**II.2.1 ORGANIC CHEMISTRY**

1. **Course description:**
2. **Credit points**: 3 ECTS
3. **Time commitment:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Items | Lecture | Tutorial/  Exercise | Practice/  Assignment | Lab-work | **Total** |
| No. of hours | 24 |  | 6 |  | **30** |

1. **Prerequisites**: Already took Organic Chemistry1 subject in the first academic year
2. **Recommended background knowledge**: N/A
3. **Subject description:**

This course is designed to provide USTH undergraduate students with understanding Organic chemistry, a science which began as a tentative attempt to understand the chemistry of life. It has grown into the confident basis of vast multinational industries that feed, clothe and cure millions of people.

1. **Objectives & Outcome**

Students will be to solve and understand problems from various areas of organic chemistry, including reactivity patterns and mechanism of reactions.

Student will also develop learning strategies, critical-thinking, and problem-solving skills.

1. **Assessment/ Evaluation**

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| --- | --- | --- | --- | --- | --- | --- |
| Component | Attendance | Exercises | Practice | Reports | Midterm | Final |
| Percentage % |  |  |  |  | 30 | 70 |

1. **Prescribed Textbook(s):** N/A

**II.** **Course content & schedule:**

1 Radical and their reactions

2 Electrophilic and Nucleophilic addition to C=C

3 Electrophilic substitution in Aromatic systems

4 Nucleophilic Substitution at a saturated carbon atom

5 Elimination reactions

6 Nucleophilic addition to C=O

7 ENOLATES: Condensation reaction

8 Nucleophilic Acyl Substitution reaction

9 Basicity and reactions of amines

10 Classification and Reaction of Carbohydrates

11 LIPIDS: Fats and oils

12 Classification of aminoacids and sequence analysis of peptides

**III. Reference Literature:**

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| [1]. Selected reading paragraphs together with presentation handouts will be sent to students.  [2]. Bruice, Organic Chemistry, 4th ed |