CP 118. Range Management (3) S **Biehler**

Prerequisite: CP 11 or permission of instructor. Identification of range forage; estimating carrying capacity; methods of range conservation, controlled grazing, water development, rodent control, fertilization, reseeding, brush removal; identification of poisonous plants. (2 lecture, 3 lab hours; 1 Saturday field trip)

CP 150. Crop Breeding (3) S **Van Elswyk**

Prerequisite: Biol. 120. Application of genetic and environmental principles to improvement of crop plants; heredity and variation in crop plants, effects of various environmental factors on crop improvement, effects of self and cross fertilization, principles and results of selection and hybridization in crop improvement. (2 lecture, 3 lab hours)

CP 152. Cotton Classing (2) S **Van Elswyk**

Characteristics of classes and grades of cotton; practical work in classing cotton; cotton quality as related to grade, staple, and utilization. (1 lecture, 3 lab hours)

CP 190. Independent Study (1-5) F and S (See page 61) **Staff**

ENOLOGY

E 15. Introduction to Enology (3) F (Former V 151) **Heitz**

History and development of the wine industry; mechanics of various processes and factors involved in wine making.

E 115. Winery Practices (5) F (Former V 152) **Heitz**

Prerequisites: E 15, V 16, 50, Chem. 109, Bact. 54. Principles and practices of preparation of dessert and table wines; operation of plant equipment; controlled tests; sanitation and waste disposal problems. (3 lecture, 6 lab hours)

E 116. Advanced Winery Practices (4) S **Heitz**

Prerequisite: E 115. Winery operations; quality control and production of specialty products; laboratory tests for aldehydes and esters, copper and iron, pasteurization and fining; microbiological techniques. (2 lecture, 6 lab hours)

E 151a-b. Unit Operations (3-3) F and S **Heitz**

Prerequisite: permission of instructor. Basic principles of industrial operations as they apply to the wine industry with application to chemistry and physics, transformation of energy, heat transfer, and flow of fluids; application of principles as they apply to evaporation, heat exchange equipment, distillation and drying.

E 160. Winery Technology (3) S **Heitz**

Prerequisite: E 116. Technological study of winery equipment; evaluation, location, and operation; sanitation procedures. (2 lecture, 3 lab hours; 3- or 4-day field trip)

E 171. Winery Management (3) F **Heitz**

Prerequisite: permission of instructor. Physical properties of a winery; administrative organizational set-up; personnel; purchasing, packaging, and shipping; local, state, and federal regulatory statutes.

HORTICULTURE

H 11. Introduction to Fruit Growing (3) F **Braun**

Varieties, adaptation, pruning, and cultural requirements of deciduous fruits; harvesting and preparation for market. (2 lecture, 3 lab hours; 16 hours additional pruning practice arranged)