AGMEC 51 Course Outline as of Fall 2011

CATALOG INFORMATION

Dept and Nbr: AGMEC 51 Title: AGRIC MECHANICS 1
Full Title: Agriculture Mechanics 1
Last Reviewed: 4/19/2004

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	3.00	Lecture Scheduled	2.00	17.5	Lecture Scheduled	35.00
Minimum	3.00	Lab Scheduled	2.00	15	Lab Scheduled	35.00
		Contact DHR	1.50		Contact DHR	26.25
		Contact Total	5.50		Contact Total	96.25
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 70.00 Total Student Learning Hours: 166.25

Title 5 Category:	AA Degree Applicable
Grading:	Grade or P/NP
Repeatability:	39 - Total 2 Times
Also Listed As:	
Formerly:	AG 85.1

Catalog Description:
Basic skills course that includes leveling, land measurement practices, and blueprint reading for agriculture; tool identification and maintenance; plumbing; woodwork; sheet metal layout; electrical wiring; ropework.

Prerequisites/Corequisites:

Recommended Preparation:
Eligibility for ENGL 100 or ESL 100

Limits on Enrollment:

Schedule of Classes Information:
Description: Basic skills course that includes leveling, land measurement practices, and blueprint reading for agriculture; tool identification and maintenance; plumbing; woodwork; sheet metal layout; electrical wiring; ropework. (Grade or P/NP)
Prerequisites/Corequisites:
Recommended: Eligibility for ENGL 100 or ESL 100
Limits on Enrollment:

Transfer Credit:
Repeatability: Total 2 Times

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:
Certificate Applicable Course

COURSE CONTENT

Outcomes and Objectives:
Student will:
1. Demonstrate the ability to use equipment for differential leveling, profile leveling, and contour mapping.
2. Identify and maintain tools used for the subject areas of the course.
3. Demonstrate the ability to plumb water systems using steel, copper, and plastic pipe.
4. Demonstrate skills needed for fabrication using lumber.
5. Demonstrate skills needed to layout and fabricate sheet metal items.
6. Demonstrate the ability to electrically wire a service entrance panel for 110 volt and 220 volt service and complete a variety of electrical circuits.
7. Demonstrate the ability to make common knots, hitches, and splices.
8. Demonstrate the ability to read a blueprint.

Topics and Scope:

1. Farm construction work
   a. Measuring, marking
   b. Hand tools - their care, proper use and operation
   c. Power tools - how to operate, adjust, and repair
   d. Surveying, squaring and leveling tools
   e. Safety rules and considerations
2. Wood work
   a. Use and care of tools and machines used in wood working
   b. Selection and characteristics of different woods
3. Sheet metal
   a. Layout
   b. Cutting and bending
   c. Operation and care of sheet metal tools

4. Plumbing
   a. Operation and care of plumbing tools
   b. Types of fittings
   c. Layout and measuring
5. Construction materials
   a. Properties of metals, woods, etc.
   b. Figuring bills of material
   c. Fasteners of all types
6. Blueprints
   a. Reading blueprints
7. Electrical
   a. Splices and connections
   b. Lighting circuit, receptacle circuits
   c. Safety with electricity
   d. Service entrance panels
   e. 110 volt and 220 volt circuits
8. Rope work
   a. Knots
   b. Hitches
   c. Slpices

Assignment:

Tool identification, reports, and lab participation.

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.

Written homework	Writing 10 - 20%

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

Homework problems, Quizzes, Exams	Problem solving 20 - 30%

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

Class performances	Skill Demonstrations 20 - 30%

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

Multiple choice, True/false, Matching items, Completion	Exams 20 - 30%

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

None	Other Category 0 - 0%

Representative Textbooks and Materials:
ILLUSTRATED TOOL MANUAL, Second Edition, 1999
BASIC ELECTRICAL WIRING, Duncan & Wren, 7th Edition, 1999.
LEVELING AND LAND MEASUREMENT PRACTICES FOR AGRICULTURE, Jacobs & Mattox,
1990.