

# BUTTE COLLEGE

## COURSE OUTLINE

### I. CATALOG DESCRIPTION

**AB 25 - Computer Applications in Agriculture**

**3 Unit(s)**

**Prerequisite(s):** NONE

**Recommended Prep:** Reading Level III; English Level III; Math Level II

**Transfer Status:** CSU

34 hours Lecture

51 hours Lab

This course covers computer use in the workplace with emphasis on agribusiness situations. Computer applications including word-processing, spreadsheets, databases, and presentation managers will be covered. Also included will be accessing information through the Internet and World Wide Web, telecommunications, an introduction to web page design and other software appropriate to agribusiness. Application of these concepts and methods through hands-on projects developing computer-based solutions for agriculture business. (C-ID AG-AB 108).

### II. OBJECTIVES

Upon successful completion of this course, the student will be able to:

- A. Create a business document utilizing a common word processor.
- B. Create a multimedia presentation utilizing presentation software.
- C. Construct financial documents using an electronic spreadsheet.
- D. Manage data using database functions.
- E. Utilize the Internet to access agricultural information.
- F. Complete specific agricultural projects that demonstrate the ability to identify and solve problems using computers.
- G. Evaluate the criteria for selecting computer hardware and software appropriate to agricultural business applications.

### III. COURSE CONTENT

#### **A. Unit Titles/Suggested Time Schedule**

		Lecture	
<u>Topics</u>			<u>Hours</u>
1. Introduction to the Computer			2.00
a. Orientation to equipment			
b. Terminology			
c. Operating system use and file utilities			
2. Word-processing Applications in Agriculture			3.00
a. Creating, formatting and editing basic word processing documents			
b. Letters, reports, higher level document skills			
c. Phone/mailing lists			
3. Spreadsheet Applications in Agriculture			14.00
a. Agricultural production, business planning and analyses applications			
b. Simple agricultural accounting applications			
c. Other agricultural business and spreadsheet applications			
d. Agricultural business modeling			

4. Database Applications in Agriculture	5.00
a. Creating, inputting data, modifying tables, queries and reports	
b. Production and farm management applications	
c. Inventories, mailing lists and form letters, merging documents	
5. The Internet, World Wide Web and Agricultural Telecommunications	2.00
a. Internet and World Wide Web agricultural applications	
b. Finding agricultural information on the Internet and World Wide Web	
c. Modern media communications	
6. Presentation management applications in agriculture	4.00
7. Other software applications in agriculture	2.00
8. Practical exercises in	2.00
a. Electronic spreadsheet development	
b. Database software	
c. Internet technologies	
d. Presentation management	
e. Word processing	
Total Hours	34.00

#### Lab

<u>Topics</u>	<u>Hours</u>
1. Introduction to the Computer	6.50
a. Orientation to equipment	
b. Terminology	
c. Operating system use and file utilities	
2. Word-processing Applications in Agriculture	6.50
a. Creating, formatting and editing basic word processing documents	
b. Letters, reports, higher level document skills	
c. Phone/mailling lists	
3. Spreadsheet Applications in Agriculture	6.50
a. Agricultural production, business planning and analyses applications	
b. Simple agricultural accounting applications	
c. Other agricultural business and spreadsheet applications	
d. Creating, formatting, editing, and the use of formulas	
4. Database Applications in Agriculture	6.50
a. Creating, inputting data, modifying tables, queries and reports	
b. Production and farm management applications	
c. Inventories, mailing lists and form letters, merging documents	
5. The Internet, World Wide Web and Agricultural Telecommunications	6.50
a. Internet and World Wide Web agricultural applications	
b. Finding agricultural information on the Internet and World Wide Web	
c. Modern media communications	
6. Presentation management presentations for agriculture	6.50
7. Other software applications in agriculture	6.00
8. Practical exercises in	6.00
a. Electronic spreadsheet development	
b. Database software	
c. Internet technologies	
d. Presentation management	
e. Word processing	

**IV. METHODS OF INSTRUCTION**

- A. Lecture
- B. Instructor Demonstrations
- C. Class Activities
- D. Homework: Students are required to complete two hours of outside-of-class homework for each hour of lecture
- E. Laboratory

**V. METHODS OF EVALUATION**

- A. Quizzes
- B. Research Projects
- C. Oral Presentation
- D. Demonstration
- E. Lab Projects
- F. Mid-term and final examinations
- G. Short papers

**VI. EXAMPLES OF ASSIGNMENTS**

- A. Reading Assignments
  - 1. Read the crop enterprise budget from the University of California and transfer to a spreadsheet. Implement the calculations for the key "cost drivers" such as yield and labor rate.
  - 2. Read the examples of business letters/correspondence on the class portal. Be prepared to discuss the key components.
- B. Writing Assignments
  - 1. Using the appropriate software and document formatting, create a one page resume. Include work experience, education, references, and employment objective.
  - 2. Write/construct a cash flow summary for an agricultural enterprise using a spreadsheet. Include monthly cash inflows, outflows and ending cash balance.
- C. Out-of-Class Assignments
  - 1. Create a PowerPoint presentation on an agricultural commodity or service. The presentation should contain between 8 - 12 slides and take between 6 - 14 minutes to present.
  - 2. Use the Internet to locate production cost information for an agricultural commodity. Identify the break even price and break even yield.

**VII. RECOMMENDED MATERIALS OF INSTRUCTION**

## Textbooks:

- A. Gaskin, S., & Ferrett, R. GO! with Microsoft Office 2013 Getting Started. 1st Edition. Prentice Hall, 2013.
- B. Cashman, S.. Microsoft Office 2013: Introductory. 1st Edition. Cengage, 2013.