

INS0387 Planning Techniques					
Semester	Course Code	Course Name	L+P	Credit	ECTS
6	INS0387	Planning Techniques	3	4	4

**Language of Instruction:**

Turkish

**Course Level:**

Faculty

**Work Placement(s):**

No

**Department / Program:**

Civil Engineering

**Course Type:**

Zorunlu Seçmeli

**Goals:**

Teaching planning techniques with planning concept, Teaching input-output technique, Teaching various project evaluation techniques.

**Teaching Methods and Techniques:**

Planning of investments. Critical path method (CPM). Estimation of activity duration. Direct costs of activities. Relationships between activities. Network formation and determination of critical path. Activity floats. Estimation of spare times. Critical path – bar chart transformation. Revision of investment program. MPM method. PERT method. GANTT method and tables. Factors affecting time overruns of investments.

**Prerequisites:**

**Course Coordinator:**

**Instructors:**

Asst. Prof. Dr. Işık Ateş KIRAL

**Assistants:**

**Recommended Sources**

<b>Textbook</b>	: It can be downloaded from the BTU Ecampus website.
<b>Resources</b>	: Hinze, J. (2008). Construction planning and scheduling (Vol. 3). Upper Saddle River (NJ): Pearson Prentice Hall.
<b>Documents</b>	:
<b>Assignments</b>	:
<b>Exams</b>	:

**Course Category**

<b>Mathematics and Basic Sciences</b>	: 30	<b>Education</b>	:
<b>Engineering</b>	: 70	<b>Science</b>	:
<b>Engineering Design</b>	:	<b>Health</b>	:
<b>Social Sciences</b>	:	<b>Field</b>	:

**Course Content**

Week	Topics	Study Materials	Materials
1	OryantasyonPlanlamaya Giriş		OrientationIntroduct
2	Planlamaya GirişBir Ağ Modeli Geliştirme		Introduction to Plan
3	Bir Ağ Modeli Geliştirme		Developing a Netwo
4	Öncelik Diyagramları		Precedence Diagram
5	Öncelik Diyagramları		Precedence Diagram
6	Temel Olasılık ve İstatistikAktivite Sürelerinin Belirlenmesi		Basic Probability and
7	Aktivite Sürelerinin Belirlenmesi		Determining Activity
8	Aktivite Sürelerinin BelirlenmesiKaynak Tahsisi ve Kaynak Seviyelendirme		Determining Activity
9	Kaynak Tahsisi ve Kaynak Seviyelendirme		Resource Allocation
10	Kaynak Tahsisi ve Kaynak Seviyelendirme		Resource Allocation
11	Para ve Ağ Diyagramları		Money and Network
12	Para ve Ağ DiyagramlarıKazanılmış Değer Analizi		Money and Network
13	Kazanılmış Değer AnaliziOk Diyagramları		Earned Value Analy
14	Ok DiyagramlarıDoğrusal Planlama		Arrow DiagramsLine

**Course Learning Outcomes**

No	Learning Outcomes
C01	Learning the basics of planning and scheduling
C02	Understanding the basics of statistics and probability.
C03	Understanding the tools and techniques used in project planning and control

**Program Learning Outcomes**

No	Learning Outcome
P01	Adequate knowledge in mathematics, science and related engineering disciplines; ability to use theoretical and practical knowledge in these areas in complex engineering problems.
P02	Ability to identify, interpret, formulate and solve complex engineering problems; ability to select and apply appropriate methods for this purpose.
P03	Ability to design a complex system, process, device or product under realistic constraints and conditions to meet specific requirements; ability to apply modern design methods for this purpose.
P07	Ability to communicate effectively in written and verbal Turkish; knowledge of at least one foreign language; ability to write effective reports and understand written reports; to prepare production and design reports; to make effective presentations; to give and receive clear and understandable instructions.
P08	Awareness of the necessity of lifelong learning; the ability to access information, to follow developments in science and technology, to constantly renew oneself.
P04	Ability to select and use modern techniques and tools required for the analysis and solution of complex problems encountered in engineering applications; ability to use information technologies effectively.
P05	Ability to design and conduct experiments, collect data, analyze and interpret results in order to investigate complex engineering problems or discipline-specific research topics.
P06	Ability to work effectively in disciplinary and multidisciplinary teams; ability to work individually.
P09	Acting in accordance with ethical principles, awareness of professional and ethical responsibility; knowledge of standards used in engineering practices.
P10	Knowledge of project management, risk management and change management in engineering practice; awareness of entrepreneurship and innovation; knowledge about sustainable development.
P11	Knowledge about global and social effects of engineering applications on health, environment and safety with contemporary engineering problems; awareness of the legal consequences of engineering solutions.

Assessment			ECTS Allocated Based on Student Workload			
In-Term Studies	Quantity	Percentage	Activities	Quantity	Duration	Total Work Load
Mid-terms	1	%40	Course Duration	13	4	52
Quizzes	0	%0	Hours for off-the-c.r.stud	13	3	39
Assignment	0	%0	Assignments	1	8	8
Attendance	0	%0	Presentation	0	0	0
Practice	0	%0	Mid-terms	1	2	2
Project	0	%0	Practice	0	0	0
Final examination	1	%60	Laboratory	0	0	0
<b>Total</b>		<b>%100</b>	Project	0	0	0
			Final examination	1	2	2
			Study period for final exams	1	8	8
			Study period for mid-term exams	1	9	9
			<b>Total Work Load</b>			<b>120</b>
			<b>ECTS Credit of the Course</b>			<b>4</b>

Course Contribution To Program											
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant											
	P01	P02	P03	P04	P05	P06	P07	P08	P09	P10	P11
All	5	4	4	5	4	4	5	3	5	3	4