

COMPUTER APPLICATIONS IN DESIGN OF STRUCTURAL SYSTEMS

1	Course Title:	COMPUTER APPLICATIONS IN DESIGN OF STRUCTURAL SYSTEMS	
2	Course Code:	INS4046	
3	Type of Course:	Optional	
4	Level of Course:	First Cycle	
5	Year of Study:	4	
6	Semester:	8	
7	ECTS Credits Allocated:	4.00	
8	Theoretical (hour/week):	2.00	
9	Practice (hour/week):	3.00	
10	Laboratory (hour/week):	0	
11	Prerequisites:	None	
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Prof. Dr. Ramazan LİVAOĞLU	
15	Course Lecturers:	Doç. Dr. Ramazan LİVAOĞLU	
16	Contact information of the Course Coordinator:	adogangun@uludag.edu.tr	
17	Website:	http://insaat.uludag.edu.tr/	
18	Objective of the Course:	To use common computer programs to provide a numerical idealization and its application for the structural problems having complexity.	
19	Contribution of the Course to Professional Development:		
20	Learning Outcomes:		
		1	Ba able to define and idealize structural problems
		2	Be able to describe the limitations of the problem method in providing solution and to derive mathematical modelling
		3	Be able to analyze complex structural problems to reach certain results
		4	Be able to gather data, analyze and evaluate the results
		5	Be capable to apprehensible present the results
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21	Course Content:		
		Course Content:	
Week	Theoretical	Practice	
1	A general outline of the package-programs using in the structural engineering.		
2	Introduction to the interface of IDESTATIK	Verbal lectures, Practice about the lecture	
3	Data input and model preparation for IDESTATIK	Verbal lectures, Practice about the lecture	

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5	Data input and model preparation for IDESTATIK	Verbal lectures, Practice about the lecture	
6	Introduction to the interface of PROBINA	Verbal lectures, Practice about the lecture	
7	Data input and model preparation for PROBINA	Verbal lectures, Practice about the lecture	
8	Data input and model preparation for PROBINA	Verbal lectures, Practice about the lecture	
9	Data input and model preparation for PROBINA	Verbal lectures, Practice about the lecture	
10	Introduction to the interface of STA4CAD	Verbal lectures, Practice about the lecture	
11	Data input and model preparation for STA4CAD	Verbal lectures, Practice about the lecture	
12	Data input and model preparation for STA4CAD	Verbal lectures, Practice about the lecture	
13	Data input and model preparation for STA4CAD	Verbal lectures, Practice about the lecture	
14	Comparison of results obtained computer programs		
22	Textbooks, References and/or Other Materials:	Books, journals and papers related to the subject.	
23	Assesment		
TERM LEARNING ACTIVITIES		NUMBE R	WEIGHT
Midterm Exam		0	0.00
Quiz		0	0.00
Home work-project		3	50.00
Final Exam		1	50.00
Total		4	100.00
Contribution of Term (Year) Learning Activities to Success Grade		50.00	
Contribution of Final Exam to Success Grade		50.00	
Total		100.00	
Measurement and Evaluation Techniques Used in the Course			
24	ECTS / WORK LOAD TABLE		

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	2.00	28.00
Practicals/Labs	14	3.00	42.00
Self study and preperation	14	6.00	84.00
Homeworks	3	10.00	30.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	0	0.00	0.00
Others	0	0.00	0.00
Final Exams	1	2.00	2.00
Total Work Load			186.00
Total work load/ 30 hr			6.20
ECTS Credit of the Course			4.00

25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
ÖK1	4	5	0	0	0	3	3	0	0	0	0	0	0	0	0	0
ÖK2	4	5	0	0	0	5	0	3	0	0	0	0	0	0	0	0
ÖK3	4	4	4	5	0	4	0	0	0	0	0	0	0	0	0	0
ÖK4	0	3	0	5	0	0	0	0	0	5	0	0	0	0	0	0
ÖK5	4	4	4	5	0	0	0	0	0	4	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	1 very low		2 low			3 Medium			4 High			5 Very High				