenEd core (G2-Science/Math, http://bit.ly/38PB1rW): courses in the sciences and mathematics (G2 Category) develop students' understanding and knowledge of scientific and mathematical reasoning and of strategies for logical problem-solving. Students are challenged to recognize that scientific explanations offer falsifiable predictions, that claims must be supported by evidence and logical reasoning, and that the nature of scientific discovery and knowledge is fluid. Courses emphasize that the scientific meaning of fact, theory, and law are not a hierarchy, and give students an appreciation of essential creative aspects of scientific process and discovery. It does not satisfy MU’s G2 laboratory science requirements.

COURSE LEARNING OBJECTIVES
Upon the successful completion of Chemistry 101, you will be able to...

1. Know, identify, interpret, and analyze some of the verbal and symbolic language of chemistry
2. Explain how selected atoms of elements combine and rearrange to form stable compounds
3. Describe how some of the elements may behave differently or similarly based on periodic trends
4. Identify and describe the major organic chemistry classes of molecules and functional groups
5. Define acids and bases; and, describe acid-base reactions
6. Predict the products of common chemical reactions relevant to modern society
7. Describe some of the chemicals relevant to modern society, including benefits and risks
8. Describe some of the chemical reactions relevant to modern society, including systems thinking
9. Describe how selected chemicals are significant to biological or environmental systems
10. Describe how selected chemicals are used or misused by consumers or industry

TO ACCOMPLISH THESE OBJECTIVES
Try to go beyond memorizing content for this course. Focus on the major concepts and develop some flexibility in the application of those concepts. While there are fundamental principles, concepts, symbols, and vocabulary that should be committed to long-term memory, successful completion of this course also depends upon your ability to problem solve by utilizing newly acquired information.

TIPS FOR SUCCESS IN CHEM 101
- Be curious. Make studying and learning chemistry fun.
- Actively attend every class – always take good notes & discuss by asking and answering questions.
- Complete all suggested readings or videos on D2L before the recommended due dates.
- Complete 8 quizzez (drop 4 lowest), 2 reports (drop 1 lowest), and the cumulative final exam.
SCHEDULE OF QUIZZES, REPORTS, & FINAL EXAM
Quiz 1, Thursday, January 30th
Quiz 2, Thursday, February 13th
Quiz 3, Thursday, February 27th
Quiz 4, Thursday, March 12th
Chemical Report 1, Friday, March 13th
Quiz 5, Thursday, March 26th
Quiz 6, Thursday, April 9th
Chemical Report 2, Friday, April 17th
Quiz 7, Thursday, April 23rd
Quiz 8, Thursday, April 30th
Cumulative Final Exam (all quiz questions from 8 quizzes plus new material covered after Quiz 8),
Wednesday, May 6th, 2:45 to 4:45 pm in 149 Roddy Hall

FINAL COURSE GRADES
Active Learning & Participation 100 points
Chemical Reports (drop lowest 1) 200 points
Scheduled Quizzes (drop lowest 4) 200 points
Cumulative Final Exam 200 points
Total points in course = 700 points

GRADE DISTRIBUTION (in percentage points)

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>92.0-100</td>
</tr>
<tr>
<td>A-</td>
<td>90.0-91.9</td>
</tr>
<tr>
<td>B</td>
<td>82.0-87.9</td>
</tr>
<tr>
<td>B-</td>
<td>80.0-81.9</td>
</tr>
<tr>
<td>C</td>
<td>70.0-77.9</td>
</tr>
<tr>
<td>C-</td>
<td>69.0-69.9</td>
</tr>
<tr>
<td>D</td>
<td>62.0-66.9</td>
</tr>
<tr>
<td>D-</td>
<td>60.0-61.9</td>
</tr>
<tr>
<td>B+</td>
<td>88.0-89.9</td>
</tr>
<tr>
<td>C+</td>
<td>78.0-79.9</td>
</tr>
<tr>
<td>D+</td>
<td>67.0-68.9</td>
</tr>
<tr>
<td>F</td>
<td>&lt;60.0</td>
</tr>
</tbody>
</table>

UNIVERSITY APPROVED CLASS ATTENDANCE POLICY
https://www.millersville.edu/registrar/faculty/attendance-policy.php

TITLE IX STATEMENT:
Millersville University and its faculty are committed to assuring a safe and productive educational environment for all students. In order to meet this commitment and to comply with Title IX of the Education Amendments of 1972 and guidance from the Office for Civil Rights, the University requires faculty members to report incidents of sexual violence shared by students to the University’s Title IX Coordinator. The only exceptions to the faculty member’s reporting obligation are when incidents of sexual violence are communicated by a student during a classroom discussion, in a writing assignment for a class, or as part of a University-approved research project. For more information on Title IX: https://www.millersville.edu/titleix/