Identification	Subject	CIV 384 Structural Analysis, 6 ECTS
	Department	Civil Engineering
	Program	Undergraduate
	Term	Fall 2023
	Instructor	**Arzu Rahimov**
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	Phone(WhatsApp):	+994554648524
	Classroom/hours	Microsoft Teams
	Office hours	
Prerequisites	Engineering Mechanics – Statics – Strength of materials	
Language	English	
Compulsory/Elective	Compulsory	
Required textbooks and course materials	*1. Vaidyanadhan, R and Perumal, P, "Comprehensive Structural Analysis – Vol. 1 & Vol. 2", Laxmi Publications Pvt. Ltd, New Delhi, 2003. 2. L.S. Negi & R.S. Jangid, "Structural Analysis", Tata McGraw Hill Publications, New Delhi, 6th Edition, 2003. 3. Punmia.B.C, Ashok Kumar Jain and Arun Kumar Jain, "Theory of structures", Laxmi Publications Pvt. Ltd., New Delhi, 2004. 4. Russel C. Hibbeler "Structural Analyses" Eight Edition.*	
Course outline	This course deals with the structural models and is looking for a solution to analyze them subjected to applied loads. This is a traditional field in engineering education, and is taught in almost all civil engineering curricula.Degrees of freedom, analyzing trusses, Indeterminate structures, Energy methods, deformations.	
Course objectives	The basic theory and concepts of structural analysis and the classical methods for the analysis of buildings will be introduced to the students.	
Learning outcomes	Students will be able to • Trusses, frames and arches analysis • learn basis of Structural analysis for moving loads • Conversant with classical methods of analysis. • Deformations • Matrix analysis.	

Teaching methods	Lecture	x
	Experiential exercise	x
	Assisted work	x
	Assisted lab work	x

Evaluation	Methods	Date/deadlines	Percentage (%)
	Midterm Exam		30
	Class activity		5
	Quizzes		20
	Project (3 phases)		10
	Final Exam		35
	Total		100

Policy	• NO CELL PHONES are allowed during lecture and lab sessions. PLEASE turn them off before lecture! (Not silent or vibrating mode) • No late assignments will be accepted without prior arrangement with the instructor for acceptable excuses. Medical and family emergency will be considered on case-by-case basis. • No late homework will be accepted. Homework is to be completed on an individual basis. Students may discuss homework with classmates, but students are responsible for your own work. If students have consulted classmates, please note the individuals name on the top of students' assignment. • Quizzes may be given unannounced throughout the term and will count as one homework. There will be no make-up quizzes.

	• No make-up exams. If students miss an exam, a zero score will be assigned to the missed exam. • If students should miss class due to personal emergency or medical reasons, please notify the instructor by email immediately. A doctor's note will be required for make-up work. • Students are responsible for completing the reading assigned from the textbook related to the covered topics and for checking email regularly for important information and announcements related to the course. • University policy on academic honesty concerning exams and individual work will be strictly enforced. • BE ON TIME!

Tentative Schedule

Week	Date/Day (Tentative)	Topics	Textbook/Assignments
1		Introduction to structural analysis	Chapter 1
2		General Principles	Chapter 1
3		Loads / Equilibrium and support reactions	Chapter 2
4		Trusses	Chapter 3
5		Freedom and indeterminacy	Chapter 3
6		Beams shear and bending moment diagrams	Chapter 4
7		Frames shear and bending moment diagrams	Chapter 4
8		Midterm Exam	-
9		Deflection of beams, Geometric methods	Chapter 5
10		Deflection, work-energy methods	Chapter 5
11		Moment Distribution Method	Chapter 6
12		Moving Loads	Chapter 6
13		Influence line	Chapter 7
14		Indeterminate Structural Analysis	Chapter 8
15		Matrix Method of Analysis	Chapter 9
		Final Exam	

This syllabus is a guide for the course and any modifications to it will be announced in advance.