



# Cartography Training Outline

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## Overview

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The REGIS Cartography course will introduce the user to the tools and skills needed to create aesthetically pleasing custom maps with REGIS data layers. The course will explore the use of color in maps, using symbols and the various technical tools found in ArcMap that are used to create custom maps. The last portion of the course will focus on the steps related to map output (paper maps vs. electronics maps).

## Who Should Attend

This course is designed for current REGIS users who would like to explore creating their own custom maps in REGIS. This course assumes the user has attended: RIMS Training and Intermediate GIS (ArcGIS Part I).

## Course Length

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Course Length:  
Approximately 7 hours (8:30am to 4:30pm)

Offered:  
Please visit the REGIS Training page to see when this course is offered next.  
<http://www.gvmc-regis.org/training.html>

Contact Brenda Brittain, REGIS Administrative Assistant, at 776-7751 or [brittainb@gvmc.org](mailto:brittainb@gvmc.org) if you are interested in taking this course.

## Course Outline

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### Introduction

Welcome  
Logistics

### 1) Cartography Basics

- i) Finding Meaning in Map
- ii) Digital Mapping & Telecommunications
- iii) Paper Maps
- iv) Map Types and Themes
- v) Communicating the Right Map
- vi) Issues in Cartographic Design
- vii) Choosing Map Size & Scale
- viii) Balancing Time, Information & Aesthetics

### 2) Map Elements & Layout

- i) Map Projections
- ii) Feature Data
- iii) Feature Symbolology
- iv) Map Scale
- v) Scale Ratio and Scale Bar
- vi) Objects
- vii) Layout View & Toolbar
- viii) Other Toolbar Buttons
- ix) Map Layout in ArcMap
- x) Map setup

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- xi) --Exercise 2.1 Map Layout Setup*
  - xii) --Exercise 2.2 Inserting and Organizing Map Elements*
  - xiii) --Exercise 2.3 Creating an Index Map*
  - xiv) --Exercise 2.4 Inserting Linked Objects*

### **3) Color Cartography**

- i) Color Theory**
- ii) Color Characteristics**
- iii) Color Spectrum**
- iv) Logical Color Association**
- v) Saving Colors**
- vi) --Exercise 3.1 Color Matching Map Elements*

### **4) Creating Custom Symbology & Labels**

- i) Symbology Settings**
- ii) Symbol Layering**
- iii) Auto Labeling Engine**
- iv) Label Symbol Editor**
- v) Common Labeling Techniques**
- vi) --Exercise 4.1 Layering Symbology*

### **5) Data Frame Layout Properties**

- i) Data Frame Management**
- ii) --Exercise 5.1 Finalizing Data Frames*

### **6) Graphics & Annotation**

- i) Convert Symbology to Graphics**
- ii) Converting Elements to Graphics**
- iii) Managing Multiple Graphics**
- iv) Image Graphics or “Pictures”**
- v) Image Types**
- vi) --Exercise 6.1 Converting Symbols to Graphics*
- vii) --Exercise 6.2 Creating and Editing Annotation*

### **7) Map Production**

- i) Creating and Using Map Templates**
- ii) Printing and Plotting Maps**
- iii) Common Paper Sizes**
- iv) Tile Maps to Printer**
- v) Exporting Maps as Digital Files**
- vi) Map Book Creation**
- vii) --Exercise 7.1 Map Book Creation*