



Jordan University of Science and Technology
Faculty of Engineering
Civil Engineering Department

CE908 Advanced Prestressed Concrete - JNQF Level: 10

Second Semester 2023-2024

Course Catalog

3 Credit Hours. Elastic and plastic concepts of shear equilibrium and torsional equilibrium theories in prestressed concrete. Continuous prestressed beams and portal frames. Consideration of short- and long-term effects using detailed incremental time step methods and other methods. Design of prestressed compression and tension members. Consideration of P- δ effect in the design of prestressed slender columns. Analysis and design of two-way prestressed slabs and plates, yield line theory. Advanced applications; prestressed concrete tanks and prestressed highway bridges. Term paper dealing with selected advanced related topics will be required.

Teaching Method: On Campus

Instructor

Name	Prof. WASIM BARHAM
Office Location	-
Office Hours	
Email	wsbarham@just.edu.jo

Class Schedule & Room

Section 1:
Lecture Time: Mon, Wed : 10:00 - 11:30
Room: C2008

Mapping of Course Outcomes to Program Outcomes and NQF Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Compute/estimate short term and long-term prestressing losses. [1L10S1]	50%	Midtem
Analyze and design composite cast-in-place slabs (decks) with precast prestressed girders. [1L10S1]	50%	Final Exam

Relationship to NQF Outcomes (Out of 100%)	
L10S1	
100	

Evaluation	
Assessment Tool	Weight
Midtem	50%
Final Exam	50%

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