

**AB 25 - Computer Applications in Agriculture****Catalog Description**

Transfer Status: CSU**Unit(s):** 3.00**Lecture:** 34.00 Contact hours/68.00 Out of class hours/102.00 Total hours/2.00 Unit(s)**Lab:** 51.00 Contact hours/0.00 Out of class hours/51.00 Total hours/1.00 Unit(s)**Total:** 85.00 Contact hours/68.00 Out of class hours/153.00 Total hours/3.00 Unit(s)

Course Description: 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 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).

Objectives

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

1. Create a business document utilizing a common word processor.
2. Create a multimedia presentation utilizing presentation software.
3. Construct financial documents using an electronic spreadsheet.
4. Manage data using database functions.
5. Utilize the Internet to access agricultural information.
6. Complete specific agricultural projects that demonstrate the ability to identify and solve problems using computers.
7. Evaluate the criteria for selecting computer hardware and software appropriate to agricultural business applications.

Course Content

Topic Titles / Suggested Time Topic	
	<u>Lecture</u>
<u>Topics</u>	<u>Lec Hrs</u>
Introduction to the Computer	2.00
a. Orientation to equipment	
b. Terminology	
c. Operating system use and file utilities	
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/mailling lists	
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	
Database Applications in Agriculture	5.00
a. Creating, imputing data, modifying tables, queries and reports	
b. Production and farm management applications	
c. Inventories, mailing lists and form letters, merging documents	
The Internet and Agricultural Telecommunications	2.00
a. Internet and agricultural applications	
b. Finding agricultural information on the internet	
c. Modern media communications	
Presentation Management Applications in Agriculture	4.00
Other Software Applications in Agriculture	2.00
Practical Exercises	2.00
a. Electronic spreadsheet development	
b. Database software	
c. Internet technologies	

<u>Topics</u>	<u>Lec Hrs</u>
d. Presentation management	
e. Word processing	
Total Hours: 34.00	
<u>Lab</u>	
<u>Topics</u>	<u>Lab Hrs</u>
Introduction to the Computer	6.50
a. Orientation to equipment	
b. Terminology	
c. Operating system use and file utilities	
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	
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	
Database Applications in Agriculture	6.50
a. Creating, imputing data, modifying tables, queries and reports	
b. Production and farm management applications	
c. Inventories, mailing lists and form letters, merging documents	
The Internet and Agricultural Telecommunications	6.50
a. Internet and agricultural applications	
b. Finding agricultural information on the internet	
c. Modern media communications	
Presentation Management Presentations for Agriculture	6.50
Other Software Applications in Agriculture	6.00
Practical Exercises	6.00
a. Electronic spreadsheet development	
b. Database software	
c. Internet technologies	
d. Presentation management	
e. Word processing	
Total Hours: 51.00	

Methods of Instruction

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

Methods of Evaluation

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

Examples of Assignments

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.

Writing Assignments

1. Using the appropriate software and document formatting, create a 1-page resume, including work experience, education, references, and employment objective.

2. Write/construct a cash flow summary for an agricultural enterprise using a spreadsheet, including monthly cash inflows, outflows and ending cash balance.

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.

Recommended Materials of Instruction

Zero Cost Textbook

Lacher, M. (2019). Business Computers 365. (OER). <https://mlpp.pressbooks.pub/businesscomputers2019/>

Minimum Qualifications

Ag Business And Related Serv.

Agricultural Production

Agriculture (Masters Required)

Computer Science (Masters Required)

Office Technologies

Created/Revised by: Vazquez, Jacob

Date: 02/09/2026