***Italics mean a document in the CMaP Booklet is involved***

***MONDAY***

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| --- | --- | --- |
| Day/Time  | Activity | Description  |
| MON 8:00-9:00  | **Welcome**CMaP Files and Booklet found at[http://www.uen.org/cmap/courses/](http://www.uen.org/cmap/courses/CMap/booklet.htm)[CMap/booklet.htm](http://www.uen.org/cmap/courses/CMap/booklet.htm) | * Introductions / Logistics/Week Overview
	+ Parking
	+ Electronic Resources & Handouts
	+ Name Tags & Tents for Computer
	+ Geographic Introduction (Where they were born)
* Class Expectations
	+ Your CMaP Project
		- Community Issues
		- GIS/GPS project ideas
		- Community Partner
	+ Credit

[Download Credit Request Form](http://www.uen.org/cmap/courses/CMap/CMaPFiles/Admin/CreditRequestForm.doc) |
| MON 9:00-9:45 | **Pre-Project Basics:**Introduction to CMaP and the *Road Map* | * Overview of CMaP
	+ [1cmapoverview.ppt](http://www.uen.org/cmap/courses/CMap/CMaPFiles/PowerPoints/Day%201/1cmapoverview.ppt)
* Introduction to GIS
	+ [Geospatial Revolution Video Clip](http://www.youtube.com/watch?v=ZdQjc30YPOk&feature=player_embedded)
* Local CMaP projects
	+ [2Recycle Project.ppt](http://www.uen.org/cmap/courses/CMap/CMaPFiles/PowerPoints/Day%201/2RecycleProject.ppt)
* Introduction to Class Resources
	+ *Website* [www.uen.org/cmap](http://www.uen.org/cmap)
	+ Download [CMaP Template](http://www.uen.org/cmap/courses/CMap/CMaPFiles/Admin/Project%20Template.doc) (Create new folder and save the document in the new location.)
	+ *Wikispace* <cmap-ut.wikispaces.com>
 |
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| MON 9:45-10:00 | **Pre-Project Basics:** Spatial Inquiry – What do kids need to understand about spatial? | * Asking spatial questions
	+ Spatial Challenge: [Guess the Locations](http://gmapk12.wikispaces.com/file/view/Guess_the_Location.pdf)
 |
| Break 10:00-10:15 | **Break** |  |
|  |  |  |
| MON 10:15-12:00 | **Sign for GPS Units:** | * Distribute GPS Units – Turn off satellites
	+ Navigate Screens
* Earth Cache- Go outside
	+ Have them mark waypoints
* Turn participants loose with GPSs.
	+ Mark Waypoints and hide object
	+ Trade GPS unit with someone and have them find the object
 |
| MON 12:00-1:00 | **Lunch - on your own** |  |
| MON 1:00-2:00 | **GPS exploration and discovery inside:** | * Learn more about GPS
* [GPS videos](http://gmapk12.wikispaces.com/Instructional%2BVideos-GPS)
* Show UTM Grid
* Map Activity
	+ [Topo Bingo](http://cmase.uark.edu/teacher/workshops/AIMS-lessons/Topo.Bingo.cards.pdf)
* Map Reading Skills
	+ Utah Maps
	+ Name Features
	+ Map Elements
 |
| MON 2:00-3:00 | **GIS exploration and discovery inside:** | * Intro to GIS
	+ [Geospatial Revolution](http://geospatialrevolution.psu.edu/)
* Getting Started with GIS: ESRI
	+ [Register at ESRI Virtual Campus](http://training.esri.com/acb2000/showdetl.cfm?DID=6&Product_ID=915)
	+ File management
	+ Download data sets for three modules
	+ Module 1: The Big Picture of GIS

from ESRI Virtual Campus |
| MON 3:00-3:15 | **Break** |  |
| MON 3:15- 4:30 | **GIS exploration and discovery inside:** | * Continue: The Big Picture of GIS
	+ What project ideas did Module 1 provide?
* Self Exploration
	+ Open ArcMap
	+ Give participants time to self explore
 |
| MON 4:30- 4:45 | **GIS online data exploration and discovery inside:** | * Introduce ArcGIS Online
	+ <http://www.arcgis.com>
	+ ArcGIS Resource Center

<http://resources.arcgis.com/>* Wrap-up
 |
| MON 4:45-5:00 | **Take your Pulse** | * How are you doing? Play with GPSs at home.
 |
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***TUESDAY***

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| TUES 8:00-9:00 | **Welcome to Day 2****GPS Exploration & Practice** | * Have them meet outside. Have them **track** their Initials and Geometric Shapes
* Downloading Tracks in Google Earth and ArcMap
 |
| TUES 9:00 – 10:15 | **ArcMap Explore:** | * Brief Introduction to Utah Data
	+ GIS Portal site / Play with Data
* File/data management: Connect to Folder
* Open image and downloaded shape file
* Measure & Draw tools
* Layout – Export as .jpg
* Save Project
 |
| Break 10:15-10:30 | **Break** |  |
| TUES 10:30 – 12:00 | **Building Community Relationships:** | * 3 to 4 Community partners invited to share how they use GIS/GPS in their jobs. Each takes approximately 20 min.
 |
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| TUES 12:00-1:30LUNCH | **Building Community Relationships:** Community Introductions | * Lunch and discussion with community members interested in working with students
 |
| TUES 1:30-2:00 | **Building Community Relationships:** | * Definition & Compare
	+ Place-based education
	+ Project-based learning
	+ Community-based learning
* Definition share
* Introduce CMaP project components:
* Community Partner Brainstorm
* Share ideas learned
 |
| TUES 2:00-3:30 | **Project Planning:**Project Brainstorm and Feasibility Assessment | * Project Planning
	+ Create realisticproject expectations
		- *Educator Checklist – 1.6 Feasibility assessment*
	+ Backward Design
		- 3Backward Design\_GIS.ppt
		- Rubrics
* Project Ideas
	+ View Past CMaP Project
	+ Have participants write down their project ideas
* Project Brainstorm
	+ Type up Project ideas and possible partners
	+ Speed Date Activity
 |
| TUES 3:30-3:45 | **Break** |  |
| TUES 3:45-4:45 | **Project Planning:** | * Begin Project Planning
	+ Preview [Sample Community Letters](http://www.uen.org/cmap/courses/CMap/SampleLetters.htm)
	+ [Template](http://www.uen.org/cmap/courses/CMap/CMaPFiles/Admin/Project%20Template.doc) Introductions
	+ work time
	+ *Show a [completed 9 square](http://www.uen.org/cmap/courses/CMap/files/arcgis/nineSquare.xls) –doc 3.2*

*(optional)* |
| TUES 4:45-5:00 | **Take your Pulse** | * How are you doing?
* List some of your project ideas
* What are we forgetting?
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***WEDNESDAY***

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| WED 8:00-8:30 | **Project Planning:** Define, organize and design a CMaP Project  | * Questions & Review
 |
| WED 8:30-9:30 | **Project Implementation:** Gathering New DataFieldwork | * Attribute Tables
	+ Show data and talk about what is in the attribute table.
	+ The power behind the GIS is the attribute table
	+ Discuss who creates the data and reasons for the data
	+ Metadata (Show in ArcCatalog)
* Tree collection project
	+ Discuss what data needs to be collected.
	+ Example table ID (Waypoint #) Category (Deciduous or Coniferous), Species (Name) Height (number)
* Decide how to gather data
	+ Surveys/Questionnaires
	+ Spreadsheets
	+ GPS
	+ Observation
	+ Measurement
	+ Other
 |
| WED 9:30-10:30 |  | * Go out, mark waypoints at each tree, and record data on data table. (4-6 trees)
* Download Data points into ArcMap
	+ Add Ariel image
* Editing Attribute Table
	+ Hide Fields
	+ Add Fields
	+ Start Editing
	+ Add data collected
* Display data
	+ Unique Values
	+ Categories (Graduated Symbols)
	+ Duplicate data layers
	+ Query
* View Layouts- Making Maps
	+ Export to JPEG
* ArcMap 10 and Site License Discussion
 |
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| Break- 10:15-10:30 | **Break** |  |
| WED 10:30-12:00 | **Project Implementation:** Transferring Field Data to GIS | * Distribute Software & Data CDs
* Show DNR-Garmin Install from the CD
* Open ArcMap and practice adding Utah shape files from Data CD.
 |
| WED 12:00-1:00 |  |  |
| WED 1:00-3:15(USU) | **Project Planning:** Define, organize and design River Water Quality Project. Meet our Community PartnersEric PetersonUSU Water Quality Extension(435) 797-3310eric.peterson@aggiemail.usu.edu | * Introduce Water Quality Project
	+ Presentation from USU
	+ Learn to use measurement tools
* Provide map directions for Thursday Field Session collecting.
 |
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| Break 3:15-3:30 | **Break** |  |
| WED 3:30-4:45 | **Work Time:** | * Have them work on:
	+ Project Template
	+ Tree projects
	+ <http://www.arcgis.com>

Online Resources* + GIS Portal Data Set downloads
	+ Arc Lessons
 |
| WED 4:45-5:00 | **Take Your Pulse** | * How are you doing?
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***THURSDAY***

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| THURS 8:30-11:45(USU) | **Project Implementation**: Water Quality Fieldwork  | * Meet at class/carpool to river
* Participants gather & record data: GPS

 waypoints and water quality readings for *Temperature, Turbidity, pH*, and *Dissolved Oxygen* |
|  |  |  |
| THURS 11:45-12:45 | Lunch on your own **OR** | Bring sack lunch to picnic in park |
| THURS 1:00-3:00 | **Project Implementation:** Transferring Field Data to GISCreating Water Quality Project  | * Transfer GPS points
* Bring Data in Water Quality project
	+ Add files from Data CD

-County Aerial Image* + OR Add files from GIS Portal

-[SGID Image Server](http://gis.utah.gov/sgid-image-server/2009-naip-imagery-available-in-image-server): -[SGID Database Server](http://gis.utah.gov/sgid_connect)* Edit Tables of GPS waypoints
	+ Insert new fields for *Temperature, Turbidity, pH*, and *Dissolved Oxygen*
 |
| 3:00-3:15 | **Break** |  |
| THURS 3:15-4:15 | **Project Implementation:** Advanced GIS Skills | * Join tables
* Hot link photos
* Review map layout
* Export map as jpg (Found in File)
 |
| THURS 4:15-4:45 | **Project Management**: Ongoing Project Evaluation and Assessment | * Project evaluation
* Skills assessment
* Transferability
 |
| THURS 4:45-5:00 | **Take your Pulse** | * How are you doing?
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***FRIDAY***

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| FRI 8:00-9:30 | **Project Implementation**: Finish Products | * Create final map products
* Discuss skills for presentations
* Practice presentations
 |
| Break 9:30 – 9:45 |  |  |
|  |  |  |
| FRI 9:45-11:30 | **Project Implementation**: Project Presentations & Celebrations  | * Celebrations: Participant presentations
* Feedback & Response
* Where to get help?
 |
| FRI 11:30-12:30 |  |  |
| FRI 12:30-1:00 | **Project Implementation**: Begin Evaluations | * Fieldwork- So What? Share lessons learned
* Project Template
* Explore ArcGIS Online
	+ <http://www.arcgis.com>
	+ ArcGIS Resource Center

<http://resources.arcgis.com/> |
| 1:00-1:45 | **Project Implementation**: Fieldwork DebriefArcGIS Software & Data CDsFile Management reviewed | * [CMaP Class Resources](http://www.uen.org/cmap/courses/CMap/resources.htm)
* [GIS Mailing List](http://lists.uen.org/mailman/listinfo/gis)
* [Join Utah Geographic Alliance](https://www.ngsednet.org/community/register.cfm?community_id=258)
* [Join GIS Portal](http://gis.utah.gov/)
* [Desk Copies for ESRI – Map book](http://esripress.esri.com/offers/deskcopy/index.cfm)
 |
| 1:45 -3:00 | **Project Management:**Evaluations continuedClosure | * [Complete workshop evaluation](http://profdev.uen.org/pdms/eval)
* Complete ***Credit Forms***

 -Collect and send to Jared at UEN* Send off!
* Congratulations!
 |