

Porterville College – New Program Proposal Form

Use this form to initiate a new program proposal for Curriculum Committee review.

Initiator Information

Author: Michael Leishman Department: CE

Date Submitted: 11/26/25 Proposed Start Term: Fall 2026

Program Overview

Proposed Program Title: Ag Technician-Drones

Award Type: Certificate

Total Units Required: 6

Program Description

The Drone Technology Certificate of Achievement prepares students for emerging careers in agricultural technology by providing hands-on training in unmanned aerial systems (UAS), data analysis, and precision agriculture applications. This program is designed for students seeking to enter the rapidly growing field of ag-tech, as well as for growers, crop advisors, and professionals who want to integrate drone-based solutions into modern farming operations.

Rationale for Program

Tulare County's multibillion-dollar agricultural industry is rapidly adopting drone and precision-ag technologies, creating strong regional demand for skilled operators. With agriculture generating over \$7 - 8 billion annually in the county and the global ag-drone market expanding quickly, employers increasingly need workers who hold FAA Part 107 certification and understand agricultural applications such as mapping, NDVI analysis, irrigation monitoring, and variable-rate planning. Although more than 400,000 individuals nationwide hold Remote Pilot certificates, very few have ag-specific drone skills—creating a clear workforce gap the college can fill. The two-course, 8-week certificate leverages Porterville College's existing agriculture programs, aligns with state water-conservation and precision-ag priorities, offers strong job placement potential, and provides a low-cost, high-impact opportunity to expand CTE offerings and serve local growers, applicators, and ag-tech employers.

Department or Planning Approval (Select One)

Included in Program Review (Program was part of the department's most recent Program Review.)

Department Vote (Date: 8/25/25)

Yes: 5 No: _____ Abstain: _____ Absent: 2

Signatures

Department Chair/Coordinator: Stephanie Cortez Date: 12/02/25

Dean: Donald Bel Valler Date: 12/01/25

Additional Notes or Attachments (Optional)

Attach relevant supporting documents as needed (e.g., LMI, articulation, CORs).

Porterville College – New Course Proposal Form

Use this form to initiate a new course proposal for Curriculum Committee review.

Initiator Information

Author: Michael Leishman Department: CE

Date Submitted: 11/26/25 Proposed Start Term: Fall 2026

Course Details

Course Title: Precision Agriculture with Drones

Course Code: AG Tech- 108

Units: 3 (Lecture Hours: 34 Lab Hours: 20) CID Units (if applicable): _____

Course Description

This advanced course provides students with practical knowledge of how drone technology is integrated into precision agriculture systems. Students will learn data acquisition, mapping, and analytics using industry software and sensors to enhance crop health monitoring, irrigation efficiency, and pest control. Real-world applications and case studies will prepare students for careers in ag tech, crop consulting, and agronomy.

Rationale for Course

This will provide students with the advanced, industry-relevant skills that Central Valley employers increasingly require as agriculture becomes more data-driven. While earning the FAA Part 107 certification enables legal drone operation, growers and ag service companies need technicians who can apply drone technology to real-world challenges—such as creating aerial maps, analyzing NDVI and multispectral imagery, assessing irrigation efficiency, monitoring pests and diseases, and developing variable-rate application plans. This course bridges that critical skills gap by teaching students how to collect, interpret, and convert drone data into actionable decisions that improve crop health, conserve water, and reduce input costs—high priorities for farms in Tulare and Kern counties. By providing hands-on training with modern ag-tech tools, the course enhances employability, supports regional sustainability goals, and strengthens Porterville College’s role as a leader in agricultural workforce development.

Department or Planning Approval (Select One)

Included in Program Review (Course was part of the department's most recent Program Review.)

Department Vote (Date: 8/25/25)

Yes: 5 No: _____ Abstain: _____ Absent: 2

Signatures

Department Chair/Coordinator: Stephanie Cortez Date: 12/02/25

Dean Donaldo Del Valle Date: 12/04/2025

Additional Notes or Attachments (Optional)

Attach draft COR, articulation info, CID, outline, or other relevant documents if available.

Porterville College – New Course Proposal Form

Use this form to initiate a new course proposal for Curriculum Committee review.

Initiator Information

Author: Michael Leishman Department: CE
Date Submitted: 11/26/25 Proposed Start Term: Fall 2026

Course Details

Course Title: Drone Operations & FAA Prep
Course Code: AG Tech- 107
Units: 3 (Lecture Hours: 34 Lab Hours: 20) CID Units (if applicable): _____

Course Description

This foundational course prepares students to legally and safely operate drones in agricultural applications. Students will learn FAA Part 107 regulations, drone hardware fundamentals, flight operations, maintenance, safety procedures, and practical skills for agricultural aerial imaging. The course includes FAA Part 107 test preparation and hands-on flight training.

Rationale for Course

To meet the growing demand for drone-trained professionals in the Central Valley's multibillion-dollar agricultural industry. As farms increasingly rely on drones for mapping, irrigation assessment, crop health monitoring, and regulatory compliance, employers need operators who can fly safely, interpret regulations, and collect reliable data. This foundational course equips students with FAA Part 107 certification preparation—legally required for commercial drone use—along with essential flight skills, safety protocols, and hardware/software knowledge, making it immediately valuable to local producers, ag service companies, and students pursuing ag-tech careers. By offering this course, Porterville College provides a fast-track, workforce-ready credential that supports regional economic needs, modernizes the agriculture program, and expands accessible career pathways for both traditional students and working adults.

Department or Planning Approval (Select One)

Included in Program Review (Course was part of the department's most recent Program Review.)
 Department Vote (Date: 8/25/25)
Yes: 5 No: _____ Abstain: _____ Absent: 2

Signatures

Department Chair/Coordinator: Stephanie Cortez Date: 12/02/25
 Dean: Donald Del Valle Date: 12/01/2025

Additional Notes or Attachments (Optional)

Attach draft COR, articulation info, CID, outline, or other relevant documents if available.