

Feed Mill (FM)

FM 272 Swine Feed Mill Management (1 credit hours)

Principles of feed manufacturing, equipment operation, feed and ingredient quality assurance and regulatory compliance in a modern feed milling operation. Overview of feed mill regulations and safety.

Prerequisite: ANS 150 or ANS 260 or Equivalent Restriction: Restricted to non-ANS (Animal Science) students. ANS students cannot take the course for credit.

Typically offered in Fall only

FM 425/PO 425/NTR 525/FM 525/ANS 525/PO 525/NTR 425/

ANS 425 Feed Manufacturing Technology (3 credit hours)

Feed mill management, feed ingredient purchasing, inventory, storage, and quality evaluation, computerized feed formulation, feeding programs for poultry and swine, feed mill design, equipment, maintenance, operation, safety, state and federal regulations pertaining to feed manufacture.

Prerequisite: ANS(NTR,PO) 415 or ANS 230 or ANS 225

Typically offered in Fall and Spring

FM 426/PO 426 Feed Manufacturing Technology Laboratory (1 credit hours)

Laboratory associated with feed mill management, feed ingredient purchasing, inventory, storage, and quality evaluation, computerized feed formulation, feeding programs for poultry and swine, feed mill design, equipment, maintenance, operation, safety, state and federal regulations pertaining to feed manufacture. PO/ANS/FM 425 is a required course for the Poultry Science Technology Concentration (TPS); the Feed Milling Minor (FEM); and the Feed Mill Certificate.

Corequisite: PO 425 or ANS 425 or FM 425 and FEM minor or 11PLTRYBS

Typically offered in Spring only

FM 460/FM 560 Feed Mill Operations and Leadership (3 credit hours)

Principles and current practices of modern feed mill operations. Topics include managing employees, team building, safety, budgets, regulations, and key performance indicators.

Prerequisite: ANS 425 or FM 425 or PO 425

Typically offered in Spring only

FM 480 Feed Quality Assurance & Formulation (3 credit hours)

Introduction to the principles of ingredient and feed quality assurance and how to develop a comprehensive quality assurance program. The course will include the development of approved suppliers, ingredient specifications, feed manufacturing procedures, and formulation based on dynamic ingredient matrices.

Prerequisite: PO(ANS) 425

Typically offered in Fall only

FM 490 Feed Science Seminar (1 credit hours)

Exploration of topics related with current and future potential to influence the feed industry. Guest lectures from feed industry leaders and university representatives will include: vertically integrated and commercial feed production, current research topics, government regulations, trade organizations, and quality assurance.

Typically offered in Fall only

FM 494 Feed Mill Learning Experience (1 credit hours)

Hands-on laboratory teaching students how to safely operate feed mill equipment and manufacture feed using a computer system.

Prerequisite: PO(ANS) 425

Typically offered in Fall, Spring, and Summer

FM 525/ANS 525/PO 525/NTR 425/ANS 425/FM 425/PO 425/

NTR 525 Feed Manufacturing Technology (3 credit hours)

Feed mill management, feed ingredient purchasing, inventory, storage, and quality evaluation, computerized feed formulation, feeding programs for poultry and swine, feed mill design, equipment, maintenance, operation, safety, state and federal regulations pertaining to feed manufacture.

Prerequisite: ANS(NTR,PO) 415 or ANS 230 or ANS 225

Typically offered in Fall and Spring

FM 540 Extrusion Technology for Feeds and Foods (3 credit hours)

This course provides students with the practical application of extrusion technology. Emphasis will be placed on analyzing the various aspects of process and its effect on the product and exposure to problem-solving techniques.

Prerequisite: Graduate Standing

Typically offered in Fall only

FM 560/FM 460 Feed Mill Operations and Leadership (3 credit hours)

Principles and current practices of modern feed mill operations. Topics include managing employees, team building, safety, budgets, regulations, and key performance indicators.

Prerequisite: ANS 425 or FM 425 or PO 425

Typically offered in Spring only

FM 580/PO 580 Feed and Ingredient Quality Assurance (3 credit hours)

The course will teach students the principles of feed and ingredient quality assurance and how to develop a comprehensive quality assurance program. The course will include the development of an approved supplier list, ingredient specifications, feed manufacturing quality assurance procedures, and risk based feed safety programs.

Prerequisite: NTR(FM) 525

Typically offered in Fall only

FM 594 Advanced Feed Mill Practicum (1 credit hours)

This course will teach students the principles of operating a modern feed mill. Students will receive ingredients, grind grain, manufacture feed, and perform quality checks on finished feed products. Students will complete safety, quality assurance, and feed processing training units as part of their training.

Prerequisite: NTR(FM) 525

Typically offered in Fall and Spring

FM 706/NTR 706 Vitamin Metabolism (3 credit hours)

Structures, chemical and physical properties, functions, distribution, absorption, transport, metabolism, storage, excretion, deficiencies, and toxicity of vitamins in humans and domestic animals. Interactions between vitamins and other factors affecting vitamin metabolism or bioavailability as well as the nutritional significance of essential fatty acids and metabolism of prostaglandins, prostacyclins and leukotrienes. Application of knowledge will include critical review of scientific literature, experimental design, and formulation of vitamin supplements.

Prerequisite: ANS(NTR,PO) 415 and BCH 453

Typically offered in Fall only

This course is offered alternate even years

FM 790/NTR 790 Advanced Feed Formulation (3 credit hours)

Principles of feed and ingredient quality assurance and how to develop a comprehensive quality assurance program. The course will include the development of an approved supplier list, ingredient specifications, feed manufacturing quality assurance procedures, and risk based feed safety programs.

Prerequisite: NTR(FM) 525

Typically offered in Fall only

This course is offered alternate odd years