**Syllabus (Fall, 2021)**

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| Course Title | General Chemistry II | Course No. | 20417-01 |
| Department/ Major | Chemistry and Nanoscience | Credit/Hours | 3.0/3.0 |
| Class Time/ Classroom | Monday 14:00-15:15 Wednesday 12:30-13:45/ POSCO453 | | |
| Instructor | Name: Sang-Jip Nam | Department: Chemistry and Nanoscience | |
| E-mail: sjnam@ewha.ac.kr | Phone: 3277-6805 | |
| Office Hours/ Office Location | TBA/DB207 | | |

**Ⅰ. Course Overview**

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| 1. Course Description |
| This course is the second semester of a two-semester first year introductory chemistry course (General Chemistry I and II). It introduces the fundamental principles underlying modern chemistry. A range of topics will be covered including chemical kinetics, chemical thermodynamics, acid-base chemistry, electrochemistry, and introduction to organic and biological molecules. |

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| 2. Prerequisites |
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| 3. Course Format |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | Lecture | Discussion/Presentation | Experiment/Practicum | Field Study | Other | | 90% | % | % |  | 10% |   (Instructor can change to match the actual format of the class.)  Explanation of course format: |

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| 4. Course Objectives |
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| 5. Evaluation System |
| ☐ Relative evaluation ■ Absolute evaluation ☐ Others :  - Explanation of evaluation system: Explanation of evaluation system: Two exams will be given: each exam counts 60 points. There will be partial credits if you show your work, but there won’t be any credit given even to a correct answer if you don’t show how you solve. Attendance to the class counts 20 points. If you miss 6 classes or more, you will get ‘F’ grade by the university policy. Missing two classes or less will be excused, but if you miss more than two classes, each time you will have 2 points deduction.   |  | | --- | |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Midterm Exam | Final Exam | Quizzes | Presentation | Projects | Assignments | Participation | Other | | 45% | 45% | % | % | % | 5% | 5% | % |   \* Evaluation of group projects may include peer evaluations. |

**Ⅱ. Course Materials and Additional Readings**

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| 1. Required Materials |
| Chemistry, Zumdahl and Zumdahl, 10th Edition  (available at Ewha Kyobo Bookstore) |
| 2. Supplementary Materials |
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| 3. Optional Additional Readings |
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**Ⅲ. Course Policies**

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| \* For laboratory courses, all students are required to complete lab safety training. |

**Ⅳ. Course Schedule (15 credit hours must be completed.)**

| Week | Date | Topics & Class Materials, Assignments |
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| **Week 1** | (09/02) | Introduction of General Chemistry II |
| (09/06) | CH12. Chemical Kinetics |
| **Week 2** | (09/09) | CH12. Chemical Kinetics |
| (09/13) | CH13. Chemical Equilibrium |
| **Week 3** | (09/16) | CH13. Chemical Equilibrium |
| (09/23) | CH14. Acids and Bases |
| **Week 4** | (09/27) | CH14. Acids and Bases |
| (09/30) | CH14. Acids and Bases |
| **Week 5** | (10/04) | CH15. Acid-Base Equilibria |
| (10/07) | CH15. Acid-Base Equilibria |
| **Week 6** | (10/11) | CH15. Acid-Base Equilibria |
| (10/14) | Review CH12-15 |
| **Week 7** | (10/18) | Mid-Term |
| (10/21) | CH16. Solubility and Complex Ion Equilibria |
| **Week 8** | (10/25) | CH16. Solubility and Complex Ion Equilibria |
| (10/28) | CH17. Spontaneity, Entropy, and Free Energy |
| **Week 9** | (11/01) | CH17. Spontaneity, Entropy, and Free Energy |
| (11/04) | CH17. Spontaneity, Entropy, and Free Energy |
| **Week 10** | (11/08) | CH18. Electrochemistry |
| (11/11) | CH18. Electrochemistry |
| **Week 11** | (11/15) | CH19. The Nucleus: A Chemist's View |
| (11/18) | CH19. The Nucleus: A Chemist's View |
| **Week 12** | (11/22) | CH20. The Representative Elements |
| (11/25) | CH20. The Representative Elements |
| **Week 13** | (11/30) | CH21. Transition Metals and Coordination Chemistry |
| (12/02) | CH21. Transition Metals and Coordination Chemistry |
| **Week 14** | (12/06) | CH22. Organic and Biological Molecules |
| (12/09) | CH22. Organic and Biological Molecules |
| **Week 15** | (12/13) | Review CH16-22 |
| (12/16) | Final Exam |
| Makeup Class | (mm/dd) |  |
| Makeup Class | (mm/dd) |  |

**Ⅴ. Special Accommodations**

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| \* According to the University regulation section #57-3, students with disabilities can request for special accommodations related to attendance, lectures, assignments, or tests by contacting the course professor at the beginning of semester. Based on the nature of the students’ request, students can receive support for such accommodations from the course professor or from the Support Center for Students with Disabilities (SCSD). Please refer to the below examples of the types of support available in the lectures, assignments, and evaluations.   |  |  |  | | --- | --- | --- | | Lecture | Assignments | Evaluation | | ․ Visual impairment : braille, enlarged  reading materials  ․ Hearing impairment : note-taking  assistant  ․ Physical impairment : access to classroom,  note-taking assistant | Extra days for submission,  alternative assignments | ․ Visual impairment : braille examination paper,  examination with voice support, longer  examination hours, note-taking assistant  ․ Hearing impairment : written examination  instead of oral  ․ Physical impairment : longer examination  hours, note-taking assistant |   - Actual support may vary depending on the course. |

\* The contents of this syllabus are not final—they may be updated.