

· Off-campus programs with partnered sponsors

- **Giving Opportunities**
- Student Life
- **Graduate Faculty Council**
- **Graduate Student Council**

### PROGRAMS

### **ADMISSIONS**

# **RESOURCES FOR**

# **QUICK LINKS**

Graduate School Staff	
Calendars	1
Degree Requirements	
Theses and Dissertations	
Financial Information	
Forms and Deadlines	
FAQs	
Policies and Procedures	
Professional Resources	

Prospective Students Current Students Alumni/Friends Parents Faculty/Staff A to Z

Graduate School

Administration Building, 4th Floor 1400 Townsend Drive Houghton, Michigan 49931-1295

Ph. 906-487-2327 Fax: 906-487-2284 Email: gradadms@mtu.edu

# Michigan Technological University 1400 Townsend Drive Houghton, Michigan 49931-1295 906-487-1885

See a Problem? Email the Webmaster

Calendar Giving Contact Us We're Hiring Huskymail Search

Q



# **GRADUATE SCHOOL**

Dean of the Graduate School

**Graduate School Staff** 

Academics

Degree Requirements Policies and

Procedures

Forms and Deadlines

Theses and Dissertations

Professional Resources

Honors and Awards

Graduation and Certification

Giving Opportunities Student Life Graduate Faculty Council Graduate Student Council

# PROGRAMS

### ADMISSIONS

### **RESOURCES FOR**

# QUICK LINKS

Graduate School Staff	
Calendars	1.5
Degree Requirements	
Theses and Dissertations	
Financial Information	
Forms and Deadlines	
FAQs	
Policies and Procedures	
Professional Resources	

# Prospective Students Current Students Alumni/Friends Parents Fac

Graduate School > Academics > Degree Requirements > General Requirements

# GRADUATE SCHOOL General Requirements

Attainment of a graduate degree demonstrates that a person has reached prescribed milestones in the pursuit of knowledge beyond the bachelor's degree. Satisfactory completion of the master's and/or doctoral degree is characterized by a greater level of independent research compared to the undergraduate educational experience. In an age of accelerating development, it is important that degree requirements be completed in a timely manner so the student remains abreast of, and contributes to, new knowledge.

# **Credit and GPA Requirements**

Thirty credits beyond the bachelor's degree are required for most master's programs, though some require more. The distribution of credits among coursework, practicum, and research credits will vary depending on the master's plan chosen. See the **graduate program websites** for detailed information about individual programs.

Thirty credits beyond the master's degree are required for the PhD.

No course numbered below 3000 can be counted toward a graduate degree, with the exception that Peace Corps Master's International students may use 2 credits of language courses below the 3000 level. Courses numbered in the 3000 and 4000 series are intended primarily for upper-division undergraduate students but are available to graduate students for graduate credit with their graduate program's approval, indicated by signature on the degree schedule. Although courses numbered in the 5000 series are intended primarily for graduate students, they are also available to qualified senior students. Courses numbered in the 6000 series are available only to advanced graduate students.

Neither audit, nor continuous enrollment nor non-research pass/fail courses, may be used toward the total number of credits required. The only non-graded credits that count toward a degree are research credits, which are marked satisfactory/unsatisfactory.

Students must maintain an overall 3.0 GPA for all coursework taken as a graduate student. No course in which a grade lower than B (3.0) is received may be used toward a graduate degree without express permission of the department chair or Graduate program director and of the advisor; a maximum of 6 credits of BC (2.5) or C (2.0) in a cognate department may be used toward a graduate degree if express permission is given by the advisor and the department chair or graduate program director.

# **Course Credit Hour Assignments**

Rules governing assignment of course credit hours are set by the U.S. Department of Education, and the Michigan Department of Management and Budget. Each year, the Michigan Office of the Auditor General audits five Michigan universities to ensure their compliance and thus their eligibility to receive federal and state funding.

For lecture and recitation courses, the rules are precise. One class meeting of 50 minutes per week is assigned one course credit. In contrast, universities are allowed considerable latitude for laboratory and field courses.

General practice is that one credit may be assigned to laboratory sections ranging from 50 to 170 minutes (one to three "hours"), two credits for sections ranging from 170 to 230 minutes (three to four "hours"), and three credits for those ranging from 170 to 290 minutes (three to five "hours"). The variation in time-to-credit ratio is intended to reflect both the intensity of the laboratory experience and the time required out of class to develop reports. Field classes typically carry the same or fewer credits per class hour compared to laboratory classes since time is often spent in transit and in other relatively low intensity learning activities.

### **Credit Expectations**

Academic advancement by students is measured in terms of semester-hour credits or simply credits as defined above. One credit should average 3½ hours of a student's time per week for one semester. One hour in class and 2½ hours in individual study is a typical division. Thus students should multiply the course credits by 3.5 to determine the demands the course will place on their time during a typical week of the semester. For example, in MA5524 Functional Analysis (a 3-credit course with no lab), one would expect to spend 10½ hours per week on the course (3 hours in class and 7½ hours out of class).

### **Residency Requirements—Academic**

Residency requirements differ among degree programs. Please refer to the specific guidelines for the different degree programs.

# **Time Limits**

All work for the master's degree must be completed within five calendar years of the first enrollment in the degree program or earliest course listed on the degree schedule, whichever is earliest. All work for the PhD must be completed within eight calendar years of the first enrollment in the degree program or earliest course listed on the degree schedule, whichever is earliest. Requests for extension must be made by the advisor to the Graduate School.

# **Degree-Specific Requirements**

The links below provide degree-specific requirements and a timeline for completion of each degree. Please also check with your **graduate program**, however, since requirements beyond the minimum may vary from program to program.

- Master of Engineering
- Master of Forestry
- Master of Science and Master of Business Administration
- Master's Path (for students who have completed a three-year bachelor's outside the US)
- Doctor of Philosophy

Prospective Students | Current Students | Alumni/Friends | Parents | Faculty/Staff | A to Z | Calendar | Giving | Contact Us | We're Hiring | Huskymail | Search | 1400 Townsend Drive Houghton, Michigan 49931-1295 Michigan Technological University is an equal opportunity educational institution/equal opportunity employer Ph. 906-487-2327 Fax: 906-487-2284

Graduate School Administration Building, 4th Floor

Email: gradadms@mtu.edu

Michigan Technological University 1400 Townsend Drive Houghton, Michigan 49931-1295 906-487-1885

Q



Prospective Students

Graduate School > Academics > Degree Requirements > Doctor of Philosophy

# **GRADUATE SCHOOL**

Dean of the Graduate School

**Graduate School Staff** 

Academics

- Degree Requirements Policies and
- **Procedures**

Forms and Deadlines

Theses and Dissertations

Professional Resources

Honors and Awards

Graduation and Certification

**Giving Opportunities** Student Life Graduate Faculty Council Graduate Student Council

# PROGRAMS

### **ADMISSIONS**

### **RESOURCES FOR**

# **QUICK LINKS**

Graduate School Staff	
Calendars	Y
Degree Requirements	
Theses and Dissertations	
Financial Information	
Forms and Deadlines	
FAQs	
Policies and Procedures	
Professional Resources	

# GRADUATE SCHOOL Doctor of Philosophy

The doctor of philosophy degree is a research degree. It is awarded in recognition of demonstrated mastery of subject matter in a chosen field of study and demonstrated competence in the conduct of an individual research investigation that represents a significant contribution to the cumulative knowledge of the field. The program of study and research will be planned and supervised by an advisory committee. Each candidate's course work and research topic must be approved by the advisory committee as meeting the standards generally associated with the doctoral degree. A minimum of 30 course and/or research credit hours beyond the MS degree (or its equivalent) or a minimum of 60 course and/or research credit hours beyond the bachelor's degree is required.

The doctoral student must comply with the requirements on this page, the requirements of their program, and complete any necessary forms to document their progress with the Graduate School. Individual programs may have higher standards, and students are expected to know their program's requirements.

Grades-Students must maintain an overall 3.0 GPA for all coursework taken as a graduate student. No course in which a grade lower than B (3.0) is received may be used toward a graduate degree without express permission of the department chair or graduate program director and of the advisor; a maximum of 6 credits of BC (2.5) or C (2.0) in a cognate department may be used toward a graduate degree if express permission is given by the advisor and the department chair or graduate program director.

Campus Residency Requirement—There are no University-wide, on-campus residency requirements. Some degree programs have specific requirements. Doctoral students must complete the equivalent of at least four semesters of full-time study through Michigan Tech beyond attainment of a bachelor's degree, or the equivalent of at least two semesters of full-time study beyond attainment of a master's degree. Research credits used to satisfy degree requirements must be taken through Michigan Tech and must be supervised by a member of the Michigan Tech graduate faculty. No more than one-third of a graduate student's course work can be completed elsewhere.

Time Limit—Comprehensive examinations must be taken within five years of entry and two terms before the final oral defense, and all requirements must be completed within eight years from the time of a student's first enrollment in the doctoral program or earliest course listed on the degree schedule, whichever is earliest.

Modern Language Requirement—There is no University-wide language requirement for doctoral degrees. Individual programs may require a foreign language. Each program is responsible for establishing standards and examination procedures where a foreign language is required. Doctoral students should consult with their advisory committee concerning program regulations.

# **Advisory Committee**

During the student's first semester of residence, an advisor will be chosen to assume initial responsibility for the direction of the student's educational program and to hold meetings as needed to fulfill this responsibility. It is also possible that other members of the advisory committee will be chosen at the same time as the advisor. The primary advisor, or a co-advisor must hold a regular or adjunct appointment in the student's administrative home department or school.

The advisor and committee, consisting of at least two members of the graduate faculty in addition to the advisor, will be recommended by the advisor and the chair/graduate program director of the major department, school, or program and approved by the Graduate School and filed on the Advisor and Committee Recommendation form 🔁. This committee, with the addition of a fourth, external member, will often become the Examining Committee (see "Oral Examination" below).

Preliminary Program of Study-Initially the advisory committee will meet with the student and prepare a program of course study and research work that will lead to the doctoral degree.

Proficiency Examinations—Exams may be scheduled as necessary by the program to assist in planning students' study programs or to determine the advisability of students continuing in the doctoral program.

# **Comprehensive Examination**

A comprehensive examination will be given to determine the general knowledge appropriate to the student's program and the student's ability to use this knowledge. This examination will be a written examination, although it may be oral in part if recommended by the advisory committee, but it must be given no later than five years after enrollment. It is recommended that the comprehensive exam be given after about two years of doctoral study and following completion of all course work required by the advisory committee. The examination will be given after the applicant has completed any modern language requirement and at least two terms prior to scheduling the final oral examination.

The examination will be prepared and administered by the program with the cooperation of the advisory committee. Satisfactory performance on the comprehensive examination will be regarded as an indication that no additional formal course work is needed, although the student may take additional course work. Any member of the graduate faculty may attend the oral examination as an observer.

Final Degree Schedule—Upon satisfactory completion of the comprehensive examination, a final Degree Schedule form 🛱 (D5) must be filed in the Graduate School and approved prior to scheduling a final oral examination. This Degree Schedule should include all course work taken since the last previous degree to be applied to the doctoral degree. It must be approved by the advisory committee chair and the department chair/graduate program director as meeting the standards associated with the doctor of philosophy degree.

# Dissertation

The research study undertaken as part of the doctoral degree program will be presented in the form of a dissertation that can be made a permanent acquisition of the library, along with an abstract. There is no word length requirement for the abstract, but students are advised that many databases will truncate the abstract at 350 words. Any classified or proprietary material that cannot be made available to the public is not acceptable as a dissertation. Completing the dissertation includes approval of the dissertation proposal, preparing the dissertation **according to guidelines**, and filing the completed (and successfully defended) dissertation.

The dissertation will be written and prepared under the supervision of the chair of the advisory committee according to discipline-specific writing requirements. See the **theses and dissertation** homepage for details on how to prepare and **submit the dissertation** to the Graduate School. A completed draft of the dissertation must be approved by the advisory committee chair two weeks prior to the final examination.

After the dissertation has been satisfactorily defended, recommended or other appropriate editorial changes in the dissertation should be made with the approval of the advisory committee chair.

The corrected dissertation, as approved by the committee, along with an original signature page (advisor and department chair signatures), is **submitted** to the Graduate School. The J. R. Van Pelt Library archives all doctoral dissertations.

### **Oral Examination**

At a public final oral examination, primarily concerning the research and doctoral dissertation, the candidate should justify the validity of the methods and conclusions contained in the dissertation and should be familiar with the import of the particular investigations reported in the dissertation relative to the larger body of existing knowledge. The examination may be given any time after a period of two academic terms following the successful completion of the comprehensive examination and upon completion of the dissertation in a satisfactory form. The student's examination results must be reported to the Graduate School on the **Report on Oral Exam form** (D8).

The examining committee will be appointed by the Graduate School in consultation with the department chair. The committee will consist of at least four members of the graduate faculty. At least one of these will be from outside the student's administrative home department or school. The primary advisor, or a co-advisor who serves as chair of the committee, must be from the student's home department or school. For interdisciplinary and non-departmental programs, the outside examiner may not be affiliated with the interdisciplinary or non-departmental program. A person external to Michigan Tech may be appointed as an **ad hoc member of the Graduate Faculty** to serve as the outside examiner. Persons who are not members of the Graduate Faculty may not serve as voting members of doctoral examination committees.

The examination will be scheduled by filing the **Pre-defense form** by with the Graduate School, in consultation with the chair of the advisory committee. The date of the examination must be at least two weeks following the approval of the completed draft of the dissertation by the advisory committee. Copies of the completed draft must be distributed to any new members of the examining committee at least two weeks prior to the scheduled examination date.

Prospective Students | Current Students | Alumni/Friends | Parents | Faculty/Staff | A to Z | Calendar | Giving | Contact Us | We're Hiring | Huskymail | Search |

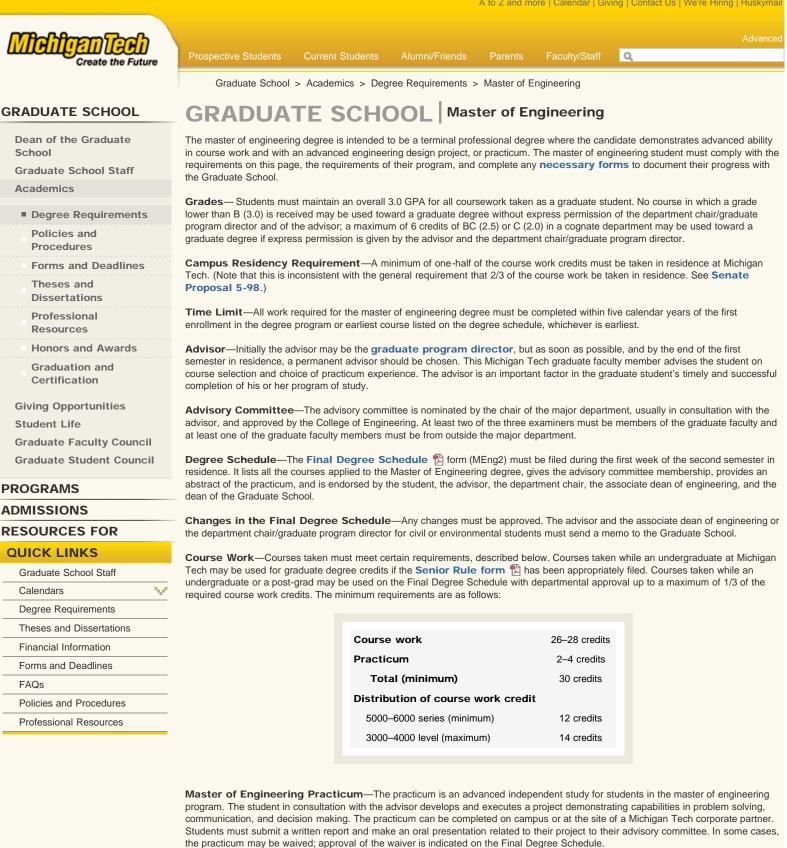
# Graduate School

Administration Building, 4th Floor 1400 Townsend Drive Houghton, Michigan 49931-1295

Ph. 906-487-2327 Fax: 906-487-2284 Email: **gradadms@mtu.edu**  Michigan Technological University 1400 Townsend Drive Houghton, Michigan 49931-1295

See a Problem? Email the Webmaster

906-487-1885



The successful on-campus oral presentation will be evaluated by the committee on the Verification of Degree Requirements 🛱 (MEng3).

Prospective Students | Current Students | Alumni/Friends | Parents | Faculty/Staff | A to Z Calendar Giving Contact Us We're Hiring Huskymail Search

**Graduate School** Administration Building, 4th Floor 1400 Townsend Drive

Michigan Technological University 1400 Townsend Drive

Michigan Technological University is an equal opportunity educational institution/equal opportunity employer

Houghton, Michigan 49931-1295

Ph. 906-487-2327 Fax: 906-487-2284 Email: **gradadms@mtu.edu**  Houghton, Michigan 49931-1295 906-487-1885





# **GRADUATE SCHOOL**

Dean of the Graduate School

Graduate School Staff

Academics

Degree Requirements Policies and

Procedures

Forms and Deadlines

Theses and Dissertations

Professional Resources

Honors and Awards

Graduation and Certification

Giving Opportunities Student Life Graduate Faculty Council Graduate Student Council

### PROGRAMS

### ADMISSIONS

### **RESOURCES FOR**

# **QUICK LINKS**

Graduate School Staff	
Calendars	h
Degree Requirements	
Theses and Dissertations	
Financial Information	
Forms and Deadlines	
FAQs	
Policies and Procedures	
Professional Resources	

### Prospective Students Current Stuc

ts Alumni/Fr

/Friends Pa

aculty/Staff

Graduate School > Academics > Degree Requirements > Master of Forestry

# GRADUATE SCHOOL Master of Forestry

# **Program Regulations**

The program of study for each student will be planned and supervised in accordance with existing University and School policies. The student's advisory committee (which includes the student's advisor) must insure that each Master of Forestry candidate's course work meets the standards of a master's program. A minimum of 30 course work credit hours beyond the bachelor's degree is required, as well as an oral examination. The proposed Master of Forestry will have completely specified course work requirements and must file the **necessary forms** with the Graduate School to document their progress.

# Master of Forestry (Plan B and Plan C)

The Master of Forestry (MFor) is a professional degree program intended for students who wish to redirect their career from some other discipline to forestry. The MFor degree has Plans B (report) and C (course work with exam) only, and is directed at students who want a course-work-only professional degree or who may be interested in working on a modest research project with a report. Students in this program will most likely lack a forestry background at the bachelors level, and would find the MFor degree more appropriate than any of the other options within the School. The structure of this program is significantly different from our master of science programs. In addition to a bachelor's degree, students applying for this program are expected to have had one semester of chemistry and one semester of elementary statistics. The curriculum for Plan C is listed below. Students completing Plan B may choose to take 2-6 research credits in lieu of the required course work listed below, upon consultation with their advisor. Curriculum:33 credits, depends on previous course work (at a minimum 30 credits)

Fall Semester (11 credits)FW3020 Forest and Landscape Ecology (3 cr)FW3330 Soil Science (4 cr)FW5020 Identification & Biology of Forest Vegetation (2 cr)FW5376 Forest Environmental Resource Management (2 cr)Spring Semester (14 credits)FW3110 Natural Resource Policy (3 cr)FW3540 Remote Sensing/GIS (4 cr)FW5032 Integ Forest Inventory & Data Analysis (3 cr)FW5088 Advanced Forest Economics and Finance (3 cr)FW5800 Master's Graduate Seminar (1 cr)Fall Semester (8 credits)FW5700 Graduate Field Forestry (8 cr)

# **Advisory Committee**

The student's graduate advisory committee should be appointed by the second semester of residence. The advisory committee will consist of at least four members, including one member designated as chair. The chair is the student's graduate advisor. The chair must be a member of the School of Forest Resources and Environmental Science and the Michigan Tech Graduate School faculty. At least one member of the advisory committee must be from outside the School. The advisory committee must approve the report (Plan B), and the necessary course work to successfully complete the project. The student's advisor is responsible for ensuring the report (Plan B) is within the capability of the student and can be completed within a reasonable period of time. The advisor and the advisory committee are responsible for ensuring the report (Plan B) and course work (Plans B and C) fall within the master's program selected by the student and the student's sdvisor. The role of the advisory committee for Plan C students is to help the student choose course work, keep track of the student's progress in his/her course work, and to test the student's knowledge on his/her course work at the student's oral defense.

# **General Procedures**

A plan of work showing the courses to be taken, the topic of the report (Plan B), and the report format (Plan B) will be prepared by the student with his/her advisor. The student's advisory committee will review the design of study (Plan B) by the end of the second or third semester. For a Plan B master's, the study plan must be presented to the student's advisory committee no later than the end of the second semester in residence. A copy of the approved study plan will be given to all committee members once approved by the advisory committee. All graduate students are required to be enrolled each academic semester except summer following entry into the master's program until completion of all degree requirements. A full-time student must enroll in a minimum of 9 credit hours per semester except for the semester with 8 credits of Field Forestry. All master's students will go through an oral defense. The oral defense for Plan B master's student's to the student's advisor. Following review and revisions by the advisor, the report should be submitted to the student's advisor. Following review and revisions by the advisor, the report should be submitted to the student's advisor. Following review and revisions by the advisor, the report should be submitted to the student's negative as cheduled oral examination. Plan B students must give a scheduled oral presentation before their defense. The oral defense for Plan C students will focus on their course work. All work required for the MFor degree must be completed within five years after first registering for classes.

# Grades

Students must maintain an overall 3.0 GPA for all course work taken as a graduate student. No course in which a grade lower than B (3.0) is received may be used toward a graduate degree without express permission of the department chair or graduate program director and of the advisor; a maximum of 6 credits of BC (2.5) or C (2.0) in a cognate department may be used toward a graduate degree if express permission is given by the advisor and the department chair or graduate program director.

# Advisor

Initially the advisor may be the director of the graduate program, but as soon as possible, and no later than the end of the second semester in residence, a permanent advisor should be chosen by submitting the **Advisor and Committee Recommendation Form** D. This Michigan Tech graduate faculty member advises the student on course selection. The advisor is an important factor in the graduate student's timely and successful completion of the program of study.

# **Degree Schedule**

The Degree Schedule form 🔁 (M4) is used to list all the courses that are to be applied to the degree requirements, including those yet to be taken. The completed M4 should be submitted in the semester prior to the defense semester. It must be approved before the defense is scheduled.

The courses listed on the Degree Schedule must meet certain requirements, described in each option below, and they must be approved by the advisor and the department chair. Courses taken while an undergraduate at Michigan Tech may be used for graduate degree credits if the **Senior Rule form** has been appropriately filed. Courses taken while an undergraduate or post-grad may be used on the Final Degree Schedule with departmental approval up to a maximum of 1/3 of required course work credits.

Plan B: Report Option (Not offered by all programs)—This plan requires a report describing the results of an independent study project. Of the minimum total of 30 credits, at least 24 must be earned in course work other than the project.

Course work	24 credits
Report	2-6 credits
Total (minimum)	30 credits
Distribution of course work credit	
5000-6000 series (minimum)	12 credits
3000-4000 level (maximum)	12 credits

Plan C: Course Work Option (Not offered by all programs)—This plan requires the minimum 30 credits be earned through course work.

Distribution of course work credit	
5000-6000 series (minimum)	18 credits
3000-4000 level (maximum)	12 credits

# **Oral Examination**

Examination by and approval of a faculty committee is required for awarding a master's degree. This committee will examine the general professional knowledge, course work, and (in plan B) the written documents of each master's candidate. The defense is scheduled and the committee nominated via the **pre-defense form**, which must be in the Graduate School two weeks prior to the defense date.

**Examination Committee**—Must be nominated by the chair of the major department, usually in consultation with the advisor, and approved by the dean of the Graduate School. At least three of the four examiners must be members of the graduate faculty and one of the graduate faculty must be from outside the major department.

# Report

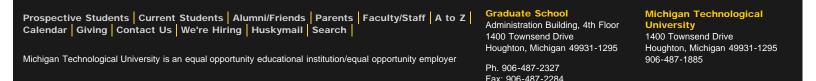
Distribute copies to the examining committee at least two weeks prior to the examination date.

**Defense**—Must be scheduled and the committee nominated via the **pre-defense form** . The committee's written evaluation must be filed on the **Report on Oral Examination form** (M6). The student must be enrolled to defend.

Email: gradadms@mtu.edu

See a Problem?

Email the Webmaster



			A to Z and mo	ore   Calendar   Givi	ing   Contact Us   We're	e Hiring   Huskymail
el de la companya de						
e Future	Prospective Students	Current Students			Q	

Graduate School > Academics > Degree Requirements > Master of Science

### **GRADUATE SCHOOL**

Dean of the Graduate School

Graduate School Staff Academics

Degree Requirements
 Policies and
 Procedures

Forms and Deadlines Theses and

Dissertations Professional

Resources

Honors and Awards

Graduation and Certification

Giving Opportunities Student Life Graduate Faculty Council

Graduate Student Council

#### PROGRAMS

#### **ADMISSIONS**

#### **RESOURCES FOR**

QUICK LINKS	
Graduate School Staff	
Calendars	N
Degree Requirements	
Theses and Dissertations	
Financial Information	
Forms and Deadlines	
FAQs	
Policies and Procedures	
Professional Resources	

# GRADUATE SCHOOL Master of Science and Master of Business Administration

The master's degree demonstrates advanced ability, usually in both course work and research. The master's student must comply with the requirements on this page, the requirements of their program and complete any **necessary forms** for their degree option to document their progress with the Graduate School. Individual programs may have higher standards. Students are expected to know their program's requirements.

Master's Path Program-See additional details about program requirements.

**Grades**—Students must maintain an overall 3.0 GPA for all coursework taken as a graduate student. No course in which a grade lower than B (3.0) is received may be used toward a graduate degree without express permission of the department chair or graduate program director and of the advisor; a maximum of 6 credits of BC (2.5) or C (2.0) in a cognate department may be used toward a graduate degree if express permission is given by the advisor and the department chair or graduate program director.

**Campus Residency Requirement**—There are no University-wide, on-campus residency requirements. Some degree programs have specific requirements. A minimum of two-thirds of the required non-research course-work credits required for the degree must be taken through Michigan Tech. Research credits used to satisfy degree requirements must be taken through Michigan Tech and must be supervised by a member of Michigan Tech graduate faculty.

Time Limit—All work required for the master of science or master of business administration degree must be completed within five calendar years of the first enrollment in the degree program or of the earliest course listed on the degree schedule, whichever is earliest.

### Advisor

Initially the advisor may be the **graduate program director**, but as soon as possible, and no later than the end of the second semester in residence, a permanent advisor should be chosen. This Michigan Tech graduate faculty member advises the student on course selection and choice of research topic and supervises the research experience. The advisor is an important factor in the graduate student's timely and successful completion of the program of study. Students in all plans must have an advisor.

### **Degree Schedule**

The **Degree Schedule form** (M4) is used to list all the courses that are to be applied to the degree requirements, including those yet to be taken. The completed Degree Schedule should be submitted in the semester prior to the defense/completion semester. It must be approved before a defense (Plan A, B, C) is scheduled.

The courses listed on the Degree Schedule must meet certain requirements, described in each option below, and they must be approved by the advisor and the department chair/graduate program director. Courses taken while an undergraduate at Michigan Tech may be used for graduate degree credits if the **Senior Rule form** has been appropriately filed. Courses taken while an undergraduate or post-grad may be used on the degree schedule with program approval up to a maximum of 1/3 of the required course work credits.

Changes in the Degree Schedule—Any changes must be approved. The advisor must communicate approval of changes to the degree schedule to the Graduate School.

### Options

Master of business administration students may only complete Plan D at this time. All other master's programs may offer other options, which are described below.

For Plans A or B, the scope of the research topic for the thesis or independent project should be defined in such a way that a full-time student could complete the requirements for a master's degree in twelve months or three semesters following the completion of course work by regularly scheduling graduate research credits. The thesis or report must be prepared in a style appropriate to the discipline and the **procedures** of the Graduate School. Following the defense, the corrected Plan A thesis, as approved by the committee, along with an original signature page (advisor and department chair or school dean signatures) is **submitted** to the Graduate School. A single paper copy of the corrected and approved Plan B report in a sturdy binder including an original signature page is submitted to the Graduate School. The J. Robert Van Pelt Library archives all master's reports and theses. Plan C coursework papers are not submitted to the Graduate School and are not retained by the Van Pelt Library.

Plan A: Thesis Option—This plan requires a research thesis prepared under the supervision of the advisor. The thesis describes a research investigation and its results. The minimum requirements are as follows:

Course work (minimum)	20 credits
Thesis research	6-10 credits
Total (minimum)	30 credits
Distribution of course work credit	
5000-6000 series (minimum)	12 credits
3000-4000 level (maximum)	12 credits

Plan B: Report Option (Not offered by all programs)—This plan requires a report describing the results of an independent study project. Of the minimum total of 30 credits, at least 24 must be earned in course work other than the project.

Course work	24 credits
Report	2-6 credits

5000–6000 series (minimum) 12 credits	Total (minimum)	30 credits
3000–4000 level (maximum) 12 credits	Distribution of course work credit 5000–6000 series (minimum)	
	3000–4000 level (maximum)	12 credits

Coursework Master's (Not offered by all programs)—This plan requires the minimum 30 credits be earned through course work.

Two options within the course work master's are available. Both options require the student to have an advisor. Only one of the two options may be offered by a single degree program:

• Plan C requires a comprehensive oral examination.

Plan D does not require a comprehensive oral examination. Research credits taken by students in Plan D may not be counted as course work credits.

Distribution of course work credit	
5000-6000 series (minimum)	18 credits
3000-4000 level (maximum)	12 credits

# **Oral Examination**

Examination by and approval of a faculty committee is required for awarding a master's degree. This committee will examine the general professional knowledge, course work, and (in plans A and B) the written documents of each master's candidate. The defense is scheduled and the committee nominated via the **pre-defense form** , which must be in the Graduate School two weeks prior to the defense date.

Examination Committee—The examination committee will be appointed by the dean of the Graduate School in consultation with the department chair. The committee will consist of at least three members of the graduate faculty. At least one of these will be from outside the student's administrative home department or school. The primary advisor, or a co-advisor who serves as chair of the committee, must be from the student's administrative home department or school.

### Thesis or Report

Distribute copies to the examining committee at least two weeks prior to the examination date.

Defense —Must be scheduled and the committee nominated via the pre-defense form 🔁. The committee's written evaluation must be filed on the Report on Oral Examination form 🔁 (M6). The student must be enrolled to defend.

Prospective Students | Current Students | Alumni/Friends | Parents | Faculty/Staff | A to Z | Calendar | Giving | Contact Us | We're Hiring | Huskymail | Search |

Graduate School Administration Building, 4th Floor 1400 Townsend Drive Houghton, Michigan 49931-1295

Ph. 906-487-2327 Fax: 906-487-2284 Email: gradadms@mtu.edu Michigan Technological University 1400 Townsend Drive Houghton, Michigan 49931-1295 906-487-1885

See a Problem? Email the Webmaster

Michigan Technological University is an equal opportunity educational institution/equal opportunity employer

http://www.mtu.edu/gradschool/administration/academics/requirements/ms-mba/[9/21/2009 9:23:55 AM]



Graduate School > Academics > Degree Requirements > Peace Corps

# **GRADUATE SCHOOL**

Dean of the Graduate School

Graduate School Staff

Academics

Degree Requirements

- Policies and Procedures
- Forms and Deadlines

Theses and

Dissertations

Professional Resources

Honors and Awards

Graduation and Certification

Giving Opportunities Student Life Graduate Faculty Council Graduate Student Council

### PROGRAMS

### ADMISSIONS

# **RESOURCES FOR**

# **QUICK LINKS**

# GRADUATE SCHOOL Peace Corps Master's International Program

# **General Information**

Students may earn an MS in conjunction with the US Peace Corps, combining academic study in the fields listed below with supervised, practical field experience and research. View a **brochure** with overviews of all of the disciplines for more information.

- Forestry
- Civil Engineering
- Environmental Engineering
- Mechanical Engineering
   Mitigation of Natural Cool
- Mitigation of Natural Geological Hazards (Geological Engineering, Geology, Geophysics)
  Applied Science Education

After completing a program of on-campus academic work, students serve two years with the US Peace Corps. While participating in Peace Corps field work, students enroll in one of **these courses** to maintain full-time student status. Students return to campus for one additional semester following their Peace Corps tour to complete their degree requirements. Additional information on each program available through the links above.

# **Graduate School Policies**

# I. Peace Corps Status

Graduate students entering any of the Peace Corps Master's International Programs on campus receive Peace Corps status and are eligible for the Peace Corps tuition rates and support from the Graduate School for tuition while serving in Peace Corps.

1. Any student who enters their Peace Corps country of service after successfully completing Peace Corps staging maintains Peace Corps status unless they are administratively separated or early terminate their service.

Students who are administratively separated or early terminate may appeal to maintain Peace Corps status. The appeal is made to a committee composed of the Program Directors of the Michigan Technological University Peace Corps Master's International Programs. Appeals are approved at a meeting of the coordinators where a majority of the coordinators constitutes a quorum. Meetings may be held in person or electronically. Appeals to reinstate Peace Corps status must receive approval by a majority of the coordinators who are present. If the student is not satisfied with decision of the committee, the student may appeal to the dean of the Graduate School. The decision of the dean of the Graduate School is final. Appeals may be made at any time prior to graduation, however decisions are not retroactive. Therefore, it is in the student's best interest to appeal promptly if the student wishes to maintain Peace Corps enrollment status.

- 2. Any student who is medically declined by Peace Corps maintains Peace Corps status.
- Students who do not enter a country of service, except those medically declined by Peace Corps, lose Peace Corps status. This
  group of students includes those students who voluntarily choose to change programs including, but not exclusively, those who are
  medically deferred.
- 4. Any student who loses Peace Corps status must develop a new graduate committee and find a new advisor. This responsibility lies with the student and not the department or school. This change of status is a change of graduate programs and acceptance into the new graduate program is at the discretion of coordinator, director, dean, or department chair responsible for the new graduate program selected by the former Master's International graduate student. The new advisor and student will be required to file a new set of forms with the Graduate School.

This policy is effective for all students who entered a Peace Corps Master's International Program in the 2006-2007 academic year or in subsequent years. Students who entered before the 2006-2007 academic year are covered by the previous policy.

### II. Language Credit

Up to 2 credits of 1000 or 2000 level language credits may be counted as 3000-4000 degree credit towards the completion of Peace Corps Masters International degree.

# **III. Thesis Research Credit**

Students pursuing thesis option MS degrees may count up to 4 of their "in-country" CE5994, FW5730, or GE5994 credits as thesis research credits if they conducted research while serving in the Peace Corps.

# IV. UN5951

Peace Corps Master's International students can enroll in UN5951 if their program is inactive. This includes students who have completed their coursework prior to entering Peace Corps but have not been given a country assignment by Peace Corps or have been given a late departure date for their assignment.

# V. Enrollment in Overseas Peace Corps Credit

- 1. Each student should send a copy of his or her Volunteer Assignment Description to the Director of Peace Corps Programs to start the overseas course enrollment.
- 2. Since the university has no control over when Peace Corps starts people in their assignments or when Peace Corps closes their service, if a student is serving in Peace Corps for any part of a semester the student can be enrolled for the overseas credit for that entire semester. If a student chooses, he or she may opt to be an on-campus student during a semester that is at the beginning or end of Peace Corps service. In this case the student pays the tuition since it is for on-campus credit.

### Peace Corps Master's International Program Requirements | Michigan Tech Graduate School

- 3. If a student is enrolled for the one overseas Peace Corps credit the student cannot be enrolled in any other credits during that semester.
- 4. The Peace Corps course should not be used as a placeholder for students who have finished on-campus coursework prior to Peace Corps but have not been placed by Peace Corps. This happens most frequently for students with some kind of medical hold from Peace Corps, but there have been other reasons Peace Corps has delayed placement. These students can request enrollment in UN5951.
- 5. Students can finish their degree while overseas and enrolled in the Peace Corps credit.
- Students not enrolled in the overseas Peace Corps credit must follow general university regulations regarding health insurance.
   Students in Peace Corps are covered by the Peace Corps for health insurance.

Prospective Students | Current Students | Alumni/Friends | Parents | Faculty/Staff | A to Z | Calendar | Giving | Contact Us | We're Hiring | Huskymail | Search |

Graduate School Administration Building, 4th Floor 1400 Townsend Drive Houghton, Michigan 49931-1295

Ph. 906-487-2327 Fax: 906-487-2284 Email: **gradadms@mtu.edu**  Michigan Technological University 1400 Townsend Drive Houghton, Michigan 49931-1295 906-487-1885

See a Problem? Email the Webmaster



Prospective Students

Q

Graduate School > Academics > Degree Requirements > Master's Path

# **GRADUATE SCHOOL**

Dean of the Graduate School

Graduate School Staff

Academics

Degree Requirements Policies and

**Procedures** 

Forms and Deadlines

Theses and Dissertations

Professional Resources

Honors and Awards

Graduation and Certification

**Giving Opportunities** Student Life **Graduate Faculty Council** Graduate Student Council

### PROGRAMS

### **ADMISSIONS**

### **RESOURCES FOR**

### **QUICK LINKS**

Graduate School Staff	
Calendars	- N
Degree Requirements	
Theses and Dissertations	
Financial Information	
Forms and Deadlines	
FAQs	
Policies and Procedures	
Professional Resources	

# GRADUATE SCHOOL Master's Path Program

For students who have completed a three-year bachelor's program outside the US. See our brochure for more information.

# Background

Some colleges and universities outside the US are moving to a three-year bachelor's degree and a five-year master's degree. After obtaining the three-year degree in their home country, many students would like to go abroad to pursue a high-quality master's degree, gain international experience, and perfect their English. The Michigan Tech Master's Path Program allows students to pursue a master's degree directly, rather than requiring they first complete a bachelor's program at a US institution. The Master's Path Program is offered in more than twenty disciplines in the sciences, engineering, forestry, communications, social sciences, and business.

# Application Process

Students apply for graduate admission using the international forms, specifying "Master's Path." Applications must be approved by both the department chair or school dean and by the Graduate School.

Suggested minimum admissions criteria:

- · Completion of recognized three-year degree in appropriate area
- Statement of purpose, official transcripts
- Three letters of reference
- Adequate academic achievement in pursuit of the three-year degree
- GRE/general test results, if required by graduate program,
- Proof of English proficiency TOEFL (at least 550 written, 213 computer-based, or 79 internet based) or ILETS (a score comparable to TOEFL requirements)

# Master's Path Curriculum

Students who hold a 4-year bachelor's degree are required to take at least 30 semester credits beyond the bachelor's for their master's degree. Students entering the Master's Path Program with a 3-year bachelor's degree will be required to take additional credits depending on their preparation in the chosen field of study. The transcript of each accepted student is reviewed by the graduate program, which delineates the specific course requirements needed for completion of the master's degree.

Based on the specific Michigan Tech degree program, the student's focus, and the transcript review, a set of bridge courses, required in addition to the 30 credits, is defined. Courses on the student's transcript that have been taken beyond the requirement of their 3-year bachelor's degree may be evaluated for transfer into the master's curriculum. Bridge courses are integrated into the Master's Path curriculum, which is normally completed within 24 months. Students typically will take a mix of graduate and bridge courses during their first one or two semesters. Students in the Master's Path Program may take an hourly, salaried job on campus during their first semester of residence, provided it does not slow progress toward their degree. (A limited number of hourly research, teaching, and service jobs are available.) Following the successful completion of their first semester, they may, at the discretion of their advisor, be eligible for a research and/or teaching stipend.

Students may use the Master's Path course planning form 陷 to assist them in degree planning.

Prospective Students | Current Students | Alumni/Friends | Parents | Faculty/Staff | A to Z Calendar Giving Contact Us We're Hiring Huskymail Search

Graduate School Administration Building, 4th Floor

1400 Townsend Drive Houghton, Michigan 49931-1295

Ph. 906-487-2327 Fax: 906-487-2284 Email: gradadms@mtu.edu Michigan Technological University 1400 Townsend Drive Houghton, Michigan 49931-1295 906-487-1885

See a Problem? Email the Webmaster

Q



# **GRADUATE SCHOOL**

Dean of the Graduate School

**Graduate School Staff** 

Academics

Degree Requirements Policies and

Procedures

Forms and Deadlines

Theses and Dissertations

Professional

Resources Honors and Awards

Graduation and Certification

Giving Opportunities Student Life Graduate Faculty Council

Graduate Student Council

### PROGRAMS

### ADMISSIONS

### **RESOURCES FOR**

### QUICK LINKS

Graduate School Staff	
Calendars	Y
Degree Requirements	
Theses and Dissertations	
Financial Information	
Forms and Deadlines	
FAQs	
Policies and Procedures	
Professional Resources	

# Prospective Students Current Students Alumni/Friends Parents

Graduate School > Academics > Degree Requirements > Certificate Programs

# GRADUATE SCHOOL Certificate Programs

Graduate certificates can be obtained concurrently with a graduate degree or can be obtained by students who have completed an undergraduate degree and apply to Michigan Tech as **nondegree graduate students**. Undergraduate/Graduate/Graduate certificates can be obtained concurrently with an undergraduate or graduate degree or can be obtained by part-time students without enrolling in a degree program. All students must, however, comply with the procedures for admission to Michigan Tech.

# **Graduate Certificates**

Graduate Certificate in Sustainability— This Certificate formally recognizes curricular breadth in the following areas: i) policy, societal, and economic systems, ii) environmental systems, and iii) industrial systems. The student has the opportunity to achieve specialized education in engineering, forestry, science, social sciences, humanities, business, and economics.

**Graduate Certificate in Nanotechnology**— The Graduate Certificate in Nanotechnology recognizes advanced study of scientific, technological, and engineering topics in nanotechnology, including aspects of (i) characterization, (ii) micro- to nano-scale fabrication and control, and (iii) devices, systems and integration. The certificate also requires study of the societal and ethical implications of emerging technologies.

**Graduate Certificate in Advanced Electric Power Engineering**— The Graduate Certificate in Advanced Electric Power Engineering provides the student with advanced knowledge of the operation and design of electric power systems.

# **Undergraduate/Graduate Certificates**

Design Engineering—Contact the College of Engineering.

**Industrial Forestry Certificate**—designed to give students a working knowledge of critical aspects of business and forestry. Contact the School of Business and Economics or the School of Forest Resources and Environmental Science.

International Business Certificate—includes modern language, international affairs, and international business and economics. Contact the School of Business and Economics.

Media—Contact the humanities department

**Mine Environmental Engineering Certificate**—Through this curriculum, mining engineering students gain knowledge and develop skills necessary to solve problems in the area of environmental impacts of mining. Contact the Department of Geological and Mining Engineering Sciences.

### Modern Languages, Literatures, and Area Study Certificate Programs and Proficiency Certificates

Certificates and advanced certificate are available in Modern Languages, Literatures, and Area Study (in French, German, or Spanish) to students who meet specified course requirements. Students who want an advanced certificate must first complete the Certificate in Modern Languages, Literatures, and Area Study. Contact the modern languages faculty in the Department of Humanities.

In addition, the following proficiency certificates are available:

- Certificat Pratique de la Chambre de Commerce de Paris-certifies French proficiency adequate for business
- Zertifikat Deutsch\*—certifies German proficiency adequate for work; Zentrale Mittelstufenprufüng\*—certifies German proficiency adequate for university work
- Prüfung Wirtschaftsdeutsch International\*—certifies German proficiency adequate for business.
   \*Tests for these certificates are provided through the Goethe Institute and are recognized worldwide.

Writing-contact the Department of Humanities.

# **Teacher Certification Program**

Michigan Tech offers programs leading to Michigan Secondary School Teacher Certification with majors and minors in biology (clinical laboratory science), chemistry, computer science, earth science, social studies, English, mathematics, science, and physics. Students with undergraduate degrees combine a sequence of professional education courses with student teaching to get teacher certification at the secondary school level. Contact the Department of Cognitive & Learning Sciences for specific requirements.

Prospective Students | Current Students | Alumni/Friends | Parents | Faculty/Staff | A to Z | Calendar | Giving | Contact Us | We're Hiring | Huskymail | Search |

Graduate School Administration Building, 4th Floor 1400 Townsend Drive Houghton, Michigan 49931-1295

Email: gradadms@mtu.edu

yer Ph. 906-487-2327 Fax: 906-487-2284 Michigan Technological University 1400 Townsend Drive Houghton, Michigan 49931-1295 906-487-1885



**Prospective Students** 

E.

GRADUAT

**Nondegree Graduate Applicants** 

Q

Graduate School > Nondegree Graduate Applicants

SCI

# **GRADUATE SCHOOL**

### PROGRAMS

### ADMISSIONS

How to Apply **Requirements and Procedures International Applicants Nondegree Graduate Applicants Financial Information** Visit Michigan Tech Orientation

### **RESOURCES FOR**

### **QUICK LINKS**

Graduate School Staff	
Calendars	$\sim$
Degree Requirements	
Theses and Dissertations	
Financial Information	
Forms and Deadlines	
FAQs	
Policies and Procedures	
Professional Resources	



Students who have completed a bachelor's degree or the equivalent may wish to take courses for graduate credit without enrolling in a specific degree program. This might, for instance, be to meet employer or certification requirements, to facilitate a research exchange, or to transfer graduate credits to another university. This option might also be used by students who are in the process of applying for a degree program but who wish to begin taking courses immediately.

# How to Apply for Nondegree

Application Form. Proof of Bachelor's Degree (photocopy acceptable) NOTE: Michigan Tech graduates do not need to provide proof of degree.

For K-12 Teachers ONLY: Proof of current certification (photocopy acceptable)

### Application Deadlines and Graduate Standing There is no application deadline.

#### Cost of Study

Current tuition. Practicing K-12 teachers who provide proof of certification qualify for the Applied Science Education graduate tuition rate.

### Conditions of Nondegree Graduate Status

Courses taken prior to admission to nondegree seeking status will be reported on an undergraduate transcript and will not transfer as graduate course work.

Graduate-level courses will appear on the transcript as, and be transferable as, graduate level credits. NOTE: Failure to provide proof of bachelor's degree prior to completion of a course will result in any credits earned being reported on an undergraduate transcript.

TOEFL or GRE scores are not required for admission. Students whose academic or language proficiency is not sufficient for acceptable participation in the chosen class will be advised to register for a lower-level class and/or will be expected to take language courses concurrent with the graduate enrollment.

Admission to a graduate degree program will require submission of a standard application for graduate admission.

Nondegree seeking students can transfer a maximum of 1/3 of the total number of nonresearch credits required for a specific graduate degree if they change from nondegree seeking to degree-seeking status at Michigan Tech.

Departments and programs determine which courses taken by nondegree seeking students can be used to satisfy requirements for a specific degree.

#### **ADMISSIONS**

#### Forms and Applications

- **Requirements and Procedures Domestic Students** 
  - **International Students**

Nondegree Graduate Students

FAQ

- Visit Michigan Tech
- Ask a Question
- **Application Checklist**

Prospective Students | Current Students | Alumni/Friends | Parents | Faculty/Staff | A to Z Calendar Giving Contact Us We're Hiring Huskymail Search

**Graduate School** Administration Building, 4th Floor 1400 Townsend Drive Houghton, Michigan 49931-1295

> Ph. 906-487-2327 Fax: 906-487-2284 Email: gradadms@mtu.edu

Michigan Technological University 1400 Townsend Drive Houghton, Michigan 49931-1295 906-487-1885

See a Problem? Email the Webmaster



# **GRADUATE SCHOOL**

Dean of the Graduate School

Graduate School Staff

Academics

Degree Requirements

Policies and Procedures

Forms and Deadlines

Theses and Dissertations

Professional

Resources

Honors and Awards

Graduation and Certification

**Giving Opportunities** 

Student Life

Graduate Faculty Council

Graduate Student Council

# PROGRAMS

### **ADMISSIONS**

### **RESOURCES FOR**

# QUICK LINKS

Graduate School Staff	
Calendars	Y
Degree Requirements	
Theses and Dissertations	
Financial Information	
Forms and Deadlines	
FAQs	
Policies and Procedures	
 Professional Resources	

# GRADUATE SCHOOL Off-Campus Programs with Partnered Sponsors

Michigan Tech promotes knowledge enrichment and personal development through graduate level credit courses and programs, as well as noncredit courses and seminars offered via online and distance delivery technologies to individuals and corporate sponsors. For information about Michigan Tech's off-campus options for individuals outside of partnership agreements, visit **Tech Online**. Most online courses are delivered via streaming video and Blackboard. View a **preview of a streamed video lecture**.

# Partnered Research Master's and PhD Degrees

This option is for research degrees offered under the auspices of a contractual agreement with a cooperating partner in industry, government, or the non-profit sector.

The heart of this option lies not only in the student-advisor mentoring relationship, but also in opportunities for students to work together and for the advisory committee to meet with the student. Distance learning research-based degrees at both the master's and doctoral level are designed to ensure fidelity to these relationships and thus maintain the high standards of Michigan Tech graduate degrees. The public defense of theses, dissertations, reports, projects, and plan C coursework should preferably occur on campus. Students in partnered programs may take up to 1/3 of the required coursework credits from other universities provided the course plan is approved in advance of course registration.

# **Master's Partnered Option**

A distance option is available in some programs for students who are employees of cooperating industrial, government, and organization partners and who meet admissions requirements. Each agreement is site- and program-specific, particularly with regard to how the student-advisor relationship will be maintained, but all generally involve the following conditions:

- approval of the site facilities (laboratories, libraries, computer facilities, etc. as appropriate to the program)
  - appointment of a qualified on-site co-advisor to adjunct graduate faculty status
  - periodic visits to the Michigan Tech campus in Houghton at specific mileposts in the degree, e.g., orientation; proposal defense; study weeks; thesis, project, or coursework defense

Agreements may also include additional requirements, e.g., Michigan Tech faculty time on site with the student, summer school residency, video-conferences for periodic reviews, etc.

# **Doctoral Partnered Programs**

A distance option is available in some programs for students who have already earned a master's degree; who are employees of cooperating industrial, government, and organization partners; and who meet admissions requirements. Each agreement is site and program specific, particularly with regard to how the student-advisor relationship will be maintained, but all generally involve the following conditions:

- approval of the site facilities (laboratories, libraries, computer facilities, etc. as appropriate to the program)
- · appointment of a qualified on-site co-advisor to adjunct graduate faculty status
- all degree exams (qualifiers, preliminaries, comprehensives, and dissertation defense and oral examination) are preferably conducted on the Michigan Tech campus.
- additional periodic visits to the Michigan Tech campus in Houghton.
- Michigan Tech advisor will be supported by the partner and will spend substantive time on site at the student's research facility
  some remote programs require one or more semesters in residence on the Michigan Tech campus, which can be met by enrollment in the full (14-week) summer session.

For more information contact Jacque Smith in the Graduate School at 1.906.487.1434, or via e-mail.

Prospective Students | Current Students | Alumni/Friends | Parents | Faculty/Staff | A to Z | Calendar | Giving | Contact Us | We're Hiring | Huskymail | Search |

Michigan Technological University is an equal opportunity educational institution/equal opportunity employer

Graduate School Administration Building, 4th Floor 1400 Townsend Drive Houghton, Michigan 49931-1295

Ph. 906-487-2327 Fax: 906-487-2284 Email: **gradadms@mtu.edu**  Michigan Technological University 1400 Townsend Drive Houghton, Michigan 49931-1295 906-487-1885