

Course Syllabus

1. Course Number 6301501/ 6303502
2. Course Credit 1(1-0-3)3
3. Course Title Perspectives in Petrochemical Technology
Perspectives in Petroleum and Energy Technology
4. Faculty / Department The Petroleum and Petrochemical College
5. Semester 1
6. Academic Year 2020
7. Co-ordinator/ section Asst. Prof. Piya Ouraipryvan , PPC
Office: Room 610
Office Hours: by appointment Phone: 086-398-5603
E-mail: piya.o@chula.ac.th
Line ID: piya-chula
8. Measurement method Letter Grade (S/U)
9. Type of course Year Course
10. Condition Consent of Faculty
11. Status Elective Course
12. Curriculum Master of Science Program in Petrochemical Technology
Master of Science Program in Petroleum and Energy Technology
13. Degree M.S.
14. Hours / Week 15 hr./ June 22 – July 1, 2020
15. Course Description

Perspectives in Petrochemical Technology

Basic concepts of chemistry, chemical engineering and petrochemical technology; an overview of the petroleum and petrochemical industry; enhancement of competency in computer, scientific database and communication skills.

Perspectives in Petroleum and Energy Technology

Basic concepts of chemistry, chemical engineering, petroleum engineering and energy technology; an overview of the petroleum and petrochemical industry; enhancement of competency in computer, scientific database and communication skills.

16. Course Outline

16.1 Behavioral Objectives

	Behavioral Objectives	Learning Outcome*	Teaching Approach*	Evaluation Approach*
1	เพื่อให้บัณฑิตมีความรู้ในภาพรวมของอุตสาหกรรมปิโตรเคมี/ ปิโตรเลียมและเทคโนโลยีพลังงานเพื่อการประยุกต์ใช้ในชีวิตประจำวัน To give students an overview of the petrochemical/ petroleum industry and energy technology for daily life application.	Better understanding about the overview of the Petroleum and Petrochemical Industries. Receiving some updated information in the industries. Learning and improving some English skills to apply in this international graduate programs	Online lecturing with some interactive Q/A and discussion.	Interview students after the course is ended by the advisor and/or course instructors.
2	เพื่อให้บัณฑิตมีความรู้ในการสืบค้นข้อมูล และการติดต่อสื่อสาร To give students have the knowledge to investigate Information search and communication.	Searching skills through internet and other means. Better English communication skills with future instructors.	Lecturing with examples and some practices.	Test by advisor and/or instructors.

16.2 Contents

Week	Description	Behavioral Objectives (from 16.1)	Student Assignment
1	Lecture, discussion, and assignment.	Same as mentioned in 16.1.	Exercises and discussion.
2	Lecture, discussion, and assignment.	Same as mentioned in 16.1.	Exercise and discussion.

16.3 Teaching Media

☐ White/blackboard
 ☐ transparent sheets
 ☒ Power point media
 ☒ electronic media, web sites
☒ Other (please specify)...video.clips....

16.4 Communication with students through social networks

16.4.1 Form and Usage:
 ☒ Email
 ☐ Facebook
 ☐ Twitter
☒ Other (please specify)...Line.Group....

16.4.2 Learning Management System
☐ Blackboard
☐ Moodle
☒ Other (please specify)...On-line.

16.5 Students Consultation 2-5 Hour/Week

16.6 Assessment

Activities Assessed	%
Discussion & Assignment	100

Assessment Criteria

.....Pass and fail based on performance, attendance, and participation.....

17. Reading List

17.1 Required Texts

1. assigned by each instructor and/or guest speaker
2.
3.
4.

17.2 Supplementary Texts

1. assigned by each instructor and/or speaker
2.
3.
4.

17.3 Research/Academic Articles (if any)

1. assigned by each instructor and/or speaker
2.
3.
4.

17.4 Related Electronic Media or Websites

1. assigned by each instructor and/or speaker
2.
3.
4.

18. Teaching Evaluation

18.1 Evaluation ☒ through the PPC system ☐ Other (please specify).....

18.2 Changes made in accordance with previous teaching evaluation

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19. Remark

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***Notes**

Desired Characteristics of Chulalongkorn University Graduates			
Outcomes			
1	Being knowledgeable	1.1	Possessing well-rounded knowledge
		1.2	Possessing in-depth knowledge
2	Having good morals	2.1	Being moral and ethical
		2.2	Having an awareness of etiquette
3	Having higher order thinking skills	3.1	Being able to think critically
		3.2	Being able to think creatively
		3.3	Having skills in problem solving
4	Possessing essential capabilities	4.1	Having professional skills
		4.2	Having communication skills
		4.3	Having skills in information technology
		4.4	Having mathematical and statistical skills
		4.5	Having management skills
5	Having an inquiring mind and knowing how to learn	5.1	Having an inquiring mind
		5.2	Knowing how to learn
6	Having leadership qualities		
7	Maintaining well-being		
8	Being community-minded and possessing social responsibility		
9	Sustaining Thainess in a globalized world		

Teaching Methods	
1	Lecture
2	Discussion
3	Seminar
4	Deductive
5	Inductive
6	Case
7	Role playing
8	Field work
9	Field trip
10	Simulation
11	Dramatization
12	Demonstration
13	Learning center

14	Game
15	Experiment
16	Programmed instruction/ Computer-aided instruction/ Blended learning/ Online learning
17	Practice
18	Practicum (including teaching practicum)
19	Research-based instruction
20	Problem-based instruction
21	Reflective thinking
22	Inquiry-based instruction
23	Independent study
24	Self-directed learning
25	Project-based instruction
26	Learning from model persons/learned persons
27	Micro teaching
28	Supervision
29	Cooperative learning
30	Individual advice
31	Tutorial group
32	Brain storming
33	Summary of main topics, or presentation of reading assignment
34	Apprentice
35	Activities
36	Clinical bed-side teaching or patient-based learning
37	Practice in behavior manifestation
38	Observation trip
39	Self study
40	Others (Please specify)

Evaluation Methods	
1	Written examination
2	Oral examination
3	Skills examination
4	Behavior observation
5	Assessment of work processes/activity roles
6	Assessment of output/lessons based on students' experience
7	Homework assessment
8	Report/Project assessment
9	Diary/Journal assessment
10	Performance testing
11	Assessment of report criticism/presentation
12	Assessment of result of team-work effort
13	Self assessment
14	360 Degrees assessment
15	Peer assessment
16	Oral presentation
17	Class attendance
18	Others (Please specify)