

Agriculture (AG)

AG 100: Orientation to Hawai'i Agriculture Industry

This course familiarizes students with different agricultural operations/systems in Hawai'i through lectures, research, student presentations, guest speakers and/or field trips. (Formerly PBT 100)

Credits: 1

Program: [Plant, Biology, and Tropical Agriculture](#)

AG 104: Food Safety & Post-Harvest Handling

This course examines food safety requirements for farms and explores and evaluates post-harvest handling of products including vegetables, fruits, meats, and flowers. Students will also identify and evaluate standard wholesale and retail packaging for various farm products and review worker protection standards.

Credits: 1

Program: [Plant, Biology, and Tropical Agriculture](#)

Recommended Prep: BUS 101, ICS 101

AG 112: Introduction to Organic Agriculture

This course is an introduction to natural resource sustainability in agriculture. Basic principles of soil science, plant culture, and pest management are explained and organic farming techniques are practiced. The societal, and environmental, reasons for engaging in organic agriculture are explored. The goal of this course is to increase understanding of organic farming and to introduce sustainable agriculture practices that can be applied in Hawai'i.

Credits: 4

Prerequisites: ENG 22 or ENG 24 with a grade of C or better or equivalent and MATH 22 or higher with a grade of CR

Program: [Plant, Biology, and Tropical Agriculture](#)

AG 122: Soil Technology

Studies identification, preparation, and fertilization of soils. Discusses soil formation, soil classification, soil reaction, soil and water relationships, soil protection and irrigation practices. Emphasizes sustainable management systems. (Formerly PBT 122)

Credits: 3

Program: [Plant, Biology, and Tropical Agriculture](#)

Recommended Prep: ENG 24, MATH 82X

AG 141: Integrated Pest Management

This course includes an introduction to the principles involved in the control of plant pests including diseases, insects, mites, nematodes, and weeds. Various methods of controlling pests, including the correct method of selecting and applying pesticides will be covered. Integrated Pest Management will be incorporated into the course. (Formerly PBT 141)

Credits: 3

Program: [Plant, Biology, and Tropical Agriculture](#)

Recommended Prep: CHEM 151, CHEM 151L

AG 170: Introduction to Commercial Aquaponics

Companion course to AG 170L Introduction to Commercial Aquaponics Laboratory. The course will provide students with an understanding of the major biological concepts using an aquaponics system as a model ecosystem. Additionally, the course will provide an overview of standard operating procedures of large scale aquaponics systems in relation to food safety and production. (Formerly AG197)

Credits: 3

Co-Requisites: AG 170L

Program: [Plant, Biology, and Tropical Agriculture](#)

Recommended Prep: ENG 22, ENG 24, ENG 24C

AG 170L: Introduction to Commercial Aquaponics Laboratory

Companion course to AG 170 Applied Aquaponics. The course will provide students with a hands-on application of the major

biological concepts using an aquaponics system as a model ecosystem. Additionally, the course will follow standard operating procedures of large scale aquaponics systems in relation to food safety and production. (Formerly AG197L)

Credits: 1

Co-Requisites: AG 170

Program: [Plant, Biology, and Tropical Agriculture](#)

Recommended Prep: ENG 22, ENG 24, ENG 24C

AG 200: Principles of Horticulture

Introduces plant anatomy and physiology. Discusses plant nutrients, moisture, environmental requirements and plant propagation. Studies culture and production techniques for selected ornamental crops. (formerly PBT 200)

Credits: 3

Prerequisites: AG 200L with a grade of C or better or concurrent enrollment or instructor consent

Program: [Plant, Biology, and Tropical Agriculture](#)

Recommended Prep: BIOL 101, BIOL 101L, BOT 101, BOT 101L, BIOL 171, BIOL 171L

AG 200L: Principles of Horticulture Lab

Cultivation of selected economic crops using seed to seed model in student gardens or greenhouse. Perform field and laboratory tests involving plant, soil and seeds. (Formerly PBT 200L)

Credits: 1

Prerequisites: AG 200 with a grade of C or better or concurrent enrollment or instructor consent

Program: [Plant, Biology, and Tropical Agriculture](#)

Recommended Prep: BIOL 101, BIOL 101L, BOT 101, BOT 101L, BIOL 171, BIOL 171L

AG 210: Introduction to Environmental Science

Analysis of the environment with emphasis on understanding relationships and interactions of physical, biological, technological, and political components using scientific methods of inquiry. Food supply and safety, water quality, pollution control, biodiversity, environmental policy. (Formerly PBT 210)

Credits: 3

Program: [Plant, Biology, and Tropical Agriculture](#)

Recommended Prep: BOT 130, HORT 110

AG 251: Sustainable Crop Production

Introduces production methods for selected crops including propagation planting, fertilization, irrigation, pest control, harvesting, and marketing. Evaluates conventional and alternative methods of production and analyzes effects of these practices. Examines economic and social impacts. (Formerly PBT 251)

Credits: 4

Program: [Plant, Biology, and Tropical Agriculture](#)

Recommended Prep: AG 200, AG 200L, ENG 24, ENG 100

AG 260: Tropical Landscape

Introduces students to the elements of landscape design, planning, and plan implementation. The areas covered include design principles, functional aesthetics, reading and development of landscape plans, and cost estimates. (Formerly PBT 250)

Credits: 4

Program: [Plant, Biology, and Tropical Agriculture](#)

Recommended Prep: AG 200, BOT 130, ENG 24

AG 264: Plant Propagation

Theoretical and applied aspects of sexual and asexual reproduction of plants. Propagation of selected plants by seed, cuttings, grafting, layering, and micropropagation/tissue culture. (Formerly PBT 264)

Credits: 3

Program: [Plant, Biology, and Tropical Agriculture](#)

Recommended Prep: CHEM 151, CHEM 151L, AG 200, AG 200L

AG 269: Ornamental Plant Materials

Identify major ornamental plants used in Hawai'i's landscapes, including trees, shrubs, vines, ground covers, flowers, house plants and natives. Properly select ornamental plants for landscape according to their habits and growing requirements. (Formerly PBT 269)

Credits: 3

Program: [Plant, Biology, and Tropical Agriculture](#)

Recommended Prep: AG 200

AG 271: Introduction to Crop Improvement

This course includes the fundamentals of genetic theory. Biotechnological procedures in insect and plant pathogen control and also plant and animal breeding are used as practical applications. (Formerly PBT 275)

Credits: 3

Program: [Plant, Biology, and Tropical Agriculture](#)

Recommended Prep: AG 200, AG 200L

AG 293V: Plant Biology & Tropical Agriculture Internship

The course provides supervised experiential-learning with an employer. The nature of the job or project is variable but will be designed to provide opportunity for workplace experience. Maximum credit for internships may not exceed 4 hours in an agricultural enterprise.

The number of credits earned depends upon the number of hours spent on the job or project during the semester. AG 293V for one credit and requires 60 to 119 hours of work; AG 293V for two credits and requires 120 to 179 hours of work; AG 293V for three credits and requires 180 to 239 hours of work; AG 293V for four credits and requires 240 or more hours of work.

Students can take another AG 293V class in a subsequent semester; however, the total number of credits in AG 293V are limited to four credits. (Formerly PBT 290V)

Credits: 1 - 4

Prerequisites: Completed at least 6 credits of 200 level AG courses with a C or better or instructor consent

Program: [Plant, Biology, and Tropical Agriculture](#)

Recommended Prep: AG 210, AG 251, AG 260, AG 264, AG 269, AG 271