

**Republic of Iraq**  
**Ministry of Higher**  
**Education and Scientific**  
**Research**  
**Supervision and Scientific**  
**Evaluation Apparatus**



**College: Shatt Al-Arab University**  
**Department: Civil Engineering**  
**Stage: 3<sup>rd</sup> stage**  
**Lecturer name: Mohammed Mustafa**  
**Mohammed Nooruldin Ars**  
**Academic title: Lecturer**

### Course Weekly Outline

<b>Name</b>	Mohammed Mustafa Mohammed Nooruldin Ars
<b>E-mail address</b>	Muhamad.mustafa.muhamad@sa-uc.edu.iq
<b>Course name</b>	Engineering Management -1
<b>Course objective</b>	The course aims to introduce the fundamentals of project management with a special focus on the planning phase. This is to pave the way for the student to learn more aspects about project management in the second semester
<b>Course description</b>	<p>A1- Introduction to project management, the need for project management in the construction industry, organizational impacts and project life cycle, project management processes and integration management.</p> <p>A2- Managing the scope, time and cost of projects.</p> <p>A3- Resource and quality management</p> <p>B - The skills objectives of the course.</p> <p>B1 - Schedule management plan, identifying events and their sequence, estimating event resources and durations, and leveling resources</p> <p>B2 - Apply key project planning and scheduling techniques including CPM, PERT and LOB</p>
<b>References</b>	A Guide to the project management body of knowledge - PMI
<b>External sources</b>	A Guide to the project management body of knowledge - PMI

Course assessment	Lab.	Quizzes and assessment	Mid-term exam	Final exam
		10	30	60
General notes				

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Week No.	Theoretical	Experimental	Aims
1		Introduction to project management	Teaching undergraduate students how to deal with applied engineering programs such as the EPANET program used to analyse and For water network design, as well as the Microsoft Project program used in planning construction projects, estimating costs and project completion time, and controlling projects.
2		Project planning	
3		Project planning	
4		Bar chart (Gantt chart)	
5		Bar chart (Gantt chart)	
6		network analysis method (arrow method)	
7		network analysis method (Rectangles method)	
8		Critical Path Method (CPM )	
9		How to manage project resources in a (Leveling )	
10		How to manage project resources in a (Scheduling)	

<b>11</b>		How to solve the diagram in a way ( PERT )	
<b>12</b>		How to solve the diagram in a way ( PERT )	
<b>13</b>		How to draw recurring charts LOB method	
<b>14</b>		How to draw recurring charts LOB method	
<b>15</b>		How to draw recurring charts LOB method	