



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

CE546 Highway Maintenance - JNQF Level: 6

Second Semester 2023-2024

Course Catalog

3 Credit Hours. To provide basic knowledge and understanding of highway maintenance systems. ,. To provide good understanding on flexible pavement distresses, To give enough description about pavement condition index ,. To provide good idea on how to compute pavement condition index. ,. To give enough description about pavement condition survey and PAVER system. ,. To provide basic knowledge about rigid pavement distresses. ,. To give a short description about advance technology for automated detection and classification for distresses.

Teaching Method: Electronic Course

Text Book

Title	Distress Identification Manual for Long ? Term Pavement Performance Project. Strategic Highway Research Program. SHRP P-338. National Research, Washington DC. Elementary Surveying
Author(s)	Brinker and Wolf
Edition	5th Edition
Short Name	Ref # 1
Other Information	

Course References

Short name	Book name	Author(s)	Edition	Other Information
Ref # 2	Pavement Maintenance Management for Roads and Streets Using the PAVER System,	US Army Com of Engineers Construction Engineering Research Laboratory, July 1990.	6th Edition	

Instructor

Name	Dr. BARA' AL-MISTAREHI
Office Location	-
Office Hours	

Email	bwmistarehi@just.edu.jo
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Class Schedule & Room
Section 2: Lecture Time: Mon, Wed : 18:00 - 19:00 Room: متزامن الحضور منصة الكترونية

Prerequisites		
Line Number	Course Name	Prerequisite Type
234421	CE442 Pavement Materials & Design (1)	Prerequisite / Study

Tentative List of Topics Covered		
Weeks	Topic	References
Week 1	Introduction	From Ref # 1
Weeks 2, 3	Flexible Pavement Distresse	From Ref # 2
Week 3	Pavement Condition Survey and Rating Procedure (Deduct Value) (Asphalt)	From Ref # 1
Week 4	Pavement Evaluation Procedur	From Ref # 2
Week 5	Network Division and Data Collection	From Ref # 2
Week 6	Pavement Condition Survey and Rating Procedure (PAVER SYSTEM)	From Ref # 2
Week 7	PAVER Software and it's application	From Ref # 1
Weeks 8, 9	Rigid Pavement Distresses	From Ref # 1
Weeks 10, 11	PCI Determination for Concrete Pavement	From Ref # 2
Weeks 12, 13, 14	Maintenance and Rehabilitation (M&R)	From Ref # 1
Weeks 15, 16	Overview about new advanced technology for automated detection and classification for pavement distresses using mobile mapping system	From Ref # 2

Mapping of Course Outcomes to Program Outcomes and NQF Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
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Students will be able to identify the basic principles of highway flexible pavement distresses to calculate PCI [1PI-2a] [1L6S1]	50%	Final exam, First Exam
Students will be able to define the basic principles of highway Rigid pavement distresses to calculate PCI [1PI-2d] [1L6S2]	50%	Final exam, Second Exam

Relationship to Program Student Outcomes (Out of 100%)											
PI-1a	PI-2a	PI-2b	PI-2c	PI-2d	PI-3a	PI-4a	PI-4b	PI-5a	PI-6a	PI-6b	PI-7a
	50			50							

Relationship to NQF Outcomes (Out of 100%)	
L6S1	L6S2
50	50

Evaluation	
Assessment Tool	Weight
Final exam	40%
First Exam	30%
Second Exam	30%

Policy	
Policy 1	Classroom lectures will be informal to the extent that you are encouraged to ask questions and participate in any discussion at any time. However, side discussions between students during lectures will not be tolerated due to the fact that this kind of discussions distract other students. Good Conduct of students is very important and include: attending all classes, being on time, not doing other tasks, not responding to cellular phones (turning off cellular phones is alternatively recommended)?.etc. All these behaviors will provide a healthy classroom and comfortable environment to all students. Although good classroom manners do not affect your grade, providing a favorable impression during classroom may impact a pass/fail grade.

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