



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

CE503 Geographic Information System Gis - JNQF Level: 7

First Semester 2023-2024

**Course Catalog**

2 Credit Hours. Study the fundamental of GIS. Explore the data and data entry in GIS data structure for GIS, data acquisition, data processing, database management, and analysis and manipulation. Emphasis on product generation. Application of GIS in civil engineering.

**Teaching Method:** On Campus

**Text Book**

<b>Title</b>	Getting to Know ArcGIS Desktop
<b>Author(s)</b>	Ormsby, Napoleon, Burke, Groess, and Bowden.
<b>Edition</b>	2nd Edition
<b>Short Name</b>	Ref. 1
<b>Other Information</b>	ESRI Press.

**Instructor**

<b>Name</b>	<b>Dr. Samer Talози</b>
<b>Office Location</b>	C5 L1
<b>Office Hours</b>	Sun : 10:00 - 11:30 Sun : 12:30 - 13:30 Mon : 13:30 - 15:30 Tue : 10:00 - 11:30 Tue : 12:30 - 13:30 Thu : 12:30 - 14:00
<b>Email</b>	samerbse@just.edu.jo

**Class Schedule & Room**

Section 1:  
 Lecture Time: Sun, Tue : 13:30 - 14:30  
 Room: C3016

Prerequisites		
Line Number	Course Name	Prerequisite Type
233411	CE341 Surveying	Prerequisite / Study

Tentative List of Topics Covered		
Weeks	Topic	References
Week 1	Getting to know GIS and ArcGIS	<b>Chapter 1 &amp; 2</b> From <b>Ref. 1</b>
Week 2	Exploring ArcMap	<b>Chapter 3</b> From <b>Ref. 1</b>
Week 3	Exploring ArcCatalog	<b>Chapter 4</b> From <b>Ref. 1</b>
Week 4	Symbology	<b>Chapter 5</b> From <b>Ref. 1</b>
Week 5	Classification of features and rasters	<b>Chapter 6</b> From <b>Ref. 1</b>
Week 6	Labeling features and rasters	<b>Chapter 7</b> From <b>Ref. 1</b>
Week 7	Querying data	<b>Chapter 8</b> From <b>Ref. 1</b>
Week 8	Joining and relating tables	<b>Chapter 9</b> From <b>Ref. 1</b>
Week 9	Analyzing Feature Relationships: selecting by location	<b>Chapter 10</b> From <b>Ref. 1</b>
Week 10	Preparing data for analysis	<b>Chapter 11</b> From <b>Ref. 1</b>
Week 11	Analyzing Spatial Data	<b>Chapter 12</b> From <b>Ref. 1</b>
Week 12	Projecting data in ArcMap	<b>Chapter 13</b> From <b>Ref. 1</b>
Week 13	Various selected topics	<b>Or, handouts</b> From <b>Ref. 1</b>

Mapping of Course Outcomes to Program Outcomes and NQF Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Civil engineering students will be able to distinguish Spatial Data using ArcGIS [1SO6] [1L7S1]	25%	First Exam, Final Exam
Civil engineering students will be able to use the ArcGIS software to map spatial data [1SO7] [1L7C2]	25%	First Exam, Second Exam, Final Exam
Civil engineering students will be able to analyze spatial relationships using the ArcGIS software [1SO1] [1L7S3]	25%	First Exam, Second Exam, Final Exam
Civil engineering students will be able to generate GIS maps using the ArcGIS software [1SO3] [1L7S3]	25%	Second Exam, Final Exam

Relationship to Program Student Outcomes (Out of 100%)						
SO1	SO2	SO3	SO4	SO5	SO6	SO7
25		25			25	25

Relationship to NQF Outcomes (Out of 100%)		
L7S1	L7S3	L7C2
25	50	25

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

Policy	
Attendance	University rules will be adhered to.

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