Ministry of Science Research and Technology

DANESHPAJOOHAN PISHRO
Higher Education Institute

2022

Bachelor of Science in Project Management Engineering

DANESHPAJOOHAN PISHRO HIGHER EDUCATION INSTITUTE

- COURSE CHART
- SEMESTER CHART

Bachelor of Science in Project Management Engineering

Pre-requisite Courses

Course Code	Course Title	Credits	Theoretical	Practical	Pre-requisite	Simultaneous
1.	Pre-University Mathematics	3	3	0	-----	-----
2.	Pre-University English	3	3	0	-----	-----
Total Credits		6				

General Courses

Course Code	Course Title	Credits	Theoretical	Practical (2 hours)	Pre-requisite	Simultaneous
3.	English Language	3	3	0	-----	-----
4.	Persian Language	3	3	0	-----	-----
5.	Islamic Thoughts-I	2	2	0	-----	-----
6.	Physical Education-I	1	0	1	-----	-----
7.	Applied Ethics	2	2	0	-----	-----
8.	Family Management	1	1	0	-----	-----
9.	Physical Education-II	1	0	1	Physical Education-I	-----
10.	Islamic Thoughts-II	2	2	0	Islamic Thoughts-I	-----
11.	Islamic Revolution of Iran	2	2	0	-----	-----
12.	Analytical History of Islam	2	2	0	-----	-----
13.	The Quran Exegesis	2	2	0	-----	-----
Total Credits		21	Note: Only one course between “Physical Education-I” and “The Quran Exegesis” shall be taken.			

Science Courses

Course Code	Course Title	Credits	Theoretical	Practical (2 hours)	Pre-requisite	Simultaneous
14.	Physics-I	3	3	0	-----	-----
15.	Physics Lab-I	1	0	1	-----	Physics-I
16.	Physics-II	3	3	0	Physics-I	-----
17.	Physics Lab-II	1	0	1	-----	Physics-II
18.	Mathematics-I	3	3	0	-----	-----
19.	Mathematics-II	3	3	0	Mathematics-I	-----
20.	Differential Equations	3	3	0	-----	Mathematics-II
21.	Computer Programming	3	3	0	Mathematics-I	-----
22.	Numerical Calculations	3	3	0	Computer Programming	-----
23.	Engineering Statistics and Probability	3	3	0	Mathematics-I	-----
Total Credits		26				

Engineering Project Management Courses

Course Code	Course Title	Credits	Theoretical	Practical	Pre-requisite	Simultaneous
24.	General Workshop-I	1	0	1-3 hours	-----	-----
25.	General Workshop-II	1	0	1-3 hours	General Workshop-I	-----
26.	General Cartography	2	1	1-3 hours	General Mathematics-I	-----
27.	Statics	3	3	0	Application of Mathematics in Management	-----
28.	Strength of Materials-I	3	3	0	Statics	-----
29.	Engineering Economics	2	2	0	-----	-----
30.	Production Process	3	3	0	General Workshop-II	-----
31.	Engineering Management	3	3	0	-----	-----
32.	Fundamentals of Electrical Engineering	3	3	0	Physics-II	-----
33.	Fundamentals of Electricity Lab	1	0	1-2 hours	-----	Fundamentals of Electrical Engineering
34.	Project Management Standards	2	2	0	Engineering Statistics and Probability, Engineering Management	-----
35.	Workshop and Human Resources Management	2	2	0	Engineering Management	-----
36.	Workshop Safety Management	2	2	0	Workshop and Human Resources Management	-----
37.	Value Engineering (*)	3	2	1	Project Management Standards	-----
38.	Planning and Project Control	2	2	0	Engineering Management, Project Management Standards	-----
39.	Financial Management and Project Accounting	2	2	0	Project Management Standards	Metering and Estimation
40.	Principles and Regulations of Contract	2	2	0	Laws Governing Projects	-----
41.	Laws Governing Projects	2	2	0	Engineering Management	-----
42.	Construction Methods-I	2	2	0	Executive Design-I	-----
43.	Construction Methods-II	2	2	0	Executive Design-II	-----
44.	Constructional and Infrastructural Facilities	3	3	0	Fundamentals of Electrical Engineering, Architectural and Urban Planning Design.	-----
45.	Structural Repairing and Retrofitting	3	3	0	Executive Design-I, Executive Design-II	-----
46.	Construction Machines	2	2	0	Principles of Soil and Foundation Mechanics Lab	-----
47.	Metering and Estimation	2	1	1	Architectural and Urban Planning Design.	-----
48.	Principles and Techniques of Supervision	1	1	0	-----	Construction Methods-I, Construction Methods-II
49.	English For Engineering Project Management	2	2	0	(Final year)	-----

50.	Engineering Project Management Internship	0	0	0	(Final year)	-----
51.	Construction Materials and Lab	2	1	1-2 hours	General Workshop-II	-----
52.	Concrete Technology and Lab	2	1	1-2 hours	Materials Strength-I, Construction Materials and Lab	-----
53.	Executive Design-I	2	2	0	Concrete Technology and Lab, Structure Analysis-I	-----
54.	Executive Design-II	2	2	0	Structure Analysis-I	-----
55.	Structure Analysis-I	3	3	0	Materials Strength-I	-----
56.	Principles of Soil and Foundation Mechanics Lab	3	2	1-2 hours	Statics	-----
57.	Loading Project (**)	1	0	1	Structure Analysis-I	-----
58.	Architectural and Urban Planning Design.	2	2	0	General Cartography	-----
Total Credits		73	(*) One credit of the course will be provided to you as practical project. (**) This course will be provided to you as practical project.			

Engineering Project Management Elective Courses (*)- Under Management Category- Chart-I

Course Code	Course Title	Credits	Theoretical	Practical	Pre-requisite	Simultaneous
59.	Crisis and Risk Management	1	1	0	Project Management Standards	-----
60.	Project Control Software	1	1	0	Principles and Techniques of Supervision, Planning and Project Control	-----
61.	Operation Research-I	3	3	0	-----	-----
62.	Purchasing, Storekeeping and Distribution Systems	3	3	0	Project Management Standards	-----
63.	Human Factors Engineering	3	3	0	Workshop Safety Management	-----
64.	Statistical Quality Control	3	3	0	Quality and Efficiency Management, Engineering Statistics and Probability	-----
65.	Quality and Efficiency Management	3	3	0	Engineering Management	-----
66.	Budgeting and Control Process	3	3	0	Financial Management and Project Accounting	-----
Total Credits		20	(*) At least 4 credits have to be earned from the chart above. (The maximum allowed number of credits earned from the chart above is 13 credits.) Note: The total number of Elective credits needed to graduate (In accordance with the minimum number of credits needed in each chart)			

Engineering Project Management Elective Courses (*)- Under Executive Category- Chart-II

Course Code	Course Title	Credits	Theoretical	Practical	Pre-requisite	Simultaneous
67.	Road Construction and Pavement	2	2	0	Principles of Soil and Foundation Mechanics Lab, Surveying and Operation	-----
68.	Surveying and Operation	2	1	1-2 hours	General Mathematics-I, General Cartography	-----
69.	Hydraulic Structures and Tunnels	2	2	0	Executive Design-I, Principles of Soil and Foundation Mechanics Lab	-----
70.	Principles of Contract and Dispute Resolution	2	2	0	Principles and Regulations of Contract, Metering and Estimation	-----
71.	Energy Optimization in Buildings	2	2	0	Architectural and Urban Planning Design.	-----
72.	Metering and Estimation Software	2	2	0	Metering and Estimation	-----
73.	Environmental Principles in Construction	2	2	0	Workshop Safety Management	-----
74.	Industrial Buildings Construction	2	2	0	Construction Methods-II, Executive Design-II	-----
75.	Bridge Construction	2	2	0	-----	Construction Methods-I, Construction Methods-II
Total Credits		18	(*) At least 4 credits have to be earned from the chart above. (The maximum allowed number of credits earned from the chart above is 13 credits.) Note: The total number of Elective credits needed to graduate (In accordance with the minimum number of credits needed in each chart)			

Engineering Project Management Elective Courses (*)- Under Design Category- Chart-III

Course Code	Course Title	Credits	Theoretical	Practical	Pre-requisite	Simultaneous
76.	Engineering Drawing Reading	1	1	0	Principles of Soil and Foundation and Lab Mechanic, Surveying and Operation	-----
77.	Applications of Computer in Engineering Project Management	2	2	0	Numerical Calculations, Structure Analysis-I	-----
78.	Hydrology and Water/Wastewater Engineering	2	2	0	Engineering Statistics and Probability, Fluid Mechanics	-----
79.	Structure Analysis-II	3	3	0	Structure Analysis-I	-----
80.	Fluids Mechanics	2	2	0	Statics	Differential Equations
81.	Principles of Earthquake Engineering	3	3	0	Structure Analysis-II	-----
82.	Masonry Structures Design	1	1	0	Construction Materials and Lab, Structure Analysis-I	-----
Total Credits		14	(*) At least 4 credits have to be earned from the chart above. (The maximum allowed number of credits earned from the chart above is 13 credits.) Note: The total number of Elective credits needed to graduate (In accordance with the minimum number of credits needed in each chart)			
Total Credits (Including Pre-requisite Courses)		147				
Total Credits (Not Including the Pre-requisite Courses)		141				

Project Management Engineering -B.Sc.

Semester Chart

Total	Guide		Course Title		Semester
	EPM Engineering Project Management	**G** General Course			
	S Science	**E1** Elective Courses Under Management	Credits	Course type	
	E2 Elective Courses Under Executive Category	**E3** Elective Courses Under Design Category			

19	General Workshop-I		Physics Lab-I		General Cartography		English Language		Engineering Management		Persian Language		Mathematics-I		Physics-I		**1**
	1	EPM	1	S	2	EPM	3	G	3	EPM	3	G	3	S	3	S	
18	General Workshop-II		Physics Lab-II		Architectural and Urban Planning Design.		Laws Governing Projects		Production Process		Statics		Mathematics-II		Physics-II		**2**
	1	EPM	1	S	2	EPM	2	EPM	3	EPM	3	EPM	3	S	3	S	
20	Family Management		Physical Education-I		Metering and Estimation		Construction Materials and Lab		Principles of Soil and Foundation mechanics Lab		Strength of Materials-I		Computer Programming		Engineering Statistics and Probability		**3**
	2	G	2	G	2	EPM	2	EPM	3	EPM	3	EPM	3	S	3	S	
18	Physical Education-II		Fundamentals of Electricity Lab		Engineering Economics		Concrete Technology and Lab		Structure Analysis-I		Fundamentals of Electrical Engineering		Numerical Calculations		Differential Equations		**4**
	1	G	1	EPM	2	EPM	2	EPM	3	EPM	3	EPM	3	S	3	S	
17	Metering and Estimation Software		Surveying and Operation		Islamic Thoughts-I		Workshop and Human Resources Management		Construction Machines		Constructional and Infrastructural Facilities		Analytical History of Islam		Executive Design-I		**5**
	2	E2	2	E2	2	G	2	EPM	2	EPM	3	EPM	2	G	2	EPM	
17	Operation Research-I		Quality and Efficiency Management		Islamic Thoughts-II		Loading Project		Construction Methods-I		Executive Design-II		Principles and Regulations of Contract		Project Management Standards		**6**
	3	E1	3	E1	2	G	1	EPM	2	EPM	2	EPM	2	EPM	2	EPM	
17	Structure Analysis-II		Energy Optimization in Buildings		Structural Repairing and Retrofitting		The Quran Exegesis		Principles and Techniques of Supervision		Construction Methods-II		Financial Management and Project Accounting		**P**lanning and Project Control		**7**
	3	E3	2	E2	3	EPM	2	G	1	EPM	2	EPM	2	EPM	2	EPM	
17	Principles of Earthquake Engineering		Applications of Computer in Engineering Project Management		Applied Ethics		Islamic Revolution of Iran		English For Engineering Project Management		Engineering Project Management Internship		Workshop Safety Management		Value Engineering		**8**
	3	E**3**	2	E**3**	2	G	2	G	2	EPM	2	EPM	2	EPM	2	EPM	