

## SE 467 Web GIS

**Credit and Contact hours**      3 / 3 (Lectures), 1 (Tutorials), 0 (Laboratory)

**Required, or Elective**      Elective for a BSCE degree

**Course Description**      Web based GIS concept, Fundamentals and Evolution. Instruction on the Web interface design, networking fundamentals, geographic mark-up language, service and security in Web based GIS, Web mapping software and Web based GIS applications including voluntary geographic information. Mobile GIS technology. Geoportals. Future trends.

**Prerequisites or Co-requisites**      XXXX

**Course Learning Outcomes**      Students completing this course successfully will be able to

Course Learning Outcomes	<i>Related Student Outcomes (SO)</i>
<b>CLO1:</b> Discuss how to design Web GIS interface;	SO7
<b>CLO2:</b> Develop Web based GIS applications	SO2
<b>CLO3:</b> Solve problems in Mobile GIS technology	SO1

**Student Outcomes**

**SO1:** an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics, and using modern engineering tools.

**SO2:** an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.

**SO7:** an ability to acquire and apply new knowledge as needed, using appropriate learning strategies

**Topics Covered**

List of Topics	Related CLOs
1. Web based GIS concept	<i>CLO1</i>
2. Instruction on the Web interface design	<i>CLO1</i>
3. networking fundamentals	<i>CLO2</i>
4. geographic mark-up language	<i>CLO3</i>
5. service and security in Web based GIS	<i>CLO1</i>
6. Web mapping software and Web based GIS applications	<i>CLO2</i>

	7. Mobile GIS technology	<i>CLO4</i>
	8. Future trends	<i>CLO4</i>
<b>Textbook(s) and Other Required Material</b>	Textbook: Fu, P & Sun, J. 2010, Web GIS: principles and applications, ESRI Press, Redlands, Calif.	
<b>Grading System</b>	Tutorials problems and attendance 20% Mid-Term 1 20% Mid-Term 2 20% Final Exam 40%	
<b>Instructors</b>	Dr. Bashar Kamal Bashir ( <u>2A19</u> ); e-mail: bbashir@ksu.edu.sa - (2 <sup>nd</sup> Semester 20-21)	
<b>Date of Review</b>	Nov, 2020	