

Proposed Changes to the MS Freshwater Sciences & Technology Program
School of Freshwater Sciences
September 26, 2023

Proposal for the Removal of "Technology" from the MS Freshwater Sciences & Technology Program

The School of Freshwater Sciences is proposing a change in the title of our MS Freshwater Sciences & Technology program. While the program has been successful in its mission, we believe it would be more accurate and aligned with the focus of the program to remove "Technology" from its title. This change is warranted for the following reasons:

1. Alignment with PhD and BS Programs:

Currently, our MS program is the only one among its counterparts (PhD and BS) to include "Technology" in its title. This inconsistency may lead to confusion among prospective students, faculty, and stakeholders. By aligning the MS program's title with the existing PhD and BS programs, we can create a more cohesive and easily understood academic structure.

2. Inclusivity of Technology within Freshwater Sciences:

Freshwater Sciences inherently encompass a wide range of scientific disciplines. Technology, while undoubtedly important, is already implicitly embedded within the broader field of freshwater sciences. Emphasizing "Technology" in the program's title may inadvertently suggest that it is a separate entity or a standalone discipline, which is not the case. By removing "Technology," we can highlight the integrative nature of technology within the freshwater sciences curriculum. A program's title plays a crucial role in shaping its identity and perception. A streamlined program title, such as "MS Freshwater Sciences," would convey a clear and focused message to potential students and collaborators.

This proposal aligns with our commitment to providing a clear and effective academic experience to our students while reflecting the evolving nature of freshwater sciences.

Proposal for Separating MS Freshwater Sciences Subplans by Thesis vs. Professional Science

The School of Freshwater Sciences is proposing an important change in the structure of our MS Freshwater Sciences program by separating the subplans to:

- Freshwater Sciences, MS: Aquatic Science (Thesis)
- Freshwater Sciences, MS: Water Policy (Thesis)
- Freshwater Sciences, MS: Aquatic Science (Professional)
- Freshwater Sciences, MS: Water Policy (Professional)

Currently are programs/subplans for the MS degree are lists as:

- Freshwater Sciences and Technology, MS (Thesis)
- Freshwater Sciences and Technology, MS: Water Policy, Economics, and Management (Thesis)
- Freshwater Sciences and Technology, MS: (Professional Science)
- Freshwater Sciences and Technology, MS: Professional Science: Water Policy, Economics, and Management

This proposal is rooted in the need to clearly differentiate between the programs, their curricula, and their capstone experiences. Additionally, this change will enable more accurate reporting of enrollment and recruitment numbers, a critical factor in our institution's commitment to excellence and accountability as an R1 institute.

The rationale behind this proposal is as follows:

1) To Clearly Differentiate Between the Programs and Capstone Experience:

The existing structure of our MS Freshwater Sciences subplans blurs the lines between the tracks. Separating them will provide students with a more defined academic path, allowing them to choose the track that best aligns with their academic and career goals. This differentiation will also ensure that students are engaged in a

capstone experience that meets their expectations and needs, whether that be a research-intensive thesis or a professionally oriented internship.

2) Accurate Enrollment and Recruitment Reporting:

To effectively manage and plan our program resources, it is essential to have accurate data on enrollment and recruitment in the various subplans. Currently, when students enroll in the MS Freshwater Sciences program, their choice between the tracks may not be explicitly recorded or reported. This can lead to difficulties in tracking program demographics and making informed decisions regarding admissions, curriculum development, and resource allocation. It also makes it difficult to then explain to the Provost and administration the trajectories of each program.

3) Meeting the Standards of an R1 Institute:

As an R1 institute, we are committed to maintaining the highest standards of research and education. Tracking the choices made by our students regarding thesis or professional science tracks is crucial for several reasons.

It allows us to identify students actively involved in our research programs and projects and contributing to our institution's research mission. In addition, it helps us to better account for the balance of students funded by and engaged in research grants versus those that are self-paying and contributing directly to the financial budget of the School.

SFS proposes that we implement a clear and distinct separation of the MS Freshwater Sciences: Aquatic Science (Thesis), Water Policy (Thesis), Aquatic Science (Professional), and Water Policy (Professional) tracks. This separation should be reflected in our program documentation, recruitment materials, and reporting mechanisms. It will not only benefit our students by offering clearly tailored experiences but also enhance our institution's ability to effectively manage resources, maintain our R1 status, and provide a transparent and attractive program for prospective students.

Please note that we are not requesting any major curriculum changes. We are requesting a small change for the list of required course options to the two professional plans by removing a course that will be inactivated (Frshwtr 508G Aquatic Technology) and replacing it with options that are already in existence under the freshwater or atmospheric science curricular code and taught regularly:

For the Aquatic Science (Professional) curriculum, Frshwtr 508G will be replaced with the following options:

- Frshwtr 471G *Introduction to Sensing Networks*
- Frshwtr 585G *Applied Water Statistics and Data Manipulation*
- Atm Sci 500G *Statistical Methods in Atmospheric Science*

For the Water Policy (Professional) curriculum, Frshwtr 508G will be replaced with the following option:

- Frshwtr 471G *Introduction to Sensing Networks*