CF2	Name		Section Day(s)	Section start time

Component	Module
Computer Fundamentals	Basic data gathering and manipulation

Work commenced on:	Work wrapped up on:

Module Overview:

Computers are great at storing and manipulating structured data--meaning information that is organized in a consistent way. Many great tools exist for sorting through, finding patterns, and presenting structured data. This module explores the process of creating a data schema (structure), gathering data using that schema, processing, and finally analyzing that data in a spreadsheet.

Learning objectives
As you review each objective, pause to fill in any gaps in understanding you have

Mastery?	Objective	Type
	Formulate "thick" research questions that can be explored using numeric data analysis tools	Data brain
	Design a data schema (structure) in a spreadsheet to capture data related to the research questions.	Data brain
	Investigate trends in a dataset using spreadsheet functions: sum(), average(), sumif(), correl(), stdev()	Spreadsheet
	Visualize finding from the data using various kinds of charts and make conclusions related to the RQs	Presentation

Hamburger Contents: Check 'em off!
Assemble all of these items and slide them into this document folded *hamburger style*. Place on the right pocket of your folder, please.

Got it?	Description
	One-page description of your research questions, your data gathering plan, and a data guide for your data schema
	Your field data collection forms (not digitized)
	A printout of your digitized data in a well-formatted spreadsheet
	A description of the analysis tools you used their results, and a discussion of what the analysis means for your question
	This hamburger – thoughtfully completed!

System diagramming
Create a flowchart of the major steps you undertook in your data design, gathering, and analysis process. Connect steps end-to-end if they occurred in sequence, and stack steps on top of one another if they could have occurred at the same time.

The Heart of the Matter
1) What challenges exist when gathering and analyzing field-gathered data? How do spreadsheets help us manage those kinds of challenges? Give a specific example.

2) What does a spreadsheet add to the data analysis process that we couldn't accomplish using our raw data and a calculator? Given an example.