

## Master Syllabus

### AVT 1112 - UAS Precision Agriculture

**Division:** Science, Mathematics and Engineering

**Department:** Aviation Technology

**Credit Hour Total:** 2.0

**Lecture Hrs:** 1.0 **Lab Hrs:** 2.0

**Date Revised:** August 2014

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### Course Description:

This course describes the current state of Unmanned Aerial Systems and related technologies as they may be applied to precision agriculture. Students will determine the commercial viability of Unmanned Aerial System applications in precision agriculture and will review current regulatory and operational considerations for their use. One classroom, two lab hours per week.

### General Education Outcomes:

- Oral Communication Competency
- Written Communication Competency
- Critical Thinking/Problem Solving Competency
- Values/Citizenship/Community Competency
- Information Literacy Competency

### Course Outcomes:

#### State of Precision Agriculture

Describe the importance of Unmanned Systems and their current and future roles in precision agriculture.

**Assessment Method:** Locally developed exams

**Performance Criteria:**

Score a 70% or higher on exams.

#### Applications

Identify how Unmanned System technologies can be applied to precision agriculture.

**Assessment Method:** Locally developed exams

**Performance Criteria:**

Score a 70% or higher on exams.

#### Rules and Regulations

Determine the commercial viability of Unmanned Aerial System applications in precision agriculture and will review current regulatory and operational considerations for their use.

**Assessment Method:** Locally developed exams

**Performance Criteria:**

Score a 70% or higher on exams.

### Outline:

Course goals and objectives

What is a UAS?

Why UAS?

What is Precision Agriculture?

Common Terms and Definitions

Current State of Precision Agriculture

Issues and reasons for Precision Agriculture

Stages

Tools

Current Precision Agriculture implementations

Social, Economic, and Environmental considerations

UAS Applications for Precision Agriculture

A. Platform examples

B. Sensors

C. Examples of use

• Course project development and presentations

□ Summary