

西安交通大学《项目管理》课程教学大纲

一、课程基本信息

课程名称	项目管理		
	Project Management		
课程编号			
课程学分	2	总学时	32
学时分配	授课:32		
课程类型	<input type="checkbox"/> 公共课程 <input type="checkbox"/> 通识课程 <input type="checkbox"/> 学科门类基础课 <input type="checkbox"/> 专业大类基础课 <input type="checkbox"/> 专业核心课 <input checked="" type="checkbox"/> 专业选修课 <input type="checkbox"/> 集中实践		
开课学期	<input type="checkbox"/> 1-1 <input checked="" type="checkbox"/> 1-2 <input type="checkbox"/> 2-1 <input type="checkbox"/> 2-2 <input type="checkbox"/> 3-1 <input type="checkbox"/> 3-2 <input type="checkbox"/> 4-1 <input type="checkbox"/> 4-2 <input type="checkbox"/> 5-1 <input type="checkbox"/> 5-2		
先修课程 Prerequisite Courses			
教材、参考 书及其他 资料	参考书 Bibliographies: Project Management Techniques, Rory Burke, Rory Burke Publishing Mauro Mancini, Costanza Mariani, Quantitative tools for a smart project management , Editore: Esculapio, Anno edizione: 2021, ISBN: 9788893852548		

二、课程目标及学生应达到的能力（工科专业对标工程教育认证标准中专业毕业要求的 12 条具体指标点，其他专业对标行业/评估标准中专业毕业要求的具体指标点）

II Course Objectives (by the end of the lesson students will be able to...)

The course aims at developing the basic competence to apply Project Management techniques and tools along the project life cycle (scope, time, resource, cost, quality, risk, cash flow, stakeholder...), with particular attention to engineering & contracting projects.

At the end of the course the student will be able to:

- Apply a range of tools and approaches for the project planning and control in specific situations
- Identify and manage the scope of a project at different levels of detail
- Interact effectively in a project team in order to improve the project performance
- Identify and manage stakeholders and risks involved in a project

课程目标与专业毕业要求的关联关系

Correlation between course objectives and graduation requirements
for the program

毕业要求：

Students of this program should meet the following graduation requirements:

A. Master extensive theories on engineering and technology, humanities, social sciences, natural sciences, etc, demonstrate high scientific literacy, strong humanistic and artistic dispositions, and physical and mental wellbeing;

B. Have solid theoretical knowledge of industrial design, and master the knowledge related to product and its development, design, aesthetics, engineering, technology, management, planning, teamwork, professional ethics, etc.;

C. Master methods and skills of industrial design and related fields, be able to apply multidisciplinary knowledge into reality, and have strong expression, creation, practical, problem analysis and solving skills in the field of design;

D. Have good communication skills, teamwork spirit, a strong sense of social responsibility, and international vision, and be capable of applying interdisciplinary knowledge in pioneering work.

毕业要求 课程目标	A	B	C	D
1				
2				
3				
4				
5				

注：毕业要求中 A、B、C、D、E、F、G、…对应毕业要求中各项具体内容；H、

M、L 分别表示该课程目标对毕业要求相关项的强、中、弱程度。

Note: A, B, C and D indicate the specific aspects of the graduation requirements. H, M and L refer to a strong, medium and weak correlation of the course objectives to the graduation requirements respectively.

三、教学内容简介

Description of teaching contents

章节顺序	章节名称	知识点	参考学时
	Chapter Title	Teaching Points	Credit Hours
1	<i>Project and Project Management</i>	Repetitive and non-repetitive processes. Project: features, types, success factors, performance indicators, stakeholders. Project life cycle. Operational, managerial and organizational processes. Project, program and portfolio management. International Standards. Project Management Body of Knowledge. Project Management System.	
2	<i>Engineering & Contracting:</i>	Extended project life cycle: marketing, competitive bidding, contract and contract management, operation. Project start up. Project execution: basic engineering, detailed engineering, procurement, construction, commissioning and testing. Interdependences between operational processes. Project organization.	
...	<i>Stakeholder management:</i>	identification, classification and management.	
	<i>Scope management:</i> .	Scope of work planning and control. Work Breakdown Structure. Rules and criteria for building the project WBS. Work package. Standardization of WP	
	<i>Time management:</i>	Network analysis, early and late schedule, total float. Activity duration	

		and resource allocation. Resource scheduling. Scheduling under uncertainty. PERT approach. Critical chain approach. Schedule control.	
	Cost management:	cost classification, cost estimating, cost baselining, cost control. Project cash flow. Project balance.	
	Earned Value Management:	integrated control of project time and cost. Project performance indicators. Earned Value. Estimate to complete. Control process. Final performance of the project.	
	Risk management:	Risk definition and classification. Risk management processes: identification of threats and opportunities, risk assessment and identification of response actions. Quantitative analysis of project residual risk. Simulation. Size of the contingency reserve. Project robustness and flexibility	
	Managing projects with Agile methods: .	Project anticipation and adaptability to change; traditional, iterative, incremental and agile project's lifecycles. Differences between agile and waterfall methods, need to develop new process to cope with change and instability, the context of application of Agile tools & Techniques	
	Tool & techniques of Agile Project Management :	communication area, Planning monitoring and control area, agile estimation, interpersonal skills, risk management, value based prioritization.	
	Working in Scrum:	Vision; Product Roadmap; Release planning; Sprint Planning; Daily Scrum; Sprint Review; Sprint Retrospective.	

四、教学安排详表

Teaching Arrangements

序	教学内容	学 时	教学方	教学要求	对课程目
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号	Teaching contents	分配 Credit Hours	式 Teaching Methods	(知识要求及能力要求) Learning Objectives (knowledge objective & ability objective)	标的支撑 关系 Related to which Course Objective
1				1. 2. 3. 4.	
2					
...					

注：对课程目标的支撑关系可填写大纲中第二部分课程目标的相应序号。

The column "Related to which Course Objective" can be filled in with the number of the corresponding course objective in Part II.

五、实践环节 Studio/Lab

实验编号 No.	实验名称 Subject Name	实验内容 Contents	教学方法 Teaching Methods	对课程目标的 支撑关系 Related to which Course Objective
1				
2				
3				

注：对课程目标的支撑关系可填写大纲中第二部分课程目标的相应序号

六、课外学时分配 Extracurricular Practice

章节顺序	内容 Contents	参考学时 Credit Hours	对课程目标的 支撑关系 Related to which Course Objective
1			
2			
...			

注：对课程目标的支撑关系可填写大纲中第二部分课程目标的相应序号。

七、考核方式及成绩构成 Evaluation and Composition of Grades

Besides lectures and practical exercises, the course is based on the development by student teams of a plan of a simple project (including scope, time, resource, progress, and cost management). The completion of the team assignment is a prerequisite (just for 10 etc participans, for all the others is volunteer) for accessing the final test and will it be presented in a final Hackathon where companies' managers are involved. Participation in class is strongly recommended and positively evaluated.

The final test includes both a written and an oral part, having the same weight for the final mark. The written test concerns the solution of some quantitative exercises seen during exercise sessions. Oral exam is about the subjects introduced during the lectures.

e.g. 40 % for group assignments, 60% for ndividual written test

<本部分构成及考试方式可根据具体课程定制> Depending on the

course

大纲制定者：_____

大纲审核者：xxx

最后修订时间：年月日