

COURSE SYLLABUS

1. Program information

1.1. Institution	Petroleum – Gas University of Ploiești
1.2. Faculty	Petroleum Technology and Petrochemistry
1.3. Department	Petroleum Processing Engineering and Environmental Protection
1.4. Field of study	Chemical Engineering
1.5. Study cycle	Master
1.6. Study program	Chemical Engineering for Refineries and Petrochemistry

2. Course information

2.1. Course title	Project management in the chemical industry		
2.2. Course coordinator	Prof. Dragoș Ciuparu		
2.3. Laboratory / seminar coordinator	Prof. Dragoș Ciuparu		
2.4. Project coordinator	Prof. Dragoș Ciuparu		
2.5. Year of study	2		
2.6. Semester *	3		
2.7. Evaluation type	Exam		
2.8. Course type - formative category **	DC	2.9. Type of subject matter ***	C

* the semester number is in accordance with the curriculum;

** fundamental = DF; domain = DD; speciality = DS; complementary = DC; thoroughgoing = DA; synthesis = DSI.

*** compulsory = C; optional = O; elective = E

3. Total estimated time (teaching hours per semester)

3.1. Number of hours per week	4	of which: 3.2. course	2	3.3. Seminars/laboratories	1	3.4. Project	1
3.5. Total hours from curriculum	40	of which: 3.6. course	20	3.7 Seminars/laboratories	10	3.8 Project	10
3.9 Time distribution							hours
Study of textbook, course support, bibliography and notes							13
Further reading in the library, on online platforms and fieldwork							10
Preparing seminars / laboratories, homework, portfolios and essays							7
Tutoring							
Examinations							2
Other activities							
3.10. Total hours of individual study							32
3.11. Total hours per semester							72
3.12. Number of credits							4

4. Prerequisites (where applicable)

4.1. of curriculum	<ul style="list-style-type: none"> ➤ General knowledge of economy and management ➤ General knowledge of chemical engineering
4.2. of skills	<ul style="list-style-type: none"> ➤ General management skills; ➤ General chemical engineering design skills;

5. Requirements (where applicable)

5.1. of course	➤ Room with projector
5.2. of seminars/laboratory	➤ Room with computers connected to the internet;

6. Specific competences

Professional competences	<ul style="list-style-type: none"> ➤ Description, analysis and advanced utilization of engineering concepts and fundamental theories in petroleum refining; ➤ Modeling, simulation and design of chemical processes.
Cross-curricular competences	<ul style="list-style-type: none"> ➤ Documentation, information and scientific literature research; ➤ Independent and autonomous achievement of individual professional tasks; ➤ Advanced knowledge of computer, internet and specific chemical engineering software; ➤ Management organization and planning of professional teams and organizations.

7. Course objectives (based on the competence grid)

7.1. General objective	<ul style="list-style-type: none"> ➤ Students are able to plan project activities and organize a project team, allocate resources, control and monitor implementation and elaborate project documents.
7.2. Specific objectives	<ul style="list-style-type: none"> ➤ Learn how to organize and lead a project team; ➤ Learn how to allocate financial and time resources for project implementation; ➤ Learn how to use project management software; ➤ Learn how to analyse risks and develop contingency plans.

8. Contents

8.1. Course	Time	Teaching methods	Comments
1. Introduction	1	Multimedia techniques	
2. Types of projects in the chemical industry	2	Multimedia techniques	
3. Project management and managerial models	6	Multimedia techniques	
4. Project management processes	8	Multimedia techniques	
5. Project management information platforms	3	Multimedia techniques	
Bibliography			
1. A guide to the project management body of knowledge (PMBOK® guide). -- Fifth edition, Project Management Institute			
2. Oracle Primavera® P6™ Project Management Reference Manual			
8.2. Seminar / laboratory	Time	Teaching methods	Comments
1. Enterprise Project Portfolio;	2	Hands-on, interactive	

2. Organizational Breakdown Structure;	2	Hands-on, interactive	
3. Project Work Breakdown Structure;	2	Hands-on, interactive	
4. Project resources;	2	Hands-on, interactive	
5. Project implementation, control and monitoring.	2	Hands-on, interactive	
Bibliography			
1. A guide to the project management body of knowledge (PMBOK® guide). -- Fifth edition, Project Management Institute			
2. Oracle Primavera® P6™ Project Management Reference Manual			
8.3. Project	Time	Teaching methods	Comments
1. Defining project statement of work and work breakdown structure;	2	Hands-on, interactive	
2. Building project implementation graphic;	2	Hands-on, interactive	
3. Allocating project resources;	2	Hands-on, interactive	
4. Project implementation, control and monitoring;	2	Hands-on, interactive	
5. Project documents.	2	Hands-on, interactive	
Bibliography			
1. A guide to the project management body of knowledge (PMBOK® guide). -- Fifth edition, Project Management Institute			
2. Oracle Primavera® P6™ Project Management Reference Manual			

9. Correlation of the course contents with the demands of the epistemic community representatives, professional associations and representative employers in the field of the program

- The course syllabus was developed in cooperation with representatives of engineering companies in Ploiești and Bucharest that have hired graduates of similar master programs.

10. Evaluation

Activity	10.1. Evaluation criteria	10.2. Evaluation methods	10.3. Percentage of final grade
10.4. Course	Quality of a project management plan developed	Practical	75%
10.5. Seminar / laboratory	Degree of completion of lab assignments	Practical	5%
10.6. Project	Completion of design project	Practical	20%
10.7. Minimum performance standard			
➤ Students complete their project work with satisfactory results;			
➤ Students are capable to elaborate an original project implementation plan and implement the project in an information system for project management.			

