

159. Pumps and Motors (3)

Prerequisite: Ag Me 15, Plant 50. Operation and study of centrifugal and deep well turbines; testing of pumps and motors under operating conditions to determine efficiency; installation, protective devices, maintenance, and proper selection of single and three-phase motors used on the farm. (2 lecture, 3 lab hours)

DAIRY INDUSTRY (D Ind)**23. Dairy Foods and Man (3)**

The history and geography, processes and processing of dairy products; their description, composition, and nutritive values; current role of the dairy industry and dairy foods.

53. Market Milk (3) (Former DS 53)

Prerequisite: A Sci 12 or permission of instructor. Principles of market milk production, processing, and distribution; modern processing methods and equipment. (2 lectures, 3 lab hours)

103. Manufacturing Dairy Products (3) (Former DS 111)

Prerequisite: junior standing or permission of instructor. Making common varieties of cheese, mix making and freezing desserts, churning butter, and culturing dairy products. (1 lecture, 6 lab hours)

113. Manufactured Dairy Products (3) (Former DS 112)

Prerequisite: D Ind 53 or 103, or permission of instructor. Chemistry, physics, and mathematics applicable to the production of butter, concentrated products, cheese, and ice cream.

133. Dairy Plant Management (3) (Former DS 154)

Prerequisite: D Ind 53. Principles, practices, and problems in management of modern dairy plants.

143. Marketing Milk Products (3) (Former DS 156)

Prerequisite: D Ind 53. Practices and principles of marketing and pricing dairy products.

153. Dairy Inspection (3) (Former DS 165)

Prerequisite: A Sci 12, D Ind 53. Application of the California Agricultural and the United States Public Health Codes to the inspection of dairies, dairy plants, and dairy products.

163. Dairy Chemistry and Testing (3) (Former DS 185)

Prerequisite: Chem 2A-B. Milk constituents and application of chemical laboratory tests as used in food plants. (2 lecture, 3 lab hours)

ENOLOGY (Enol)**15. Enology (3) (Former V 15)**

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

15L. Enology Laboratory (1)

Techniques in analyzing and evaluating wines; methods by which sound wines can be made and kept. Field trips to local wineries.

115. Wine Analysis and Production (5) (Former V 116)

Prerequisite: Chem 109, Enol 15, Micro 20 or 104, Plant 127. Principles and practices of preparation and analysis of dessert and table wines; operation of plant equipment; controlled tests. (3 lecture, 6 lab hours)