

The Great Lakes Ecosystem Science M.S. 4+1 pathway offers qualified students an expedited and cost-effective opportunity to pursue the degree. The pathway initiates graduate-level coursework at the undergraduate level, providing students with seamless entry to the master's degree program and an accelerated course of study toward an advanced degree.

## ABOUT THE PATHWAY

The Great Lakes Ecosystem Science (GLES) Master of Science (M.S.) 4+1 pathway allows students to complete course requirements for their bachelor's degree while taking select graduate-level coursework during their undergraduate study. The GLES M.S. is a Professional Science Master's (PSM) that combines coursework in environmental science with communication strategies and project management classes and an internship experience. Students in programs leading to a bachelor's degree in biology, chemistry, earth sciences, geography, or geology should consider this pathway to an advanced degree.

Candidates must have a minimum cumulative GPA of 3.0 before enrollment in any graduate course in the 4 + 1 pathway. Students can take the following classes while in the pathway:

- GLC 535 Great Lakes Ecosystem Science or GEG 503 Studies in Resource Conservation
- PSM 601 Project Management for Math and Science Professionals
- PSM 602 Communication Strategies for Math and Science Professionals
- An approved elective selected with advisement from the GLES Program Coordinator

Students begin graduate coursework during their undergraduate studies. They are formally accepted into the Graduate School after verification of the completion of bachelor's degree and submission of the Graduate application. Graduate applications fees are waived for 4+1 pathway students. Once officially accepted into the graduate program and the Graduate School, graduate credits will be applied to the graduate course of study and all the policies and privileges relevant to graduate students will apply.

## APPLYING TO THE 4+1 PATHWAY

Qualified students interested in applying to the GLES M.S. 4+1 pathway should contact Dr. Kelly Frothingham, GLES Program Coordinator. Application information for the 4+1 pathway is available online under the Education tab on the Great Lakes Center website at [greatlakescenter.buffalostate.edu](http://greatlakescenter.buffalostate.edu).

Candidates electing the 4+1 pathway option are required to submit a one-page application and a written statement of commitment to the program that clearly demonstrates why they are selecting the 4+1 pathway and how the degrees earned will impact their career goals. The statement must affirm the candidate's intent to remain at Buffalo State for both undergraduate and graduate studies. The writing sample is assessed by the faculty as an essential part of a successful application.

Students entering the pathway must have a minimum cumulative GPA of 3.0 (4.0 scale) in at least 45 credit hours. Transfer students wishing to enter the pathway may apply providing they obtain a 3.0 or higher in their first semester at Buffalo State.

Students must have introductory college coursework in science and mathematics (e.g., biology, chemistry, earth sciences, geography, or geology) prior to admission into the 4+1 pathway. It is preferred that students also have a statistics course (e.g., BIO 300, GEG 390, or MAT 311) prior to admission into the 4+1 pathway; however, students can complete a statistics course after being accepted into the pathway. Students in the 4+1 pathway must complete an undergraduate statistics course prior to applying to the GLES M.S. graduate program.

## FOR MORE INFORMATION

For program information and admission guidance:

Dr. Kelly Frothingham, Professor,  
Program Coordinator of Great Lakes  
Ecosystem Science  
(716) 878-6736  
[frothikm@buffalostate.edu](mailto:frothikm@buffalostate.edu)