

WATER MANAGEMENT AND HYDROLOGICAL SCIENCE GRADUATE DEGREE PROGRAM

STRATEGIC PLAN: 2014-2019

At Texas A&M University, graduate degrees are awarded by academic departments and by interdisciplinary faculties. University rules governing interdisciplinary faculties and degree programs require that each program is physically and administratively located in a College.

The Water Management and Hydrological Science (WMHS) graduate degree program is one of 11 interdisciplinary programs in the University. Participating WMHS faculty are located in academic departments in the Colleges of Agriculture and Life Sciences, Architecture, Engineering and Geosciences. The WMHS program is administratively located in College of Geoscience and receives financial and administrative support from the College and the Department of Geography.

WMHS program governance is by the faculty through a five member Executive Committee and Program Chair. The Executive Committee consists of four elected members, one each from the four academic colleges plus one at-large representative. The chair of the Executive Committee serves as the chair of the WMHS program.

VISION

Ensure the sustainability of water resources for the well-being of humans and ecosystems.

MISSION

Through interdisciplinary graduate education, and research in biophysical and social sciences disciplines we prepare the next generation of water scientists, managers and educators.

CORE VALUES

- Our education, scientific research, and outreach programs contribute to the expansion of knowledge and improvement in quality of life.
- We seek to exemplify excellence in interdisciplinary teaching, research and outreach.
- We believe we have a responsibility to the people of Texas and that our contributions will be enhanced by scholarly activities at the national and international levels.

- We believe education is a collaborative learning experience engaging faculty, students, professionals and the public as participants.
- We recognize the inherent value that human, intellectual and disciplinary diversity bring to our interdisciplinary Program.

CRITICAL ISSUES

1. Graduating at least 10 PhD students in a five (5) year period.

Meeting this target will require an enrollment target of 2-3 PhD students per year. This will require increased funding availability for doctoral students.

2. Interdisciplinary students have limited access to office space and other resources.

Interdisciplinary program must rely on the largess of academic departments to provide office and study space for interdisciplinary students. Departments provided for the needs of their students before considering resources for interdisciplinary students. This applies to facilities and financial resources.

GOALS

I. SUSTAIN EXCELLENCE IN OUR INTERDISCIPLINARY GRADUATE TEACHING PROGRAM

Consistent with VISION 2020 Imperatives on “Strengthening Our Graduate Programs” our intercollegiate program curriculum is designed to give students the flexibility to select courses that provide disciplinary depth and interdisciplinary breadth. Students are able to select water faculty for their graduate committee from four colleges and multiple departments. Our water faculty is committed to promoting educational excellence in the education and training of the next generation of water managers, scientists and educators.

Action Plan

1. Develop a strategy for enhancing doctoral student funding.

1.1.1 Begin a dialogue with Deans and Department Heads to identify resources to attract high quality doctoral students. Time Frame 2014-2015

1.1.2 Give priority to funding doctoral student with existing resources. Time Frame: 2015-2019

- 1.1.3 Provide matching funding to faculty for research assistantships. Time Frame: 2015-2019
- 1.1.4 Continue to cultivate relationships with industry partnerships. Time Frame: 2015-2019
- 2. Ensure continued excellence in our curriculum course offerings.**
 - 1.2.1 Conduct a biennial curriculum review including input from external advisory committee. Begin in 2015.
 - 1.2.2 Integrate and cross-listing WMHS 601 with an existing hydrology course. Begin in 2014
 - 1.2.3 Seek annual seminar partnerships with other Colleges and departments to foster interdisciplinary learning. Begin in: 2015-2019
- 3. Develop a Water Management Certificate Program for Non-Majors.**
 - 1.3.1 Evaluate opportunity for a Water Management Certificate for Non-Majors. Time Frame: 2015-2016
- 4. Increase inquiry-based learning internships especially for Master of Water Management students.**
 - 1.4.1 Engage our external advisory committee to develop at least 3 on-going internships. Time Frame: 2015-2019
- 5. Establish a process with participating Deans and Department Heads, Dean of Faculties and Dean of Office of Professional and Graduate Services to assess the availability of office and resource space for interdisciplinary students.**

II. GROW OUR RESEARCH

Our water faculty is engaged in a wide spectrum of disciplinary and interdisciplinary research programs within their respective departments or in collaboration with our water students. This research enhances a better understanding of the biophysical nature of water along interactions with human and environmental systems and needs. The Program will continue to support innovative, interdisciplinary research that leads to increased sustainability of water resources.

Action Plan

- 1. Increase leveraging our student assistantship and fellowship resources to create cost-effective means of collaboration with water faculty and students.**

- 2.1 Seek annual financial support from participating colleges to match WMHS and WMHS faculty research support to recruit PhD students. Time Frame 2015-2019
2. **Continue involvement of WMHS faculty in the development of Texas Water Observatory concept**
 - 2.2.1 Develop cross department and college faculty teams based on Observatory program elements. Time Frame 2015-2019
 - 2.2.2 Supplement existing funding for a stage development of the Water Portal. Time Frame 2015-2019

III. ENGAGEMENT

We will continue building strategic relationships with key stakeholders and partners in the public and private sectors at the national and international levels that will provide opportunities for our faculty and students to conduct educational and research activities to improve the availability, security and reliability of sustainable water supplies to meet human and ecosystem needs.

Action Plan

1. **Develop in conjunction with partners an annual Texas A&M University Water Conference.**
 - 3.1.1 Plans for a 2014 water conference are underway.
2. **Develop “Water Talk” videos similar to “Ted Talks.”**
 - 3.2.1 Begin recording expert “Water Talks” for posting on WMHS YouTube site and sharing with Ted Talks. Time Frame: 2014-2019.