

## GISC 7363: Internet Mapping and Information Processing

### When & Where

**Online (using WebEx):** Thursdays, 6pm – 10pm

(Students will be provided with a URL to the web conference site. During the live web conference sessions, you will be able to hear me and see my computer desktop. I can see your computer desktop, and hear you if you have a microphone.)

### Professor

**Dr. Pinde Fu**, Team Lead/Project Lead at Esri (Redlands, California)

**Phone:** 909-5331530 | **Email:** pindefu@gmail.com

**Office Hours:** by email and phone

### Course Objectives

- Provide students with a comprehensive and up-to-date overview of Web GIS, including the basic concepts, principles, related fields (e.g. mobile GIS) and frontiers
- Inspire students with the broad and real-world applications of Web GIS, especially in e-Government, e-Business
- Provide students with the state-of-art technical skills to build Web GIS applications and the knowledge needed to choose from various Web GIS development options

### Pre-requisites

No formal pre-requisites, but taking of GISC 5317 (Computer Programming for GIS) and GICS 6381 (Geographic Information Systems Fundamentals) is recommended.

### Textbooks

**Pinde Fu, 2015, Getting to Know Web GIS.** ESRI Press. Redlands, CA. ISBN-13: 978-1589483842 ISBN-10: 1589483847. (<http://www.amazon.com/Getting-Know-Web-GIS-Pinde/dp/1589483847>)

**Optional: Pinde Fu, and Jiulin Sun. 2010. Web GIS: Principles and Applications.** ESRI Press. Redlands, CA. ISBN 158948245X (<http://www.amazon.com/Web-GIS-Principles-Applications-Pinde/dp/158948245X>)

## Schedule

(Subject to change)

<b>Week</b>	<b>Date</b>	<b>Topic</b>	<b>Lab</b>	<b>Assignment</b>
1	5/26	Course overview, Web GIS basics and applications	Create a map tour application using ArcGIS Online; More on web layers, maps and apps; Smart mapping	#1 #2
2	6/2	Web services overview, Volunteered geographic information, web editing and feature Service	Publish and use hosted feature services to collect VGI	#3
3	6/9	Story maps and more web app templates	Create a story map that uses multiple templates	#4
4	6/16	Web AppBuilder	Create web apps with Web AppBuilder	#5
5	6/23	HTML5; ArcGIS JavaScript API (1)	Adapt ArcGIS JavaScript samples	
6	6/30	ArcGIS JavaScript API (2)	Debug JavaScript samples; Combine multiple samples	#6
7	7/7	Mobile GIS	Use Collector and Survey 123 for data collection; Create native apps using ArcGIS AppStudio	#7
8	7/14	Real-time Web GIS	Create a real-time web GIS app using Operations Dashboard	#8
9	7/28	3D Web GIS	Create a 3D web app using ArcGIS Pro and ArcGIS Scene Viewer	#9
10	8/4	On-premises Web GIS with ArcGIS for Server; Map services; Interoperability & standards	Publish and use dynamic map services with time animation;	#10
11	8/11	Spatial Analysis online Geoprocessing services; Web GIS frontiers	Create a web app supporting spatial analysis; Publish and use geoprocessing services	#11
12	8/18	Final Exam		

### Products will be taught and used in the class

- ArcGIS Online & Portal for ArcGIS
- ArcGIS for Server
- ArcGIS for Desktop
- ArcGIS Web AppBuilder
- ArcGIS API for JavaScript
- Mobile apps including Collector and Survey123
- ArcGIS AppStudio
- ArcGIS Operations Dashboard
- ArcGIS Pro

### Evaluation method

- Homework (50%) + Exam (45%) + Class attendance and participation (5%)
- The total score of your homework will be scaled to 40 points.
- Grading Criteria:
  - 93-100 points = A; 90-92 points = A-; 87-89 points = B+;
  - 83-86 points = B; 80-82 points = B-; 77-79 points = C+;
  - 70-76 points = C; 69 and below = F

### Course Policies

**Late homework policy:** Late homework will not be accepted.

**Attendance:** Class attendance is required. Students are expected to actively participate in class discussion.

**Academic Dishonesty:** All suspected cases of academic dishonesty (cheating, plagiarism, collusion, etc.) will be immediately forwarded to the Office of Judicial Affairs. Students have a right to due process through Judicial Affairs, but if the accused student is found guilty of misconduct, Judicial Affairs has sole authority for determining punishment.

**UT Dallas Syllabus Policies:** <http://coursebook.utdallas.edu/syllabus-policies/>

*These descriptions and timelines are subject to change at the discretion of the Instructor.*