GRADUATE SCHOOL

SCHOOL OF FOREST RESOURCES AND ENVIRONMENTAL SCIENCE

EARN YOUR GRADUATE DEGREE IN MOLECULAR GENETICS AND BIOTECHNOLOGY

FOREST MOLECULAR GENETICS AND BIOTECHNOLOGY (MS, PHD)

PREMIER EDUCATION AND RESEARCH

The School of Forest Resources and Environmental Science is an internationally recognized program that leads the world in managing more sustainable ecosystems. The School offers both MS and PhD programs in Forest Molecular Genetics and Biotechnology that embrace a holistic approach to understanding the processes of life and genetic controls of forest organisms as they relate to their environment.

Genetics and biotechnology research at the School focuses on the production of healthier, stronger, and faster-growing trees. Our faculty’s research interests center on forest trees and include conservation genetics, genetic mapping, population genetics, cell-wall biosynthesis, gene-function prediction, wood formation, systems biology, and functional genomics. Graduate students join faculty in research initiatives that include ecological genetics, gene expression profiling at the whole-genome scale, production of genetically improved trees for sustainable biofuel production, and augmented tolerance to abiotic stress. Molecular biological tools are also employed to uncover the impact of anthropogenic operations on wildlife. The School has long-standing research collaborations with forest biotechnology industries and has received $10 million in research funding from government agencies.

To learn more, visit www.mtu.edu/forestry.

FACILITIES


Our major research facilities include DNA sequencing and microarray labs, metabolome and genome profiling labs, computational labs, tissue culture and tree transformation labs, and ecological genomics labs. A total laboratory space of 6,500 square feet and 2,000 square feet of greenhouse space provide opportunities for research that make a positive difference in today’s challenged environments.

FORESTRY SPOTLIGHT

“My research focuses on local adaptation of forest tree species to cope with biotic and abiotic stresses in light of climate change. We aim to understand the genetic basis of important characteristics, including survival, growth, the timing of bud flush, drought, and insect resistance using experimental populations such as common garden trials.”

Chis Hohnholt
MS Student

www.mtu.edu/forestry www.mtu.edu/gradschool
ADMISSION REQUIREMENTS

Application deadline: Apply at least one semester in advance of projected admission. Applications are reviewed on an individual basis using a holistic approach.

All Students
• Graduate School application
• Statement of purpose
• Official transcripts
• GRE required (no subject GRE)
• Three letters of recommendation
• Résumé/Curriculum vitae
• Admitted applicants typically have an undergraduate GPA of 3.0/4.0 or better

International Students
• TOEFL: Recommended score of 79 iBT

FINANCE YOUR FUTURE

Earning your graduate degree is an investment in your career and your future. Here are a few financial aid opportunities you can explore as you look for ways to pay for your degree.

• Students should directly contact faculty members in their area of research interest. Research funding is continuously acquired. Faculty members choose which students to accept and where to allocate available funding. Establishing a relationship with a professor increases the potential to be matched with an assistantship and research project.
• Many graduate students who are US citizens are eligible for a new set of federal loans, up to $20,500 per academic year, as an independent student.
• Contact Michigan Tech’s Financial Aid Office at 906-487-2622 or finaid@mtu.edu for more information on financial aid opportunities.

ABOUT MICHIGAN TECH

Michigan Technological University, founded in 1885, has gained worldwide recognition for innovative education and scholarship. Michigan Tech is a leading public research university, exploring the boundaries of knowledge, developing new technologies, and preparing students to create the future for a prosperous and sustainable world. Michigan Tech offers more than fifty graduate degree programs in engineering, forestry and environmental sciences, computing, business and economics, natural and physical sciences, technology, humanities, and social sciences.

ABOUT HOUGHTON

Houghton lies in the heart of Upper Michigan’s scenic Keweenaw Peninsula. The campus overlooks the Keweenaw Waterway and is just a few miles from Lake Superior. The area’s waters and forests, including our 600-acre recreational forest adjoining campus, offer students unparalleled opportunity for outdoor recreation and relaxation. The University’s 7,000 students come from all fifty states and more than sixty nations, making the area a vibrant, multicultural community.

APPLYING IS EASY—AND FREE!

www.mtu.edu/gradschool/admissions/apply

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Graduate School
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