

159. Pumps and Motors (3)

Prerequisite: AgM 15, Ag 146. 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 (DI)**53. Market Milk (3) (Former DS 53)**

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

123. Dairy Bacteriology (3) (Former DS 131)

Prerequisite: Mcrb 20. Bacteria, yeasts, and molds in manufacture of dairy products. (2 lecture, 3 lab hours)

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

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

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

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

153. Dairy Inspection (3) (Former DS 154)

Prerequisite: AnSc 12, DI 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)

173. Evaluation of Dairy Products (3) (Former DS 189)

Prerequisite: DI 103. Evaluation, scoring, and grading dairy products; methods of defect control. (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.

115. Wine Analysis and Production (3) (Former V 116)

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