AGBUS 70 Course Outline as of Fall 2010

CATALOG INFORMATION

Dept and Nbr: AGBUS 70 Title: AGRI COMPUTATIONS
Full Title: Agricultural Computations
Last Reviewed: 4/19/2004

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	3.00	Lecture Scheduled	3.00	17.5	Lecture Scheduled	52.50
Minimum	3.00	Lab Scheduled	0	6	Lab Scheduled	0
		Contact DHR	0		Contact DHR	0
		Contact Total	3.00		Contact Total	52.50
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 105.00 Total Student Learning Hours: 157.50

Title 5 Category:	AA Degree Applicable
Grading:	Grade Only
Repeatability:	00 - Two Repeats if Grade was D, F, NC, or NP
Also Listed As:	
Formerly:	AG 78

Catalog Description:
Practical applications of mathematical concepts and computations for problem solving in agriculture/horticulture and forestry.

Prerequisites/Corequisites:

Recommended Preparation:
One year elementary algebra or equivalent with grade 'C' or better; concurrent enrollment in ENGL 100 or ESL 100.

Limits on Enrollment:

Schedule of Classes Information:
Description: Applied mathematical concepts for agriculture. Problem solving, manually & with computer assistance. (Grade Only)
Prerequisites/Corequisites:
Recommended: One year elementary algebra or equivalent with grade 'C' or better; concurrent enrollment in ENGL 100 or ESL 100.
Limits on Enrollment:

Transfer Credit:
Repeatability: Two Repeats if Grade was D, F, NC, or NP

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree:	**Area**	Effective:	Inactive:
CSU GE:	**Transfer Area**	Effective:	Inactive:
IGETC:	**Transfer Area**	Effective:	Inactive:

CSU Transfer:	Effective:	Inactive:
UC Transfer:	Effective:	Inactive:

CID:

Certificate/Major Applicable:
Not Certificate/Major Applicable

COURSE CONTENT

Outcomes and Objectives:
Upon completion of this course, the student will be able to:
1. Calculate fundamental math operations in a variety of common modes.
2. Design, manipulate, and solve equations and problems requiring geometric applications and dimensional analysis.
3. Formulate and solve formulas and literal equations when dealing with practical, physical, and theoretical problems.
5. Formulate and solve quantitative operations in the areas of depreciation, efficiency, purity, sales, and mixtures.
6. Analyze, evaluate, and solve mathematical word problems pertaining to price, profit, labor, value, and quantity.
7. Analyze data, including . . .

Topics and Scope:

I. Basic mathematics operations
 A. Numerical operations
  1. fractions
  2. decimals
  3. percents
II. Algebra
 A. Simplification of algebraic expressions
 B. Solving equations
 C. Systems of equations
III. Dimensional Analysis
 A. Dimensional numbers
 B. Use of tables
 C. Word problems
 D. Geometric applications
IV. Percent and Applications

A. Applications
1. mixtures
2. parts per million
3. production
4. overrun
5. interest rates
6. salability

B. Consecutive percents
1. depreciation
2. efficiency
3. purity
4. sales

V. Data Analysis

Assignment:

1. Reading in assigned text, 5-10 pages per week.
2. Problem sets.
3. Pop quizzes; two tests; final examination.

Methods of Evaluation/Basis of Grade:

Writing: Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

None, This is a degree applicable course but assessment tools based on writing are not included because problem solving assessments are more appropriate for this course.	Writing 0 - 0%

Problem Solving: Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Homework problems	Problem solving 40 - 60%

Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

None	Skill Demonstrations 0 - 0%

Exams: All forms of formal testing, other than skill performance exams.

Problem solving.	Exams 40 - 60%

Other: Includes any assessment tools that do not logically fit into the above categories.

None	Other Category 0 - 0%

Representative Textbooks and Materials:
Agricultural Mathematics. Al-Hadad, Sabah. Kendall Hunt Pub. Co. 1994.
Mathematical Applications in Agriculture. Mitchell, Nina H. Delmar, 2003.
Mathematics for Agriculture: Applied Problems in Mathematics for Agriculture. Rogers, Betty C. and Hokanson, Clifford. M. Vero Media Inc., 2000.