

Mastering the ArcGIS Server JavaScript API

An Excellence Series from GeoSpatial Training Services

Course 1: Introduction to the ArcGIS Server JavaScript API

- Introduction to JavaScript
- Basic ArcGIS Server Concepts
 - What is ArcGIS Server?
 - Working with ArcGIS Server
 - GIS Services
 - ArcGIS Server Architecture
- Programming ArcGIS Server with the JavaScript API
 - Creating Maps from Dynamic and Cached Services
 - Working with the Map Extent
 - Map Navigation
 - Map Constructor Options
 - Working with Map Layers
 - Responding to Events
 - Creating Graphics
 - Performing Attribute and Spatial Queries
 - Finding and Identifying Features
 - Geocoding and Reverse Geocoding
 - Buffering Features
 - Accessing Geoprocessing Tasks and Models

Course 2: Application Debugging with Firefox and Firebug

- Introduction to Firebug
- Enabling and Disabling Firebug
- Using the Interactive Window to Test Code
- Inspecting Your Code
- Using the Console to Examine Scripts
- Examining HTML, CSS, and the DOM

Course 3: Dojo + ArcGIS Server = Rapid Application Development

- Introduction to Dojo
 - Dojo Core and Base
 - Dijits
 - DojoX
- Integrating Dojo with ArcGIS Server
 - Referencing Dojo in an ArcGIS Server Application
 - Importing ArcGIS Server Resources with Dojo.require

- Dojo.addOnload for Script Initialization
- Finding HTML Objects with Dojo.byId
- An Introduction to Dojo Base and Core
- Using Dijits and DojoX to Build ArcGIS Server Interfaces
 - Summary of dijits
 - Commonly used dijits
 - Building a Sample Interface

Course 4: Advanced Dojo Concepts

- Base and Core
- Asynchronous Programming
 - Programming DOM Events with Dojo
 - Connecting to User-Defined Events with Dojo
- DOM Utilities
 - Core Dojo DOM Utility Functions
 - Finding and Editing Nodes
 - Inserting, Moving, and Deleting DOM Nodes
- AJAX and Remote Server Communication
 - AJAX Overview
 - Using XHR and iframe
 - Access Remote Web Services with JSONP
- Dojo.data
 - Reading Data From
 - XML Files
 - JSON Files
 - Google Sources (Search, Blogs, LocalSearch, Video, News, Images)
 - Amazon S3
 - Flickr
- Survey of Dijits
 - Form Controls
 - Grids
 - Trees
 - Images
- Building Custom ArcGIS Server Dijits

Course 5: Integrating ArcGIS Server with Google Maps

- Overlaying ArcGIS Server Data on a Google Map
- Creating Maps from Dynamic and Cached Services
- Using MapExtension to Add Data to the Map
- Map Constructor Options

- Working with Map Layers
- Responding to Events
- Creating Graphics
- Performing Attribute and Spatial Queries
- Finding and Identifying Features
- Geocoding and Reverse Geocoding
- Buffering Features
- Accessing Geoprocessing Tasks and Models

Course 6: Capstone Project

In the Capstone Project you will build a fully functional web application using the ArcGIS Server JavaScript API and Dojo as well as the concepts presented in the first five courses. You'll use Dojo to build the user interface which will include a number of Dijits and DojoX widgets including the Accordion, Slider, NumberSpinner, Grid, LightBox, and Charts. In addition, we'll import various data sources including XML files, JSON files, Flickr images, and of course ArcGIS Server data. We'll wrap all this up inside a Google Map overlaid with the various data sources.

Excellence Series Pricing

Course	Price
Course 1: Introduction to the ArcGIS Server JavaScript API	\$139
Course 2: Application Debugging with Firefox and Firebug	\$100
Course 3: Dojo + ArcGIS Server = Rapid Application Development	\$139
Course 4: Advanced Dojo	\$139
Course 5: Integrating ArcGIS Server with Google Maps	\$139
Capstone Project	\$139
	\$795 - \$675 before July 1st

You may register for the entire series or individually if you are already experienced in a particular subject or have taken our "Building Web 2.0 Mapping Applications with ArcGIS Server and Google Maps" course. **If you register for the entire series before July 1st you will receive a 15% discount which brings the cost to \$675 (savings of \$120.00). This course will likely fill up fast and is seating is limited so reserve your seat now.**

Course Dates: August 3 – September 11

FAQ

- **If I have already taken your "Building Web 2.0 Mapping Applications with ArcGIS Server and Google Maps" course what should I focus on from this series?**
We recommend "Course 2: Application Debugging with Firefox and Firebug", "Course 3: Dojo +

ArcGIS Server = Rapid Application Development”, “Course 4: Advanced Dojo”, and perhaps the “Capstone Project”.

- **Do I need to have ArcGIS Server installed at my workplace or home?**

No, you do not need to have ArcGIS Server installed at your workplace or at home. We will be accessing a publicly available instance of ArcGIS Server. You do need access to the Internet and it is highly recommended that you have a high-speed connection. Dial-up connections do not work very well for this type of course.

- **What software do I need to purchase for the course?**

You don’t need to purchase any software. As I mentioned above, we will be accessing a publicly available instance of ArcGIS Server. You will need a text or HTML editor. I recommend jEdit or Notepad++, but you can use whatever editor you are comfortable using.

- **Are there any particular times when I need to be present in the class?**

No, this course is completely self paced and we typically have people from around the world in classes of this type so we don’t have a specific time period when you need to be present. These classes are designed for individuals who need high level training, but on a flexible schedule. The course is open through a secure server 24 hours a day, 7 days a week. We do schedule a weekly chat session which is a good opportunity for everyone to come together to discuss the course. This session is not mandatory though.

- **What happens if I don’t finish in the allotted time?**

Although the course is scheduled for August 3rd through September 14th you do have access to the course site for a full year which allows for ample time to finish the courses and review as necessary.

- **How will I interact with the instructor if I have questions or problems?**

You will have access to the course instructor through chat, email, discussion boards, and phone. Our policy is to answer all questions within 24 hours, but during weekdays we normally respond within an hour. Chat sessions are scheduled for the entire class once per week, and you can also schedule one on one chat sessions for private interaction with the instructor.

- **In what format is the course delivered?**

The course is delivered through a secure Internet site that requires registration. All lectures are delivered via a Flash format that contains both audio and video lecture materials. In addition, software demonstrations are provided and we also ship you a bound hard-copy of all lecture notes. Exercises are delivered though the course site in Adobe (PDF) format. All exercises access data through the Internet.

- **What will I receive upon completion of the course?**

Upon completion of the course you will receive a certificate of completion which can be used for education credits toward your GISP certification through GISCI.

- **Do I need programming experience to complete the course?**

While some programming experience is certainly helpful, we provide a good foundation for the beginning programmer with this course. JavaScript is a good language to learn for beginners who are looking to get a quick start with creating web applications with ArcGIS Server.

- **Do I receive any hardcopy materials?**

Yes, we send out bound hard-copies of all the lecture notes (600+ pages in this case) along with a copy of the book “Dojo: The Definitive Guide”, published by O’Reilly.

Instructor Profile

Eric Pimpler is the instructor for this course. Mr. Pimpler is the founder and owner of GeoSpatial Training Services, LLC and has almost 20 years of experience in the design, development, implementation, management, and training of GIS applications built upon the full suite of world-leading technology from ESRI and Google Earth/Maps technology. Currently Eric focuses on the development of custom applications and training solutions using ArcGIS Server and Google Maps, and often posts how-to articles on these subjects on the GeoChalkboard blog.

Eric has a Bachelor’s degree in Geography from Texas A&M University and a Master’s of Applied Geography degree with a concentration in GIS from Texas State University.