

Penn Manor Agriculture Scope and Sequence

To be considered an Ag Student, students MUST:

- Complete Ag Student Status Survey
- Get PDE 408 letter signed by student and parent and return to department coordinator
- Have an agricultural related career goal
- Concentrate in (take 4 or more credits) or complete (take 11 courses) one of the five ag majors
- Take end of program competency (NOCTI) test (no test in Animal Science)

Agriculture Students who complete 11 credits within the major are waived one credit of math, science, and social studies their senior year AND are eligible for Ag Work Study work release.

Agriculture Major Descriptions

Agriculture Production Major

Students seeking the Agriculture production major will be prepared to enter fields in and supporting production agriculture. Students will focus on both Agriculture Science and Agricultural Mechanics Concepts. Students who complete this major will take the Agriculture Production NOCTI exam and receive a certificate of completion if rated competent or advanced.

CERTIFICATIONS: PA Private Pesticide Applicators License (must pass test)

Youth for Quality Care of Animals (Yearly course must be completed)

REQUIRED COURSES	MUST CHOOSE 3 OR MORE FROM:
Introduction to Ag, Food, & Natural Resources	SAE 1 (Outside of School)
Intro to Ag Mechanics	SAE 2 (Outside of School)
Engines 1	SAE 3 (Outside of School)
Animal Science 1	SAE 4 (Outside of School)
Plant Science 1	Welding 1
Agribusiness and Leadership	Welding 2
Biotechnology and Food Science (Odd Years)	Engines 2(Even Years)
Plant Science 2 (Even Years)	Construction
	Ag Equipment (Odd Years)
	CP/Honors Vet Science 1
	CP/Honors Vet Science 2 (Even Years)
	Ag Work Study (Seniors Only)
	Wildlife and Natural Resources
	Floriculture and Landscape (Odd Years)

Animal Science Major

Students who complete the Animal Science major will be prepared for careers involving large and small animals or to major in animal sciences in college. Students who complete this program will be awarded a certificate of completion if rated competent or advanced by the Penn Manor Agriculture staff.

CERTIFICATIONS: Youth for Quality Care of Animals (Yearly course must be completed)

<u>REQUIRED COURSES</u>	<u>MUST CHOOSE 3 OR MORE FROM:</u>
CASE Introduction to Agriculture Food, and Natural Resources	SAE 1 (Outside of School)
Animal Science 1	SAE 2 (Outside of School)
CP/Honors Veterinary Science 1	SAE 3 (Outside of School)
CP/Honors Veterinary Science 2 (Even Years)	SAE 4 (Outside of School)
Agribusiness and Leadership 1	Wildlife and Natural Resources
Biotechnology and Food Science (Odd Years)	Ag Work Study (Seniors Only)
Plant Science 1	
Plant Science 2 (Even Years)	

General Agriculture Major

Students who complete the General Agriculture Major will be prepared for a wide variety of careers or further education within the field of Agriculture. Students may choose to specialize in their area of interest through selecting electives that fit their interest. Students who complete this major will take either the Agriculture Production or Agriculture Mechanics NOCTI depending on their specialization and receive a certificate of completion if rated competent or advanced.

CERTIFICATIONS: PA Private Pesticide Applicators License (must pass test)

Youth for Quality Care of Animals (Yearly course must be completed)

<u>REQUIRED COURSES</u>	<u>MUST CHOOSE 3 OR MORE FROM:</u>
CASE Introduction to Agriculture Food, and Natural Resources	SAE 1 (Outside of School)
Introduction to Ag Mechanics	SAE 2 (Outside of School)
Animal Science 1	SAE 3 (Outside of School)
Plant Science 1	SAE 4 (Outside of School)
Agribusiness and Leadership 1	Welding 1
Plant Science 2 (Even Year)	Welding 2
Biotechnology and Food Science (Odd Year)	Engines 1
Wildlife and Natural Resources	Engines 2
	Construction
	Ag Equipment (Odd Year)
	CP/Honors Vet Science 1
	CP/Honors Vet Science 2
	Ag Work Study (Seniors Only)
	Floriculture and Landscape Design (Odd Year)

Agriculture Mechanics Major

Students who complete the Agriculture Mechanics Major will be prepared for careers or further education in welding, construction and equipment sales, service, and operation. Students who complete the program will take the Agriculture Mechanics NOCTI test and receive a certificate of completion if rated competent or advanced on the exam.

<u>REQUIRED COURSES</u>	<u>MUST CHOOSE 3 OR MORE FROM:</u>
Introduction to Ag Mechanics	SAE 1 (Outside of School)
Engines 1	SAE 2 (Outside of School)
Engines 2 (Even Year)	SAE 3 (Outside of School)
Welding 1	SAE 4 (Outside of School)
Welding 2	Introduction to Agriculture, Food, and Natural Resources
Construction	Ag Work Study (Seniors Only)
Agribusiness and Leadership 1	
Ag Equipment (Odd Year)	

Applied Horticulture Major—11 Credits Required

Students who complete the Applied Horticulture major prepare themselves for careers in the horticulture industry including greenhouse/nursery, landscaping, and floriculture. Students who complete the program will take the Applied Horticulture NOCTI test and receive a certificate of completion if rated competent or advanced on the exam.

CERTIFICATIONS: PA Private Pesticide Applicators License (must pass test)

Pennsylvania Certified Horticulturist Associate (must pass test)

<u>REQUIRED COURSES</u>	<u>MUST CHOOSE 5 OR MORE FROM:</u>
CASE Intro to Agriculture, Food, and Natural Resources	SAE 1 (Outside of School)
Plant Science 1	SAE 2 (Outside of School)
Plant Science 2 (Even Year)	SAE 3 (Outside of School)
Floriculture and Landscape Design (Odd year)	SAE 4 (Outside of School)
Agribusiness and Leadership 1	Wildlife and Natural Resources
Intro to Ag Mechanics	Biotech and Food Science
	Engines 1
	Ag Work Study (Seniors Only)

Careers in.....

Ag Production	Animal Science	General Agriculture	Ag Mechanics	Applied Horticulture
Farm Manager/Consultant	Animal Breeding/Genetics	Business Manager/Consultant	Equipment Operator	Greenhouse/Nursery Production
Fertilizer/Chemical Application and Sales	Veterinarian/Vet Assistant	Government Agency Worker	Equipment/Parts Sales	Floral Design
Inspection and Grading	Animal Feed Specialist/Nutritionist	Agriculture and Extension Education	Equipment Service and Repair	Landscaping
Market and Dairy animal Production	Animal Control Officer	Wildlife and Fisheries Sciences	Electrician	Extension and Education
Crop Production	Farm/Ranch Hand	Agriculture Communications	Welder	Plant Research
Fruit/Vegetable Production and Care		Agriculture Economics	Construction Worker	Forestry/Arborist
Animal Nutritionist		Soil Scientist	Agricultural Engineering	
Groundskeeper/Landscape		Conservation Specialist		
Greenhouse Manager/Worker		Food Scientist		
Farm/Ranch Hand		Chemical/Biological Engineering		
Agronomist				