October 5, 2010
(Last update: 9/30/10)

Handouts of the Graduate Faculty Council
Proposal for an Interdisciplinary Graduate Certificate:  
The International Profile Certificate

Revised September 8, 2010 – Graduate School Reference: FY10-05

William I Rose  
Geological Engineering & Sciences  
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Forestry and Environmental Sciences

1. General Description

This proposal recommends the establishment of a Graduate Certificate called the International Profile. This non-departmental certificate would be available to all degree-seeking as well as nondegree-seeking students enrolled in the Graduate School at Michigan Technological University.

Title of Certificate: The International Profile Certificate

Catalog Description

The International Profile Certificate recognizes advanced study in any field, but with a substantial international perspective that demonstrates an ability to bridge cultural and language barriers and collaborate effectively.

2. Rationale

Professional work in most fields requires the ability to work with people in a wide variety of cultural and physical environments. Educational programs can include exposure and demonstrated success in working all over the world, and in dealing with all aspects of work on a global basis. The degree offerings of a university should reflect accurately the training of students in international contexts.

Michigan Tech has strong and growing international programs. Important examples of these are the eight Peace Corps Masters International Programs, D80, the ATLANTIS program, SustR and TIES in Mexico, and specific agreements and research programs with other institutions around the world. These programs involve substantial language and cultural training and have changed the focus of their home departments substantially, so that international work is developing even more rapidly than before. International Exchange programs for graduate students, such as EHaz
and ExCit have triggered significant international exchanges and multi-university course developments. The development of the Michigan Tech Chapter of Engineers Without Borders, the Aqua Terra Tech Enterprise and other international Senior Design efforts and the D80 Center are grass roots developments that have affected many different graduate programs. We believe that the International Profile is a necessary and appropriate educational opportunity for postgraduate students that will offer them an attractive supplement to their graduate degrees in this era of rapid paced technological change and with a strong need for international bridging. In addition to language and cultural coursework, students will spend one or more semesters abroad doing research, internships and/or coursework.

The International Profile Certificate is designed to:

1. encourage students to pursue international research, internship and course opportunities;
2. deepen students' understanding of world cultures and global issues;
3. develop a world-wide perspective on science, engineering and social issues, such as global change and natural hazards;
4. encourage a basic proficiency in another language, and
5. enhance intercultural communication skills

3. Related Programs

Undergraduate minors such as “Study Abroad Minors” or “International Minors” exist at many universities (see University of Minnesota, Auburn). A 12 credit PhD Minor exists in Global studies at the University of Indiana, and we expect that many such examples are now developing on many campuses. At MTU graduate minors do not exist, so a certificate seems the best current option.

4. Projected Enrollment

Based on likely faculty participants and current graduate enrollments, we estimate that approximately 20 students may be enrolled at any time. For example, there are currently 80 students enrolled in the Peace Corps Master’s International Programs, 15 in the ATLANTIS program, 3 in SustR, and other students involved individual international research.
5. Scheduling Plans

This graduate certificate program is primarily a regular (daytime) program with an international component of at least one academic term.

6. Curriculum Design

A total of 12 credits are required for the International Profile Certificate for degree seeking students and 15 credits are required for non-degree seeking students. Students must earn a grade of B or higher in each of the courses counting toward the certificate. As an interdisciplinary certificate, a maximum of 6 credits is allowed in courses at the 3000- and 4000- levels.

(A) Foreign Language Requirement. (proficiency for degree seeking students, 3 credits minimum for non-degree seeking students).

(1) For non-degree seeking students, three credits at level III or higher in a foreign language course.

(2) For degree seeking students this requirement may be satisfied by any of the following:

(a) three credits at level III or higher in a foreign language course.

(b) a score on the Michigan Tech language proficiency test which would allow the student to enroll in a level III or higher foreign language course.

(c) a score of 63 or higher on a CLEP foreign language examination.

(d) a rating of Intermediate Mid on the ACTFL test or Language Proficiency Interview, or

(e) other evidence of equivalent language proficiency approved by the Certificate’s committee. Appeals of the committee’s decision may be made to the Dean of the Graduate School.
(B) International and Intercultural Awareness (5 credits minimum). Students select a minimum of 5 credits from the following list of courses.

- BA4710
- BA4780
- CE5993
- CE5990, 5991, 5992
- EC3100
- FW5770
- FW5720
- GE5001
- HU3253
- HU3261
- HU3262
- HU3263
- HU3264
- HU3502
- HU3504
- HU3545
- HU3850
- HU5050
- PSY3070
- SS3100
- SS3410
- SS3610
- SS3620
- SS3940
- SS4210
- UN4000

Course descriptions are in Appendix 1.

(C) Required International Experience. Students must take a minimum of 6 credits at a university or research center outside of the United States over at least one complete academic term. Students may take the credits while enrolled as a graduate student at Michigan Tech, but no more than three of the credits may be research credits. If the credits are taken as part of the graduate degree, but not as Michigan Tech credit, the credits must be coursework credits.
Integrated International Studies (1 credit)

UN 5555 Integrated International Studies Seminar (1 credit)

UN 5555 will be proposed as a new course.

7. New Course Description

UN5555 Integrated International Studies Seminar (1 credit, fall, spring). Prerequisite: graduate standing, instructor approval, and a minimum of one semester of graduate study in a foreign country. Seminar discusses the cultural differences of implementing research in a foreign country. Case studies and history of universities in other countries are included.

Teaching of the course will be coordinated by the Certificate Director.

8. Costs and Additional Resources

No new library resources will be required. No additional computing resources will be required nor will additional computing fees be required beyond those already required for each department. No additional equipment is required. No additional space is required; the seminar can be taught in current university space.

9. Faculty Resumes

Proposing faculty are:

William I Rose, Geological Engineering & Sciences
John Gierke, Geological Engineering & Sciences
Alex Mayer, Civil and Environmental Engineering
Blair Orr, Forestry and Environmental Sciences
Andrew Storer, Forestry and Environmental Sciences

Resumes are attached in Appendix 2.
10. Administration and Policies

The Certificate will be housed in the Graduate School and day to day administration will be handled by the International Profile Certificate Committee. The Committee will be appointed by the Dean of the Graduate School and will consist of the Certificate Director, one member with expertise in foreign languages from the Humanities Department who is a member of the graduate faculty and one at-large member from the graduate faculty. The Certificate Director will be appointed by the Dean of the Graduate School.
Appendix 1.

Course Descriptions

BA 4710 - International Management
Study of managing work in a global context. Assesses impact of culture and the international environment (economic, social, legal, technological) on management, personnel, marketing, accounting, and finance strategies. Examines international business structures from licensing to joint ventures. Develops attitudes and skills leading to increased international effectiveness.

Credits: 3.0
Lec-Rec-Lab: (0-3-0)
Semesters Offered: On Demand
Restrictions: May not be enrolled in one of the following Class(es): Freshman, Sophomore, Junior
Pre-Requisite(s): BA 3700 and EC 3100(C)

BA 4780 - International Business Communications
Studies the importance of intercultural communication competence for effective business relationships. Provides a theoretical and practical foundation for successful business communication by examining the communication processes and contextual units.

Credits: 3.0
Lec-Rec-Lab: (0-3-0)
Semesters Offered: On Demand
Restrictions: May not be enrolled in one of the following Class(es): Freshman, Sophomore
Pre-Requisite(s): UN 1001 and (UN 1002 or UN 1003) and UN 2001 and UN 2002

CE 5990 - Civil Engineering Graduate Seminar
Detailed study and group discussions of current literature and graduate research projects related to the broad field of civil engineering. Topics will be combined to address the student's area of interest, including construction, environmental, geotechnical, structures, transportation, and water resources. External speakers discuss current related issues.

Credits: 1.0
Lec-Rec-Lab: (0-1-0)
Semesters Offered: Fall, Spring
Restrictions: Must be enrolled in one of the following Level(s): Graduate

CE 5991 - Environmental Engineering Graduate Seminar I
Presentations and discussion of current literature and research related to the broad field of environmental engineering.

Credits: 1.0
Lec-Rec-Lab: (0-1-0)
Semesters Offered: Fall
CE 5992 - Environmental Engineering Graduate Seminar II
Presentations and discussion of current literature and research related to the broad field of environmental engineering.

Credits: 1.0
Lee-Rec-Lab: (0-1-0)
Semesters Offered: Spring

CE 5993 - Field Engineering in the Developing World
Study of applying appropriate and sustainable engineering solutions and technology in the developing world. Concepts of sustainable development are covered. Topics are drawn from several areas of engineering, including water supply/treatment, wastewater treatment, materials, solid waste, construction, and watersheds.

Credits: 2.0
Lee-Rec-Lab: (0-1-2)
Semesters Offered: Spring
Restrictions: Must be enrolled in one of the following Level(s): Graduate

EC 3100 - International Economics
Introduction to international economics, including balance of payments, accounting, foreign exchange markets, international trade theory, barriers to trade, trade and development, regional economic integration, and current U.S. international economic issues.

Credits: 3.0
Lee-Rec-Lab: (3-0-0)
Semesters Offered: Fall, Spring, Summer
Pre-Requisite(s): EC 3001 or (EC 2002 and EC 2003) and UN 2002

FW 5720 - International Forestry Seminar
Seminar for students who have completed FW5730. Synthesizes field work in a theoretical framework. Covers macro aspects of development theory.

Credits: 1.0
Lee-Rec-Lab: (0-1-0)
Semesters Offered: Fall, Spring, Summer
Restrictions: Must be enrolled in one of the following Level(s): Graduate
Pre-Requisite(s): FW 5730

FW 5770 - Rural Community Development Planning and Analysis
Context, analysis, and monitoring of development processes of rural communities in tropical countries.

Credits: 2.0
Lee-Rec-Lab: (2-0-0)
Semesters Offered: Spring
Restrictions: May not be enrolled in one of the following Class(es): Freshman, Sophomore, Junior
GE 5001 - Intercultural Natural Hazards Communication in Latin America
Credits: 2.0
Lec-Rec-Lab: (0-2-0)
Semesters Offered: Fall
Restrictions: May not be enrolled in one of the following Class(es): Freshman, Sophomore

HU 3261 - Communicating Across Cultures
Comparative study of interpersonal communication across cultures by both foreign and American students, with emphasis on cultural patterns, attitudes, values, and nonverbal behaviors. Instructor selects cultures for study from Third World, Western, or non-Western regions.
Credits: 3.0
Lec-Rec-Lab: (0-3-0)
Semesters Offered: On Demand
Restrictions: May not be enrolled in one of the following Class(es): Freshman
Pre-Requisite(s): UN 1002 or UN 1003

HU 3262 - Topics in Francophone Cultures
An introduction to Francophone cultures (in English) in a comparative perspective. Includes a survey of French history and its influence on modern-day French and Francophone societies through movies, media, and recent technologies, and a critical examination of cross-cultural differences between French and American cultures.
Credits: 3.0
Lec-Rec-Lab: (0-3-0)
Semesters Offered: On Demand
Restrictions: May not be enrolled in one of the following Class(es): Freshman
Pre-Requisite(s): UN 1002 or UN 1003

HU 3263 - Topics in German-Speaking Cultures
An introduction to German-speaking culture (in English) in a comparative perspective. Includes a survey of Central-European history and its influence on modern-day German-speaking societies through movies, media, and recent technologies, and a critical examination of cross-cultural differences between German and North-American cultures.
Credits: 3.0
Lec-Rec-Lab: (0-3-0)
Semesters Offered: On Demand
Restrictions: May not be enrolled in one of the following Class(es): Freshman
Pre-Requisite(s): UN 1002 or UN 1003
HU 3264 - Topics in Spanish-Speaking Cultures
An introduction to Spanish-speaking culture (in English) in a comparative historical perspective. Includes a survey and a critical cross-cultural examination of Latin-American culture and Spanish-speaking societies (European, Caribbean, and North, Central and South American) through literature, music, film, art and other media. Spanish-speaking cultures and North American society.
Credits: 3.0
Lec-Rec-Lab: (0-3-0)
Semesters Offered: Spring
Restrictions: May not be enrolled in one of the following Class(es): Freshman
Pre-Requisite(s): UN 1002 or UN 1003

HU 3502 - World Mythologies
Survey of the major mythological systems of the world with particular attention to those areas of commonality between the various civilizations. Films may provide contextual background.
Credits: 3.0
Lec-Rec-Lab: (0-3-0)
Semesters Offered: Spring - Offered alternate years beginning with the 2001-2002 academic year
Pre-Requisite(s): UN 1002 or UN 1003

HU 3504 - Novels from World Literature
Comparative approach to selected novels of Western and non-Western authors, excluding English and North American, and including works by non-European writers. Film versions of selected novels may also be studied.
Credits: 3.0
Lec-Rec-Lab: (0-3-0)
Semesters Offered: Fall - Offered alternate years beginning with the 2000-2001 academic year
Pre-Requisite(s): UN 1002 or UN 1003

HU 3545 - Literature Across Borders
Study of literary genres, themes, and movements, with emphasis on comparing and contrasting perspectives reflected in literatures from Western and non-Western cultures. Topics may focus on historical, social, aesthetic, and cultural factors as they influence these literatures. Films may be used.
Credits: 3.0
Lec-Rec-Lab: (0-3-0)
Semesters Offered: Fall - Offered alternate years beginning with the 2004-2005 academic year

HU 3850 - Cultural Studies
Examines the way that culture communicates values, feelings, beliefs; structures differential relations of power and possibility; creates difference and hierarchy. Considers the struggles over meaning that open up possibilities for diversity and change.
Credits: 3.0
Lec-Rec-Lab: (0-3-0)
Semesters Offered: Spring
Pre-Requisite(s): UN 1002 or UN 1003
**HU 5050 - Intercultural Communication**
A critical examination of cross-language and cross-cultural equivalences and differences through the study of acculturation, values, traditions, role expectations, perceptions, stereotypes, and gender issues as well as other verbal and nonverbal problems and issues of communication. Emphasizes the dimensions of communication within a comparative cultural context.

**Credits:** 3.0  
**Lec-Rec-Lab:** (0-3-0)  
**Semesters Offered:** On Demand  
**Restrictions:** Must be enrolled in one of the following Level(s): Graduate

**PSY 3070 - Cross-Cultural Psychology**
Introduces the student to cross cultural psychology and sociocultural theory as it is applied to psychology. Examines research on cultural specific and universal behaviors. Emphasizes the benefits and challenges of diversity in organizations and diversity skills that promote interpersonal and organizational success.

**Credits:** 3.0  
**Lec-Rec-Lab:** (0-3-0)  
**Semesters Offered:** On Demand  
**Pre-Requisite(s):** PSY 2000 and (UN 1002 or UN 1003)

**SS 3100 - Developing Societies**
An overview of the developing world. Asks "What is development?" in ecological, human, and economic terms. Explores variation among developing societies and elements of internal differentiation, including cultures, regions, classes, and genders. Emphasizes active student exploration of strategies for change, including technology, business, and political transformations.

**Credits:** 3.0  
**Lec-Rec-Lab:** (3-0-0)  
**Semesters Offered:** Spring - Offered alternate years beginning with the 2000-2001 academic year  
**Pre-Requisite(s):** UN 1002 or UN 1003

**SS 3410 - World Resources & Development**
Examination of the human geography and resources of various world regions. Emphasizes factors affecting prospects for development, including population dynamics, natural resource endowment, social and cultural systems, and spatial structure of society. Case studies of individual countries supplement general concepts and theories.

**Credits:** 3.0  
**Lec-Rec-Lab:** (3-0-0)  
**Semesters Offered:** Fall, Summer - Offered alternate years beginning with the 2001-2002 academic year  
**Pre-Requisite(s):** UN 2002
SS 3610 - International Law
Explores the principles, content, and logic of public international law, the law of nations. Students brief cases, prepare longer briefs to defend a side in a moot case, and engage in a moot court.

Credits: 3.0
Lec-Rec-Lab: (3-0-0)
Semesters Offered: Fall, Spring - Offered alternate years beginning with the 2000-2001 academic year
Pre-Requisite(s): UN 2002

SS 3620 - International Environmental Technology Policy
Explores the relationship between markets and government policies in moving national economies and corporations toward "greener" technology choices. Topics may include industrial ecology, regulation, innovation, and pollution prevention. Course employs examples from U.S., Canada, EU, and Japan. When possible, students work on a real-life project for a client.

Credits: 3.0
Lec-Rec-Lab: (3-0-0)
Semesters Offered: Fall, Spring - Offered alternate years beginning with the 2001-2002 academic year
Pre-Requisite(s): UN 2002

SS 3940 - World Affairs
The study of current issues and themes in world affairs and of significant world tension areas. Detailed examination of central issues in selected recent regional or international conflicts or high profile internal problems in selected countries.

Credits: 3.0
Lec-Rec-Lab: (3-0-0)
Semesters Offered: On Demand
Pre-Requisite(s): UN 2002

SS 4210 - Global Change in Culture and Society Since 1400
Explores the increasing interconnectedness of world cultures since 1400. The course examines the social, economic, and political changes that accompanied the rise of world capitalism from multiple theoretical perspectives. Themes include colonialism, agency, resistance, world-systems theory, and globalization.

Credits: 3.0
Lec-Rec-Lab: (3-0-0)
Semesters Offered: Spring - Offered alternate years beginning with the 2007-2008 academic year
Restrictions: May not be enrolled in one of the following Class(es): Freshman
Pre-Requisite(s): UN 1002

UN 4000 - Remote Sensing Seminar
A seminal series that covers topical issues in remote sensing, ecosystem research, and global change. Required for all students with a minor in remote sensing.

Credits: 1.0; Repeatable to a Max of 2
Lec-Rec-Lab: (0-1-0)
Semesters Offered: Fall, Spring
Restrictions: May not be enrolled in one of the following Class(es): Freshman, Sophomore
Appendix 2.

Faculty Resumes
WILLIAM I ROSE  
Professor, Department of Geological Engineering and Sciences  
Michigan Technological University  
HOUGHTON, MI 49931 USA  
906 487 2367; raman@mtu.edu  
www.geo.mtu.edu/~raman

PROFESSIONAL PREPARATION:  
Ph.D. in Geology, Dartmouth College, 1970;  
A.B. in Geography, Geology, Dartmouth College, 1966.

APPOINTMENTS:  
9/79-present: Professor of Petrology, Michigan Technological University, Houghton.  
6/90- 6/98 Department Chair, (planned new building; hired 8 new faculty)  
9/74-9/79: Associate Professor of Petrology, 9/70-9/74; Assistant Professor of Petrology.  
1/99-12/99: Visiting Leverhulme Fellow, Dept of Earth Sciences, University Of Bristol, UK.  
8/85-6/86: Visiting Scientist, Los Alamos National Laboratory.  
1/81-present: Geochemist (W.A.E. basis), USGS, Cascade Volcano Observatory, Vancouver, WA; Alaska Volcano Observatory, Anchorage; VDAP.  
8/77-8/78: Senior Visiting Scientist, Upper Atmosphere Group, National Center for Atmospheric Research, Boulder, CO.  
8/77-8/78: Visiting Scientist, Branch of Isotope Geology, USGS, Denver, CO.

RELATED PUBLICATIONS


SYNERGISTIC ACTIVITIES

2. Since 1980: Educational efforts shared with many other campuses: Video based educational efforts in Optical Mineralogy, 1982; Volcanic Rock Textures, 1985; and video field trips: 1987-1993; Volcanic Rocks and their vent areas, Industry Short Courses (field trips and lectures); 1976-1985; Graduate Student field trip efforts, 1997 (Western Mexico and IAVCEI meeting); NSF funded International Travel Grant to IAVCEI Bali meeting, and associated Hawaii and Pinatubo field trips, July 2000; NSF Int Travel Grant for students to attend IAVCEI meeting in Chile, 2004. Special session exploring graduate volcanology educational efforts, AGU 2002. 2005-2009: FIPSE-NAFTA 6 University Consortium in Earth Hazards (EHaz), funded by Dept of Education.


4. Since 1992: Development of Michigan Tech Remote Sensing Institute. Co-organizer and Interim Director of an institute with 35 faculty members from nine different MTU departments, Development of shared lab facilities, success with equipment funding as a NASA center of excellence, development of an interdisciplinary minor program in remote sensing; many interdisciplinary seminar series and several new interdisciplinary classes.


RECENT COLLABORATORS EXTERNAL TO MICHIGAN TECH (2000-2005)
Stephen Self (Open University); Andrew Harris (University of Hawaii); Luke Flynn (University of Hawaii); Hans Graf (Cambridge Univ); Fred Prata (CSIRO, Australia); Arlin Krueger (UMBC); Vincent Realmuto (NASA/JPL); Frank Marzano (University “La Sapienza” of Rome); Costanza Bonadonna (Univ So Florida); Christiane Textor (Max Planck Inst Meteorology); Alain Bernard (University of Bruxelles);

THESIS ADVISEES AND POSTDOCTORAL SCHOLARS SPONSORED, LAST 5 YEARS
Tianxu Yu, STC/NOAA Washington, DC
Song Guo, Canadian Centre for Remote Sensing, Montreal
Sebastien Dartevelle, Los Alamos National Lab
Demetrio Escobar, Volcanologist, SNET, El Salvador
Yingxin Gu, SAIC/USGS EROS Data Center, Sioux Falls, SD
Matthew Watson, Bristol University UK
Matthew Patrick (current Post Doc) Owen P Mills, Adam Durant, Janelle Byman, Kelly Durst, John Lyons, Ellen Engberg, Hans Lechner, Adam Blankenbicker, Jemile Erdem, Karinne Knutsen, Ingrid Fedde (current graduate students)

**Graduate Students Supervised:** 39 M.S. and 14 Ph.D.

**Graduate Advisor:** Richard E Stoiber, Dartmouth College, deceased.
BLAIR ORR  
School of Forest Resources and Environmental Science  
Michigan Technological University

Professional Preparation


Appointments

2008 – present: Director of Peace Corps Programs. Michigan Technological University  
2006 – present: Professor of Forestry, Michigan Technological University  
1998 – 2006: Associate Professor of Forestry. Michigan Technological University  
1992 – 2006: Assistant Professor of Forestry. Michigan Technological University  
1988 – 1992: Assistant Professor of Forestry, The University of the South  

Five Relevant Publications


Five Other Publications


Blair Orr 2


Synergistic Activities

- Peace Corps Master’s International Program
- EU-US Atlantis Program
- TIES – FIPSE and SustR programs in Mexico; Veracruz Study Abroad Program
- World Forestry Committee of the Society of American Foresters
- International Society of Tropical Foresters

Courses and Workshops:

- Trees in Agricultural Systems; Overseas Research; Graduate Tropical Forestry; International Forestry Practicum; International Forestry Seminar; Community Planning and Analysis, Master’s Graduate Seminar; Doctoral Graduate Seminar

Collaborators and Affiliations

- Dr. James B. Pickens, Michigan Technological University
- Dr. Alex S. Mayer, Michigan Technological University
- Dr. Willem Beets, retired
- Dr. Karlyn Eckman, University of Minnesota
- Dr. James Mihelcic, U. of South Florida
- Dr. Kathleen Halvorsen, Michigan Technological University
- Dr. Miquel Armando Ramirez, Universidad Veracruzana
- Dr. Martin Yemefack, Institute of Agricultural Research for Development, Cameroon
- J. Cardenas Castillo, Oruru Technical School, Bolivia
- Dr. Thomas Van Dam, Michigan Technological University

Graduate Advisor:  Dr. J. Buongiorno, U. of Wisconsin – Madison

Graduate Students (M.S.)

Biographical Sketch
Alex S. Mayer
Department of Civil & Environmental Engineering
Michigan Technological University

Professional Preparation
Brown University, Sc.B. Civil/Environmental Engineering, 1981
University of North Carolina at Chapel Hill, M.S. Environmental Engineering, 1987
University of North Carolina at Chapel Hill, Ph.D. Environmental Engineering, 1992

Appointments
September 2005-present: Director, Michigan Technological University Center for Water & Society
September 2002-present: Professor
September 1998-August 2002: Associate Professor
March 1992-August 1998: Assistant Professor
Department of Geological Engineering and Sciences
Michigan Technological University, Houghton, MI
September 2000-May 2001: Visiting Professor
Department of Civil Engineering and Geosciences
Technological University of Delft, Netherlands
August 1995-November 1995: Visiting Professor
Department of Chemical Engineering
University of Sonora
1981-1985: Civil Engineer
Water Resources Projects Section, Planning Division
East Bay Municipal Utility District, Oakland, CA

Five Relevant Publications

Five Other Publications
Synergistic Activities
AQUA3, ExCIT, SustR, and TIES Programs in Water Resources Management: managed projects, recruited and advised
graduate and undergraduate students from Mexico, U.S. and Canada, developed curriculum, developed and led field
trips dealing with Mexican water resources issues, working with engineers, economists, sociologists, etc., has led to
several collaborative research and education initiatives.

Textbook on groundwater contamination: co-edited and co-authored with engineers, geologists, and soil scientists, book
accessible to university professors and students and practitioners, funded by Fulbright Scholarship.

Rio Yaqui basin modeling project: principal investigator for effort to develop integrated hydrologic-economic-institutional
model, involves working with economists, policy-makers, government agencies.

Michigan Tech Center for Water and Society: Director and co-founder of university-wide effort to integrate research,
education and outreach efforts at Michigan Tech, involves engineering, forestry and environmental sciences, biology,
chemistry, humanities and social science departments; state and federal agencies, non-governmental organizations, etc.

Watershed management plan for Huron Creek: lead investigator on multi-disciplinary group of faculty and students and
community advisory group developing watershed management plan for Huron Creek, a small, highly-impacted creek
that empties into Lake Superior. Development of plan has included local K-12 teacher and student involvement in
gathering data, producing a community watershed interpretive program, and participation in a watershed advisory
committee.

Michigan Environmental Education Curriculum Support (MEECS) program: Developed and authored several modules for
middle school environmental curricula made available to all middle school science teachers in Michigan.

Courses, Workshops or Special Courses Taught During the Past Three Years
Undergraduate Courses: Geohydrology, Water & Society, Environmental Engineering Senior Design Project,
Geological Engineering Senior Design Project
Graduate Courses: Mathematical Modeling of Earth Systems, Field Engineering for the Developing World
Workshops: Watershed Management Certificate Program (Sonora, Mexico)

Collaborators & Other Affiliations
Asbornsen, H., co-investigator, University of Iowa
Chadde, J., co-investigator, Center for Science, Mathematics and Environmental Outreach; Houghton, MI
Garcia Ruiz, J.L., co-investigator, U. Sonora, Hermosillo, Mexico
Gorman, H., co-investigator, Michigan Technological University, Houghton, Michigan
Hand, D., co-author, Michigan Technological University, Houghton, Michigan
Halvorsen, K., co-investigator, Michigan Technological University, Houghton, Michigan
Hassanizadeh, S.M., co-author, U. Utrecht, Utrecht, The Netherlands
Mihelcic, J., co-investigator, University of South Florida, Houghton, Michigan
Perez Lugo, co-investigator, University of Puerto Rico Mayagüez
Sivapalan, M., co-investigator, University of Illinois
Solomon, B., co-author, Michigan Technological University, Houghton, Michigan
Watkins, D., co-investigator, Michigan Technological University, Houghton, Michigan
Zhang, Q., co-investigator, Michigan Technological University, Houghton, Michigan
Zimmerman, J., co-investigator, Yale University

Graduate Advisor: Miller, C.T., U. North Carolina, Chapel Hill, NC

Recent STEM Graduate Dissertation/Thesis/Project Advisees
Bau, D., Ph.D. Environmental Engineering, 2006
Ballard, M., Ph.D. Environmental Engineering, in progress
Betz, K., M.S. Geological Engineering, 2006
Endres, K., Ph.D. Environmental Engineering, 2004
Fitzgerald, K., M.S. Geological Engineering, in progress
Kersten, L. M.S. Environmental Engineering, 2008
Munoz Hernandez, A., Ph.D. Environmental Engineering, 2009
Ollila Ojeda, M., M.S. Environmental Engineering, 2006
Robles Morua, A., Ph.D. Environmental Engineering, in progress
Rodriguez Ibarra, W., M.S. Environmental Engineering, 2005
Van Grinsen, M., M.S. Geology, in progress
Biographical Sketch for John S. Gierke, Ph.D., P.E.,

a. Professional Preparation
Michigan Technological University Civil Engineering BSCE 1984
Michigan Technological University Civil Engineering MSCE 1986
Michigan Technological University Environmental Engineering Ph.D. 1990

b. Appointments
Associate Professor - September 1996 to Present;
Michigan Technological University, Houghton, Michigan 49931-1295
Visiting Associate Professor - January 1999 through December 1999
University of Delaware, Newark, Delaware
Assistant Professor - July 1990 through August 1996
Michigan Technological University, Houghton, Michigan 49931-1295
Summer Research Faculty Visitor - June 1991 to August 1991
Environmental Sciences Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee 37831.

c. Publications

(i) Five Relevant Publications

(ii) Five Other Significant Publications
d. Synergistic Activities
(1) Principal investigator for the Michigan Tech Remote Sensing for Hazard Mitigation and Resource Protection in Pacific Latin America Project, National Science Foundation Partnerships for International Research and Education, where research is conducted on developing, applying, and testing remote sensing in geologic hazards and water resources in Costa Rica, Ecuador, El Salvador, Guatemala, Nicaragua, and Panama; (2) Graduate advisor for M.S. students in Michigan Tech’s Masters International/Peace Corps programs in geohazards and in civil and environmental engineering where students conduct their masters research whilst serving in the U.S. Peace Corps; (3) Collaborating with faculty at the University of Puerto Rico—Mayaguez to involve their undergraduate geology students in remote sensing research in Pacific Latin America; (4) Organized a 1-day workshop on applications of remote sensing for characterizing groundwater aquifers in conjunction with the 9th Congress on Latin American Hydrogeology in Quito, Ecuador, July 7, 2008; (5) Research on hydrology of glacier melting in Alaska and invited for participating in a workshop (proposal pending) on the future impacts of climate change on glaciers and the ecology of the Andes.

e. Collaborators and Other Affiliations
(i) Collaborators and Co-Editors: Falta, Ronald W. (Clemson University), Imhoff, Paul (University of Delaware), McCray, John M. (Colorado School of Mines), Stewart, Bo (Praxis Environmental).
(ii) Graduate Advisor: Neil J. Hutzler, Michigan Technological University
(iii) Thesis Advisor for (last five years denoted in bold): Anderson, Cecilia P. (ERM-West), *Bachmann, Nancy-Jeanne (Emmons & Olivier Resources, Inc), Bruning, Jill N. (searching for employment), Carpenter, Michael D. (consulting), Castor, Meaghan G. (consulting), Ebisch, Jeffery (Coleman Engineering), **El-Beshry, Manar , Fish, Randy E. (Peace Corps, serving in Tanzania), Fader, Caleb (Peace Corps, serving in Uganda), Fuchs, Valerie J. (Michigan Technological University), Gross, Essa L. (Michigan Technological University), Gu, Yingxin (McGill University), Harrison, Elizabeth (Los Alamos National Laboratory), Hegemann, Robert (Peace Corps, serving in Honduras), Hein, Gretchen L. (Michigan Technological University), Huntzinger, Deborah N. (Post-doc, University of Michigan), *Hutchins, Margot J. (Michigan Technological University), Jenson, Jeremy (Peace Corps, serving in Benin), Keating, Gordon (Los Alamos National Laboratory), Kremer, Theodore J. (Malcolm Pirnie, Inc.), Kuchariki, Matthew J. (Peace Corps, serving in Philippines), Mackenzie, Heidi L. (Grenkowitz) (Ford Motor Company), Muraski, Jennifer L. (Montgomery Watson), *Myre, Elizabeth A. (Engineering development work in Haiti), *Quinnman, Joseph (ARCADIS), *Ritchie, Beatrice, Rios Sanchez, Miriam (Michigan Technological University), Sanders, Deborah L. (ERM-West), Sawall, R. Hardy (Geotrans), Schmunk, Steven W. (Marquette Intermediate School District), Sherman, Heidi M. (Consulting), Shonsey, Cara W. (Michigan Technological University), Smith, Gwynneth (Peace Corps, serving in Suriname), Stright, Lisa E. (Stanford University), Taege, Deborah A. (AMEC), **VanAntwerp, Darby J. (RMT), Vincent, Ashlee K. (Michigan Technological University), Wang, Congli (Consulting), *Wojick, Christopher L. (Michigan Technological University). *Served as co-advisor, **Served as co-advisor, student at different university.
Advisor for 20 M.S. and 2 Ph.D. graduates, co-advisor for 3 M.S. and 2 Ph.D. graduates; currently advising 2 Ph.D. students and 10 M.S. students and co-advising 1 Ph.D. student.
Biographical Sketch: Andrew J. Storer

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Michigan Technological University,
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Professional Preparation
St. Anne's College, University of Oxford. Pure and Applied Biology. B.A. (Hons) 1986
St. Anne's College, University of Oxford. M.A. 1993
Department of Zoology, University of Oxford. Forest Entomology. D.Phil. 1993

Appointments
2005 – Present Associate Professor, Forest Insect Ecology, School of Forest Resources and Environmental Science, Michigan Technological University
2007 – Present Director, The Honors Institute, Michigan Technological University
2001 –2005 Assistant Professor, Forest Insect Ecology, School of Forest Resources and Environmental Science, Michigan Technological University
1998 - 2001 Assistant Research Entomologist, Division of Insect Biology, University of California, Berkeley.
1999 - 2001 Instructor, Department of Landscape Horticulture, Merritt College, Oakland.
1992 - 1997 Postdoctoral Researcher, Division of Insect Biology, University of California, Berkeley.

Publications (5 most closely related – from work in Africa or other locations outside the US)


Publications (5 other)


**Synergistic Activities**

1) Active research in forest health and educational programs in global technological leadership in Ghana.
2) Director of the Honors Institute at Michigan Technological University. This institute encourages undergraduates to develop research and other professional experience during their undergraduate career.
4) Member of the editorial board of the Journal of Pest Science (Springer). Subject editor for Forest Entomology

**Collaborators and other affiliations**

a) Collaborators and coeditors
Abeney, EA (Forest Research Institute of Ghana), Bonello, Pierluigi (The Ohio State University), Cobinnah J.R. (Forest Research Institute of Ghana), Delisle, J. (Natural Resources Canada), Erbilgin, N. (University of Edmonton), Gordon, Thomas R. (University of California, Davis), Hyslop, MD (Michigan Technological University), Jurgensen MF (Michigan Technological University), Karnosky, David (Michigan Technological University), Marshall, J.M. (Michigan Technological University), McNee, William R. (Wisconsin Department of Natural Resources), McPherson, Brice A. (University of California, Berkeley), McCullough, Deborah (Michigan State University), Nagel, Linda M. (Michigan Technological University), Opuni-Frimpong, E. (Forest Research Institute of Ghana), Risch, AC (Swiss Federal Institute for Forest, Snow and Landscape Research), Ritokova, G. (UC Davis), Standiford, Richard B. (University of California, Berkeley), Schutz M (Swiss Federal Institute for Forest, Snow and Landscape Research), Shields JM (Michigan Technological University), Webster, CR (Michigan Technological University), Witter John A. (University of Michigan), Wood, David L. (University of California, Berkeley).

b) Graduate and Postdoctoral Advisors
Graduate: Martin R. Speight, University of Oxford; David Wainhouse, Forest Research, England
Postdoctoral: David L. Wood, UC Berkeley; Thomas R. Gordon, UC Davis

c) Thesis Advisor and Postgraduate Scholar Sponsor
Thesis Advisor to: Tara Bal (Michigan Technological University), Brian L. Beachy (deceased), Jessica A. Beachy (Michigan Technological University), Sarah Brodeur-Campbell (Michigan Technological University), Ryan DeSantis (University of Oklahoma), Michelle Freeman (Michigan Technological University), Elizabeth E. Graham (University of Illinois), Brian P. Henry (Washington DC), Jordan M. Marshall (Michigan Technological University), Emmanuel Opuni-Frimpong (Forest Research Institute of Ghana), Melissa Porter (Michigan Technological University), Bryan K. Roosien (Michigan Technological University), Justin M. Rosemier (Kentucky Wesleyan University).
Total advised: Graduate students: 13, Postdoctoral Scholars: 1
Academic Good Standing

Current Policy with Proposed Changes

**Good Standing** [http://www.mtu.edu/gradschool/administration/academics/policies-procedures/good-standing/](http://www.mtu.edu/gradschool/administration/academics/policies-procedures/good-standing/)

Students must maintain an overall 3.0 GPA to remain in good standing. In addition, students are expected to consistently receive a grade of "P" (progress) in research credits. Students whose overall graduate GPA falls below 3.0 ([sample notification](http://www.mtu.edu/gradschool/administration/academics/policies-procedures/good-standing/)) or who receive a grade of "Q" (unsatisfactory) in research credits ([sample notification](http://www.mtu.edu/gradschool/administration/academics/policies-procedures/good-standing/)) will be sent a notification of academic probation. After receiving this notification, graduate students must meet with their advisor and/or graduate program director as soon as possible to plan a course of action for resolving the situation.

All courses used on a student's degree schedule must be graded (that is not pass/fail, audit, or satisfactory/unsatisfactory).

Students must earn a B or better in all graded courses used on a degree schedule. This requirement can be adjusted at the discretion of a student's graduate program to allow for use of up to 6 credits from outside the student's primary field of study for which grades of BC/C grades were received.

Grades in courses that are not on a degree schedule affect standing because they affect overall GPA. Graduate students are allowed to repeat courses in which they receive less than a "B" one time. The old grade will remain on the academic record, but will not be used in the calculation of overall GPA.

Courses not used on the degree schedule may be audited or taken pass/fail so as not to affect GPA.

**Rationale:**

A 'C' is defined as an 'average' grade. Even the best students may earn an average grade at one time or another due to having a heavy course load, personal or family responsibilities, or inadequate preparation in a particular area. If 'C' grades are balanced out or exceeded in number by 'outstanding' or 'A' grades, a student will maintain a 'B' average. A few average grades in an overall 'good' (or 'B'-average) GPA are acceptable at many institutions. For example, the University of Michigan (see table 1) requires an overall B-average and does not specify limits on the number or C (or lower) grades (see: [http://www.rackham.umich.edu/policies/gsh/section1/#1312](http://www.rackham.umich.edu/policies/gsh/section1/#1312)).

Michigan Tech’s current policy of not allowing students to apply credits associated with ‘C’ grades toward a degree may result in grade inflation. Faculty know that giving a student a C (or lower) grade may require the student to spend an extra year on campus in order to retake the course and earn a B or better. By requiring students to maintain an overall B’ average, while at the same time only allowing them to repeat a course in which they earned less than a B only one time, Michigan Tech will maintain the integrity of its degree programs while reducing pressure placed on faculty members.

Broadening the range of allowable grades will also help advisors identify students who are struggling. Advisors can then provide advice or assist the students in obtaining help or resources that will increase the likelihood they will successfully complete their degree program.
Table 1: Regulations regarding grading policies for Graduate Students at comparison universities.

<table>
<thead>
<tr>
<th>University</th>
<th>Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Michigan</td>
<td>Graduate School Academic Policies; Coursework, Grading, and Academic Standing; Good Academic Standing</td>
</tr>
<tr>
<td></td>
<td>A student in good academic standing:</td>
</tr>
<tr>
<td></td>
<td>• is making satisfactory progress toward the completion of degree requirements and is within the time limits of the degree program, including approved extensions (sections 5.1, 5.4.1, 6);</td>
</tr>
<tr>
<td></td>
<td>• is demonstrating an ability to succeed in the degree program; and</td>
</tr>
<tr>
<td></td>
<td>• has a cumulative grade point average of 5.00 (B) or better (on a 9.0 scale).</td>
</tr>
<tr>
<td>Massachusetts Institute of</td>
<td>Course Catalog, Academic Procedures and Institute Regulations, Graduate Academic Standards</td>
</tr>
<tr>
<td>Technology</td>
<td>It is the responsibility of the Graduate Academic Performance Group (GAPG) to monitor minimum academic standards for graduate students and special students in accordance with the rules and regulations of the faculty. Chaired by the dean for graduate education, the GAPG reviews the academic records of all graduate students at the end of each term (including the summer session), giving particular attention to students with cumulative ratings below 3.5 to 4.0 (on a 5.0 scale—4.0 = B). Consideration is given to low grades and factors affecting a student's ability to meet the requirements for the degree program in which he or she is enrolled.</td>
</tr>
<tr>
<td>Georgia Tech University</td>
<td>Georgia Tech Catalog, Rules and Regulations, Academic Standing</td>
</tr>
<tr>
<td></td>
<td>The minimum satisfactory academic average is 1.70 for freshmen and joint-enrolled high school students; 1.80 for sophomores; 1.95 for juniors; 2.00 for seniors and special undergraduates; 2.70 for master's and special graduate students; and 3.00 for doctoral students.</td>
</tr>
<tr>
<td>Missouri University of Science and Technology</td>
<td>Graduate Catalog, Admissions and Academic Program Procedures, GPA Requirements</td>
</tr>
<tr>
<td></td>
<td>In order to earn a graduate degree, all students must achieve a cumulative GPA of 3.0 or higher in all graduate work taken at Missouri S&amp;T, as well as for all graduate courses listed on the program of study…. No substitutions may be made on the program of study for courses in which the student has earned less than a B grade. All graduate students are encouraged to maintain at least a 3.0 cumulative GPA at all times, and certain departments may even require this minimum GPA. In cases where a graduate student repeats a course, both the original and repeat grades will be used in calculating the student's GPA, and both will appear on the student's transcript.</td>
</tr>
<tr>
<td>Colorado School of Mines</td>
<td>Graduate Bulletin, Graduate Grading System, Grade Point Averages</td>
</tr>
<tr>
<td></td>
<td>All graduate degree programs require students to have a minimum overall grade point average of 3.000 in order to be eligible to receive the degree. All courses (including deficiency courses) taken at the Colorado School of Mines after first enrolling in a graduate degree program are included in the calculation of the overall grade point average for that program.</td>
</tr>
<tr>
<td>Lehigh University</td>
<td>Graduate Catalog, Graduate Credit and Grades</td>
</tr>
<tr>
<td></td>
<td>Course grades are defined as for undergraduates in Section III</td>
</tr>
</tbody>
</table>
except that, at a minimum, no grade lower than C- may be counted toward a graduate degree and pass-fail registration is not allowed for graduate students. No regularly admitted student who receives more than four grades below a B- in courses numbered 200 or higher is allowed to continue registration as a graduate student. Individual degree programs may have higher standards.

<table>
<thead>
<tr>
<th>Rensselaer Polytechnic Institute</th>
<th>Graduate Catalog, Academic Information and Regulations, Courses and Grade Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The minimum average of all grades used for credit toward an advanced degree must be B. If a student’s grades fall below a B average, the Graduate School may request that the department conduct a formal review to determine whether continuation is warranted. The student’s adviser, committee, or department may recommend to the Graduate School that the student whose performance is unsatisfactory be dropped from the graduate program. A student who has accumulated two failing grades will be dropped from the graduate program.</td>
</tr>
</tbody>
</table>
PROPOSED REVISED POLICY

Conduct Policies

Maintaining Good Academic Standing

To remain in good academic standing graduate students must do all of the following.
- Maintain a cumulative overall GPA of at least 3.0.
- Receive grades of "P" (progress) in research credits.
- Maintain continuous enrollment.
- Pass all written and oral exams required for completion of the degree.
- Make good progress toward completion of the degree during each academic-year semester and summer session of enrollment.

Students who do not pass a required exam after the allowed number of attempts will be dismissed from their graduate program. Similarly, students who do not pass a required exam within the specified time period will also be dismissed from their program.

Grading Policies

Graduate students should be aware of the following grade-related policies.
- All courses used on a student's degree schedule must be graded. Pass/fail, audit, or satisfactory/unsatisfactory grades cannot be used on a degree schedule.
- Students must earn a “B” or better in all graded courses used on a degree schedule. This requirement can be adjusted at the discretion of a student's graduate program to allow for use of “BC/C” grades in up to six (6) credits from outside the student's primary field of study.
- Grades in courses that are not on a degree schedule affect overall GPA. Courses not used on the degree schedule may be audited or taken pass/fail so as not to affect GPA.
- Graduate students are allowed to repeat courses in which they receive less than a "B." The old grade will remain on the academic record, but will not be used in the calculation of overall GPA.

Grades are assigned in accordance with University procedures. The following resources address the University policies regarding grades.
- Grading System and Grade Points—Information about the grades awarded by the University.
- Grading Reports and Transcripts—Information about how to obtain a transcript.
- Disputed Grades—How to correct errors in final course grades.
Graduate Academic Sanctions

Students who fail to maintain good standing will be subject to sanctions. These sanctions include academic probation, academic suspension, and academic dismissal.

Graduate Academic Probation

Students are placed on academic probation for the following violations of the University requirement that graduate students must maintain good academic standing. The student and the student’s department chair, graduate program director, and advisor will be informed of the probation.

- Failing to maintain a cumulative overall GPA of at least 3.0.
- Receiving a "Q" grade in a research course.

Students will be removed from academic probation when their cumulative University GPA is 3.0 or greater and/or when they receive a “P” grade in a research course.

Graduate Academic Suspension

If a student is on academic probation for two sequential semesters of enrollment, the Graduate School will place the student on academic suspension. The student and the student’s department chair, graduate program director, and advisor will be informed of the suspension. The suspension will be for the period of the upcoming semester or session.

Students who wish to appeal a suspension must submit their appeal to the Graduate School in writing using the Graduate Appeal form. This form must be submitted to the Graduate School within ten (10) business days following the date on which the Graduate School sent an email to the student notifying the student of the suspension. The dean of the Graduate School will make a final decision regarding appeals. If the appeal is not successful, the student will remain suspended from the graduate program. If the appeal is successful, the suspension will be rescinded and the student reinstated in the graduate program.

Suspensions that result from low GPA or receipt of “Q” grades in research will be effective on the date that final grades are posted. This date is normally the first Wednesday following finals week. Students can access their grades online. Students who are in danger of being suspended due to low GPA or receipt of “Q” grades are encouraged to review their grades immediately after they are posted following the end of the semester in order to allow themselves sufficient time to submit an appeal.

Suspended students must vacate their University offices and laboratories and return any keys to the University within ten (10) days business of the suspension unless they choose to appeal the suspension. Keycard access will also be revoked ten (10) business days after the suspension unless an appeal is filed. If an appeal is filed and is unsuccessful, students must vacate their University offices and laboratories and return any keys to the University within twenty-four (24) hours following the dean of the Graduate School’s final decision regarding the appeal. Any data
collected by the student will remain with the student’s advisor. Suspended students may continue to occupy University housing until the end of the semester during which the suspension occurs. The Graduate School will initiate suspension of keycard access to academic buildings as appropriate. Students who file a successful appeal will be removed from suspension and will have full access to University offices, laboratories, and housing.

Students who are placed on academic suspension will not be permitted to enroll in the University during the upcoming semester or session. This means, for example, that if a student is suspended during or at the end of summer session, they will not be allowed to enroll during the following fall semester. Students on academic suspension are exempt from continuous enrollment requirements for the period of the suspension. Students who are already enrolled in courses for the upcoming semester or session at the time of the suspension will have their schedules dropped.

Students who return after the suspension period will remain on probation. If their cumulative GPA is at least 3.0 and they do not receive a “Q” grade in a research course during their first semester as a reinstated student, they will return to good standing. Students who fail to raise their GPA to at least 3.0 or receive a “Q” grade in a research course during their first semester as a reinstated student will be dismissed from their graduate program by the Graduate School.

**Graduate Academic Dismissal**

Students will be dismissed from their graduate degree program by the Graduate School in the following situations:

- A student fails to achieve good academic standing or show substantial academic progress within one (1) semester following reinstatement from suspension.
- A student is unable to pass an oral or written exam required for the degree after the allowed number of attempts prior to the time limit for completion of the exams or otherwise fails to make good progress toward the degree.

Graduate academic dismissal results in students being dismissed from their graduate program. Students who are dismissed from one program may apply for admission to another program. Students who are dismissed from a PhD program may apply for admission to a master’s program within the same or a different academic discipline. The Graduate School allows students to transition from a PhD program to a master’s degree program housed within the same department or school by submitting a master’s degree schedule that has been approved at the department or school level.

Students will be notified in writing by the Graduate School if they have been dismissed from a graduate program via email and registered letter using the contact information on file with the University. Students who are dismissed from a graduate program have the right to appeal their dismissal to the dean of the Graduate School. All appeals must be made in writing using the Graduate Appeal form and must be submitted to the Graduate School within ten (10) days following the date on which the Graduate School sent the dismissal email to the student. The dean of the Graduate School will make a final decision regarding appeals. If the appeal is not successful, the student will remain dismissed from the
graduate program. If the appeal is successful, the student will be reinstated in the graduate program.

Dismissed students must vacate their University offices, laboratories, and housing within 24 (24) hours of the dismissal and return any keys to the University. Keycard access to University buildings will also be revoked. If an appeal is filed and is successful, students’ access to University offices, laboratories, and housing will be reinstated.

Students who are dismissed from one graduate program can apply to another graduate program.

**Appeals**

Students who are suspended or dismissed from a graduate program have the right to appeal to the Graduate School as provided above <<Link to Graduate Appeal Policy>>.
PROPOSED NEW POLICY

Graduate Grievance Policy

The Graduate Grievance Policy applies to students who are currently enrolled in a graduate program or have been enrolled in a graduate program within the preceding year.

Graduate Grievances

The Graduate School will conduct an investigation of a reported grievance under the following circumstances.

1) The student has exhausted all other avenues for resolution. Students should first attempt to resolve conflicts and address issues with the faculty, staff, or other students who are directly involved. If resolution cannot be obtained at that level, the student should consult with the graduate program director <<Link to Graduate Program Director List>> for their graduate program and/or their department chair or school dean. Resources for conflict resolution are available through the Office of Student Affairs at Michigan Tech.

2) If a resolution cannot be reached at or below the level of a department or school, the student may request the involvement of the Graduate School. Students should report their grievance in writing using the Graduate Grievance form <<Link to Graduate Grievance Form>>.

3) The Graduate Grievance form must be filed with the Graduate School within thirty (30) calendar days of the most recent event which is directly related to the subject of the grievance.

   Extensions are allowed only in cases where the student has made a documented effort to resolve the situation and the other party or parties involved have failed to respond to the student.

The Graduate School will review a completed and submitted Graduate Grievance form to determine if the grievance reports one of the following situations.

1) Actions, conduct, or decisions that violate University policy or accepted professional standards.

2) Deviations from written grading, examination, and disciplinary policies at the University, graduate program, departmental, or course level.

3) Failure of a faculty, staff, or other member of the University community to disclose in writing the basis for a decision that has an adverse impact on a graduate student when such disclosure has been requested in writing by the student.

4) Retaliations against a student that are the result of a prior grievance or appeal.

Consideration of Grievances
When a grievance is reported to the Graduate School, the written form will be reviewed for completeness. If a form is incomplete, it will be returned to the student with a request for additional information. After reviewing a completed form, the Graduate School will determine whether or not the grievance alleges one of the situations listed above. If so, the Graduate School will forward a copy of the form to all parties named in the grievance. Referral does not connote any determination of the merits of any grievance, only whether the grievance alleges a matter or matters subject to the grievance process.

The assistant to the dean of the Graduate School with responsibility for professional development will then convene a Graduate Grievance Committee that will review the grievance. The Graduate Grievance Committee will consist of one (1) member of the Graduate Faculty from outside the student's academic home department, the student’s advisor (if the student has officially named an advisor at the time the Grievance form was filed), the student’s graduate program director, and the assistant to the dean of the Graduate School with responsibility for professional development (who will serve as the non-voting chair of the committee).

If a student’s grievance names any one of the persons that normally would serve on the committee, that person will be excused from the case. A replacement for that person will be named by the dean of the Graduate School and this replacement will serve on the committee in lieu of the excused individual.

The member of the committee from outside the student’s academic home department must have had prior experience as the primary advisor of at least one (1) graduate student and must have served on at least three (3) graduate committees prior to serving on the Graduate Grievance Committee. The non-voting chair of the committee (the assistant to the dean of the Graduate School with responsibility for professional development) will send all committee members and the student a notice of the hearing date, place, and time within fifteen (15) business days of receipt of a completed Graduate Grievance form.

The student and all individuals named in the grievance have the right to appear at the hearing in person. The student has the right to be accompanied by an advocate who will be allowed to attend but not speak at the hearing other than to ask for clarification of information or to confer with the student to ensure that the student fully understands the proceedings. Hearings are intended to be non-adversarial fact-finding gatherings that result in outcomes that are acceptable and beneficial to all parties involved whenever possible.

After the hearing is concluded, the Graduate Grievance Committee will submit a written report that includes its recommendations for resolution to the dean of the Graduate School. The dean will make the final decision regarding the case and is not obligated to accept the committee recommendations, but must consider and weigh them, and will work with the appropriate University officers and offices to take necessary actions.

**Situations and Circumstances not Subject to Grievances**

The following types of complaints will not be reviewed by the Graduate School.

1) Academic judgments that cannot be reviewed by individuals lacking advanced content-area knowledge in a specific academic field or discipline. A disputed grade will only be
considered a grievance if the student has already attempted to resolve the issue using the
procedure outlined by University senate policy 310.1 <<
http://www.sas.it.mtu.edu/usenate/>>.

2) Allegations of discriminatory harassment or discriminatory treatment or any other
complaints that are considered by the University’s Affirmative Programs Office <<Link to Affirmative Programs Office http://www.admin.mtu.edu/aaop/ >>.

3) Allegations of research misconduct which must be considered by the University’s Office of Research Integrity and Compliance << Link to ORIC
http://www.mtu.edu/research/administration/integrity-compliance/>>.

4) Allegations of sexual assault which should be reported to the University’s Public Safety and Police Services (dial 9-1-1 or call 487-2216 for non-emergency situations).
PROPOSED NEW POLICY

Graduate Appeal Policy

The Graduate Appeal Policy applies to students who are currently enrolled in a graduate program or have been enrolled in a graduate program within the preceding year.

Graduate Appeals

The Graduate School will only consider appeals of suspension and dismissal decisions issued by the Graduate School.

Students who wish to appeal a suspension or dismissal decision should do so in writing using the Graduate Appeal form <<Link to Graduate Appeal form>>.

This form must be submitted to the Graduate School within ten (10) business days following the date on which the Graduate School sent an email to the student notifying the student of the suspension or dismissal. The dean of the Graduate School will make a final decision regarding appeals. If the appeal is not successful, the student will remain suspended or dismissed from the graduate program. If the appeal is successful, the student will be reinstated in the graduate program.

Situations and Circumstances not Subject to Appeals

The following types of complaints will not be reviewed by the Graduate School.

5) Academic judgments that cannot be reviewed by individuals lacking advanced content-area knowledge in a specific academic field or discipline. A disputed grade will only be considered a grievance if the student has already attempted to resolve the issue using the procedure outlined by University senate policy 310.1 <<http://www.sas.it.mtu.edu/usenate/>>.

6) Allegations of discriminatory harassment or discriminatory treatment or any other complaints that are considered by the University’s Affirmative Programs Office <<Link to Affirmative Programs Office http://www.admin.mtu.edu/aaq/>>.

7) Allegations of research misconduct which must be considered by the University’s Office of Research Integrity and Compliance << Link to ORIC http://www.mtu.edu/research/administration/integrity-compliance/>>.

8) Allegations of sexual assault which should be reported to the University’s Public Safety and Police Services (dial 9-1-1 or call 487-2216 for non-emergency situations).
Graduate Appeal Form

Please type using Adobe Acrobat or Reader; handwritten forms are not acceptable

Students should first read the Graduate School's policy on Dismissal, Change of Status and Grievance

E-mail the completed form to the Graduate School using the button above, or attach the saved form to an e-mail to gradtracking@mtu.edu.

This form is dynamic. It will display only the fields you need to complete, based on the information you provide. Click the "Highlight Fields" button in Adobe Acrobat or Reader to easily see the fields required to complete. Before you print or save the form, a pop-up message will let you know if the form is correctly completed, or what information is still needed.

(This section will appear on the screen, but will not print in the live version, as it is copy/pasted from the policy.)

The Graduate School will only consider appeals of suspension and dismissal decisions issued by the Graduate School.

Provide information about you and your program.
Section in grey will be hidden until an option is selected above.

Date
Last Name, First Name, MI
M Number (ex: M12345678)
Select Degree Type
○ PhD ○ MS ○ MFor ○ MBA ○ MEng
Michigan Tech E-mail
Daytime Phone Number

Provide information about the appeal.
The fields below will expand to fit your response, but are each limited to 4,000 characters (approximately one page of text). Please provide sufficient information for the dean to make a decision.

What unusual or extenuating circumstances exist or existed that prevented you from being successful, and were unknown to the dean of the Graduate School at the time you were suspended or dismissed?

Describe how these circumstances will change in the future.

What is your plan of action for success in the future?

Do you have missing grades (I, M, X)? ○ Yes ○ No

Describe your plan to address these missing grades. (HIDDEN IF NO MISSING GRADES)

Is there any additional information or documentation that you would like the dean to consider? (optional)
Your form is not complete. Do not submit this form to the Graduate School.
Michigan Technological University
Graduate School
Graduate Grievance Form

Please type using Adobe Acrobat or Reader; handwritten forms are not acceptable
Students should first read the Graduate School's policy on Dismissal, Change of Status and Grievance

E-mail the completed form to the Graduate School using the button above, or attach the saved form to an e-mail to gradtracking@mtu.edu.

Incomplete form. Do not submit to the Graduate School.

This form is dynamic. It will display only the fields you need to complete, based on the information you provide.
Click the "Highlight Fields" button in Adobe Acrobat or Reader to easily see the fields required to complete.
Before you print or save the form, a pop-up message will let you know if the form is correctly completed, or what information is still needed.

(This section will display on screen, but will not print in the live version, as it is copy/pasted from the policy.)

The Graduate School will conduct an investigation of a reported grievance when a student has exhausted all other avenues for resolution. This form must be filed with the Graduate School within thirty (30) calendar days of the most recent event which is directly related to the subject of the grievance. The following grievances will be eligible for review by the Graduate School:

1) Actions, conduct, or decisions that violate University policy or accepted professional standards.

2) Deviations from written grading, examination, and disciplinary policies at the University, graduate program, departmental, or course level.

3) Failure of a faculty, staff, or other member of the University community to disclose in writing the basis for a decision that has an adverse impact on a graduate student when such disclosure has been requested in writing by the student.

4) Retaliations against a student that are the result of a prior grievance or appeal.

Provide information about you and your program.

Date

Last Name, First Name, MI

M Number (ex: M12345678)

Select Degree Type

☐ PhD

☐ MS

☐ MFor

☐ MBA

☐ MEng

Michigan Tech E-mail

Daytime Phone Number

Provide information about the grievance.
The fields below will expand to fit your response, but are each limited to 4,000 characters (approximately one page of text). Please provide sufficient information for the committee to understand the situation.

Attach relevant documentation to this complaint, such as written correspondence with the individuals named in the complaint, or a written decision from a department/program/school.
Select the type of grievance you are reporting. Select all that apply. Only grievances in one of the following categories will be considered by the Graduate School.

- Actions, conduct, or decisions that violate University policy or accepted professional standards.
- Deviations from written grading, examination, and disciplinary policies at the University, graduate program, departmental, or course level.
- Failure of a faculty, staff, or other member of the University community to disclose in writing the basis for a decision that has an adverse impact on a graduate student when such disclosure has been requested in writing by the student.
- Retaliations against a student that are the result of a prior grievance or appeal.

Does your grievance involve a course? ☐ Yes ☐ No

Provide the names of all individuals whose actions give rise to your grievance.

State the policy or procedure that is being violated. Include a link to a website that contains the written policy, if possible.

Indicate why you feel you have been unfairly treated and why your situation needs to be considered by the Graduate School.

Describe the action you have taken to seek resolution of the grievance. Grievances that have not exhausted opportunities to resolve the grievance at a lower level will not be considered by the Graduate School.

What outcome or action are you requesting as a result of the grievance?

Please provide any additional information relevant to the complaint.

Do you want an advocate present at the hearing? ☐ Yes ☐ No

Name of advocate (hide if no)

Advocate’s e-mail address (hide if no)
Graduate School - Initial Review

Complaint referred to grievance committee ☐ Yes ☐ No

☐ Copy of form sent to all parties named in the grievance (Insert date sent,) (HIDDEN IF ANSWER ABOVE IS NO)

Reason for rejection (hidden if above answer is YES)

A drop down menu will appear here, listing the reasons for the rejection as outlined in the policy. The text field below this will display the reason when the form is printed.

This text field below will print instead of the selection box above. The selection box makes selecting a reason easy, but it won’t show multiple lines of text to appear.

Comments

This portion to be completed by the Graduate School Grievance Committee following the hearing.

Will put some sort of interactive table here to add and subtract members to the committee and obtain signatures. Have listed the minimum as presented in the procedure.

<table>
<thead>
<tr>
<th>Graduate faculty member</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student's advisor (if named)</td>
</tr>
<tr>
<td>Graduate program director from student's program</td>
</tr>
</tbody>
</table>

Recommendation of Grievance Committee ☐ Take Action ☐ No Action

Date report sent to the dean of the Graduate School

Recommended remedy for grievance or reasons why no action is recommended.

Your form is not complete. Do not submit this form to the Graduate School.
Graduate Program Review

Purpose
Michigan Technological University conducts formal review of its graduate programs on a regular schedule in order to promote continual improvement.

Review Timeline
Each program or set of programs in a related field that choose to be reviewed as a group will be formally reviewed every five years.

Phases of the Review

Self-Study
During the spring semester prior to the review year the Graduate School will provide the programs being reviewed with most of the needed data regarding their programs for the preceding five years. The programs will then prepare a self-study document which will be used as the basis for the review. The self-study documents will become part of the Graduate School’s records. See the Self-Study Guidelines for detailed information about what the Self-Study documents will include.

Formal Review
During the formal review, a review team will review the self-study documentation, meet with graduate faculty associated with the programs to discuss the program, and meet with graduate students to discuss the programs. The review committee will consist of a member of the Graduate Faculty from an academic home unit outside of the college or school that houses the program(s) being reviewed, a faculty member from outside the University appointed by the dean of the college or school that houses the program being reviewed, and a member of the Graduate Student Government from an academic home unit outside of the college or school that houses the program(s) being reviewed.

The formal review will be conducted during a one or two day period. The review team will submit a written report to the dean of the Graduate School at the end of the review that will summarize the program(s) major strengths and major weaknesses and make prioritized recommendations about how the program could be improved in the future.

Follow up
The dean of the Graduate School will forward a copy of the report to the cognizant department chairs and/or school or college deans. These individuals will then meet to discuss the report and formulate a summary of the review that will be provided to the Provost. If appropriate, an action plan will be included in the summary. The action plan should be prioritized, should identify who is responsible for actions, and identify the planned source of resources needed to undertake the actions.
Self-Study Guidelines

Data

Data collected by the Graduate School and provided to programs at the start of the self-study period. Additional data must be provided by the program(s). Goals will be identified by the units preparing the self-study report. Green highlights indicate centrally collected data that can be reported to programs by the Graduate School. Yellow highlighting indicates goals that programs may wish to set for themselves as a way to internally prioritize resource and effort allocation in the future.

Program Name(s): ______________________________________________________________________________________________________

<table>
<thead>
<tr>
<th>Rank</th>
<th>Year 1 20XX</th>
<th>Year 2 20XX</th>
<th>Year 3 20XX</th>
<th>Year 4 20XX</th>
<th>Year 5 20XX</th>
<th>Year 5+5 20XX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Professor</td>
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<tr>
<td>Associate Professor</td>
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<tr>
<td>Assistant Professor</td>
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<tr>
<td>Instructor</td>
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<tr>
<td>Lecturer</td>
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<tr>
<td>Research Professor</td>
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<tr>
<td>Research Engineer</td>
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<tr>
<td>Other Rank</td>
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</tbody>
</table>

Table 2: Faculty demographics.

<table>
<thead>
<tr>
<th>Demographic Percentages</th>
<th>Year 1 20XX</th>
<th>Year 2 20XX</th>
<th>Year 3 20XX</th>
<th>Year 4 20XX</th>
<th>Year 5 20XX</th>
<th>Year 5+5 20XX</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Female Faculty</td>
<td></td>
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<tr>
<td>% White Non-Hispanic Faculty</td>
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<tr>
<td>% Asian-American Faculty</td>
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</tbody>
</table>
### Table 3: Faculty scholarly activity by year.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Year 1 20XX</th>
<th>Year 2 20XX</th>
<th>Year 3 20XX</th>
<th>Year 4 20XX</th>
<th>Year 5 20XX</th>
<th>Year 5+5 20XX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peer-Reviewed Publications/FTEF</td>
<td></td>
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<tr>
<td>Citations/FTEF</td>
<td></td>
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<tr>
<td>% Faculty (Headcount) with Grants</td>
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</tr>
</tbody>
</table>

### Table 4: Faculty involvement in graduate education. Use parentheses to indicate total number of students supervised or committees served on by faculty included in table 1.

<table>
<thead>
<tr>
<th>Number of Faculty</th>
<th>Year 1 20XX</th>
<th>Year 2 20XX</th>
<th>Year 3 20XX</th>
<th>Year 4 20XX</th>
<th>Year 5 20XX</th>
<th>Year 5+5 20XX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serving as PhD Advisor (Number of Students)</td>
<td></td>
<td></td>
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<tr>
<td>Serving as Master’s Advisor (Number of Students)</td>
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<td></td>
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<tr>
<td>Serving on PhD Committees (Number of Committees)</td>
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</tr>
<tr>
<td>Serving on Master’s Committees (Number of Committees)</td>
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</tbody>
</table>

### Table 5: Applications and admissions.

<table>
<thead>
<tr>
<th>Number</th>
<th>Year 1 20XX</th>
<th>Year 2 20XX</th>
<th>Year 3 20XX</th>
<th>Year 4 20XX</th>
<th>Year 5 20XX</th>
<th>Year 5+5 20XX</th>
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<tr>
<td>Applications</td>
<td></td>
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<tr>
<td>Admits without Funding Offers</td>
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<tr>
<td>Admits with Funding Offers</td>
<td></td>
<td></td>
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<tr>
<td>Enrolled without Funding Offers</td>
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<tr>
<td>Enrolled with Funding Offers</td>
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<tr>
<td>Number of New PhD Students Entering without a Master’s</td>
<td></td>
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<tr>
<td>Number of New PhD Students Entering with a Master’s</td>
<td></td>
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<tr>
<td>Number of PhD Students that Converted from a Master’s Program</td>
<td></td>
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<tr>
<td>Number of PhD Students Leaving the Program*</td>
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<tr>
<td>Number of Master’s Students Converted from a PhD Program</td>
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<tr>
<td>Number of Master’s Students Leaving the Program*</td>
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</tbody>
</table>

*Students leaving the program are defined as those who have failed to comply with the continuous enrollment policy for at least two of the most recent academic-year semesters. Date of attrition should be first semester following last enrollment.
### Table 6: Entering class

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Year 1 20XX</th>
<th>Year 2 20XX</th>
<th>Year 3 20XX</th>
<th>Year 4 20XX</th>
<th>Year 5 20XX</th>
<th>Year 5+5 20XX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Verbal GRE Score</td>
<td></td>
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<tr>
<td>Average Quantitative GRE Score</td>
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<tr>
<td>Average Analytical GRE Score</td>
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<tr>
<td>Average Undergraduate GPA</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Undergraduate or Previous Graduate Institution(s) (List)</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

### Table 7: Student demographics

<table>
<thead>
<tr>
<th>Demographic Percentages</th>
<th>Year 1 20XX</th>
<th>Year 2 20XX</th>
<th>Year 3 20XX</th>
<th>Year 4 20XX</th>
<th>Year 5 20XX</th>
<th>Year 5+5 20XX</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Female PhD Students</td>
<td></td>
<td></td>
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<tr>
<td>% White Non-Hispanic PhD Students</td>
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<tr>
<td>% Asian-American PhD Students</td>
<td></td>
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<tr>
<td>% Female MS Students</td>
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<tr>
<td>% White Non-Hispanic MS Students</td>
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<tr>
<td>% Asian-American MS Students</td>
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</tbody>
</table>

### Table 8: Graduate student degree completion progress. In each cell indicate total number and percent female, domestic, and non-White/non-Hispanic

<table>
<thead>
<tr>
<th>Number</th>
<th>Year 1 20XX</th>
<th>Year 2 20XX</th>
<th>Year 3 20XX</th>
<th>Year 4 20XX</th>
<th>Year 5 20XX</th>
<th>Year 5+5 20XX</th>
</tr>
</thead>
<tbody>
<tr>
<td>PhD Students Enrolled</td>
<td></td>
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<tr>
<td>PhD Graduates</td>
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<tr>
<td>Minimum / Maximum / Average Time to Comprehensive for PhD Graduates During Year Indicated</td>
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<tr>
<td>Minimum / Maximum and Average Time to Qualifying Exam for PhD Graduates During Year Indicated</td>
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<tr>
<td>Minimum / Maximum and Average Time to Degree for PhD Graduates During Year Indicated</td>
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<tr>
<td>Research Master’s Students Enrolled (Plan A or B)</td>
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<tr>
<td>Research Master’s Students Graduated (Plan A or B)</td>
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<tr>
<td>Minimum / Maximum and Average Time to Degree for Research Master’s Graduates During Year Indicated (Plan A or B)</td>
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<tr>
<td>Professional Focus Master’s Students Enrolled (Plan C or D)</td>
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<tr>
<td>Professional Focus Master’s Students Graduated (Plan C or D)</td>
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<tr>
<td>Minimum / Maximum and Average Time to Degree for Professional Focus Master’s Graduates During Year Indicated (Plan C or D)</td>
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</tbody>
</table>

Table 9: Graduate student funding. *In each cell indicate total number and % supported by internal and external funds (Internal = GTA, GA, GTI, FELI; External = GRA, FELE).*

<table>
<thead>
<tr>
<th>Number</th>
<th>Year 1 20XX</th>
<th>Year 2 20XX</th>
<th>Year 3 20XX</th>
<th>Year 4 20XX</th>
<th>Year 5 20XX</th>
<th>Year 5+5 20XX</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Year PhD Students Receiving Funding</td>
<td></td>
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<tr>
<td>2nd-4th Year PhD Students Receiving Funding</td>
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<tr>
<td>5th Year PhD Students Receiving Funding</td>
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<tr>
<td>PhD Students Receiving &gt;5 Years Funding</td>
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<tr>
<td>1st Year Research Master’s Students Receiving Funding</td>
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<tr>
<td>2nd Year Research Master’s Students Receiving Funding</td>
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<tr>
<td>Research Master’s Students Receiving &gt;2 Years Funding</td>
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<tr>
<td>Professional Focus Master’s Students Receiving Funding</td>
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</tbody>
</table>

Table 10: Research involving graduate students. *Use parentheses to indicate total number of students supervised or committees served on by faculty included in table 1.*

<table>
<thead>
<tr>
<th>Number</th>
<th>Year 1 20XX</th>
<th>Year 2 20XX</th>
<th>Year 3 20XX</th>
<th>Year 4 20XX</th>
<th>Year 5 20XX</th>
<th>Year 5+5 20XX</th>
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<tbody>
<tr>
<td>Peer-Reviewed Publications with PhD Student as First Author</td>
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<tr>
<td>Peer-Reviewed Publications with PhD Student as Coauthor</td>
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<tr>
<td>Peer-Reviewed Publications with Research Master’s Student as First Author</td>
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<tr>
<td>Peer-Reviewed Publications with Research Master’s Student as Coauthor</td>
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</tr>
<tr>
<td>Oral / Poster Presentations at Professional Meetings by PhD Students</td>
<td></td>
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</tr>
<tr>
<td>Oral / Poster Presentations at Professional Meetings by Master’s Students</td>
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</tbody>
</table>
Table 10: Teaching experiences for graduate students.

<table>
<thead>
<tr>
<th>Number</th>
<th>Year 1 20XX</th>
<th>Year 2 20XX</th>
<th>Year 3 20XX</th>
<th>Year 4 20XX</th>
<th>Year 5 20XX</th>
<th>Year 5+5 20XX</th>
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</thead>
<tbody>
<tr>
<td>GTA/GTI Duty Required for PhD Students? <em>(Yes, No)</em></td>
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<tr>
<td>Average Number of Laboratory or Recitation Sections Taught per Semester by PhD Students</td>
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<tr>
<td>Average Number of Lecture Sections Taught per Semester by PhD Students</td>
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<tr>
<td>GTA/GTI Duty Required for Master’s Students? <em>(Yes, No)</em></td>
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<td>Average Number of Laboratory or Recitation Sections Taught per Semester by Master’s Students</td>
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<td>Average Number of Lecture Sections Taught per Semester by Master’s Students</td>
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Table 11: Post-Graduation Activities.

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<tr>
<th>Number Graduating</th>
<th>Year 1 20XX</th>
<th>Year 2 20XX</th>
<th>Year 3 20XX</th>
<th>Year 4 20XX</th>
<th>Year 5 20XX</th>
<th>Year 5+5 20XX</th>
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<tbody>
<tr>
<td>PhD Students Going Directly to Tenure-Track Positions</td>
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<td>PhD Students Going Directly to Post-Doc Positions</td>
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<td>PhD Students Going Directly to Position in Industry</td>
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<td>PhD Students Going Directly to Position in Government</td>
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<td>PhD Students with no Positions</td>
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<tr>
<td>Master’s Students Going Directly to a PhD Program</td>
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<tr>
<td>Master’s Students Going Directly to Post-Secondary Education Positions</td>
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<td>Master’s Students Going Directly to Position in Industry</td>
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<td>Master’s Students Going Directly to Position in Government</td>
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<td>Master’s Students with no Position</td>
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</table>
Narrative

1. Program Goals: What are the goals for the program(s)? (For example, at the PhD level is the intent to produce researchers in a particular area of the discipline? Is the goal to produce future faculty? Is the goal to produce researchers for industry? At the master’s level is the goal to emphasize research or professional preparation?)
2. Alignment: How do the programmatic goals align with the University Strategic Plan?
3. Resources: How are resources (money, space, faculty and staff time) allocated in support of the goals?
4. Innovative Practices: Are some practices being employed that are particularly effective or promising? (For example, REU-based recruiting, peer-mentoring, TA-training/support, proposal preparation training, career preparation training, awards for outstanding achievements, travel support for meetings, departmental-level grievance process, formal annual review of graduate students, etc.).
5. Points of Pride: Notable achievements, recognitions, etc.
6. Collaboration: Describe new or existing collaborations. These may be international, interdisciplinary, multi-university, etc.
7. Challenges: What challenges exist that may make it difficult to reach the goals?
8. New Initiatives: Are any new initiatives currently planned?

Student Surveys

Surveys will be administered to volunteer students (current and former) online. Responses will be returned to the Graduate School where they will be aggregated into two groups (current students/former students) and provided to the program. The identity of the respondents will be kept confidential.

Questions for Current Students:

1. Was Michigan Tech your first choice for graduate school? If not, what was your first choice?
2. Are you PhD or master’s student? If master’s, do you plan to write a thesis?
3. Are you planning to earn a certificate as well as your degree?
4. Are you planning to earn more than one degree (e.g., master’s and PhD or master’s in more than one field)?
5. What were you doing before graduate school? If at University, which one?
6. While a graduate student have you traveled to a conference? If so, did you give an oral or poster presentation? If so, how was the trip paid for?
7. Have you had a paper published in a peer-reviewed journal or equivalent? If so, were you the first author?
8. Have you written a proposal for external or internal funding (e.g., for fellowship, research grant, or other)?
9. Have you had financial support? If so, of what type? If so, how many hours on average did you work per week? If a TA, were you given training or support for teaching?
10. What are your primary and secondary career goals?
11. Have you had an internship or co-op position?
12. Were your graduate program’s goals for its students clear to you before you came to Michigan Tech?
13. Are you a peer mentor?
14. Are your colleagues (other graduate students) supportive of one another?
15. Are there opportunities for social interactions with the other graduate students in your program?
16. Are there opportunities for social interactions with faculty and staff?
17. Do you have an advisor?
18. Do you have a faculty or staff member mentor who is not also your advisor?
19. Is your progress in graduate school formally reviewed with you at least one time per year? If so, who communicates with you about the review (e.g., department chair, graduate program director, or advisor)?
20. Are you encouraged to interact with faculty and/or students outside of your home department?
21. Are you encouraged to take courses outside of your home department?
22. Have you identified your external committee member? If so, in what year of your graduate program did you add this person to your committee?

Please rate the following for the overall program (Likert Scale of 1-5: outstanding, good, average, poor, very poor)

1. Teaching by faculty
2. Scholarly activity of faculty
3. Curriculum (courses) offered
4. Research conducted by graduate students
5. Advising of graduate researchers
6. Program quality
7. Computer resources
8. Laboratories or studios
9. Graduate student offices/workspaces
10. Scholarly interactions with peers
11. Social interactions

Please rate the following for the University overall (Likert Scale of 1-5: outstanding, good, average, poor, very poor, N/A)

1. Library
2. On-campus housing
3. Off-campus housing
4. Healthcare
5. Health insurance
6. Childcare
Questions for Former Students:

1. Were you PhD or master’s student? If master’s, did you write a thesis?
2. Did you earn a certificate as well as a degree?
3. Did you earn more than one graduate degree at Michigan Tech (e.g., master’s and PhD or master’s in more than one field)?
4. What are you doing professionally at this time?
5. Do you feel your graduate education at Michigan Tech prepared you well for your career?
6. Would you recommend Michigan Tech to prospective graduate students in your field?

Please rate how well you feel your program prepared you to: (Likert Scale of 1-5: very well, well, average, poorly, very poorly)

1. Make oral presentations.
2. Prepare written reports.
3. Write proposals for resources.
4. Think critically about technical issues in your field.
5. Learn material on your own.
6. Manage your time.
7. Supervise others.
8. Think “outside the box.”

Do you have any suggestions on how the graduate program in which you completed your degree might be improved?
FY11-01: PDF Submissions for Report Option Students

Current Policy for Report Option Document Submission

Currently students who do not wish professional binding of a report submit a hard copy to the library where they house it in their archives.

Issue of Concern:

Ellen Seidel, Head, Collections & Technical Services, has asked the graduate school to consider making master’s reports required in both hard copy and pdf format. She states, “The reports are available when Archives is open, roughly 35 hours per week. Archives reports they get frequent (unquantified) requests to photocopy reports for people to use outside the Archive’s room. Having an electronic version would facilitate distribution of the reports and Michigan Tech scholarship”

Proposed Change:

Report option students who do not require professional binding of the report they submit to the library would continue to submit a hard copy in a sturdy binder but would also be required to submit a .pdf format version of same to the Graduate School.
FY11-02: Graduate Committees: Co-Advisor as External Member

Current Wording found in Degree Requirements (Doctor of Philosophy):
(Similar wording in the Master’s area –PhD chosen as an example. Equivalent wording changes would be made in all Master degree requirements areas)

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, if applicable, supervises the research experience. 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 is an important factor in the graduate student’s timely and successful completion of the program of study. All graduate students must have an advisor.

ADVISORY COMMITTEE:
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).

ORAL EXAMINATION
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.
Issue of concern:

Some students have chosen a co-advisor from outside their administrative home department and that person has been the only external member on the committee.

Question: Are all the roles of an external member well met by the co-advisor serving in that capacity?

Proposed Wording:

ADVISOR
…The primary advisor, or a co-advisor must hold a regular or adjunct appointment in the student's administrative home department or school. While one co-advisor may be from outside the student’s administrative home department, that co-advisor may not fill the role of sole external member on the student’s committee.

ADVISORY COMMITTEE:
…This committee, with the addition of a fourth, external member, will often become the Examining Committee. If co-advisors are chosen and one co-advisor is from outside the student’s home department, an additional external member must be chosen.

ORAL EXAMINATION
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. While one co-advisor may be from outside the student’s administrative home department, that co-advisor may not fill the role of sole external member on the student’s committee. 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.
Since this is simply clarifying language it might not be worth going through all the channels to amend a Senate Proposal but if agreed, this interpretation could be clarified on the Graduate School website.

Current Wording:

4) A maximum of 1/3 of the coursework credits required for a certificate can be transferred in from another university. Research credits (if required for the certificate) must be earned through Michigan Tech.

Proposed Wording

4) A maximum of 1/3 of the coursework credits required for a certificate can be transferred in from another university or from a Michigan Tech undergraduate degree schedule. It is permissible to transfer credits that have been used towards a prior degree. Research credits (if required for the certificate) must be earned through Michigan Tech.
FY11-04: Master’s Path

Issue of Concern:

Some departments have expressed the desire to have a “Conditional Admission” for undergraduate students who they feel need strengthening of their undergraduate academic experience. Would an expansion of this policy be appropriate? The expansion would include students who have completed a four-year bachelor’s program within (or outside?) the US. Appropriate revision of the current policy or creation of a new parallel policy would be made by the Graduate School if there is interest.

Current Policy:

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 to assist them in degree planning.
Proposal for the Elimination of Paper Rejection Letters
(Proposal Number FY11-06)

Jacque Smith
Graduate School

1. General Description
   During the 2009-10 recruiting season, the Graduate School processed 2,860 applications, which was an increase of 329 over the previous year. Of the 2,860 applications, 771 students were rejected; 706 were international students; and 65 were domestic students.

   There are currently two means of communication used to notify students of the rejection of their application. The first is when the student’s application status is updated in our Banner system, the rejection information then becomes available in the student’s web portal. The second means of communication is by a paper letter issued through the Graduate School offices that is then mailed to the student.

2. Proposal
   The proposal is to change the process and means of communication of the rejection notification to prospective students. The first means of communication listed above would remain the same. As the student’s Banner file is updated, the information becomes available in the web portal. The proposed change to our current process is to eliminate the mailing of paper rejection letters to students and replace it with automated rejection emails. These emails will have the option of including the reasons for the student’s rejection.

3. Rationale
   There are three main areas of rationale behind this proposal. The first is the benefit of the speed of communication to the student, the second is the time and cost savings to the Graduate School, and the third is the benefits to our environment.

   • Student
     o Speed of Communication – When students are considering multiple graduate programs, the speed of communication on whether they are accepted or rejected is very important. The additional time created by prompt communications allows them to make informed decisions on which programs they can possibly attend. Many students utilize the web portal to find out if they have been accepted to our programs and numerous students call the
Graduate School for information. With the web portal and phone calls most of our applicants know their status long before they receive their rejection letter.

- **Graduate School**
  - Time - The current process of preparing, copying, and mailing a rejection letter takes on average 10 minutes per letter. With this year’s 771 rejection letters, the time to complete this process is 128.5 work hours or approximately 16 work days. With increasing amounts of applications, the rejection letter is currently receiving the lowest priority of the application process. The Graduate School puts the highest priority on notifying students of acceptance and encouraging prospective students to apply and complete applications. With an email notification of the application status we expect a reduction in the amount of phone calls from students inquiring about their applications.
  - Cost Savings - The savings come in the form of reduced labor, postage, and paper and envelope usage. Based upon last year’s application rejections the estimated cost savings would be $2,463 for labor (including fringes), $720 for postage, and $77 for paper and envelopes, for a total of $3,260. Many students move and change addresses during the application process, some update this information with the Graduate School, but many do not. Numerous letters we send are returned for improper addresses. Many prospective students keep their email address longer than their mailing address.

- **Environmental**
  - Environmental Impact - The environmental impacts for this proposal are harder to define. We do know that by implementing this proposal we would be eliminating 771 sheets of paper and envelopes from our current process, plus saving the amount of energy to distribute them around the globe.

4. **Implementation**
   If approved, the implementation of this proposal would be for this application cycle. The goal is for the Graduate School to work with Michigan Tech’s Enterprise Application Services to design, test, and implement the new automated email process. The automated email process will be developed to include reasons for rejection, if they are provided by the academic departments.
FY11-09: Addressing Dissents (N. Byers-Sprague)

Current Situation:

Currently only the advisor and department chair/graduate program director need to sign page 2 of the “Report on Oral Examination” indicating that “The candidate addressed comments of the dissenting committee member and the final thesis/report/dissertation copy is accepted without further revision or correction.”

Issue of Concern:

Recently a dissenting examiner expressed concern when faced with the pressure of a short time line to review a revised document and noted that there is opportunity for an advisor to sign page 2 without the student fully addressing issues raised by the dissenting examiner. Would adding the requirement of the signature of the dissenting examiner better ensure that all concerns were addressed?

Proposed Change:

Page 2 of the “Report on Oral Examination” would include a signature line for the dissenting examiner.
AGREEMENT FOR TRANSATLANTIC DUAL MASTERS DEGREE PROGRAM IN FOREST RESOURCES
BETWEEN
MICHIGAN TECHNOLOGICAL UNIVERSITY
Houghton, Michigan, U.S.A.
AND
UNIVERSITY OF HELSINKI
Helsinki, Finland

Realizing the inherent value of international co-operation of universities,

Further realizing their mutual commitment to ideals of academic exchange and the promotion of Trans-Atlantic links,

And having formed a consortium within the EU and US FIPSE-funded Atlantis program together with the North Carolina State University (NCSU) and the Swedish University of Agricultural Sciences (SLU) the parties to this Agreement Michigan Technological University (Michigan Tech) an institution of higher learning accredited by the North Central Association of Colleges and Schools located in the United States and the University of Helsinki (UH) an institution of higher learning recognized by the Ministry of Education of Finland agree to the following:

I Purpose & Objectives

The objective of this agreement is to set forth definitions and regulations related to the implementation of the Transatlantic Dual Master of Science degree (hereinafter referred to as “dual degree” or “dual program”) in Forestry, Applied Ecology, Forest Ecology and Management or Forest Molecular Genetics and Biotechnology from Michigan Tech and Forest Ecology, Forest Resource Science and Technology, Forest Economics and Forest Products Marketing at UH.

In implementing the dual program the parties seek

- to educate graduate students from the European Community and the United States of America in forest resources management, improvement and utilization;
- to contribute to sustainable management of forests, in North America, Europe, and globally;
- to enhance the global competitiveness of forestry in the temperate climatic zone;
- to prepare graduates who have thorough understanding of current and future global challenges in forestry and possess the knowledge and skills adequate to address them;
- to enhance teaching practices and the quality of higher education in forestry in Europe and the United States.

II Main Actions

- Mobility of students.
AGREEMENT FOR TRANSATLANTIC DUAL MASTERS DEGREE
PROGRAM IN FOREST RESOURCES
BETWEEN
MICHIGAN TECHNOLOGICAL UNIVERSITY
Houghton, Michigan, U.S.A.
AND
SWEDISH UNIVERSITY OF AGRICULTURAL SCIENCES (Faculty of Forestry)
SWEDEN

- Realizing the inherent value of international cooperation of universities,
- Further realizing their mutual commitment to ideals of academic exchange and the promotion of Trans-Atlantic links,

and having formed an earlier consortium within the EU and US FIPSE-funded ATLANTIS-program together with the North Carolina State University (NCSU) and the University of Helsinki (UH), the parties to this Agreement, Michigan Technological University (Michigan Tech) an institution of higher learning accredited by the North Central Association of Colleges and Schools located in the United States and the Swedish University of Agricultural Sciences (SLU) an institution of higher learning recognized by the Ministry of Education of Sweden (hereinafter collectively referred to as "collaborating universities" or "parties") agree to the following:

I Purpose & Objectives

The objective of this agreement is to set forth the definitions and parameters related to the implementation of the Transatlantic Dual Master of Science degree (hereinafter referred to as "dual degree" or "dual program") in Forestry, Applied Ecology, Forest Ecology and Management or Forest Molecular Genetics and Biotechnology from Michigan Tech, and Forest Science or Biology at SLU.

In implementing the dual program the parties seek
- to educate graduate students from the European Community and the United States of America in forest resources management, improvement and utilization;
- to contribute to sustainable management of forests, in North America, Europe, and globally;
- to enhance the global competitiveness of forestry in the temperate climatic zone;
- to prepare graduates who have a thorough understanding of current and future global challenges in forestry and possess the knowledge and skills adequate to address them;
- to enhance teaching practices and the quality of higher education in forestry in Europe and the United States.
Dual MS in Geology

Michigan Tech/Universite Blaise Pascal, Clermont Ferrand, France

Proposing: William I Rose  Professor

Department: Geological and Mining Engineering and Sciences

Degree: Dual MS degrees in Geology, with specialization in volcanology or engineering geology

Benefits: Goal of the proposal is to broaden and deepen the faculty supervising graduate degrees by enabling more than one university to support the degree. This enables the student to get access to more expertise. A typical graduate program in engineering geology or volcanology has only a few faculty, so exchange program double the size. It also permits broader cultural experience. Exchanges of students enrich the program for people who do not exchange, students are attracted to our program that would not apply otherwise. Faculty support the program because by working through students faculty make strong contacts with faculty in the same area of expertise, but with different field experiences and field areas. The exchange also lead to joint course development and long distance conference based courses. Geoscience is still defined by field experience, so geographic breadth is meaningful in this way also.

Collaborating University: Universite Blaise Pascal, Clermont Ferrand, France

Leading Faculty Contact: Prof. Benjamin Van Wyk deVries

b.vanwyk@opgc.univ-bpclermont.fr

Tel  (+33) 047334 6763  Fax: (+33)047334 6744

Laboratoire Magus et Volcans Universite Blaise Pascal
Clermont Ferrand, France

Financial arrangements: Funding is secured from the EU Atlantis program of the US Department of Education to cover the mobility of the first 24 students in the program. (http://www.geo.mtu.edu/~raman/INVOGE). Further funding will depend on evaluation of the program after its initial stages.

Visas: The host university will reasonably assist its guest students, in obtaining visas and other documents required by the government of the host country. In order to comply with US government regulations, participants who are not US citizens will be required to provide a guarantee that they have the financial resources to meet all expenses. Upon submission of a satisfactorily completed financial form, the US university’s designated office will provide the student with a I20 form to apply for a F-1 Student Visa. The EU
universities will provide an adequate acceptance letter and necessary information on how to apply for a Visa from the appropriate authorities.

**Insurance:** Student participants will be personally responsible for purchasing the host university’s and/or host country’s required health/medical insurance for the time period of their exchange. The host university will assist incoming student participants in identifying available health insurance options. The participating student shall provide emergency contact information. In the event that a participant is involved in a serious accident or other circumstance of grave nature, or is subject to disciplinary action, the host university will immediately notify the home university. If necessary, the immediate notification may be limited to a statement of the problem and a brief outline of intended plan of action. Detailed information should be forwarded to the home university in a timely manner.

**Time period of student attendance at Michigan Tech:** This program is based on 50% of an MS program which typically lasts about two academic years of two semesters each, spanning one summer. The minimum time to be on each campus is one academic year and on a credit basis we will use half and half as a basis. So the minimum time on the MTU campus is two semesters, normally an academic year.

**Disciplinary Scope:** Volcanology or Engineering Geology. These are two of the areas emphasized already for graduate study in Geosciences at MTU. Many faculty are interested in the program, and one of our faculty is an alumnus of the Clermont-Ferrand MS program in volcanology (Simon Carn).

**Administration of the program:** No changes in the procedures for the MS program in Geology are needed. We have a table of equivalent course credits because the ECS system is different from ours, with an equivalency of 3.3 ECS to 1 US. This equivalency is based on the premise that full-time study at the partner university (and the number of ECTs earned) is equivalent to full time study at Michigan Tech (and the number of semester credits earned). See: (http://www.geo.mtu.edu/~raman/INVOG/Study_Plan_files/INVOGECourses.pdf). Students will get the equivalent of 15 credits from study in Europe and 15 credits for study in the US. Graduate research and thesis preparation will be co-advised by a member of the Michigan Tech faculty and a faculty member from the partner university, but otherwise follow the MTU rules. The defense of the MS thesis or final exam will be evaluated by both Michigan Tech and the partner university through either a face-to-face exam at each site or a single exam that allows for participation of both sites through the use of distance education technology. There are no qualifying exams for the MS in Geology.

**Intellectual property:** The program will adhere to standard University policy regarding intellectual property. Ownership of inventions, discoveries, and works of authorship which are discovered, conceived, and/or created directly pursuant to any activity under
this Agreement (Intellectual Property) shall be with the university(s) where such Intellectual Property was discovered, conceived, and/or created. All partners agree to acknowledge any participation of the other in any publications resulting from activity under this Agreement and, subject to any conflicting rights of third parties, agree that both parties may use the results obtained from the activities conducted under this agreement for internal education and research purposes. No monetary consideration will be exchanged between the collaborating universities, nor will there be any indemnities, reimbursements for expenses, or sharing of fees or profits arising from the dual degree program. The relationship of the collaborating universities under the terms of this agreement shall be that of contracting parties solely as provided herein and a party shall not be deemed, nor hold itself out as being, a partner or agent of the other party. Neither the US universities nor the EU universities shall be liable for acts of the other, nor shall they be liable for the acts of students participating in the dual program.

Arrangements for review and termination: This agreement between the partner universities is subject to review at the end of the first year and shall be effective upon full execution and end on August 31, 2014, unless sooner terminated as provided below. It shall be subject to revision, modification or further renewal by mutual written agreement. Any party may terminate the Agreement by written notice submitted at least 90 days in advance of the next academic semester. Termination would not affect students already accepted by a host university into the dual degree program. If the Agreement is not renewed by mutual consent, the Agreement will conclude at the end of the specified time period, or after activities in progress have concluded.

Evaluation of the program: There are two levels of evaluation and quality assurance. One is the already in place, and involves the internal quality assurance practised by the consortium universities. The second is the additional dedicated consortium plan, which aims to meld the best practice from all partners. As a first step, all partner universities will undertake quality assurance as a general measure, such as standardised course evaluation, student feedback, and graduate career tracing.

The consortium partners are experienced in evaluation and have excellent staff for internal evaluation procedures. Our plan is to survey all students when they enter, and at graduation. In addition, we will survey students on exchange when they arrive and before they leave. Results of these surveys will be used to improve exchanges quality. MTU faculty, including PI Bill Rose are already active in research which uses advanced methodology for evaluation of educational impact (http://mitep.mspnet.org/).

Joint measures will include:
- Joint evaluation forms for of the study program components at each partner university,
- Intermediate evaluation by a contracted expert,
- Final external evaluation by a contracted expert,
- Faculty will provide an assessment of research and teaching activities at partner
universities.

A full record of all evaluation material will be kept by the consortium. The results will be discussed on an annual basis and adjustments made according to the results. A résumé of findings will be published on the consortium web site.

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![Signature]

Department Chair Signature and Date

![Signature]

College Dean Signature and Date

![Signature]

Graduate Dean Signature and Date
Dual MS in Geology

Michigan Tech/University of Milan Bicocca, Italy

Proposing: William I Rose Professor

Department: Geological and Mining Engineering and Sciences

Degree: Dual MS degrees in Geology, with specialization in volcanology or engineering geology

Benefits: Goal of the proposal is to broaden and deepen the faculty supervising graduate degrees by enabling more than one university to support the degree. This enables the student to get access to more expertise. A typical graduate program in engineering geology or volcanology has only a few faculty, so exchange program double the size. It also permits broader cultural experience. Exchanges of students enrich the program for people who do not exchange, students are attracted to our program that would not apply otherwise. Faculty support the program because by working through students faculty make strong contacts with faculty in the same area of expertise, but with different field experiences and field areas. The exchange also lead to joint course development and long distance conference based courses. Geoscience is still defined by field experience, so geographic breadth is meaningful in this way also.

Collaborating University: University of Milan Bicocca

Leading Faculty Contact: Prof. Alessandro Tibaldi, PhD
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  P. della Scienza 4, Department of Geological Science and Geotechnologies, University of Milan-Bicocca, Milan, Italy

Financial arrangements: Funding is secured from the EU Atlantis program of the US Department of Education to cover the mobility of the first 24 students in the program. (http://www.geo.mtu.edu/~raman/INVOGE). Further funding will depend on evaluation of the program after its initial stages.

Visas: The host university will reasonably assist its guest students, in obtaining visas and other documents required by the government of the host country. In order to comply with US government regulations, participants who are not US citizens will be required to provide a guarantee that they have the financial resources to meet all expenses. Upon
submission of a satisfactorily completed financial form, the US university’s designated office will provide the student with a I20 form to apply for a F-1 Student Visa. The EU universities will provide an adequate acceptance letter and necessary information on how to apply for a Visa from the appropriate authorities.

**Insurance:** Student participants will be personally responsible for purchasing the host university’s and/or host country’s required health/medical insurance for the time period of their exchange. The host university will assist incoming student participants in identifying available health insurance options. The participating student shall provide emergency contact information. In the event that a participant is involved in a serious accident or other circumstance of grave nature, or is subject to disciplinary action, the host university will immediately notify the home university. If necessary, the immediate notification may be limited to a statement of the problem and a brief outline of intended plan of action. Detailed information should be forwarded to the home university in a timely manner.

**Time period of student attendance at Michigan Tech:** This program is based on 50% of an MS program which typically lasts about two academic years of two semesters each, spanning one summer. The minimum time to be on each campus is one academic year and on a credit basis we will use half and half as a basis. So the minimum time on the MTU campus is two semesters, normally an academic year.

**Disciplinary Scope:** Volcanology or Engineering Geology. These are two of the areas emphasized already for graduate study in Geosciences at MTU. Many faculty are interested in the program.

**Administration of the program:** No changes in the procedures for the MS program in Geology are needed. We have a table of equivalent course credits because the ECS system is different from ours, with an equivalency of 3.3 ECS to 1 US. ([http://www.geo.mtu.edu/~raman/INVGOE/Study_Plan_files/INVGECourses.pdf](http://www.geo.mtu.edu/~raman/INVGOE/Study_Plan_files/INVGECourses.pdf)). Students will get 15 credits from study in Europe and 15 credits for study in the US. Graduate committees are international, but otherwise follow the MTU rules. This applies to defense of the MS thesis or final exam and any intellectual property issues; there are no qualifying exams.

**Intellectual property:** The program will adhere to standard University policy regarding intellectual property. Ownership of inventions, discoveries, and works of authorship which are discovered, conceived, and/or created directly pursuant to any activity under this Agreement (Intellectual Property) shall be with the university(s) where such Intellectual Property was discovered, conceived, and/or created. All partners agree to acknowledge any participation of the other in any publications resulting from activity under this Agreement and, subject to any conflicting rights of third parties, agree that both parties may use the results obtained from the activities conducted under this
agreement for internal education and research purposes. No monetary consideration
will be exchanged between the collaborating universities, nor will there be any
indemnities, reimbursements for expenses, or sharing of fees or profits arising from the
dual degree program. The relationship of the collaborating universities under the terms
of this agreement shall be that of contracting parties solely as provided herein and a
party shall not be deemed, nor hold itself out as being, a partner or agent of the other
party. Neither the US universities nor the EU universities shall be liable for acts of the
other, nor shall they be liable for the acts of students participating in the dual program.

Arrangements for review and termination: This agreement between the partner
universities is subject to review at the end of the first year and shall be effective upon
full execution and end on August 31, 2014, unless sooner terminated as provided below.
It shall be subject to revision, modification or further renewal by mutual written
agreement. Any party may terminate the Agreement by written notice submitted at
least 90 days in advance of the next academic semester. Termination would not affect
students already accepted by a host university into the dual degree program. If the
Agreement is not renewed by mutual consent, the Agreement will conclude at the end
of the specified time period, or after activities in progress have concluded.

**Evaluation of the program:** There are two levels of evaluation and quality assurance.
One is the already in place, and involves the internal quality assurance practised by the
consortium universities. The second is the additional dedicated consortium plan, which
aims to meld the best practice from all partners. As a first step, all partner universities
will undertake quality assurance as a general measure, such as standardised course
evaluation, student feedback, and graduate career tracing.

The consortium partners are experienced in evaluation and have excellent staff for
internal evaluation procedures. Our plan is to survey all students when they enter, and
at graduation. In addition, we will survey students on exchange when they arrive and
before they leave. Results of these surveys will be used to improve exchanges quality.
MTU faculty, including PI Bill Rose are already active in research which uses advanced
methodology for evaluation of educational impact (http://mitep.mspnet.org/).

Joint measures will include:
• Joint evaluation forms for of the study program components at each partner
  university,
• Intermediate evaluation by a contracted expert,
• Final external evaluation by a contracted expert,
• Faculty will provide an assessment of research and teaching activities at partner
  universities.

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discussed on an annual basis and adjustments made according to the results. A résumé
of findings will be published on the consortium web site.

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