INTERNATIONAL UNIVERSITY OF SARAJEVO
FACULTY OF ENGINEERING AND NATURAL SCIENCES
ARCH204 - Structural Design I
AY 2018-2019

Course Code	Course Title	Weekly Hours T	A	L	ECTS	Weekly Class Schedule
ARCH204	Structural Design I	1	0	1	4	Monday 9:00-11:00
Prerequisite	ARCH106	It is a prerequisite to	ARCH210			

Lecturer	Associate Professor Dr Edin Jahic	Office Hours Schedule	Monday, 11:00-13:00; Tuesday, 9:00-12:00
E-mail	ejahic@ius.edu.ba		
Phone	957-314	Office / Room No	f3.14
Assistant	Selma Mešetović		
E-mail	smesetovic@ius.edu.ba		
Course Objectives	To introduce students in fundamental concepts and principles of structures in buildings; to get students acquainted with basic structural elements and simple structural systems.		
Textbook	Onouye, B. & Kane, K. (2014). *Statics and Strength of Materials for Architecture and Building Construction* . Pearson Jahic, E. (2014). Lecture notes on Structural Design I. (Unpublished)		

Learning Outcomes	After successful completion of the course, the student will be able to:
1	Demonstrate basic understanding of structual design and the role of structural designer
2	Demonstrate basic knowledge of structural members and forms, their behaviour and role in arch. design
3	Demonstrate basic statics in simple structral elements
4	Determine structural system and its elements in small sized buildings
5	Demonstrate use of different types of walls in buildings: bearing, facade walls, partitions

Teaching Methods	Power Point and hand drawing presentations. Active tutorial sessions for engaged learning and continuous feedback on progress. Individual homework. Project design assignment (Building).

WEEK	TOPIC	REFERENCE
Week 1	Structure and structural form: basic terms and concepts.	Onouye, B. Jahic, E. p.5 - p.8
Week 2	Basics of statics: forces, moments, static equilibrium.	Onouye, B. Jahic, E. p.9 - p.12
Week 3	Simple statics calculations. Shear and moment diagrams.	Onouye, B. Jahic, E. p.10 - p.14
Week 4	Structural elements and units. Walls, columns, beams and plates.	Onouye, B. Jahic, E. p.14 - p.19
Week 5	Geometric stability. Common building systems. Examples.	Onouye, B. Jahic, E. p.19 - p.22
Week 6	Bending resistant structures. Truss structures. Examples.	Onouye, B. Jahic, E. p.23 - p.29
Week 7	1st In-class test	
Week 8	Project design assignment: Floor plans 1:50	
Week 9	Project design assignment: Floor plans 1:50	
Week 10	Project design assignment: Floor plans 1:50	
Week 11	Project design assignment: Cross sections 1:50	
Week 12	Project design assignment: Cross sections 1:50	
Week 13	Project design assignment: Cross sections 1:50	
Week 14	2nd In-class test	
Week 15	Project evaluation and submission	

Assessment Methods and Criteria	Evaluation Tool	Quantity	Weight	Alignment with LOs
	Final Submission of project	**1**	**40**	4; 5
	Semester Evaluation Components		**60**	
	1st in-class exam	**1**	**25**	1; 2
	2nd in-class exam	**1**	**25**	2; 3
	Homework	**5**	**10**	1; 2; 3

*** ECTS Credit Calculation ***

Activity	Hours	Weeks	Student Workload Hours	Activity	Hours	Weeks	Student Workload Hours
Lectures	1	12	12	IN-class exam study	4	5	20
Homework	1	5	5				
Project	5	7	35				
Home study	2	14	28	**Total Workload Hours =**			100
				ECTS Credit =			4

Course Academic Quality Assurance: Semester Student Survey — Date: 24/9/2018