

Florida Department of Education
CURRICULUM FRAMEWORK

Program Title: Agricultural Production Technology
Occupational Area: Agriscience and Natural Resources

PSV

CIP Number 0102010100 AAS
1102010100 AS
Grade Level College Credits
Length AS Degree/60 Credit Hours
Program SOC Code - 11-9012.00 - Farmers and Ranchers

- I. **MAJOR CONCEPTS/CONTENT:** The purpose of this program is to prepare students for employment as farm managers (71005508), production managers, general managers, farm (180.167-018), farmers, general (411.161-010), managers, production (180.161-010), or Farmers and Ranchers (11-9012.00).

The content includes, but is not limited to, instruction that prepares individuals to manage land, water, machinery, financing, crops and/or livestock, labor and facilities as well as make contracts, manage taxes, keep records, analyze records and technical reports, and demonstrate leadership, employability, communication and human relations skills.

- II. **LABORATORY ACTIVITIES:** Agricultural land laboratory and shop activities are an integral part of this program including crop production equipment, livestock production equipment, mechanics' tools, facility construction and maintenance tools, and chemical application equipment.
- III. **SPECIAL NOTE:** National Postsecondary Agricultural Student Organization is the appropriate career student organization for providing leadership training and for reinforcing specific vocational skills. Career Student Organizations, when provided, shall be an integral part of the vocational instructional program, and the activities of such organizations are defined as part of the curriculum in accordance with Rule 6A-6.064, FAC.

Planned and supervised occupational activities may be provided through directed laboratory experience, practicum or cooperative experience. Whenever the cooperative method of instruction is offered, the following is required for each student: a training plan, signed by the student, teacher and employer which includes instructional objectives and a list of on-the-job and in-school learning experiences; a work station which reflects equipment, skills and tasks which are relevant to the occupation which the student has chosen as a career goal. The student must receive compensation for work performed.

The typical length of this program for the average achieving student is an associate degree. The standard credit hour length for this program is 60 hours.

- IV. **INTENDED OUTCOMES:** After successfully completing this program, the student will be able to:

01.0 Obtain and dispose of an agricultural enterprise.
02.0 Manage and supervise labor.

- 03.0 Manage crops.
- 04.0 Manage livestock.
- 05.0 Manage machinery and equipment.
- 06.0 Manage facilities.
- 07.0 Select sources and methods of financing the operation.
- 08.0 Keep and analyze financial, production and personnel records.
- 09.0 Market crops/livestock.
- 10.0 Interpret technical information and incorporate it into managerial practices.
- 11.0 Integrate state and federal regulations into the operation.
- 12.0 Demonstrate leadership, communication, employability and human relations skills.

Florida Department of Education
STUDENT PERFORMANCE STANDARDS

Program Title: Agricultural Production Technology
Postsecondary Number: 0102020100

01.0 OBTAIN AND DISPOSE OF AGRICULTURAL ENTERPRISE--The student will be able to:

- 01.01 Determine land capability classes of farm or ranch.
- 01.02 List steps in obtaining title to real estate.
- 01.03 Determine advantage of using services of Soil Conservation Service (SCS).
- 01.04 Develop a farm or ranch rental/lease agreement.
- 01.05 Determine value of property.
- 01.06 Develop a will for transfer or disposal of property.

02.0 MANAGE AND SUPERVISE LABOR--The student will be able to:

- 02.01 Train and supervise workers.
- 02.02 Obtain information from workers necessary for employment.
- 02.03 List responsibilities and liability of employer regarding workers rights, safety and welfare.
- 02.04 List local, state and federal regulations regarding employment of workers.
- 02.05 Develop an employee work schedule.

03.0 MANAGE CROPS--The student will be able to:

- 03.01 Prepare a land use plan.
- 03.02 Determine long-range conservation practices.
- 03.03 Prepare soil for crops.
- 03.04 Select crop varieties best suited for land, market and type of farm operation.
- 03.05 Determine seeding/planting rate and spacing.
- 03.06 Calibrate and adjust planting equipment.
- 03.07 Plant crops.
- 03.08 Select appropriate cultural practices including cultivation, fertilization and irrigation.
- 03.09 Identify and control diseases, insects and pests.
- 03.10 Determine maturity of crops.
- 03.11 Harvest crops.
- 03.12 Store crops.
- 03.13 Determine the most advantageous method of marketing crops.

04.0 MANAGE LIVESTOCK--The student will be able to:

- 04.01 Select and/or breed livestock.
- 04.02 Determine nutritional requirements and balance livestock rations.
- 04.03 Prepare a feeding schedule.
- 04.04 Determine quality of pasture range or forage.
- 04.05 Provide for winter rations and supplements.
- 04.06 Maintain pasture fertility and quality.
- 04.07 Develop a breeding/marketing plan for operation.
- 04.08 Cull unproductive animals.
- 04.09 Provide aid for animals with parturition problems.
- 04.10 Care for newborn livestock.
- 04.11 List causes of livestock infertility.

- 04.12 Provide mineral supplement for animals.
 - 04.13 Determine most advantageous method of marketing livestock.
 - 04.14 Transport livestock.
 - 04.15 Identify and treat disorders, diseases and pests of livestock.
- 05.0 MANAGE MACHINERY AND EQUIPMENT--The student will be able to:
- 05.01 Assess needs for the purchases of new or replacement equipment.
 - 05.02 Maintain oil, fuel and hydraulic levels in equipment.
 - 05.03 Maintain tires, batteries and coolant system on all equipment and vehicles.
 - 05.04 Operate and service small gasoline engines.
 - 05.05 Replace hoses, belts and lines.
 - 05.06 Cut and weld with oxy-acetylene and arc welding equipment.
 - 05.07 Observe safety procedures when operating farm equipment.
 - 05.08 Develop a general maintenance schedule.
- 06.0 MANAGE FACILITIES--The student will be able to:
- 06.01 Safely operate and maintain general farm shop tools and equipment.
 - 06.02 Install and maintain electrical wiring and equipment.
 - 06.03 Square and build a farm structure.
 - 06.04 Determine a bill of materials for a farm construction project.
 - 06.05 Form and pour concrete.
 - 06.06 Build and repair fences, gates and pens.
 - 06.07 Develop a general maintenance schedule for facilities and equipment.
- 07.0 SELECT SOURCES AND METHODS OF FINANCING THE OPERATION--The student will be able to:
- 07.01 List major sources of production credit.
 - 07.02 List sources of credit for capital items and real estate.
 - 07.03 Prepare a case using accepted forms for obtaining credit from farm lending institutions.
- 08.0 KEEP AND ANALYZE FINANCIAL, PRODUCTION AND PERSONNEL RECORDS--The student will be able to:
- 08.01 Keep fertilization and pesticide use records.
 - 08.02 Keep equipment maintenance and service records.
 - 08.03 Record cultural and production information.
 - 08.04 Determine cost efficiency of operations.
 - 08.05 Maintain labor and personnel records.
 - 08.06 Prepare a farm tax return.
 - 08.07 Prepare an annual budget
 - 08.08 Determine credit, cash flow and investment returns.
 - 08.09 Review sources and kinds of farm insurance.
- 09.0 MARKET CROPS/LIVESTOCK--The student will be able to:
- 09.01 Secure and interpret market information.
 - 09.02 Select marketing channels for greatest profit.
 - 09.03 Interpret elements of marketing agreements.
 - 09.04 Market crops/livestock.
 - 09.05 Provide for transportation of product to market.
- 10.0 INTERPRET TECHNICAL INFORMATION AND INCORPORATE IT INTO MANAGERIAL PRACTICES--The student will be able to:

- 10.01 Keep and maintain a file of current technical information from universities, governmental and commercial agencies.
 - 10.02 Maintain a reference file for periodicals and other publications.
 - 10.03 Attend seminars and workshops to update skills and knowledge.
 - 10.04 Determine sources and advantages of using computer networking.
- 11.0 INTEGRATE STATE AND FEDERAL REGULATIONS INTO OPERATION--The student will be able to:
- 11.01 List agencies responsible for inspecting and regulating operation of product.
 - 11.02 Secure necessary inspection certificates and registrations.
 - 11.03 List reasons for the necessity of inspections, certifications and registrations.
- 12.0 DEMONSTRATE LEADERSHIP, COMMUNICATION, EMPLOYABILITY AND HUMAN RELATIONS SKILLS--The student will be able to:
- 12.01 Develop citizenship awareness and responsibility.
 - 12.02 Demonstrate knowledge in organizing and conducting meetings.
 - 12.03 Demonstrate effective communication skills.
 - 12.04 Complete an employment application
 - 12.05 Conduct a job search.
 - 12.06 Demonstrate job interview skills.
 - 12.07 Recognize appropriate work habits.
 - 12.08 Identify associations and societies associated with occupation or profession.