

LINC 63: CLOUD-BASED DATA ANALYSIS TOOLS

Foothill College Course Outline of Record

Heading	Value
Effective Term:	Summer 2023
Units:	1
Hours:	1 lecture per week (12 total per quarter)
Advisory:	Basic computer skills and knowledge of Macintosh or Windows operating systems; basic skills and knowledge of internet technologies, such as using web browsers, email, bookmarking, searching, and downloading; not open to students with credit in LINC 269.
Degree & Credit Status:	Degree-Applicable Credit Course
Foothill GE:	Non-GE
Transferable:	CSU
Grade Type:	Letter Grade (Request for Pass/No Pass)
Repeatability:	Not Repeatable

Student Learning Outcomes

- Build, edit, and format worksheets.
- Create and format charts.
- Write formulas and use functions.

Description

This course covers a variety of powerful cloud-based data analysis tools (e.g., Microsoft Excel, Google Sheets, and Apple Numbers) that can support educators, students, and business professionals in myriad tasks, including analyzing performance data, tracking expenditures, budget development, meeting planning, workflow processes, and database management.

Course Objectives

The student will be able to:

1. Identify common functionalities of varying cloud-based data analysis tools
2. Use a spreadsheet as a tool for financial management and planning
3. Use a spreadsheet as a simple database

Course Content

1. Common functionalities
 - a. Microsoft Excel
 - b. Google Sheets
 - c. Apple Numbers
2. Financial management and planning
 - a. Developing a spreadsheet structure
 - b. Entering financial data

- c. Formatting cells
 - d. Using the subtotals
 - e. Entering simple functions
3. Simple database
 - a. Basic database concepts (e.g., field, record)
 - b. Constructing a simple database
 - c. Sorting and filtering data
 - d. Summarizing data
 - e. Creating a simple chart or graph
 - f. Importing data from another source

Lab Content

Not applicable.

Special Facilities and/or Equipment

1. When offered on/off campus: Lecture room equipped with projector, whiteboard, and a demonstration computer connected online. Computer laboratories equipped with computers or laptops with internet access.
2. When taught via the internet: Students must have current email accounts and ongoing access to computers with web browsing capability and internet access.

Method(s) of Evaluation

Methods of Evaluation may include but are not limited to the following:

Creating a spreadsheet project using characteristics of quality defined by the class

Writing an evaluation critique and reflection for their own and classmates' final projects, with emphasis on use of constructive comments and suggested improvements with respect to established characteristics of good spreadsheet functionalities

Completion of a final project, including a worksheet with formulas, tables, conditional cell formatting

Method(s) of Instruction

Methods of Instruction may include but are not limited to the following:

Lecture presentations delivered in student-centered learning style, during which students take notes, follow demonstrations, or complete an activity

Facilitated discussions of live presentations, readings, or video presentations

Student presentations in small group and whole class situations

Representative Text(s) and Other Materials

Instructor-assigned notes, materials, and resources, including instructional materials, open education resources, multimedia, and websites.

Types and/or Examples of Required Reading, Writing, and Outside of Class Assignments

1. Reading assignments include analysis of texts, selected examples, and student projects
2. Writing assignments include a course project and multiple developmental projects, reflections, discussion responses, and peer feedback on projects
3. Outside assignments include project planning and development, participation in online peer collaboration activities, and project development through an iterative process

When taught online, these methods may take the form of multimedia and web-based presentations. Assignments will be submitted online as well.

Discipline(s)

Instructional Design/Technology