**Syllabus (2nd Semester, 2007)**

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| Subject Name | Organic Chemistry 1 | | | Department | | | | Department of Chemical and Biological Engineering | | | |
| Subject Number | 458.204 | | | Total Credit / Design Credit | | | | | | 3.0 / 1.0 | |
| Professor | Young-Gyu Kim  Jong-Chan Lee | | E-mail/  Office | | | [ygkim@snu.ac.kr](mailto:ygkim@snu.ac.kr)  (302-728)  [jongchan@snu.ac.kr](mailto:jongchan@snu.ac.kr)  (302-730) | | | | Phone | +82 2 880 8347  +82 2 880 7070 |
| Lecture Webpage | snu-polychem.com | | | Target Class | | | Sophomore | | | Prerequisite Subjects | General Chemistry |
| Class Hour | | Tue, Thu 16:00 – 17:15 | | | Classroom Number | | | | 302-508, 509 | | |
| Assistant | | Cheol Min Kim  (302-708)  +82 2 880 6989 | | | Office Hour | | | | Professor : Tue, Thu 13:00~14:00  Assistant : Tue, Thu 13:00~14:00 | | |
| Contents of  the Subject | | This organic chemistry course examines classification of organic compounds by functional groups, and physical property and chemical reactivity of each functional group. This course is designed for students to practice predicting reactivity of many other organic compounds and designing new compounds which have target properties. Organic chemistry course consists of ‘Organic Chemistry 1’ and ‘Organic Chemistry 2’, and it will be covered during two semesters.  As the first part of this organic chemistry course, ‘Organic chemistry 1’, first, examines definition, structure, and bond of organic compounds, and stereochemistry which concerns 3-demensional structure of the compounds. Second, it examines how organic compounds are classified and named by functional groups, and what physical property and chemical reactivity these compounds have. In this process, the important acid-base reaction, substitution reaction, elimination reaction, and addition reaction are covered. | | | | | | | | | |
| Objectives | | 1. Understanding 3-dimensional structures and functional groups of organic compounds 2. Understanding reactivity and application of organic compounds : The acid-base reaction, substitution reaction, elimination and addition reaction | | | | | | | | | |
| Lecture process | | 1. Lecture (70%) 2. Design Problem (30%) | | | | | | | | | |
| Textbook and References | | J. M. Hornback, Organic Chemistry, 2nd ed., Thomson Brooks/Cole, 2006. | | | | | | | | | |
| 1. Fessenden, Organic Chemistry, *6th ed.*, Brooks/Cole, 1998. 2. Morrison and Boyd, Organic Chemistry, *6th ed.*, Prentice-Hall, 1992. | | | | | | | | | |
| Evaluation | | 1. Midterms - 3 times(360 points, previous lecture 25%),   Final Exam (design problem, 180 points), Homework (60 points)   1. Attendance : Penalty (number of absences X 3 points demark)   Absences more than 1/4 of classes or 2 times of the exams : F,  Retrainees will be evaluated separately | | | | | | | | | |

Design credit contents: Drawing up basic principles of organic chemistry, you should propose solutions or results of given design problems. Design problems will be included in final exam which is an open-book test.