



**Chulabhorn Graduate Institute**

**0401402 Essential Chemistry for Life Sciences Credits 1 (1-0-2)**

---

**Course Description:**

Essential fundamental chemistry will be reviewed with special emphasis to living systems. The course will cover the basic structures of macromolecules includes carbohydrates, proteins, lipids, DNA and RNA, and their roles in living systems. Interactions of biomolecules with receptor targets, and basic reaction mechanisms focusing on chemical reactions with biological significance will also be covered.

**Course Coordinator:** Chatchakorn Eurtivong, Ph.D.

**Course Category:** Preparatory Course

**Duration:** From 10<sup>th</sup> of June 2021 to 29<sup>th</sup> of June 2021

**Time:** See Schedule

**Place:** 3<sup>rd</sup> Floor (teaching via Zoom application), Chulabhorn Graduate Institute Building

**Grading Scheme:** Examination worth 100%

## Tentative Schedule

<b>Date and Time*</b>	<b>Hours</b>	<b>Topic</b>	<b>Lecturer</b>
10 <sup>th</sup> June, 2021 09:00 - 12:00	3	Introduction to Chemistry for Life Sciences  Structure and Chemistry of Nucleic Acids	Dr. Watthanachai Jumpathong
10 <sup>th</sup> June, 2021 14:00 - 17:00	3	Structure and Chemistry of Carbohydrates, Proteins and Lipids	Assoc. Prof. Prasat Kittakoop
15 <sup>th</sup> June, 2021 09:00 - 12:00	3	Ligand-Target Interactions	Dr. Chatchakorn Eurtivong
15 <sup>th</sup> June, 2021 14:00 - 17:00	3	Physical Chemistry for Life Sciences: Thermodynamics, Acid-Base and Redox Reactions.	Dr. Jaruwan Chatwichien
29 <sup>th</sup> June, 2021 09:00 - 12:00	3	Final Examination	Staff

\*Time schedule may change