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DESIGNING AN INTERDISCIPLINARY GRADUATE WATER DEGREE*

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*Oral Presentation
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Water is the keystone resources required to sustain human life, a viable economy and a livable environment. Over the past 50 years, population growth and shifts, economic development, technologic innovation and changing political systems have intensified competition for water necessitating a greater emphasis on the integrative and adaptive management. The need for a paradigm shift in water management was succinctly outlined by The National Research Council's report to NSF entitled "Opportunities in the Hydrologic Sciences" advocates a multidisciplinary approach to addressing graduate water education. In response to this challenge Texas A&M University is developing an interdisciplinary graduate curriculum. The following discussion outlines the faculty planning process, proposed program, curriculum and administrative structure for the program.

Objectives
(1) Develop an interdisciplinary curriculum and intercollegiate faculty crossing traditional department and college boundaries to provide students with science, engineering, managerial and other technical courses.
(2) Create and sustain a teaching and research environment that brings together a number of professions and disciplines for an exchange of knowledge about the unique attributes of managing water.
(3) Avoid having a single discipline, or academic department, govern the program.

Process
(1) Inventory graduate water degree programs at U.S. universities.
(2) Inventory graduate water degree programs Texas universities.
(3) Inventory of graduate water courses at Texas A&M Universities.

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(4) Convene a committee of Texas A&M faculty from the Colleges of Agriculture, Architecture, Engineering and Geosciences to develop a graduate water curriculum.

Program Structure
The Water Management and Hydrological Science Graduate Degree Program is the cornerstone of a new Texas A&M University signature water program. The program will consist of:

1. Graduate teaching;
2. Integrative and focused water research; and
3. Public and professional educational outreach programs.

Faculty in this program have water as the centrality of their teaching, research and professional service activities.

Degree Options
Students will earn one of the following degrees:

1. A Master of Water Management degree (36 credit hours: non-thesis).
   This degree is designed for students with diverse backgrounds who wish to emphasize water economics, policy, administration, management and planning. It is designed for students who are planning a professional career in managing public water supply systems.

2. A Master of Science (32 credit hours with a thesis).
   This degree is designed primarily for students with technical and science backgrounds who wish to complement their primary discipline by obtaining scientific/technical expertise in water. It will also serve as a preparatory degree for the Ph.D.

2. A Doctor of Philosophy requiring 64 total semester credit hours for students with a masters degree, or 96 semester credit hours for students entering with a bachelors degree.

Program Administration
1. Council of Participating Deans, supervised by the Vice president for Research will administer program.
2. Degrees will be granted by Texas A&M University under the guidance of an intercollegiate faculty. Any faculty member is technically eligible to be part of intercollegiate faculty. Intercollegiate faculty will be established with an executive committee and a water chair to direct and supervise program. The water chair will report to the Council of participating Deans.