



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

CE322 Concrete Technology - JNQF Level: 7

First Semester 2023-2024

**Course Catalog**

3 Credit Hours. 3 Credit hours (3 h lectures). Production, types, properties and uses of cementitious materials and aggregate. Fresh concrete properties, concrete operations, fresh concrete testing. Design of concrete mixes. Mechanical properties of hardened concrete. Destructive and non-destructive testing of existing concrete structures. Durability Aspects of Concrete.

**Text Book**

<b>Title</b>	Concrete Technology
<b>Author(s)</b>	Neville A. M. and Brooks J. J.,
<b>Edition</b>	2nd Edition
<b>Short Name</b>	Concrete Technology
<b>Other Information</b>	

**Course References**

Short name	Book name	Author(s)	Edition	Other Information
Properties of Concrete	Properties of Concrete	Neville A. M.	4th Edition	

**Instructor**

Name	Miss Nisrein Al-Daod
Office Location	C1 L3
Office Hours	
Email	naaldaoud@just.edu.jo

**Class Schedule & Room**

Section 1:

Lecture Time: Sun, Tue : 08:30 - 09:30

Room: C3015

**Prerequisites**

Line Number	Course Name	Prerequisite Type
233211	CE321 Materials Science	Prerequisite / Study

**Tentative List of Topics Covered**

Weeks	Topic	References
Weeks 1, 2, 3, 4	Cement	From <b>Concrete Technology</b>
Weeks 5, 6, 7	Aggregate	From <b>Concrete Technology</b> , From <b>Properties of Concrete</b>
Week 8	Water	From <b>Concrete Technology</b>
Week 9	Workability	From <b>Concrete Technology</b>
Weeks 10, 11	Concrete Operations: Mixing, Handling,	From <b>Concrete Technology</b>
Weeks 12, 13	Concrete mix Design	From <b>Concrete Technology</b>
Weeks 14, 15, 16	Hardened Concrete Properties; and some aspects of durability	From <b>Concrete Technology</b> , From <b>Properties of Concrete</b>

**Mapping of Course Outcomes to Program Outcomes and NQF Outcomes**

	Course Outcome Weight (Out of 100%)	Assessment method
To introduce the students to the properties of the constituent materials of concrete: cement; aggregates; water; and admixtures and familiarize them with the fresh and hardened concrete properties as well as concrete construction practices [2SO5, 1SO6] [1L7K1]	40%	
To enable students to design concrete mixes to meet desired structural performance and carryout computations related to aggregate porosity and strength tests and development. [1SO1] [1L7S3]	45%	
To expose the students to the deterioration processes of concrete and methods of their control. [1SO5] [1L7S3]	15%	

**Relationship to Program Student Outcomes (Out of 100%)**

SO1	SO2	SO3	SO4	SO5	SO6	SO7
45				41.67	13.33	

Relationship to NQF Outcomes (Out of 100%)	
L7K1	L7S3
40	60

Evaluation	
Assessment Tool	Weight
Final Exam	100%

Policy	
Policy-1	Student shall submit their homework on time as late homeworks will not be accepted.
Policy-2	Student shall be notified by short quizzes ahead. A total of 3-5 quizzes will be given.
Policy-3	University regulation will be enforced regarding cheating in homeworks and exams.
Policy-4	Students performance shall be evaluated using two mid-term and a final multiple-choice exams totaling 90% of the grade. The remaining 10% are allocated to quizzes and homeworks.

Date Printed: 2023-11-30