

TO: Engineering Faculty

FROM: The Faculty of Agricultural and Biological Engineering

RE: Change in Course Title, Prerequisite, and Description, ABE 556

The faculty of the Department of Agricultural and Biological Engineering has approved the following course changes. This action is now submitted to the Engineering Faculty with a recommendation for approval.

FROM:

ABE 556 Food Plant Design and Economics

Sem. 2, Class 3, lab 3 cr. 4.

Prerequisite: ABE 454 and ABE 555 or consent of instructor

Fundamental concepts for food-plant design, estimation of process costs and profitability, optimization of processing systems. Introduction to food-plant layout, utility design, sanitation requirements, and material selection.

TO:

ABE 556 Biological and Food Process Design

Sem.2, Class 3, lab 3 cr. 4.

Prerequisite: ABE 555 or consent of instructor

The course will focus on the synthesis, creation, evaluation and optimization of a process to convert basic biological materials into a finished product. Concepts of material and energy balances, thermodynamics, kinetics, transport phenomena of biological systems will be used to design processes to minimize energy and environmental impacts, and evaluate economic factors while maintaining product quality. Group projects, written and oral reports.

Rationale: The proposed course title and description better reflects the updated content of the course.