Horticulture and Landscape Design

**HORT 105 Introduction to Horticulture: 3 Credits (3 Lec)**
Science in the context of horticulture. Learn environmental factors affecting horticulture and current measurement technology. Projects explore global and regional issues, careers, and tools necessary to be a successful horticulturist.

**HORT 231 Woody Ornamentals: 3 Credits (1 Lec, 4 Lab)**
Identification, culture and uses of deciduous and evergreen trees, shrubs and vines commonly used as ornamentals in Montana, and some species utilized outside of Montana. Lab includes extensive plant walks.

**HORT 232 Herbaceous Ornamentals: 3 Credits (2 Lec, 2 Lab)**
PREREQUISITE: BIBI 170IN (may be taken as a co-requisite), BIBI 170IN or BIBI 170IN. Traditional sexual and asexual reproduction of plants including seed germination, stem and leaf cuttings, grafting, and layering. Includes discussion of the biology and physiology of propagation methods. Lab includes experimentations with the propagation methods using native plants as model systems.

**HORT 291 Special Topics: 1-4 Credits (1 Lec)**
PREREQUISITE: None required, but some may be necessary by each offering department. Courses not required in any curriculum for which there is a particular one-time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number. Repeatable up to 12 credits.

**HORT 298 Internship: 2-12 Credits (2-12 Other)**
PREREQUISITE: Consent of instructor and approval of department head. For Sustainable Foods & Bioenergy Systems students only. An individualized assignment arranged with an agency, business, or other organization to provide guided experience in the field. Repeatable up to 12 credits.

**HORT 310 Topics in Horticulture: 3 Credits (2 Lec, 1 Lab)**
PREREQUISITE: BIBI 170IN, Quantitative Reasoning Core, and HORT 105. Selected topics in horticulture including turfgrass management, apiculture, fruit production, and irrigation.

**HORT 337 Vegetable Production: 3 Credits (3 Lec)**
PREREQUISITE: BIBI 110CS or BIYO 230. Modern production practices for all major temperate-zone vegetable crops, including crop management, development, storage, and post-harvest physiology. The class will include production of transplants and detailed discussion of several major vegetable crop families, including Solanaceae, Cucurbitaceae, Brassicaceae, Liliaceae, and the Fabaceae.

**HORT 340 Site Design Studio I: 4 Credits (1 Lec, 3 Lab)**
PREREQUISITE: HORT 331. Focuses on site planning and design of residential, commercial, and mixed-use projects. Explores site design processes including, design concept, development ordinances and project submittals. Introduction to theory and methods of sustainable community planning, such as, transit-oriented development, closed-loop neighborhoods, and eco-neighborhoods.

**HORT 343 Comm Plant Production: 3 Credits (3 Lec)**
PREREQUISITE: BIBI 110CS. Focus is on greenhouse and nursery design and operation, including environmental control, growing media, irrigation, and fertilization of field and container grown ornamental crops. Retail and wholesale marketing strategies will be explored. Sustainable practices will be emphasized.

**HORT 345 Market Gardening: 3 Credits (3 Lec)**
PREREQUISITE: Sophomore standing. Focus is on the production of quality vegetable, herb and flower products for sale through local, regional or non-traditional marketing avenues. Special attention is made to present and analyze sustainable food crop production systems.

**HORT 410 Horticulture Recitation: 1 Credits (1 Other)**
PREREQUISITE: Senior standing and consent of instructor. This course synthesizes and reinforces a broad range of concepts covered throughout the Environmental Horticulture curriculum and applies this knowledge within new contexts. At the end of the semester students take the Certified Plant Professional exam.

**HORT 447 Advanced Plant Propagation: 3 Credits (1 Lec, 4 Lab)**
PREREQUISITE: Senior standing. Students will learn specialized sexual and asexual propagation techniques, with an emphasis on the physiological and environmental manipulation of plants associated with in vitro, seed and grafting production. Students will receive extensive tissue culture experience.

**HORT 485R Horticulture Capstone I: 1 Credits (1 Lec)**
PREREQUISITE: Senior standing, for majors only. First semester of a two-semester project for seniors majoring in Horticulture Science. This capstone course allows students to pursue a contemporary issue or problem in horticulture within a team research project Department of Plant Sciences/Plant Pathology.

**HORT 486R Horticulture Capstone II: 2 Credits (2 Lec)**
PREREQUISITE: majors only and senior standing. Second semester of a two-semester project for seniors majoring in Horticulture Science. This capstone course allows students to pursue a contemporary issue or problem in horticulture within a team research project.

**HORT 490R Undergraduate Research: 1-4 Credits (1 Other)**
PREREQUISITE: Junior or Senior standing and approval of instructor. Undergraduate research which may culminate in a research paper, journal article, or undergraduate thesis. Course will address responsible conduct of research. Repeatable up to 4 credits.

**HORT 491 Special Topics: 1-4 Credits (1 Other)**
PREREQUISITE: Course prerequisites as determined for each offering. Courses not required in any curriculum for which there is a particular one-time need, or given on a trial basis to determine acceptability and demand. Repeatable up to 12 credits.

**HORT 492 Independent Study: 1-3 Credits (1 Other)**
PREREQUISITE: Junior standing, consent of instructor and approval of department head. Directed research and study on an individual basis. Repeatable up to 6 credits.

**HORT 498 Internship: 2-12 Credits (2 Lec)**
PREREQUISITE: Junior standing, consent of instructor and approval of department head. An individualized assignment arranged with an agency, business, or other organization to provide guided experience in the field. Repeatable up to 12 credits.