

EP.08,49

PROPOSAL TO THE SENATE COMMITTEE ON EDUCATIONAL POLICY

TITLE OF THE PROPOSAL:

A Proposal to Change the Graduate Degree Program Names from Agricultural Engineering to Agricultural and Biological Engineering.

SPONSOR:

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RECEIVED
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OFFICE OF THE SENATE

BRIEF DESCRIPTION:

Following a trend in the agricultural engineering profession over the past decade, a process of change was instituted in the department to provide greater visibility to the biological emphasis that has been a substantial part of this profession from the beginning. As a first step, the department name was changed to Agricultural and Biological Engineering in 2003. This proposal addresses the next step in the process which is to change the degree program names for the Bachelor of Science, Master of Science, and Doctor of Philosophy degrees to be the same as the department name. In the future, changes to the current degree program will be proposed to better align with newly approved accreditation criteria which now delineate both 'Agricultural Engineering' and 'Biological Engineering'. This proposal deals with the Master of Science and Doctor of Philosophy degree programs. A separate proposal deals with the Bachelor of Science degree program.

JUSTIFICATION:

Agriculture inherently relies on the biological sciences for its advancement. Therefore applying engineering to solve problems in agriculture necessarily incorporates a biological dimension. While in the past there was no formal acknowledgment of the biological emphasis, the agricultural engineering academic departments at universities around the U.S. and their professional society have recognized the need to formally reflect this emphasis by changing their names. Leaders and practitioners in this discipline have viewed the change as inevitable and necessary. Most changes have already occurred in academic departments and in our professional societies (such as the American Society of Agricultural and Biological Engineers formerly the American Society of Agricultural Engineers). At this time, in the U.S., there is no academic department that carries the simple name of "Agricultural Engineering." Almost all the new names of academic departments and degree programs contain the term "biological" or the prefix "bio."

The Department of Agricultural Engineering was formed in 1932. The Bachelor of Science degree in Agricultural Engineering in the College of Engineering was also approved in 1932; the Master of Science degree in Agricultural Engineering was approved in 1948; and the Doctor of

Philosophy degree was approved in 1964. For most of its history, the agricultural engineering discipline was best described by four distinct sub areas: Power and Machinery; Electrical Power and Processing; Soil and Water; and Structures and Environment. Recent emphases include Biology, Environment, Information, Food, Resources, and Systems. While these new emphases will continue, visionary leaders in the discipline have started addressing the needs of flexibility, globalization, life-long learning, and leadership development.

Curricula

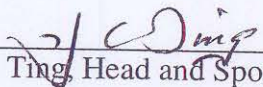
To build on its past success and to further enhance the ability of the “agricultural engineering” discipline to contribute to an evolving food and agricultural system, the department made a strategic decision approximately three years ago to adopt a more holistic approach to reflect its new name of “Agricultural and Biological Engineering (ABE).” A new department vision and mission were established that stress the integration of engineering and biology for solving engineering problems related to living systems. This integration includes topics such as bio-based processing and production systems, biomass and renewable energy, agricultural and biosystems management, food quality and safety, and automation of biological systems. These issues require knowledge of the biology of plants, animals, microorganisms, and humans.

With such a substantial commitment to a biological emphasis in the Agricultural Engineering degree program, a name change to agricultural and biological engineering should be a logical and justifiable progression from the department name change. The biological content of our graduate programs has expanded through the years, necessitating a similar change for both graduate degrees.

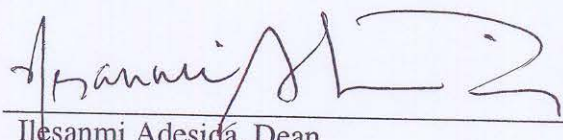
BUDGETARY AND STAFF IMPLICATIONS:

The degrees are currently administered by the department and the name change will not create any direct budgetary or staff implications. The name change will likely attract more students into the degree program but the increase can be handled with existing resources.

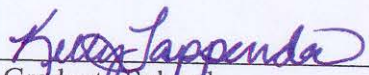
CLEARANCES:



K.C. Ting, Head and Sponsor



Ilesanmi Adesida, Dean



Graduate School

Provost

STATEMENT FOR THE PROGRAMS OF STUDY CATALOG:

No changes are needed in the current Graduate Programs of Study Catalog because it does not reference the degree name, only the department name, which has already been changed.

EFFECTIVE DATE: Fall 2008