AGTC 210: AG PROJECT CONSTRUCTION

Proposer:

Name:	Email:
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Effective Term:
Fall 2025

Does this course use a CA Common Course Number
No

Credit Status:
Credit - Degree Applicable

Subject:
AGTC - Agricultural Technology

Course Number:
210

Discipline:

And/Or	(	Discipline	)
		Agricultural Production (Animal science, plant science, beekeeping, aquaculture)	
Or		Agricultural Engineering (Equipment and machinery, farm mechanics)	

Catalog Title
Agriculture Project Construction

COS Course Description
The Agriculture Project Construction class teaches students how to construct tools or equipment used in a repair shop or on the farm. These projects could include tools, jigs or farm implements just to name a few examples. Students will gain an understanding of the process and tools used for fabrication. Students will start by planning the project using drawings or sketches. From these drawings students will develop a list of materials needed to build the protect. Students will then take the materials and process them into the final product. This could include: cutting, shearing, drilling, grinding, welding, bending or heating.

Method of Instruction:
Laboratory
Lecture and/or Discussion

Course Units/Hours:

Course Units Minimum:
3

Lecture Hours Minimum (week)
3

Lab Hours Minimum (week)
1

Total Contact Hours Minimum (semester)
70

Total Outside Hours Minimum (semester)
105

Total Student Learning Minimum Hours (semester)
175

Repeatability:
No

Open Entry/Exit:
No

Field Trips:
Not Required

Grade Mode:
Standard Letter

TOP Code:
011600 - * Agricultural Power Equipment Technology

SAM Code:
C - Clearly Occupational

Course Content

COS Methods of Evaluation:
Problem solving assignments or activities
Project
Short answer quizzes or exams
Skill demonstrations

COS Course Topics:

	COS Course Topics
1	Safety in the fabrication shop including personal safety and tool usage safety.
2	Drawing and sketching objects to be made.
3	Creating a list of materials needed to fabricate a project.
4	Planning the process measuring and cutting material to shape and size.
5	Cutting and shearing equipment
6	Drilling and punching equipment
7	Bending and forming equipment
8	Material joining or fastening processes like welding, rivets, screws, brazing etc.
9	Grinding, sanding and smoothing
10	Painting and material protection

COS Course Objectives:

	COS Course Objectives
1	Demonstrate the correct use of shop power tools and hand tools.
2	Students will develop a mechanical drawing to scale
3	Students will create a list of materials needed to complete a project
4	Students will process material into a finished product.
5	Students will fasten material together using various processes.
6	Students will shape material using grinders, torches, brakes, and other equipment.

7	Students will finish projects by grinding, sanding, polishing and other processes.
8	Students will protect finished projects with paint, varnish stain or other protective material.

Course Outcomes:

	Course Outcomes
1	Upon completion of this course students will be able to list, explain and demonstrate general safety rules as they apply to the fabrication shop.
2	Upon completion of this course students will be able to use power tools and hand tools to process material into a finished product.
3	Upon completion of this course students will be able to interpret simple drawings to create a finished project.

Assignments:

Assignment Type:	Details
Reading	Students will read textbook or design and build writeups on websites or social media posts.
Writing	Students will write out procedures used to construct a project.
Homework	Students will research a project on the internet and writeup how the project was constructed.
Lab	Students will use a set of plans and provided material to construct a project.

Representative Texts, Manuals, and/or OER that is equivalent, Other Support Materials:

Texts used by individual institutions and even individual sections will vary. The list of representative texts must include at least one text with a publication date within five (5) years of the course outline approval date.

COS Textbooks or other support materials

Resource Type:	Details
Books	Ray Herren. Agriculture Mechanics, Fundamentals and Applications, 6 ed. Thompson Delmar, 2009, ISBN: 978-1435400979
Zero Textbook Cost	Basic Blueprint Reading by Linn-Benton Community College https://openoregon.pressbooks.pub/blueprint/

Equity Review:
Yes

Other Degree Attributes
Degree Applicable
Not a Basic Skills Course

Materials Fee:
20

Banner Title:
Ag Project Construction

Curriculum Committee Approval Date:
04/02/2025

Academic Senate Approval Date:
04/09/2025

District Governing Board Approval Date:
04/21/2025

Course Control Number:
CCC000551749