Purpose: It is the intention of this Administrative-Master Syllabus to provide a general description of the course, outline the required elements of the course and to lay the foundation for course assessment for the improvement of student learning, as specified by the faculty of Wharton County Junior College, regardless of who teaches the course, the timeframe by which it is instructed, or the instructional method by which the course is delivered. It is not intended to restrict the manner by which an individual faculty member teaches the course but to be an administrative tool to aid in the improvement of instruction.

Course Title – Agricultural Construction I  
Course Prefix and Number – AGRI 2303  
Department - Agriculture  
Division – Life and Physical Science  
Course Type: (check one)  
☒ Academic General Education Course (from ACGM – but not in WCJC Core)  
☐ Academic WCJC Core Course  
☐ WECM course (This course is a Special Topics or Unique Needs Course: Y ☐ or N ☒)  

Semester Credit Hours # : Lecture Hours # : Lab/Other Hours # = 3:2:2  

Equated Pay hours for course - 3  

Course Catalog Description – Safety procedures, selection, use, and maintenance of hand and power tools, metal cutting and welding; and construction materials and principles.

Prerequisites/Co-requisites – None

Prepared by Sean Amestoy  
Date 1/30/15

Reviewed by Department Head Sean Amestoy  
Date 1/30/15

Accuracy Verified by Division Chair Kevin Dees  
Date 1-30-2015

Approved by Dean or Vice President of Instruction  
Date
## Administrative - Master Syllabus

### I. Topical Outline

Each offering of this course must include the following topics (be sure to include information regarding lab, practicum, clinical or other non-lecture instruction):

<table>
<thead>
<tr>
<th>Topical Outline</th>
<th>Dedicated Instructional Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taking linear measurements; using squares, levels, and lines.</td>
<td>Two weeks</td>
</tr>
<tr>
<td>Woodworking safety, woodworking hand tools, and woodworking fasteners.</td>
<td>Three weeks</td>
</tr>
<tr>
<td>Selection and usage of abrasives, stains, finishes, and wood and metal paint applications.</td>
<td>One week</td>
</tr>
<tr>
<td>Selection and use of portable drills, sanders, saws, and routers.</td>
<td>One week</td>
</tr>
<tr>
<td>Principles of concrete layout and surveying.</td>
<td>Two weeks</td>
</tr>
<tr>
<td>Principles of basic plumbing and wiring.</td>
<td>Two weeks</td>
</tr>
<tr>
<td>Farm buildings and related structures.</td>
<td>Two weeks</td>
</tr>
<tr>
<td>Selection and use of plywood and lumber</td>
<td>One week</td>
</tr>
<tr>
<td>Welding, safety, and principles of gas, arc, MIG, and TIG welding.</td>
<td>Two weeks</td>
</tr>
</tbody>
</table>

**Laboratory:**

1. Measurement/squaring.
2. Calculating/Determining area, acreage/perimeter
3. Use of screws, nails, nuts, bolts, and glue.
4. Wood and metal sanding, preparation and painting techniques.
5. Using portable hand tools.
6. Surveying
7. Concrete construction
8. Plumbing and wiring.
10. Welding equipment and safety.
11. Metal welding and cutting.
II. Course Learning Outcomes

<table>
<thead>
<tr>
<th>Learning Outcomes</th>
<th>Methods of Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upon successful completion of this course, students will:</td>
<td>1. Lab, exams, &amp; class discussions</td>
</tr>
<tr>
<td>1. Demonstrate proper safety procedures in agricultural construction laboratory.</td>
<td>2. Lab, exams, &amp; class discussions</td>
</tr>
<tr>
<td>2. Identify layout tools used for linear measuring, leveling, and squaring.</td>
<td>3. Lab, exams, &amp; class discussions</td>
</tr>
<tr>
<td>3. Describe principles involved in linear measurements, squaring, leveling, etc.</td>
<td>4. Lab, exams, &amp; class discussions</td>
</tr>
<tr>
<td>4. Identify woodworking fasteners and hand tools.</td>
<td>5. Lab, exams, &amp; class discussions</td>
</tr>
<tr>
<td>5. Understand and implement the methods for using hand tools and fasteners.</td>
<td>6. Lab, exams, &amp; class discussions</td>
</tr>
<tr>
<td>6. Demonstrate knowledge regarding various methods of using abrasives, finishes and paints.</td>
<td>7. Lab, exams, &amp; class discussions</td>
</tr>
<tr>
<td>7. Understand selection and demonstrate usage of portable drills, saws, sanders, and routers.</td>
<td>8. Lab, exams, &amp; class discussions</td>
</tr>
<tr>
<td>8. Understand the differences and demonstrate knowledge regarding the different types of welding such as Gas, Arc, MIG, and TIG.</td>
<td>9. Lab, exams, &amp; class discussions</td>
</tr>
<tr>
<td>9. Illustrate the principles of surveying and knowledge regarding the uses of application of concrete layout and structures.</td>
<td>10. Lab, exams, and class discussions</td>
</tr>
<tr>
<td>10. Apply basic wiring and plumbing techniques.</td>
<td></td>
</tr>
</tbody>
</table>

III. Required Text(s), Optional Text(s) and/or Materials to be supplied by Student.


IV. Suggested Course Maximum - 24

V. List any specific spatial or physical requirements beyond a typical classroom required to teach the course.

The lecture room should include sufficient dry erase (or chalk) board for notes and illustrations, a computer with internet access and overhead computer projector, and a traditional overhead projector.

Laboratory classroom required
VI. Course Requirements/Grading System – Describe any course specific requirements such as research papers or reading assignments and the generalized grading format for the course

Students are required to read the publications assigned to them. Throughout the semester, the students have 4 major lecture exams, attendance/participation, several quizzes and assignments

Evaluative Procedures:

Lecture grade make up ½ of the final grade.
Lab grade make up ½ of the final grade.
Lecture grade is determined by 4 major exams and class attendance/participation, each counting for 1/5 of the total lecture grade.
Lab grade is determined by participation and completion of lab assignments.

The grade classifications as outlined in the College Catalog are employed:

- A – 90 – 100% Excellent
- B – 80 – 89% Good
- C – 70 – 79% Average
- D – 60 – 69% Poor
- F – Below 60% Failure
- W – Withdrawn

VII. Curriculum Checklist

☒ - Academic General Education Course (from ACGM – but not in WCJC Core)
No additional documentation needed

☐ - Academic WCJC Core Course
Attach the Core Curriculum Checklist, including the following:
- Basic Intellectual Competencies
- Perspectives
- Exemplary Educational Objectives

☐ - WECM Courses
If needed, revise the Program SCANS Matrix & Competencies Checklist.