**Syllabus (Spring 2008)**

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| Subject | Organic Chemistry 2 | | | | | | | | Department | | | Chemical and Biological Engineering | | | | |
| Subject Number | | 458.301 | | | | | Class Number | | | 001/002/003 | | | | Total Credit / Design Credit | | 3.0 / 1.0 |
| Professor | | | | | | Yoon-Sik Lee  Young-Kyu Kim  Jong-Chan Lee | | | | | Webpage | | | | http://eng.snu.ac.kr/lecture/ | |
| E-mail / Address | | | | | | yslee@snu.ac.kr/302-724  ygkim@snu.ac.kr/302-728  jongchan@snu.ac.kr/302-730 | | | | | | | Phone | | +82-2-880-7073  +82-2-880-8347  +82-2-880-7070 | |
| Lecture Time | | | | Mon, Wed 14:30 ~ 15:45 | | | | | | | Class Room | | | | 302-509/302-408/302-409 | |
| Assistants  (Office, Phone) | | | | | Dong-Gyun Kim  Won-Ki Lee  (302-714, +82-2-880-6989) | | | | | | Office Hour | | | | Professor : Mon, Wed 16:00~17:00  Assistants : Mon, Wed 16:00~17:00 | |
| Introduction | | | | In ‘Organic Chemistry 2’ class, lecture about classification and nomenclature of important functional groups which were not treated in ‘Organic Chemistry 1’ class will be given. Moreover, students will study about physical and chemical properties of various organic compounds having these important functional groups. Especially, detailed explanations about remarkable stability(aromacity), physical property and chemical reactivity will be given. Physical properties and reactions of organic compounds having carbonyl groups will be introduced. Furthermore, Addition reactions and reactivity of carbanions at alpha carbon of carbonyl groups will be learned. Students will study about specific examples of these reactions and making a plan to synthesize desired products. Lecture about organic compounds having radical, method to generate radical, reactivity of radicals will be given also. Finally, student will study about NMR, IR, UV/Vis, Mass analyzing instruments to characterize structures of organic compounds. | | | | | | | | | | | | |
| Objectives | | | | 1. Comprehension of structures and functional groups of organic compounds  2. Understanding reactivities of various organic compounds | | | | | | | | | | | | |
| Lecture Process | | | | | | | | 1. Lecture (70%) 2. Design Problem (30%) | | | | | | | | |
| Textbook and References | | | Textbook | | | | | 1. Hornback, Organic Chemistry 2nd Ed., Thomson Brooks/Cole, 2006. | | | | | | | | |
| Reference | | | | | 1. Fessenden/Fessenden, Organic Chemistry, 6th ed., Brooks/Cole, 1998.  2. Morrison and Boyd, Organic Chemistry, 6th ed., Prentice-Hall, 1992. | | | | | | | | |
| Grade Evaluation | | | Mid Exam X3 (360points, previous contents 15-25%), Homeworks (60points),  Final Exam(Design Problems, 180points) , Attendance : demark on points (# of Absence X 3points), missing 1/4 classes or 2 or more exams – F grade | | | | | | | | | | | | | |

**Contents of Design Problem** : On the basis of knowledge learned from lectures, students have to give solution methods and answers. Design problems will be given in final exam, which is an open book test.