Irrigation Technology Center/Texas A&M University System

GIS/GPS Short Courses
August, September 2004

A continuing series of classes, workshops and programs supporting irrigation districts and water conservation projects in the Rio Grande River Basin.

CLASS SCHEDULE

GIS (Geographic Information Systems) I

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<thead>
<tr>
<th>Location</th>
<th>Dates</th>
<th>Time</th>
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<tbody>
<tr>
<td>Weslaco</td>
<td>August 25-26</td>
<td>8:30am - 4:30pm</td>
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<tr>
<td>El Paso</td>
<td>September 28-29</td>
<td>8:30am - 4:30pm</td>
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GPS (Global Positioning Systems) I

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<tr>
<th>Location</th>
<th>Date</th>
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<tr>
<td>El Paso</td>
<td>September 30</td>
<td>8:30am - 4:30pm</td>
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LOCATIONS

Weslaco
Texas A&M Research and Extension Center
2401 E. Hwy 83
956-969-5639

El Paso
County Extension Office
1030 N. Zaragosa
915-859-7725

Additional course information and maps will be sent with registration confirmation and will be posted at: http://idea.tamu.edu.

COURSE DESCRIPTIONS

GIS (Geographic Information Systems) I:

This is a 2-day introduction class on how to use GIS for producing maps of water distribution networks, service areas (fields) and related structures/facilities. Students will learn basic mapping skills including use of aerial photographs to quickly map areas/facilities and combining GIS layers to produce useful and informative maps and reports.

Who should attend this class?
People involved in management, planning, and maintenance of facilities (such as irrigation districts, cities, utilities) or anyone interested in learning more about GIS equipment and mapping. Prior experience with GIS is not necessary, but students should be familiar with personal computers and common software.

Course Syllabus:

- Differences between ArcView 3.1 and ArcGIS 8.1
- GIS drawing and mapping procedures
- Linking the GIS with databases
- Labeling features
- Importing/exporting files and images
- Working with the attribute table
- Adding/deleting fields and other map features
GPS (Global Positioning Systems) I:
This is a 1-day introduction class on use of GPS equipment for mapping and surveying. Students will receive “hands-on” training on survey grade and consumer GPS equipment.

Who should attend this class?
People involved in management, planning, and maintenance of facilities (such as irrigation districts, cities, utilities) or anyone interested in learning more about GPS equipment and mapping. Prior surveying or GPS experience is not required.

Course Syllabus:
- Understanding basic GPS principles and fundamentals
- Understanding the RTK system and requirements for real-time kinematic surveying (survey grade - centimeter precision)
- General equipment guidelines
- Setup, configuring, and operating the Trimble 5700 total station for RTK surveying
- Consumer grade GPS equipment uses and limitations
- Field data collection procedures and office data processing