Michigan Tech
Graduate School
2006-07 Catalog

Archival Copy

Please see
http://www.gradschool.mtu.edu/catalog
for current version

Students are reminded to use the current forms found on the web. Archival versions are here for historical purposes only. Most external links are not archived.

Michigan Technological University is an equal opportunity educational institution/equal opportunity employer. In keeping with its responsibilities as an educational institution, Michigan Technological University is committed to a policy of affording equal opportunity to all of its employees, students, applicants for employment, and applicants for admission without regard to race, religion, color, national origin, age, sex, sexual orientation, height, weight, or marital status. The University is also committed to a policy of educating and employing handicapped individuals and veterans without discrimination. These policies are to be implemented with due regard for the relative qualifications of all involved. The Affirmative Action Officer is Sherry Kauppi, 207 Administration Building, 906-487-3310.

2006 - 2007 Catalog Table of Contents

Please enable iframes on your browser. MTU Navigation

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Questions?

Grad School Web Index

Site Map

To All Grad Students at Michigan Tech...

It is your responsibility as a graduate student to be knowledgeable about and to comply with University, Graduate School, and individual program policies and procedures. The Graduate School Catalog as well as the Graduate School website will familiarize you with graduate programs available at Michigan Tech as well as relevant policies. Information about other University policies is available in the MTU Student Handbook.

The Graduate School Office makes every effort to provide accurate, current information regarding Graduate School and University policies. Michigan Tech's Graduate School thus reserves the right to change without notice statements in the Catalog concerning rules, policies, fees, curricula, courses, and/or other matters.

The Graduate School Catalog (formerly the Graduate School Bulletin) is archived at the beginning of each fall semester. Beginning with the 2001-03 issue of the Bulletin, PDF files are available through the Catalog Archives Index. Copies of earlier printed volumes of the Bulletin are available in the J.R.Van Pelt Library Archives (Call No. LD3315 .M52).

Michigan Tech is committed to maintaining a free exchange of information throughout the University community, and it is our general practice to release non-confidential information immediately upon request. As a publicly funded institution, Michigan Tech is subject to the provisions of the state and federal Freedom of Information Acts (FOIA). FOIA requires the University to provide copies of most administrative documents, with the exception of certain legal and personnel records, to anyone filing a FOIA request. If you wish to file a Freedom of Information Act request, or if you would like to view University documents, contact the Office of the President, 487-2200.

Michigan Technological University is an equal opportunity educational institution/equal opportunity employer. In keeping with its responsibilities as an educational institution, Michigan Technological University is committed to a policy of affording equal opportunity to all of its employees, students, applicants for employment, and applicants for admission without regard to race, religion, color, national origin, age, sex, sexual orientation, height, weight, or marital status. The University is also committed to a policy of educating and employing handicapped individuals and veterans without discrimination. These policies are to be implemented with due regard for the relative qualifications of all involved. The Affirmative Action Officer is Sherry Kauppi, 207 Administration Building, 906-487-3310.

Please enable iframes on your browser. MTU Navigation

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Questions?

Grad School Web Index

Site Map

Recent Changes to the MTU Graduate Catalog

The following changes have been made since the 20 September 2005 archiving of the Catalog:

- Coursework Option D requiring no final oral examination

The following changes have been made and archived on 10 April 2007:

- Conduct Violations—clarification of procedures
- Provisional / conditional admission clarification—MTU does not offer
- Dismissal of graduate students—Addition of language clarifying the joint role of the Graduate School and the Dean of Students/Office of Student Judicial Affairs in certain cases

Last reviewed on 06/08/2007 Contact **webmaster**.

Please enable iframes on your browser. MTU Navigation

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Questions?

Grad School Web Index

Site Map

- Department Policies & Procedures
- Graduate School Policies & Procedures
- Outreach and Multiethnic Programs
- Graduate Faculty Council Representatives
- Graduate Student Council Representatives

Department Policies & Procedures

Graduate Program	Faculty Coordinator	Secrecy/Aide
Applied Ecology	Shekhar Joshi	Sherry Sandretto
Applied Science Education	Brad Baltensperger	Judy Anderson
Biology	Casey Huckins	Pat Asselin
Biomedical Engineering	Seth Donahue	Judy Schaefer
Business Administration	Sonia Goltz	Phyllis Williamson
Chemical Engineering	Jason Keith	Alexis Snell
Chemistry	Marty Thompson (apps) Jian Liu (current students)	Celine Grace
Civil & Environmental Engineering	Tess Ahlborn	Corrine Leppen
Computer Science	Steve Carr	Sandy Kalcich
Computational Science and Engineering (EPD1)	LB Sandberg	Corinne Leppen
Electrical and Computer Engineering	Ashok Goel	Michele Kamppinen
Engineering, Master of	Sheryl Sorby	Sherry Saarinen
Engineering Mechanics	Carl Anderson	Margaret Perander
Environmental Engineering, PhD (EPD2)	Judith Perlinger	Corrine Leppen
Environmental Engineering Science	Tess Ahlborn	Corrine Leppen
Environmental Policy	Kathy Halvorsen	Gina Stevens
Forestry, Forest Science, Forest Molecular Genetics & Biotechnology	Shekhar Joshi	Sherry Sandretto
Geological Engineering, Geology, Geophysics	Alex Mayer	Amie Ledgerwood
Industrial Archaeology	Pat Martin	Gina Stevens
Mathematics	Jianping Dong	Jeanne Meyers
Mechanical Engineering	Carl Anderson	Margaret Perander

	Materials Science and Engineering	Cal White	Margaret Rothenberger
	Mineral Economics	Gary Campbell	Phyllis Williamson
	Mining Engineering	Alex Mayer	Amie Ledgerwood
	Physics, Engineering Physics	Don Beck	Elizabeth Pollins
	Rhetoric & Technical Communication-Humanities	Elizabeth Flynn	Marjorie Lindley
	Sponsored Educational Programs	Varies with program	Joan Hoffman

Graduate School Policies & Procedures

Graduate School Offices are located on the 4th floor of the Administration Building.
Assistant Dean of the Graduate School

	Application Process	Admissions Coordinator	Carol Wingerson	Room 408
	Billing/Support	Office Assistant	Carol Wingerson	Room 408
	Blue Room Reservations	Office Assistant	Pat Ross	Room 412
	Commencement	Assistant to the Dean	Nancy Byers-Sprague	Room 407
	Degree Progress	Assistant to the Dean	Nancy Byers-Sprague	Room 407
	Health Insurance		Maryann Wilcox	Room 201

Outreach and Multiethnic Programs

International Exchanges and Services: International Programs and Services, Admin. Room 131, 487-2160

Outreach/Multiethnic Programs: Betty Chavis, Alumni House Room 204, 487-2920

Last reviewed on 06/08/2007 Contact **webmaster**.

Members of the Graduate Faculty

To search this file, use the 'find' command <ctrl F>.

A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z

A

Duane L. Abata
Adjunct Professor of Mechanical Engineering/ Engineering Mechanics
Dean of Engineering, South Dakota School of Mines
PhD, University of Wisconsin-Madison
Engines, combustion, engine dynamics

John H. Adler (jhadler@mtu.edu)
Chair and Professor of Biological Sciences
PhD, University of Maryland
Structure-function interactions of lipids, particularly sterols and steroids, as hormones, components of biological membranes, and as defense compounds in higher plants, algae, and fungi

Dieter W. Adolphs (dadolph@mtu.edu)
Associate Professor of German
PhD, Washington University—St. Louis
German and Austrian literature from 1880 to the present, critical theory, intercultural communication, humanities research methods, rhetoric of difference, exile studies, Thomas Mann

Gary P. Agin (gagin@mtu.edu)
Associate Professor of Physics
PhD, Kansas State University
General physics

Theresa M. Ahlborn, PE (tess@mtu.edu)
Associate Professor of Civil and Environmental Engineering
Engineering-Environmental (inter-disciplinary program)
PhD, University of Minnesota
High-strength concrete, structural analysis, prestressed concrete, bridge engineering

Elias C. Aifantis (mom@mtu.edu)

Research Professor, Mechanical Engineering/Engineering Mechanics

PhD, University of Minnesota

Continuum mechanics, microstructures

Abdulnasser Alaraje (alaraje@mtu.edu)

Assistant Professor, School of Technology

Adjunct Assistant Professor, Mechanical Engineering/Engineering Mechanics

PhD Ohio State University

Computer architecture, programmable logic (FPGA), CAD, digital design and hardware description language modeling, system-on-chip and network-on-chip design

Terrence K. Alger (tkalger@hotmail.com)

Adjunct Assistant Professor, Mechanical Engineering/Engineering Mechanics

PhD, University of Texas at Austin

Bernard D. Alkire, PE, (balkire@mtu.edu)

Professor of Civil and Environmental Engineering

Engineering-Environmental (inter-disciplinary program)

PhD, Michigan State University

Soil compaction, cold weather construction, computer methods, dynamic properties of soils, aggregate properties, transportation engineering, highway design

Jeffrey S. Allen (jstallen@mtu.edu)

Assistant Professor of Mechanical Engineering/Engineering Mechanics

PhD, University of Dayton

Capillary flow, interfacial transport phenomena, fuel cells, phase-change heat transfer, microgravity fluid physics

Burhannettin S. Altan (bsaltan@mtu.edu)

Resarch Associate Professor & Adjunct Associate Profesor, Mechanical Engineering/Engineering Mechanics

PhD, Istanbul Technical University

Continuum mechanics, applied math, composite materials, novel theories in elasticity, Upper Bound Analysis

Susan L. Amato-Henderson (slamato@mtu.edu) http://www.ed.mtu.edu/people/slamato.html

Assistant Professor of Psychology

PhD, University of North Dakota, Grand Forks

Psychology and law (eyewitness memory, credibility assessment, field sobriety testing); career and educational interests and decision making; self efficacy (your belief in your ability to do well in a given situation or setting);service learning as a teaching tool; outcome assessments; experimental design and statistical analysis

Ashok K. Ambardar (akambard@mtu.edu)

Associate Professor of Electrical and Computer Engineering

PhD, University of Wyoming

Biomedical applications of ultrasound, modeling of physiological systems, medical imaging

Scott Amos (sjamos@mtu.edu)

Dean & Professor, School of Technology

PhD, University of Florida

Project management, sustainable construction, technology management

Carl L. Anderson (cander@mtu.edu)

Professor of Mechanical Engineering-Engineering Mechanics

PhD, University of Wisconsin—Madison

Heat transfer, thermodynamics, I.C. engines, torque converters, cavitation, wireless telemetry

Gerald T. Ankley

Adjunct Professor of Biological Sciences

Environmental Protection Agency (US.), Duluth

PhD, University of Georgia, Athens

Environmental Toxicology

Oner Arici (arici@mtu.edu)

Professor Emeritus of Mechanical Engineering

PhD, Brown University

Thermodynamics, heat transfer

Martin T. Auer (mtauer@mtu.edu)

Professor of Civil & Environmental Engineering,

Engineering-Environmental (inter-disciplinary program)

Adjunct Professor of Biological Sciences

PhD, University of Michigan

Limnology, engineering approaches to lake and river management,

mathematical modeling of surface water quality

Nancy A. Auer (naauer@mtu.edu)

Associate Professor of Biological Sciences

PhD, Michigan Technological University

Fish ecology, larval fish biology, aquatic ecology

Top

B

Alphonse H. Baartmans (baartman@mtu.edu)

Chair and Professor of Mathematical Sciences

PhD, Michigan State University

Combinatorics, design theory, algebra

Beverly J. Baartmans (bjgimmes@mtu.edu)

Professor of Mathematics, Adjunct Professor of Cognitive & Learning Sciences

PhD, University of Colorado

Mathematical problem-solving strategies, instructional technology, spatial visualization

Susan T. Bagley (stbagley@mtu.edu)

Professor of Environmental Microbiology,

PhD, Oregon State University8

Environmental microbiology, mutagenic and toxic properties of environmental contaminants; bioremediation

C. Robert Baillod, PhD, PE, DEE, (baillod@mtu.edu)

Professor of Civil and Environmental Engineering,

Engineering-Environmental (inter-disciplinary program)

PhD, University of Wisconsin—Madison

Biological treatment processes, removal and fate of toxic pollutants, oxygen transfer, industrial pollution prevention

Edward Baker

Adjunct Assistant Professor of Biological Sciences

Michigan Dept. of Natural Resources, Fisheries Scientist

PhD, Michigan State University

Aquatic resources

Bradley H. Baltensperger (brad@mtu.edu)

Chair Department of Cognitive & Learning Sciences, Professor of Geography

PhD, Clark University

Agricultural structure, cultural ecology, immigration and ethnicity

Bruce H. Barkalow (bhbarkal@mtu.edu)

Adjunct Professor of Biomedical Engineering

PhD, University of Wyoming

Biomedical engineering

Brian D. Barkdoll, PE (barkdoll@mtu.edu)

Associate Professor of Civil and Environmental Engineering,

Engineering-Environmental (inter-disciplinary program)

Faculty Partner, Sustainable Futures Institute

PhD, University of Iowa

Water resources, sediment transport, water distribution systems

Bruce A. Barna, PhD, PE, (bbarna@mtu.edu)

Professor of Chemical Engineering,

PhD, New Mexico State University

Process design and improvement, energy conversion, venture analysis

Dallas K. Bates (dbates@mtu.edu)

Professor of Chemistry

Adjunct Professor of Cognitive & Learning Sciences

PhD, University of Idaho

Organic and heterocyclic chemistry

John E. Beard (jebeard@mtu.edu)

Associate Professor of ME-EM

PhD, Purdue University

Computer-aided design, kinematics, biomedical engineering and manufacturing, rotary pumps

Donald R. Beck (donald@mtu.edu)

Professor of Physics

PhD, Lehigh University

Electronic structure of solids, theoretical atomic physics

John P. Beckwith (beckwith@mtu.edu)

Associate Professor of Mathematics

PhD, Wayne State University

Statistics

James Belote (jdbelote@mtu.edu)

Adjunct Assistant Professor of Anthropology, Social Sciences

PhD, University of Illinois

Latin America, Andes, Ecuador, cultural ecology

Linda S. Belote (lsbelote@mtu.edu)

Adjunct Professor of Anthropology, Social Sciences

PhD, University of Illinois

Latin America cultural anthropology, the Andes, ethnicity

Paul L. Bergstrom (paulb@mtu.edu)

Assistant Professor of Electrical & Computer Engineering

Adjunct Assistant. Professor of Materials Science & Engineering.

PhD, University of Michigan - Ann Arbor

Microelectromechanical devices and technologies, nanoscaled electronic devices and technologies

Victoria L. Bergvall (vbergval@mtu.edu)

Associate Professor of Linguistics

PhD, Harvard University

Language and gender theory and practice, discourse analysis (especially critical discourse analysis), sociolinguistics, linguistic and gender aspects of computer-mediated communication, local dialect issues

Barbara S. Bertram (bertram@mtu.edu)

Professor of Mathematics

PhD, University of New Mexico

Singular integral equations, numerical analysis

Suzanne J. Beske-Diehl (sbeske-d@mtu.edu)

Professor of Geophysics

PhD, University of Wyoming

Paleomagnetism, rock magnetism, sedimentology, geophysics

Bernhard P. Bettig (bettig@mtu.edu)

Assistant Professor of Mechanical Engineering

PhD, Arizona State University

Geometric reasoning and artificial intelligence in design and manufacturing; object oriented CAD software architecture

Jurgen Bierbrauer (jbierbra@mtu.edu)

Professor of Mathematics

PhD, Mainz University, Germany

Coding theory, combinatorics, cryptology, algebra

Richard B. Blanning (rbblanni@mtu.edu)

Adjunct Associate Professor of Fine Arts

MFA, University of Iowa

Theatre and art

Jason R. Blough (jrblough@mtu.edu)

Assistant Professor of Mechanical Engineering/Engineering Mechanics

PhD, University of Cincinnati

Experimental vibration of noise and vibration with an emphasis on development of specialized digital signal processing

solutions

Neil V. Blough

Adjunct Graduate Faculty

Professor of Chemistry & Biochemistry, University of Maryland

PhD, Northwestern University

Photochemical and free radical reactions (abiotic and biotic) in the environment including the role of metals and metal-organic complexes in these processes, development of molecular probes to examine these processes in both biological and environmental systems, interfacial reactions and redox chemistry in natural waters, optical properties and the remote sensing of seawater constituents

Gregg J. S. Bluth (gbluth@mtu.edu)

Professor of Geology,

Member of the Computational Science and Engineering Research Institute

PhD, Pennsylvania State University

Mitigation of natural hazards, remote sensing of volcanic activity, watershed geochemistry

Leonard J. Bohmann PE, (ljbohman@mtu.edu)

Associate Professor of Electrical and Computer Engineering

PhD, University of Wisconsin—Madison

Electric power system analysis, renewable energy

James M Boileau (jboileau@ford.com)

Adjunct Graduate Faculty

Technical Expert, Ford Motor Company

PhD, Wayne State University

Material & metallurgy research, aluminum casting cellular & dendritic solidification

Theodore J. Bornhorst (tjb@mtu.edu)

Professor, Geological and Mining Engineering and Sciences

Adjunct Professor of Cognitive & Learning Sciences

PhD, University of New Mexico

Mineral resources, geochemistry, geology of the Lake Superior region

Aleksandra Borysow (aborysow@mtu.edu)

Associate Professor of Physics

PhD, University of Texas—Austin

Theory of atomic and molecular spectroscopy, collision induced spectroscopy

Jacek Borysow (jborysow@mtu.edu)

Associate Professor of Physics

PhD, University of Texas—Austin

Experimental atomic and molecular physics, high-resolution absorption and laser-induced fluorescence spectroscopy

Sandra M. Boschetto-Sandoval (smbosche@mtu.edu)

Associate Professor of Spanish Language and Latin American Studies

PhD, University of Oregon

Contemporary and emerging Latin American women writers, Latin American cultural and historical studies, intercultural communication, and interdisciplinary language pedagogy

Heidi Bostic (hlbostic@mtu.edu)

Associate Professor of Romance Languages and Gender Studies, Humanities

PhD, Purdue University, W. Lafayette

Women's and gender studies, feminist theory, narrative studies, eighteenth-century studies, French and Francophone language, literature and culture

Michael J Bowler (mjbowler@mtu.edu)

Assistant Professor of Humanities, Philosophy

PhD, University of Notre Dame

Continental philosophy, ancient Greek philosophy, German philosophy from Kant to the present, philosophy of science and technology, hermeneutics, phenomenology, and existentialism

M. Ann Brady (mabrady@mtu.edu)

Assistant Professor, Humanities

PhD Miami University of Ohio, Oxford

Rhetoric and professional communication, Gender studies, Philosophy of technology, Qualitative ethnographic research methods and methodologies

Alan J. Brokaw (ajbrokaw@mtu.edu)

Professor of Marketing, School of Business & Economics

PhD University of Michigan

Survey and marketing research, branding (especially in Estonia), student satisfaction and student performance

Noah Brosch

Adjunct Graduate Faculty

Director, Wise Observatory, Tel Aviv University, Israel

PhD, University of Leiden, The Netherlands

Astronomy, Astrophysics

Richard E. Brown (rebrown@mtu.edu)

Professor Emeritus of Chemistry

PhD, Indiana University—Bloomington

Quantum chemistry

Debra L. Bruch (dlbruch@mtu.edu)

Associate Professor of Theatre

PhD, University of Missouri—Columbia

Theatre

Mari W. Buche ((mwbuche@mtu.edu)

Assistant Professor of Information Systems (School of Business & Economics

PhD, University of Kansas

Fundamental concepts in management information systems and workforce issues

Judith W. Budd (jrbudd@mtu.edu)

Research Associate Professor of Geological and Mining Engineering and Sciences,

Member of the Computational Science and Engineering Research Institute

PhD, Michigan Tech University

Limnology, aquatic ecology; remote sensing of lake properties

William M. Bulleit, PE, (wmbullei@mtu.edu)

Professor of Civil and Environmental Engineering

PhD, Washington State University

Structural reliability, probabilistic methods in engineering, computational intelligence, timber engineering

Jeffrey B. Burl (burl@mtu.edu)

Associate Professor of Electrical and Computer Engineering

PhD, University of California—Irvine

Control systems and signal processing, vision-based control of aerospace systems,

robust control, adaptive control

Christopher D. Burnett (chris.burnett@macd.org)

Adjucnt Professor, Forest Resources & Environmental Science

PhD, Boston University

Mammalian ecology, wildlife habitat, silviculture

Joseph W. Burns (jwburns@mtu.edu)

Senior Scientist Michigan Tech Research Institute; Associated with Electrical & Computer Engineering

PhD, University of Michigan

Electromagnetic theory and application: combining phenomenology with advanced signal processing for remote

sensing applications

Andrew J. Burton (ajburton@mtu.edu)

Research Associate Professor, School of Forest Resources and Environmental Science

PhD, Michigan Technological University

Forest ecology, forest soils, below ground carbon and nutrient cycling,

responses of forests to global change, root ecology and physiology

Victor B. Busov (vbuson@mtu.edu)

Assistant Professor of Forest Resources and Environmental Science

PhD, North Carolina State University

Forest molecular genetics

Top

C

Yu Cai (cai@mtu.edu)

Assistant Professor, School of Technology

PhD, University of Colorado

Network protocols, distributed systems, cyber security, algorithms and computational complexity

Jaime A Camelio (jcamelio@mtu.edu)

Assistant Professor of Mechanical Engineering-Engineering Mechanics

PhD, University of Michigan, Ann Arbor

Assembly systems, manufacturing process modeling, design optimization, systems diagnosis,

manufactuirng complexity managment

Gary A. Campbell (gacampbe@mtu.edu)

Professor of Mineral Economics, School of Business and Economics;

Adjunct Professor of Mining Engineering, Geological & Mining Engineering & Sciences

PhD, Pennsylvania State University

Mineral economics, operations research, economics of metals, mineral industry policy

Wilbur H. Campbell (wcampbel@mtu.edu)

Professor Emeritus of Biological Sciences

PhD, University of Wisconsin—Madison

Biochemistry and molecular biology of proteins; structure and function of nitrate reductase utilizing recombinant

expression systems and site-directed mutagenesis; lignin-specific O-methyltransferases from woody species

Gerard T. Caneba (caneba@mtu.edu)

Associate Professor of Chemical Engineering

PhD, University of California—Berkeley

Polymer solutions, polymer phase transitions, polymer membranes, polymer reaction engineering, polymer foams, mathematical modeling, block copolymers, polymer reactive processing, paints and coatings

James G. Cantrill (jcantril@nmu.edu)

Adjucnt Graduate Faculty

Professor, Northern Michigan University, Communication & Performance Studies

PhD, Univerity of Illinois

Environmental communication with particular emphasis on the relationship between perceptions of place, self concept, and reactions to land use change policies, conditions, and advocacy

Will H. Cantrell (Cantrell@mtu.edu) http://www.phy.mtu.edu/faculty/Cantrell.html

Associate Professor of Physics

PhD, University of Alaska Fairbanks

Heterogeneous nucleation of ice, physics and chemistry of thin films, physics and chemistry of aerosol particles/ cloud condensation nuclei

Eunice C. Carlson (ecarlson@mtu.edu)

Professor of Biological Sciences

PhD, Columbia University

General area of pathogenic infectious microbiology with research projects relating to microbial toxic production, synergistic interactions between pathogens, and the host immune response to infection

William W. Carlson

Adjunct Graduate Faculty

Research Staff Member, Institute for Defense Analyses

PhD, Purdue University

Operating systems, languages and compilers for parallel and distributed computers

Simon A. Carn (scarn@umbc.edu)

Adjunct Graduate Faculty

Research Associate, Joint Center for Earth Systems Technology, University of Maryland, Baltimore Co./NASA GSFC

PhD, University of Cambridge, UK

Remote sensing of volcanic emissions; Establishing links between volcanic sulfur dioxide emissions and solid earth/ magnetic processes; Development of instrumentation for volcanic gas monitoring; Atmospheric transport of volcanic SO2 clouds; Surveillance of active volcanism using thermal infrared data

Steven M. Carr (carr@mtu.edu)

Professor of Computer Science

PhD, Rice University

Compiler optimizations, interaction between compilers and computer architecture, and computer science education

Jason R. Carter (jcarter@mtu.edu)
Chair & Assistant Professor of Exercise Science, Health and Physical Education
Adjunct Assistant Professor of Biological Sciences
PhD, Michigan Technological University
Regulation of arterial blood pressure, the vestibulosympathetic reflex in humans, autonomic and cardiovascular adaptations to microgravity and exercise

Debra D. Charlesworth (wright@mtu.edu)
Adjunct Assistant Professor of Materials Science and Engineering and Mechanical Engineering
PhD, Northwestern University
Orthopedic applications of polymers, composites, polymer physics, biomaterials

Paul Charlesworth (pcharles@mtu.edu)
Associate Professor of Chemistry
Adjunct Assistant Professor of Cognitive & Learning Sciences
PhD, Keele University, UK
Chemical education

Arvind K. Chaudhary
Adjunct Assistant Professor of Electrical Engineering
Cooper Power
PhD, Virginia Technological University
Power systems transients, insulation coordination, instrument transformers, power system protection

Huann-Sheng Chen (hschen@mtu.edu)
Associate Professor of Mathematics
PhD, University of Illinois
Statistical genetics, survival data analysis, applied and computational statistics

Jiquan Chen (jiquan.chen@utoledo.edu)
Adjunct Associate Professor of Forest Resources & Environmental Science
PhD, University of Washington - Seattle

David J. Chesney (djchesne@mtu.edu)
Associate Professor of Chemistry
PhD, North Dakota State University
Supercritical fluid extraction, electroanalytical chemistry, process analytical chemistry

Chunxiao Chigan (cchigan@mtu.edu) http://www.ece.mtu.edu/ee/faculty/cchigan/

Assistant Professor of Electrical and Computer engineering

PhD, SUNY-Stony Brook

Wireless ad hoc networks & sensor networks, cross-layer network design, wireless network security, dependable computing & communication systems, network resource allocation & management

Rodney A. Chimner (rchimner@mtu.edu)

Visiting Assistant Professor, School of Forest Resources & Environmental Science

PhD, Colorado State University

Wetland ecology, ecosystem ecology, global change biology, restoration ecology

Peck Cho (peckcho@mtu.edu)

Professor of ME-EM

PhD, Northwestern University

Combustion, fuels

Byung Kyu Choi (bkchoi@mtu.edu)

Assistant Professor of Computer Science

PhD, Texas A&M University

Networking, distributed systems, real-time systems

Clifford C. Chou (cchou@mail.ford.com)

Adjunct Professor of Engineering Mechanics

Staff Technical Specialist, Ford Motor Company

PhD, Michigan State University

Automotive safety

Khashruzzaman Choudhury

Adjunct Graduate Faculty

Professor of Economics and Finance, Southern University and A&M College

PhD, Syracuse University

Nels Christopherson (nels@mtu.edu)

Lecturer, Mechanical Engineering-Engineering Mechanics

PhD, Michigan Technological University

Experimental and analytical solid mechanics

Michael S. Clancey (msclance@mtu.edu)

Instructor, Chemical Engineering

PhD, Michigan Technological University

Technical communication, engineering communication, writing across the curriculum, writing in the disciplines

Daniel C. Clupper (dclupper@mtu.edu)

Assistant Professor of Materials Science and Engineering and Biomedical Engineering

PhD, University of Florida

Development of bioactive ceramic materials and their processing and evaluation from a materials science and a biological perspective

Tomas B. Co (tbco@mtu.edu)

Associate Professor of Chemical Engineering

PhD, University of Massachusetts—Amherst

Plant-wide control, process modeling, neural networks, fuzzy set control

Samuel W. Coates, (swcoates@mtu.edu)

Associate Professor School of Technology

PhD, Queen's University, Belfast, UK

Engine performance modeling, exhaust emissions, catalyst systems, engine noise reduction

Leslie P. Cook (lpcook@mtu.edu)

Adjunct Associate Professor of Cognitive & Learning Sciences

EDD, Brigham Young University

Orientation programs, student leadership development, characteristics of college students today

Marilyn Cooper (mmcooper@mtu.edu)

Professor of Humanities

PhD, University of Minnesota

Social context and writing, writing pedagogy, post-modern theory, technical communication

Bahne C. Cornilsen, (bccornil@mtu.edu)

Professor of Chemistry

Adjunct Prof. of Chemical Engineering;

Adjunct Prof, Michigan Molecular Institute, Midland, MI

PhD, New York State College of Ceramics at Alfred University

Solid-state structure and point defect chemistry; Raman spectroscopy; EXAFS and XANES; battery electrode structure, esp. nickel electrodes

Kaven E. Crosby

Adjunct Graduate Faculty

Phd, Louisiana State University

Assistant Professor of Mechanical Engineering, Southern University and A&M College

Advanced engineering materials research including modeling material behavior, microstructural and

property characterization & performance study; engineering education

Thomas R. Crow (tcrow@fs.fed.us)

Adjunct Professor of Forest Resources & Environmental Science

PhD, University of Minnesota

Daniel A. Crowl, (crowl@mtu.edu)

Herbert H. Dow Chair for Chemical Process Safety; Professor of Chemical Engineering

PhD, University of Illinois—Urbana

Chemical process safety

Allan Curran

Adjunct Graduate Faculty

Vice President, ThermoAnalytics, Inc.

PhD, Stanford

Development of software that autonomously produces simulation parameters from geometric and functional descriptions of vehicle components

Eric W. Curtis (ecurtis@ford.com)

Adjunct Assistant Professor, MEEM

PhD, University of Wisconsin-Madison

Top

D

Roshan M. D'Souza (rmdsouza@mtu.edu)

Assistant Professor of Mechanical Engineering/Engineering Mechanics

PhD, University of California

CAPP, cost conscious planning, resourced-based manufacturability evaluation

Qingli (Barbara) Dai (qingdai@mtu.edu)

Research Assistan Professor

PhD, University of Rhode Island

Multiscale modeling of composite materials, computational mechanics, pavement materials, imaging technology, material calibration

Carl Dassbach (dassbach@mtu.edu)

Associate Professor of Sociology

PhD, State University of New York–Binghamton

Industrial sociology, social change, world-system studies,
deviant behavior, sociological theory, sociology of organizations

Jennie P. Dautermann
Adjunct Graduate Facutly
Program Manager, SUNY Teaching, Learning & Technology, SUNY Training Center
PhD, Purdue University
Rhetoric & composition, technical communication, reesearch methods

Brian T. Davis
Assistant Professor of Electrical & Computer Engineering
PhD, University of Michigan-Ann Arbor
Computer Architecture, DRAM Memory Systems and Interfaces, Hardware Description Languages, Computer hardware/
Software Co-Design

Mark F. Davis (mark_davis@nrel.gov)
Adjunct Professor of Forest Resource and Environmental Science
PhD, Colorado State
Analysis of plant cell wall chemistry, molecular beam mass spectrometry, nuclear magnetic resonance

Larry R. Davis (ladavis@mtu.edu)
Associate Professor,
School of & Economics
PhD, Indiana University
Auditing & Assurance Services

Kenneson G. Dean
Adjunct Graduate Faculty
Research Assistant Professor, University of Alaska, Fairbanks Geophysical Institute
MS, University of Alaska Fairbanks
Volcano monitoring, eruption cloud and thermal anomalies using satellite data and ash dispersion models

Yogini S. Deshpande (yogini@mtu.edu)
Post Doctoral Fellow, Civil & Environmental Engineering
PHD, Purdue University
Sustainable concretes, performance based specifications, in-situ evaluation and structural health monitoring,
concrete repair & rehabilitation

George R. Dewey, PE, (gdewey@mtu.edu)
Associate Professor of Civil and Environmental Engineering,

Engineering-Environmental (inter-disciplinary program)

PhD, University of Kansas

Civil infrastructure materials, cement and concrete

microstructure, supplementary cementitious materials, and utilization of industrial residuals

Jimmy F. Diehl (jdiehl@mtu.edu)

Professor of Geophysics

PhD, University of Wyoming

Applied geophysics, paleomagnetism, tectonics

David C. Dixon (dcdixon@mtu.edu)

Adjunct Assistant Professor of Biomedical Engineering

PhD, Rutgers

Plant molecular biology, plant pathology, microscopy

David S. Domozych (ddomoz@skidmore.edu)

Adjunct Associate Professor of Biological Sciences

PhD, Miami University

Plant biology, plant biotechnology, plant physiology

Seth W. Donahue (swdonahu@mtu.edu)

Assistant Professor of Biomedical Engineering

Adjunct Assistant Professor of Biological Sciences

PhD, University of California, Davis

Bone mechanics, cellular mechanotransduction, fluorescent imaging, osteoporosis, bone, metabolism in black bears

Jianping Dong (jdong@mtu.edu)

Professor of Mathematics

PhD, New York University

Statistics

Paul V. Doskey

Adjunct Graduate Faculty

Senior Fellow, Argonne National Laboratory

Experimental and theoretical studies of the behavior of nonmethane organic substances in the atmosphere

Jaroslaw W. Drelich (jwdrelic@mtu.edu)

Associate Professor of Materials Science and Engineering

PhD, University of Utah

Surface chemistry and colloid science applied to material

processing, recycling, and microfabrication

Thomas D. Drummer (tdrummer@mtu.edu)
Professor of Mathematics
PhD, University of Wyoming
Statistics

R. Kasten Dumroese (kdumroese@fs.fed.us)
Adjunct Graduate Faculty
Research Plant Physiologist, USDA Forest Service
PhD, University of Idaho
Practical aspects of growing forest & conservation seedlings in nurseries, including seedling growth in various types of media, impacts of nursery practices on the genetic variation of crops, germination of Hawaiian forest endemics, phenology of crops, germination of Hawaiian forest endemics, phenology

Mary H. Durfee (mhdurfee@mtu.edu)
Associate Professor of Political Science and Assistant Provost for Academic Improvement
PhD, Cornell University
World politics, military affairs, international law and organizations, management of the Great Lakes ecosystems

Peter R. Dvornic
Adjunct Associate Professor of Chemistry
Midland Molecular Institute
PhD, University of Massachusetts
Polymers

Top

E

Ali Ebnenasir (aebnenas@mtu.edu)
Assistant Professor of Computer Science
PhD, Michigan State University
Automated software engineering of dependable systems - dependable distributed computing - formal methods

Timothy C. Eisele (tceisele@mtu.edu)
Engineer/Scientist, Chemical Engineering
PhD, Michigan Technological University
Particulate processing; physical separations; resource extraction, refining and recovery; environmentally benign materials processing; industrial waste byproduct utilization

Damien D. Ejigiri

Adjunct Graduate Faculty

Dean, Nelson Mandela School of Public Policy & Urban Affairs,

Southern University and A&M College

Phd, Texas A&M University

Urban & regional science: methodology, computer application,

research survey approach, statistics

William J. Endres (wjendres@mtu.edu)

Associate Professor of Mechanical Engineering-Engineering Mechanics

PhD. University of Illinois-Urbana- Champaign

Machining process modeling, cutting mechanics, machine dynamics, mechanistic modeling techniques

Carl G. Enfield

Adjunct Graduate Faculty

US EPA, National Risk Management Research Laboratory

PhD, University of Arizona

Development of enhanced remediation technologies for contaminated sediments and aquifers; processes controlling the transport of contaminants in soils; land application wastewater treatment for municipal wastewater

John R. Erickson (joericks@mtu.edu)

Adjunct Graduate Faculty

Research Scientist, School of Forest Resources and Environmental Science

M.S. Michigan Technological University

Recycling of wood and paper products; wood products harvesting; conversion processing and use; research program management, planning, marketing, grant process, and financial management

Tyler A. Erickson (taericks@mtu.edu)

Research Scientist, Michigan Tech Research Institute; affiliated with Civil & Environmental Engineering

PhD, University of Colorado

Geostatistical estimation methods for characterizing environmental parameters and designing geospatial internet-based infomation systems for distributing environmental data

Lee W. Erlebach (lwerleba@mtu.edu)

Associate Professor of Mathematics

PhD, University of Washington

Discrete mathematics, topological groups, game theory

Kingsley E. Esedo

Adjunct Graduate Faculty

Interim Chair and Associate Professor, Political Science Department,

Southern Unviersity and A&M College

Phd, Boston University

African Political Science

Harold A. Evensen (haevense@mtu.edu)

Professor Emeritus of Mechanical Engineering

PhD, Syracuse University

Noise, vibration, dynamic measurements

William D. Everham (wdeverha@mtu.edu)

Adjunct Assistant Professor of Geological & Mining Engineering & Sciences

Adjucnt Assistant Professor of Cognitive & Learning Sciences

PhD, Michigan Technological University

Top

F

Shiyue Fang (shifang@mtu.edu)

Assistant Professor of Chemistry

PhD, University of Missouri, St. Louis

Organic synthesis, including the synthesis of natural and unnatural useful molecules and development of synthetic methodology

Kathleen A. Feigl (feigl@mtu.edu)

Professor of Mathematics,

Member of the Computational Science and Engineering Research Institute

PhD, Illinois Institute of Technology

Modeling and simulating viscoelastic flows, computational

rheology, finite element methods for fluids, micro-macro simulations, interfacial phenomena

Brian E. Fick (fick@mtu.edu)

Associate Professor of Experimental Astro-Particle Physics, Physics

PhD, Virginia Polytechnic Institute and State University

Investigations into the nature and origin of extremely high energy cosmic rays using the Pierre Auger Cosmic Ray Observatory

Edward R. Fisher, (edfisher@mtu.edu)

Professor Emeritus of Chemical Engineering

PhD, Johns Hopkins University

Chemical physics of gaseous plasmas, transport processes

David J. Flaspohler (djflaspo@mtu.edu)

Associate Professor of Conservation Biology

PhD, University of Wisconsin-Madison

Conservation biology, ornithology, reproductive ecology of migratory songbirds, behavioral ecology, tropical ecology

Elizabeth A. Flynn (eflynn@mtu.edu)

Professor of Reading and Composition

PhD, Ohio State University

Feminist studies, reading studies, composition studies, literacy studies, diversity studies

Randall R. Freisinger (rfreisi@mtu.edu)

Professor of Rhetoric, Literature and Creative Writing

PhD, University of Missouri-Columbia

Nineteenth-century English literature, modern and contemporary American literature, creative writing, poetics, rhetorical theory

Nancy H. F. French (nhfrench@mtu.edu)

Adjunct Assistant Professor, School of Forest Resources & Environmental Science

PhD, University of Michigan

Studying fire-related impacts on the carbon cycle using remote sensing information, applications of remote sensing remote sensing information, applications of remote sensing

James O. Frendewey, Jr. (jimf@mtu.edu)

Associate Professor, School of Business and Economics

Phd, University of Colorado-Boulder

Network optimization, scheduling, mathematical programming

Peter A. Friedman (pfriedma@ford.com)

Adjunct Assistant Professor of Mechanical Engineering/Engineering Mechanics

Technical Specialist, Ford Research Laboratory

PhD, University of Michigan

Wrought aluminum, superplastic forming, crystallographic texture, high temperature micro-mechanics, sheet stamping

Craig R. Friedrich (craig@mtu.edu)

Professor of Mechanical Engineering

PhD, Oklahoma State University

Micromachining, manufacturing processes

Alexander L. Friend

Adjunct Professor of Forestry

USDA Forest Service, Houghton, Michigan

PhD, University of Washington, Seattle

Ecosystem science, tree physiological ecology, root physiology

Robert E. Froese (froese@mtu.edu)

Assistant Professor of Applied Statistics and Biometrics (School of Forest Resources and Environmental Science)

PhD, University of Idaho

Simulation modeling, growth and yield, applied statistics, biometrics

Top

G

James R. Gale (jrgale@mtu.edu)

Professor of Economics and Finance

PhD, University of Iowa

Money, macroeconomics, finance, policy

Margaret R. Gale (mrgale@mtu.edu)

Dean of School of Forest Resources and Environmental Science,

Professor of Production Ecology

PhD, University of Minnesota

Forest productivity, quantitative ecology, root ecology, wetland ecology

William C. Gale (wcgale@mtu.edu)

Instructor of Social Sciences

MA, West Virginia University, Morgantown

Doctoral Candidate, Queen's University

Cultural memory, landscape and industrial heritage

Diana L. George (dgeorge@mtu.edu)

Emerita Presidential Professor of Humanities

PhD, University of Missouri-Columbia

Composition studies, theories of visual representation, and popular culture

Grant R. Gerhardt

Adjunct Assistant Professor of Mechanical Engineering

Tank Automotive RDE Center, Warren, Michigan

PhD, Wayne State University

Unmanned robotic vehicles, image and signal processing, target acquisition modeling and simulation

John K. Gershenson (jkgershe@mtu.edu)

Associate Professor of ME-EM

PhD, University of Idaho

Life-cycle engineering, environmentally conscious design, design for manufacturing, lean engineering

Christian P. Giardina

Adjunct Assistant Professor, School of Forest Resources and Environmental Science

US Forest Service, Houghton, Michigan

PhD, University of Denver

Biotic and abiotic controls on below ground carbon allocation. Carbon cycling and storage in forests. Response of forest nutrient cycling to anthropogenic disturbances, especially fire. Plant-soil interactions and the effects of tree species on soil carbon cycling and nutrient supply

John S. Gierke, PhD, PE, (jsgierke@mtu.edu)

Associate Professor of Geological and Environmental Engineering,

Adjunct Associate Professor of Civil and Environmental Engineering,

PhD, Michigan Technological University

Groundwater and soil remediation, groundwater modeling, fate and transport of pollutants

Ryan J. Gilbert (rgilbert@mtu.edu)

Assistant Professor, Biomedical Engineering

PhD, Case Western Reserve University

Developing smart biomaterials: nervous system regeneration and cartilage repair,

glycosaminoglycan mediated neuronal inhibition, material properties of glial scar

Glenda E. Gill (gegill@mtu.edu)

Professor of Drama

PhD, University of Iowa

Dynamics of race, gender, and class and how they intersect with the African-American in the performing arts, especially in non-traditional roles

Michael J. Gilpin (gilpin@mtu.edu)

Adjunct Professor of Mathematics

PhD, University of Oregon

Combinatorics, discrete mathematics

Clark R. Givens (clark@mtu.edu)

Professor of Mathematics

MS, University of Michigan

Janice M. Glime (jmglime@mtu.edu) http://www.bio.mtu.edu/faculty/glime.htm

Professor of Biological Sciences, Adjunct Professor of Cognitive & Learning Sciences,

PhD, Michigan State University

Aquatic bryophytes, physiological ecology of bryophytes, adaptive strategies of bryophytes, bryophytes and boreal ecosystems, teacher preparation

Mark S. Gockenbach (msgocken@mtu.edu)

Professor of Mathematics,

Member of the Computational Science and Engineering Research Institute

PhD, Rice University

Inverse problems, computational optimization, mathematical software

Ashok K. Goel (goel@mtu.edu)

Associate Professor of Electrical and Computer Engineering

PhD, Johns Hopkins University

Microelectronics, nanotechnology, semiconductor TCAD, VLSI design

Bishnu P. Gogoi

Adjunct Graduate Faculty

Principal Staff Scientist/Engineer, Motorola Sensor Products Division

PhD University of Michigan, Ann Arbor

Micromachining and Microsystem Technology including

process integration, circuit design, packaging and testing

Jeremy Goldman (jgoldman@mtu.edu)

Assistant Professor of Biomedical Engineering

PhD, Northwestern University

The biology and physiology of the lymphatic and blood vascular systems including vascular regeneration, remodeling and pathology

Sonia M. Goltz (smgoltz@mtu.edu)

Associate Professor of Organizational Behavior

PhD, Purdue University

Leadership, decision-making, work motivation

Ganesh Gopalakrishnan

Adjunct Graduate Faculty

Professor, School fo Computing, Department of Computer Science, University of Utah

PhD, University of New York

Formal verification of reactive systems, with emphasis on the application domains of high performance computing software and chache coherence protocols

Hugh S. Gorman (hsgorman@mtu.edu)

Associate Professor of Environmental Policy and History

PhD, Carnegie-Mellon University

Environmental history; history of environmental policy and pollution control

Gregory A Graman (gagraman@mtu.edu)

Assistant Professor of Operations and Supply Chain Management, School of Business & Economics

PhD, University of Cincinnati

Closed-loop supply chains (reuse, recycle), mass customization, inventory optimization, supply chain management, operations management

Hugo Delgado Granados

Adjunct Graduate Faculty

Professor “A” Level of Geophysics, University of Mexico

PhD, Tohoku University, Japan

Mexican Volcanism, emission from active volcanoes, remote sensing, geochemistry and subsurface processes

Jacqualine B. Grant (jbgrant@mtu.edu)

Assistant Professor, School of Forest Resources & Environmental Science

PhD, Cornell University

Wildlife Ecology, functional connectivity, herpetology, entomology

Ronald K. Gratz (rkgratz@mtu.edu)

Associate Professor of Biological Sciences

PhD, University of Oklahoma

Comparative respiratory physiology, physiological ecology, ecology and behavior of reptiles and amphibians, comparative animal physiology, respiratory physiology, herpetology

Sarah A. Green (sgreen@mtu.edu)

Chair and Professor of Chemistry

PhD, Massachusetts Institute of Technology/Woods Hole

Oceanographic Institution

Environmental chemistry, Great Lakes biogeochemistry, carbon cycle, radical reactions, photochemistry

William J. Gregg (wjgregg@mtu.edu)

Associate Professor of Geological Engineering

PhD, State University of New York—Albany

Structural geology, tectonics, mineral deposits, mining geology, rock slope stability

Michael R. Gretz (mrgretz@mtu.edu)

Professor of Biological Sciences

PhD, Arizona State University

Extracellular matrix biogenesis, chemistry and synthesis of bioadhesives, light and electron microscopy

William F. Griffin, PE (wgriffin@mtu.edu)

Adjunct Assistant Professor of Geological Engineering and Sciences;

Hydrogeologist/Geotechnical Engineer, U.P. Engineers & Architects

PhD, University of Wyoming

Hydrogeology, site investigations, groundwater engineering

Veronica W. Griffis (vgriffis@mtu.edu)

Assitstant Professor of Civil and Environmental Engineering

PhD, Cornell University

Uncertainty analysis, flood frequency and analysis of extreme events, impacts of climate and land use changes

Nancy M. Grimm (ngrimm@mtu.edu)

Associate Professor of Humanities; Director of the Writing Center,

Adjunct Assistant Professor of Cognitive & Learning Sciences

PhD, Michigan Technological University

Literacy studies, writing center studies, composition studies

Thomas R. Grimm (trgrimm@mtu.edu)

Associate Professor of Mechanical Engineering

PhD, Michigan Technological University

Computer-aided engineering, finite element methods, biomechanics and design

Donald R. Grinde

Adjunct Graduate Faculty

Professor of History and ALANA/Ethnic Studies, University of Vermont

PhD, University of Delaware

American Indian History

Mahesh Gupta (mahesh@mtu.edu)

Associate Professor of Mechanical Engineering

PhD, Rutgers University

Polymer rheology, flow simulation in injection molding and

screw extrusion, die design for polymer extrusion, elongational viscosity measurement for polymer melts

Sangita Gupta

Adjuct Lecturer of Mathematical Sciences

PhD, Barkatullah University

Top

H

Stephen A. Hackney (hackney@mtu.edu)
Professor of Materials Science and Engineering
PhD, University of Virginia
Surface and interface dynamics, thin films and
nanostructures, thermodynamics, ceramic battery materials, magnetic materials, applications of electron microscopy

Kathleen E. Halvorsen (kehalvor@mtu.edu)
Associate Professor of Natural Resource Policy, Department of Social Sciences
Associate Professor of School of Forest Resources and Environmental Science
PhD, University of Washington
Natural resource policy, the sociology of natural resources, natural resource decision making, public participation, land use policy

Amy J. Hamlin (ahamlin@mtu.edu)
Lecturer, Engineering Fundamentals
PhD, Michigan Technological University

Brett H. Hamlin (bhhamlin@mtu.edu)
Assistant Chair and Lecturer, Engineering Fundamentals
PhD, Michigan Technological University
Engineering education, bio heat transfer

David W. Hand, (dwhand@mtu.edu)
Professor of Civil and Environmental Engineering,
Engineering-Environmental (inter-disciplinary program)
PhD, Michigan Technological University
Advanced oxidation processes, adsorption processes, water reuse, drinking water treatment, pollution prevention, environmental engineering software design tools

Ulrich H. E. Hansmann (hansmann@mtu.edu)
Professor of Physics
Member of the Computational Science and Engineering Research Institute
PhD, Freie Universitat, Berlin
Computational Physics and Biomolecular Modeling

Scott A. Harding (sahardin@mtu.edu)

Research Associate Professor, School of Forest Resources and Environmental Science

PhD Kansas State University

Functional genomics of tree physiology. Emphasis on in situ approaches to localize and integrate metabolic and gene expression dynamics to better understand tree growth and response to manipulation

Andrew J. L. Harris

Adjunct Graduate Faculty

Associate Professor, Hawaii Institute of Geophysics & Planetology

PhD The Open University, United Kingdom

Remote sensing of volcanoes, lava flow cooling & emplacement, strombolian activity, funarolic activity

Ronald A. Harris

Adjunct Graduate Faculty

Assistant Professor, Nelson Mandela School of Public Policy and Urban Affairs,

Southern University and A&M College

Phd, Washington Unviersity, St. Louis

American political institutions, public policy/political economy, formal theory and methodology

William B. Harrison, III

Adjunct Graduate Faculty

Professor of Geology and Director

Michigan Basin Core Research Laboratory, Western Michigan University

PhD University Cincinnati

Stratigraphy, Sedimentology, and Petroleum Geology, Improved Recovery of Oil from Old Fields w/ Horizontal Drilling, Management and Analysis of Large Oil and Gas Data Sets, Devonian Stratigraphy, Depositional Environments and Diagenesis in the Michigan Basin

Tammy L. Haut Donahue (thdonahu@mtu.edu)

Associate Professor of ME-EM, Adjunct Associate Professor in Biomedical Engineering

PhD. University of California, Davis

Knee mechanics, FEM, artificial organs, orthopedic biomechanics

Christy A. Heid

Adjunct Assistant Professor of Mathematical Sciences

PhD, Lehigh University

Patricia A. Heiden. (paheiden@mtu.edu)

Professor of Chemistry

PhD, University of Akron

Polymer nanotechnology and biomaterials

Gretchen L. Hein (glhein@mtu.edu)
Lecturer, Engineering Fundamentals
PhD, Michigan Technological University

Jesse M. Heines
Adjunct Graduate Faculty
Associate Professor, Univ of Massachusetts
PhD, Boston University
Human-computer interface and web design

Roger Held (rheld@mtu.edu)
Associate Professor & Chair, Visual & Performing Arts
PhD, Bowling Green State University

Lloyd A. Heldt (laheldt@mtu.edu)
Research Professor of Materials Science and Engineering
PhD, University of Pennsylvania
Environmental effects on mechanical properties, corrosion

William S. Helton (wshelton@mtu.edu)
Assistant Professor, Department of Cognitive & Learning Sciences
PHD, University of Cincinnati
Engineering (human factors) psychology, environmental psychology,
neurophysiological measures of cognition, psychometrics (stress and workload),
skill acquisition in humans and working dogs

Guy Charles Hembroff (hembroff@mtu.edu)
Assistant Professor, School of Technology
MA, Northern Michigan University
Cyber security, health-care security, network engineering, intrusion detection systems

Konrad J. Heuvers (kheuvers@mtu.edu)
Professor of Mathematics
PhD, Ohio State University
Functional equations, linear algebra, combinatorics, group theory

Robert L. Heyd
Adjunct Associate Professor of Forestry

Michigan DNR, Marquette

PhD, Michigan State University

Forest insect and disease monitoring and control

John W. Hilgers (jwhilger@mtu.edu)

Associate Professor of Mathematics

PhD, University of Wisconsin—Madison

Integral equations, functional analysis, signal processing, EM-wave generation and propagation, astrophysics, cosmology

Mary Hindelang (mlhindel@mtu.edu)

Adjunct Assistant Professor, Forest Resources & Environmental Science

PhD, Michigan Technological University

Wildlife ecology and behavior, physiological ecology, winter ecology, wilderness medicine, traditional ecological knowledge, wilderness preservation

Cheng-Kuen Ho

Adjunct Graduate Faculty

Taiwan Forestry Research Institute

Molecular cloning and characterization of genes involved in taxol biosynthesis

Alison K. Hoagland (hoagland@mtu.edu)

Professor of History and Historic Preservation,

Department of Social Sciences

MA, George Washington University

Historic preservation, architectural history

Ralph J. Hodek, PE, (rjhodek@mtu.edu <mailto:rjhodek@mtu.edu>)

Associate Professor of Civil and Environmental Engineering PhD, Purdue University

Ice-structure interaction, sediment transport and coastal processes, soil mechanics, foundations design, frost action, transportation materials.

Siegfried Hoefinger (shoefing@mtu.edu)

Research Scientist, Physics

PhD, University of Vienna, Austria

Quantum chemistry, solvation effects, high performance computing, MPI, PVM, www-based WYSIWYG interfaces, CGI, HTML, Free energy calculations; ASICs in science, membrane associated biochemistry

David R. Hokanson (drhokans@mtu.edu)

Adjunct Graudate Faculty

PhD, Michigan Technological University

Mathematical modeling of physical and chemical processes in water and air treatment, sustainability research and education

Joseph H. Holles (jhholles@mtu.edu)
Assistant Professor of Chemical Engineering
PhD, University of Virginia, Charlottesville
Catalysis

Richard E. Honrath Jr., (reh@mtu.edu)
Professor of Civil and Environmental Engineering,
Engineering-Environmental (inter-disciplinary program)
PhD, University of Alaska-Fairbanks
Atmospheric chemistry, global and hemispheric scale
atmospheric impacts of human activities, atmospheric pollutant impact on large lakes

Xiaodi (Scott) Huang (xihuang@mtu.edu)
Senior Research Scientist, Institute of Materials Processing
PhD, Michigan Technological University
Steelmaking dust and sludge treatments, ferro-alloy productions, radioactive waste processing

Casey J. Fisher Huckins (cjhuckin@mtu.edu)
Associate Professor of Biological Sciences
PhD, Michigan State University
Aquatic ecology, fish biology

Kedmon N. Hungwe (khungwe@mtu.edu)
Assistant Professor, Cognitive & Learning Sciences
PhD, Michigan State University
Learning and development; educational policy and practice; educational media and technology

Jacqueline E. Huntoon (jeh@mtu.edu) http://www.geo.mtu.edu/~jeh/
Dean of the Graduate School and Professor of Geology
Adjunct Professor of Cognitive & Learning Sciences
PhD, Pennsylvania State University
Sedimentology, stratigraphy, tectonics, petroleum geology, basin analysis

Deborah N. Hungzinger (dnhuntzi@mtu.edu)
Adjunct Graduate Faculty
Post-Doctoral Researcher, Geological & Mining Eingineering & Sciences, Michigan Technological University
PhD, Michigan Technological University
Sequestration, hydrogeology, and sustainability

Neil J. Hutzler, PE, (hutzler@mtu.edu)
Chair and Professor of Civil and Environmental Engineering,
Engineering-Environmental (inter-disciplinary program)
PhD, University of Wisconsin-Madison
Fate and transport of chemicals in soils and groundwater, risk analysis, soil vapor extraction systems, water distribution system design

Jiann-Yang (Jim) Hwang (jhwang@mtu.edu)
Associate Professor of Materials Science and Engineering,
Adjunct Associate Professor of Chemical Engineering and of Geological & Mining Engineering & Sciences
Director, Institute of Materials Processing
PhD, Purdue University
Mineralogy, materials characterization, minerals processing, waste processing, environmental remediation, surface chemistry

Top

I

Michael J. Irish (mjirish@mtu.edu)
Associate Professor of Music; Adjunct Associate Professor of Cognitive & Learning Sciences
MME, University of Wisconsin-Stevens Point Jazz studies, creativity studies

John L. Irwin (jlirwin@mtu.edu)
Associate Professor, School of Technology
EdD, Wayne State University
Problem-based learning methods, computer aided design and manufacturing (CAD/CAM), dynamic model simulation, product and manufacturing work cell verification

Judson G. Isebrands (efcllc@athenet.net)
Adjunct Professor of Forest Resources & Environmental Science
PhD, Iowa State University

Dmitry Ishchenko (dishchen@mtu.edu)
Postdoctoral Researcher, Electrical Engineering
PhD, Kuban State Technological University
Power system transients, power system protection andemergency control,
electric machines, power electronics and FACTS

Top

J

Anil B. Jambekar (abjambek@mtu.edu)
Professor, School of Business and Economics
DSc, Washington University-St. Louis
Management system dynamics, simulation, quality assurance, and manufacturability

Martha Y. Janners (myjanner@mtu.edu)
Associate Professor, Biological Sciences
PhD, University of Virginia
Cell, molecular and developmental biology, particularly as it concerns morphogenesis of the tetrapod limb

Hetal Jasani (hjasani@mtu.edu)
Assistant Professor, School of Tehcnology
PhD, Florida International University
Mobile ad hoc networks (MANET), wireless sensor networks (WSN), wireless LAN (802.11 MAC),
MANET & WSN routing security, WLAN security, directional antennas

John A. Jaszczak (jaszczak@mtu.edu <mailto:jaszczak@mtu.edu>)
Professor of Physics,
Member of the Computational Science and Engineering Research Institute,
Adjunct Professor of Cognitive & Learning Sciences
Adjunct Professor of Materials Science & Engineering
PhD, Ohio State University
Computer simulations of materials physics

Gopal Jayaraman (gjayar@mtu.edu)
Professor of Engineering Mechanics
PhD, University of Iowa
Biomechanics, orthopaedic mechanics, sports safety

Renfang Jiang (rjiang@mtu.edu)
Professor of Mathematics
PhD, Columbia University
Group theory, low-dimensional topology, statistics

Young-Do Jo (ydjo@mtu.edu)

Adjunct Professor, Chemical Engineering

PhD, Korea Advanced Institute of Science and Tech

Allan M. Johnson (amj@mtu.edu)

Research Associate Professor of Geological & Mining Engineering & Sciences

PhD Michigan Technological University

Geotechnical & hydrologic investigations of underground & surface mines

Dana M. Johnson CQA, CQE, CQMgr, CPA, CMA (dana@mtu.edu)

Associate Professor of Operations Management, School of Business and Economics

PhD.-IE/BA Wayne State University

Quality systems engineering, standards (ISO9001, QS9000etc), environmental management systems & standards (ISO 14000), advanced product quality planning, product realization, operation management

Dean L. Johnson (dean@mtu.edu)

Associate Professor of Finance, School of Business and Economics

PhD. University of Wisconsin-Madison

Fractional asset pricing

John H. Johnson (jjohnson@mtu.edu)

Research Professor, Mechanical Engineering,

PhD, University of Wisconsin-Madison

Combustion, emissions, thermodynamics, engines, air pollution

Mark A. Johnson (marjohns@mtu.edu)

Assistant Professor of Mechanical Engineering Technology

PhD, Wayne State University

Manufacturing Processes

Robert R. Johnson (rrjohnso@mtu.edu)

Chair of Humanities and Professor of Rhetoric, Composition

and Technical Communication

PhD, Purdue University

Usability methods, history of rhetoric, technical communication pedagogy, science and technology studies

Rodney Carl Johnson

Adjunct Assistant Professor of Geological & Mining Engineering & Sciences

PhD, Michigan Technological University

Chandrashekar P. Joshi (cpjoshi@mtu.edu)

Associate Professor of Plant Molecular Genetics, School of Forest Resources and Environmental Science

PhD, University of Poona, India

Plant Molecular genetics, genetic engineering of cellulose and lignin in trees, regulation of gene expression during fast growth, tree genomics and forest bioinformatics

Ghanashyam A. Joshi

Adjunct Graduate Faculty

Associate Professor, Mechanical Engineering, Southern Unversity and A&M College

Phd, Michigan Technological University

Manufacturing/design, developing of new manufacturing,

mechatronics, computer integrated manufacturing laboratories

B. Patrick Joyce (pjoyce@mtu.edu)

Professor, School of Business & Economics

PhD, University of Missouri–Colombia

Martin F. Jurgensen (mfjurgen@mtu.edu)

Professor of Forest Soils

PhD, North Carolina State University

Forest soils, soil microbiology, nutrient cycling

Top

K

Anil K. Kandalam (anil@mtu.edu)

Adjunct Assistant Professor of Physics

PhD, Michigan Technological University

Computational materials science; electronic structure and magnetism of nanostructured materials including molecular clusters; biomedical applications of nanostructures; and surface catalytic reactions

David F. Karnosky (karnosky@mtu.edu)

Professor of Forest Genetics

PhD, University of Wisconsin-Madison

Forest tree improvement, forest biotechnology and tissue culture, effects of air pollution and climate change on trees

Kenton Kaufman

Adjunct Associate Professor, Mechanical Engineering-Engineering Mechanics

Professor of Biomedical Engineering, Dir Orthopedic Biomech/Motion Analysis Lab, Mayo Clinic

PhD, Mayo Graduate School of Medicine

Knee mechanics, orthopedic biomechanics, orthotics, prosthetics, muscle modeling

S. Komar Kawatra (skkawatr@mtu.edu)

Professor of Chemical Engineering

PhD, University of Queensland, Australia

Particulate processing with emphasis on on-line sensors, desulfurization, size reduction, solid waste

Robert E. Keen (rekeen@mtu.edu)

Associate Professor of Biological Sciences

PhD, Michigan State University

Limnology of Lake Superior, ecology of zooplankton, techniques of Cladoceran chronic toxicity testing, iron and steel making

Jason M. Keith, Chemical Engineering (jmkeith@mtu.edu)

Associate Professor of Chemical Engineering

PhD, University of Notre Dame

Alternative energy, polymer composites, chemical reactor dynamics, applied mathematics

William A. Kennedy (wkennedy@mtu.edu)

Associate Professor of Communication, Adjunct Associate Professor of Cognitive & Learning Sciences

Director of the Center for Teaching, Learning, and Faculty Development

PhD, Wayne State University

Assessment of learning, faculty development, human communication, higher education pedagogy, conflict resolution.

Melissa S. Keranen (msjukuri@mtu.edu)

Assistant Professor, Mathematical Sciences

PhD, Michigan Technological University

Combinatorics, combinatorial designs, coding theory

W. Charles Kerfoot (wkerfoot@mtu.edu)

Professor of Biological Sciences; Adjunct Professor of Geological and Mining Engineering and Sciences

PhD, University of Michigan

Aquatic ecology, predator-prey interactions, lake ecosystems, chemical defenses, paleoecology, limnology

Rosalie P. Kern (rpkern@mtu.edu)

Assistant Professor of Psychology, Department of Cognitive & Learning Sciences

PhD, Central Michigan University

Psychology and law related to the trial process, jury decision-making, and eyewitness testimony; emotion and memory

Roger M. Kieckhafer (rmkieckh@mtu.edu)

Associate Professor and Associate Chair for Computer Engineering, Electrical and Computer Engineering

PhD, Cornell University

Fault tolerance, reliability modeling, voting and consensus, reliable system design, real-time systems

Dong Wook Kim (donkim@mtu.edu)

Assistant Professor of Marketing, School of Business and Economics

PhD, University of Kansas, Lawrence

The effects of syntactic complexity and information processing motivation on advertising effectiveness of advertising messages for young and older adults, effectiveness of predominantly pictorial ads

Nam K. Kim, (kimnk@mtu.edu)

Professor Emeritus of Chemical Engineering

PhD, Montana State University

Process control and optimization, energy systems

John S. King (jsking@mtu.edu)

Adjunct Assistant Professor, School of Forest Resources and Environmental Science

PhD, Duke University

Ecosystem science, plant physiological ecology

Julia A. King, (jaking@mtu.edu)

Associate Professor of Chemical Engineering

PhD, University of Wyoming

Development and characterization of polymers and composite materials

Lyon B. King (lbking@mtu.edu)

Associate Professor of ME-EM

PhD, University of Michigan, Ann Arbor

Experimental research in plasma space propulsion, plasma physics, optical fluid diagnostics, and space system design

Todd R. King (trking@mtu.edu)

Associate Professor of Mathematical Sciences

PhD, University of Wyoming

Composite Materials, Carbon Science, Process Optimization

Igor L. Kliakhandler (igor@mtu.edu)

Associate Professor of Mathematics

PhD, Tel-Aviv University

Applied mathematics: applied nonlinear partial differential equations, financial math, fluid mechanics, asymptotic analysis, computational math

Ljubomir A. Kojovic

Adjunct Assistant Professor of Electrical & Computer Engineering

Cooper Power

PhD, University of Sarajevo

Randall K Kolka

Adjunct Graduate Faculty

Project Leader & Research Soil Scientist, USDA Forest Service

PhD, University of Minnesota

Riparian, wetlands, and aquatic systems

Robert W. Kolkka, (rwkolkka@mtu.edu)

Associate Professor of Mathematics

Adjunct Associate Professor of Chemical Engineering

PhD, Lehigh University

Bifurcation and stability theory, viscoelasticity, non-Newtonian fluid mechanics, polymer rheology, constitutive equations

Anthanasios G. Konstandopoulos (agk@alexandros.cpri.forth.gr)

Adjunct Assistant Professor of ME-EM

Associate Researcher, FORTH/CPERI

PhD, Yale University

Particle science and technology, energy and environmental processes, growth phenomena, bioengineering

Alexander B. Kostinski (kostinsk@mtu.edu)

Professor of Physics

PhD, University of Illinois-Chicago

Physics of remote sensing; polarized waves: optics and radar probing the atmosphere, ocean, and precipitation

Donald L. Kreher (kreher@mtu.edu)

Professor of Mathematics

PhD, University of Nebraska-Lincoln

General combinatorics, combinatorial algorithms, combinatorial designs, Cayley graph decomposition

Mark Kubiske

Adjunct Associate Professor of Forest Resources and Environmental Policy

US Forest Service, Rhinelander, Wisconsin

PhD, Penn State University

Tree physiology and silviculture

Roger A. Kuhnle

Adjunct Graduate Faculty

Research Hydraulic Engineer, USDA National Sedimentation Laboratory

PhD Massachusetts Institute of Technology

Sedimentation hydraulics

Anand K. Kulkarni (akkulkar@mtu.edu)

Associate Professor of Electrical and Computer Engineering

PhD, University of Nebraska-Lincoln

Electronic Materials, Thin Films

Top

L

Peter E. Laks (plaks@mtu.edu)

Professor of Wood Chemistry

PhD, University of British Columbia, Canada

Wood preservatives for solid wood and wood-based composites, durability of building materials, and mold resistance of surfaces

Larry D. Lankton (ldlankto@mtu.edu)

Professor of History

PhD, University of Pennsylvania

History of technology, mining, and industrial communities;

industrial archaeology

Keith W. Lantz (kwlantz@mtu.edu)

Professor, School of Business & Economics

Phd, The University of Iowa

Finance and accounting

Jong K. Lee (jkl103@mtu.edu)

Professor of Materials Science and Engineering,

Member of the Computational Science and Engineering Research Institute

PhD, Stanford University

Phase transformations, computer modeling of structure, defects and kinetic problems, coherency strain in crystalline materials

Leslie L. Leifer (lleifer@mtu.edu)

Professor Emeritus of Chemistry

PhD, University of Kansas

Solution thermodynamics, Mossbauer spectroscopy, thermodynamics of life processes

Miguel Levy (mlevy@mtu.edu)

Professor of Materials Science and Engineering

Professor of Physics

PhD, The City University of New York

Magneto-optics, ferroelectricity, integrated photonics, and materials science, interdisciplinary experimental surface physics, spanning the boundary of physics and materials science and engineering

Gilbert N. Lewis (lewis@mtu.edu)

Associate Professor of Mathematics

PhD, University of Wisconsin-Milwaukee

Asymptotics, singular perturbations, numerical solutions of ordinary differential equations, boundary value problems, cosmology

Yue Li (yueli@mtu.edu)

Assistant Professor of Civil Engineering

Engineering-Environmental (inter-disciplinary program)

PhD, Georgia Insititute of Technology

Natural hazard mitigation, probabilistic risk assessment, performance-based engineering.

wood engineering

Francis Lide (frlide@mtu.edu)

Adjunct Associate Professor of Humanities

PhD, University of Illinois

Dale R. Lighthizer (lighthizerd@michigan.gov)

Adjunct Graduate Faculty

Supervising Engineer, Michigan Department of Transportation

PhD, Michigan State University

Transportation engineering, including traffic engineering, safety and operations analysis, application of traffic engineering simulation models, engineering education, project management

John B. Ligon (lig@mtu.edu)

Professor of Engineering Mechanics

PhD, Iowa State University

Experimental mechanics, phytomechanics, wave propagation

Aurenice Oliveira Lima (aolima@mtu.edu)

Assistant Professor, School of Technology

PhD, University of Maryland

Modeling of optical fiber communication systems, application of Monte Carlo methods to compute penalties due to polarization effects in optical fiber communication systems, statistical analysis of the performance of polarization mode

dispersion (PMD) compensators, digital signal processing, communications

Robert Liimakka (raliimak@mtu.edu)

Assistant Professor of Surveying Engineering, School of Technology

MS, University of Maine

Erik Lilleskov

Adjunct Assistant Professor of Forest Resources and Environmental Science

USDA Forest Service

PhD, Cornell University

Mycorrhizal fungi

Dong F. Liu

Adjunct Assistant Professor of Biomedical Engineering

PhD, McGill University; MD Henan Medical University

Applied clinical chemistry & molecular biology including in situ hybridization, in situ reverse transcription PCR & cell culture techniques

Haiying Liu (hyliu@mtu.edu)

Assistant Professor of Chemistry

Ph.D., Fudan University, China,

Nanosensors (chemical and biosensors) made of self-assembled polymer monolayers and single wall carbon nanotubes

Jian Liu (jianliu@mtu.edu)

Associate Professor of Chemistry

Ph.D., University of Miami

Nanoparticle catalysts, luminescent nanosensors, novel photocatalytic (organic/inorganic) nanomaterials

Ted W. Lockhart (tlockha@mtu.edu)

Associate Professor of Philosophy

PhD, University of Rochester

Ethical theory, applied ethics, social and political philosophy, rational decision making

Barbara Kiiskila Lograsso (bklogras@mtu.edu)

Assistant Professor, School of Technology

PhD, Michigan Technological University

Thermal management materials and forming, powder processing, fracture evaluation

Marshall W. Logue (mwlogue@mtu.edu)

Associate Professor of Chemistry, Adjunct Associate Professor of Cognitive & Learning Sciences

PhD, Ohio State University

Organic synthesis, chemistry of nucleosides & carbohydrates

Josh E. Loukus (jeloukus@mtu.edu)

Lecturer, Mechanical Engineering – Engineering Mechanics

PhD, Michigan Technological University

High strain rate mechanics in ceramic materials

John L. Lowther (john@mtu.edu) http://www.cs.mtu.edu/~john/

Associate Professor of Computer Science,

Adjunct Associate Professor of Cognitive & Learning Sciences

PhD, University of Iowa

Artificial intelligence and computer graphics

Rudy L. Luck (rluck@mtu.edu)

Associate Professor of Chemistry

PhD, University of Toronto

Epoxide formation using hydrogen peroxide and transition metal oxo/peroxo compounds, catalysis, and crystallography

Donald R. Lueking (drluekin@mtu.edu)

Associate Professor of Biological Sciences,

PhD, Indiana University

Microbial Biochemistry, PAH Transport and Metabolism, Biosensor Development and Bioleaching.

Edward Lumsdaine (lumsdaine@mtu.edu)

Professor of ME-EM

PhD, New Mexico State University

Heat transfer, fluid mechanics, turbo machinery, aerocoustics, solar energy, energy conservation

Dennis A. Lynch (dalynch@mtu.edu)

Associate Professor of Rhetoric and Director of RTC Graduate Studies, Humanities

PhD, University of California-Berkeley

History and theory of rhetoric, composition studies, rhetoric of philosophy

Top

M

Ann L. Maclean (amaclean@mtu.edu)

Associate Professor of Remote Sensing, School of Forest Resources and Environmental Science,

Member of the Computational Science and Engineering Research Institute

PhD, University of Wisconsin-Madison

Remote sensing, digital image processing, aerial photography and interpretation, and geographic information systems

Gordon A. Maclean

Adjunct Assistant Professor of Forestry

PhD, University of Wisconsin-Madison

Remote sensing, digital image processing, geographic information systems

Carol A. MacLennan (camac@mtu.edu)

Associate Professor of Anthropology, Department of Social Sciences

PhD, University of California-Berkeley

Political ecology, anthropology of industry (mining and sugar),

Hawaii and the Pacific, Southwestern US, and democracy

Spandan Maiti (spandan@mtu.edu)

Assistant Professor of Mechanical Engineering-Engineering Mechanics

PhD, University of Illinois, Urbana-Champaign

Modeling and simulation of failure and deformation of multifunctional materials, biomimetics, multiscale analysis, dynamic fracture

Daniel G. Makagon

Adjunct Graudate Faculty

Assistant Professor, Dept of Comminication, DePaul Univ

PhD, University of South Florida

Communication, cultural studies, ethnography, audio documentary, media studies, rhetorical theory, rhetorical criticism, urban studies, community

Fredrik Manne (fredrikm@ii.uib.no)

Adjunct Graduate Faculty

Professor of Informatics, University of Bergen, Norway

Phd, University of Bergen

Algorithmic problems related to parallel processing and in particular load balancing in parallel sparse matrix computations

Patrick E. Martin (pem-194@mtu.edu)

Professor of Archaeology, Department of Social Sciences

PhD, Michigan State University

Historical archaeology, industrial archaeology, eastern U.S. prehistory

Susan R. Martin (srmartin@mtu.edu)

Associate Professor of Archaeology, Department of Social Sciences

PhD, Michigan State University

Native American technologies, industrial heritage, history of anthropology

Kris Mattila, PE, (mattila@mtu.edu)
Associate Professor of Civil and Environmental Engineering
Engineering-Environmental (inter-disciplinary program)
PhD, Purdue University
Construction engineering, linear scheduling, warranties, performance-based specifications, safety

William J. Mattson
Adjunct Graduate Faculty
Chief Insect Ecologist, USDA Forest Service
PhD, University of Minnesota
Forest entomology, plant/herbivore interactions and global climate change, Nutritional and physiological ecology, and Ecology of invasive species

Laurent M. Matuana (lmatuana@mtu.edu)
Adjunct Assistant Professor, Forest Resources & Environmental Science
PhD, University of Toronto
Engineered wood-based composites, wood plastic composites, wood adhesives, adhesion and surface science, microcellular and conventional foaming of wood/plastic composites, biodegradable polymers and composites, nanocomposites

Alex S. Mayer, PE (asmayer@mtu.edu)
Professor of Geological Engineering and Sciences,
Professor of Civil and Environmental Engineering,
Member of the Computational Science and Engineering Research Institute,
Engineering-Environmental (inter-disciplinary program)
PhD, University of North Carolina-Chapel Hill
Multi-phase fluid flow and contaminant transport in porous media, experimental and computational hydrogeology. Groundwater flow and transport modeling, fate and remediation phase of non-aqueous liquids in groundwater, mathematical optimization of groundwater remediation, groundwater flow in arid regions, and waste treatment process models

Jean Mayo (jmayo@mtu.edu)
Associate Professor of Computer Science
PhD, College of William and Mary
Distributed systems, operating systems

S. Douglas McDowell (sdmcdowe@mtu.edu)
Emeritus Professor of Geology
PhD, California Institute of Technology

Low temperature alteration, clay mineralogy, mineral chemistry

Marvin G. McKimpson (mmckimp@mtu.edu)

Sr. Research Engineer/Scientist II, Institute of Materials Processing

Adjunct Associate Profesor, Mechanical Engineering-Engineering Mechanics

PhD, Ohio State University

Processing of particulate and composite shapes, mechanical alloying, material/process interactions in metallic alloys, aluminum metal matrix composites

Galen M. McKinley (galen@aos.wisc.edu)

Adjunct Graduate Faculty

Asst Prof Dept Atmospheres & Oceans, University of Wisconsin, Madison

PhD, Massachusette Institute of Technology

Processes controlling air-sea exchange of carbon dioxide, oxygen and tract inert gases using numerical models & data

James W. McLaughlin (watersoil@hotmail.com)

Adjunct Assistant Professor, Forest Resouces & Environmental Science

Ontario Forest REsearch Institute

PhD, Michigan Technological University

Forest soils, wetlands

Dale J. Meier

Adjunct Professor of Chemical Engineering / Chemistry

Michigan Molecular Institute, Midland

PhD, University of California-Los Angeles

Chemistry

Jay S. Meldrum (jmeldrum@mtu.edu)

Adjunct Graduate Faculty

Director, Keweenaw Research Center

MS, University of Michigan, Dearborn

Noise and vibration, strength and fatigue of materials, validation test design

Willie Melton (wimelton@mtu.edu)

Associate Professor of Sociology

PhD, Washington State University

Assessing social attitudes and values, behavior in large and small groups, quantitative social analysis, small program outcome evaluation

Phillip R. Merkey (merk@mtu.edu)

Assistant Professor of Computer Science, Assistant Professor of Mathematical Sciences,

Member of the Computational Science and Engineering Research Institute

PhD, University of Illinois

Large-scale computation

Tom E. Merz (temerz@mtu.edu)

Professor of Economics

PhD, University of Pittsburgh

Applied microeconomics theory, game theory, public sector economics

Melissa G. Meyer (mgmeyer@mtu.edu)

Assistant Professor of Electrical and Computer Engineering

PhD, University of Washington

Radar signal processing; electromagnetic wave propagation and scattering; remote sensing with passive and distributed/networked instruments; space and ionospheric plasma physics

Michael W. Meyer (Michael.Meyer@Wisconsin.gov)

Adjunct Graduate Facutly, School of Foreset Resources & Environmental Science

PhD, University of Wisconsin- Madison

Wildlife ecology, ornithology, forest management

Donna J. Michalek (donna@mtu.edu)

Associate Professor of Mechanical Engineering, Associate Chair-Mechanical Engineering/Engineering Mechanics

Member of the Computational Science and Engineering Research Institute

PhD, University of Texas-Arlington

Computational fluid dynamics and fluid mechanics

Scott A. Miers (smiers@anl.gov)

Adjunct Graduate Faculty, Mechanical Engineering-Engineering Mechanics

Mechanical Engineer, Argonne National Laboratory

PhD, Michigan Technological University

Conventional diesel & gasoline combustion investigations, alternative fuel effects on engine efficiency, performance,& Emissions; fundamental fuel injection spray characteristics & the effect on engine-out emissions

James R. Mihelcic, (jm41@mtu.edu)

Professor of Civil and Environmental Engineering,

Engineering-Environmental (inter-disciplinary program)

PhD, Carnegie Mellon University

Biological processes, sustainability, engineering in developing world

Donald E. Mikkola (demikkol@mtu.edu)

Research Professor of Materials Science and Engineering

PhD, Northwestern University

Structure-property-processing relationships, deformation and strengthening mechanisms, intermetallics, shape memory alloys, composites, materials characterization with diffraction and microscopy

Michele H. Miller (mhmiller@mtu.edu)

Associate Professor of Mechanical Engineering

PhD, North Carolina State University

Grinding, precision engineering, microelectromechanical systems

Walter W. Milligan (milligan@mtu.edu)

Professor of Materials Science and Engineering

PhD, Georgia Institute of Technology

Mechanical behavior of materials

Jose Luis Minjares Lugo (jlminjares@hotmail.com)

Adjunct Graduate Faculty

Water Resources Engineer, Comision Nacional del Agua

PhD, New Mexico State University

Water resources modeling (optimization and simulation), sustainability of water resources systems, sustainable development of natural resources, drought management, risk management

Piyush Mishra (mishra@mtu.edu) http://www.ece.mtu.edu/ee/faculty/mishra/

Assistant Professor of Electrical and Computer Engineering

PhD, Polytechnic University, Brooklyn

Computer security, security protocols, reliability-fault detection and tolerance, high-performance design

Ibrahim Miskioglu (imiski@mtu.edu)

Associate Professor of Engineering Mechanics

PhD, Iowa State University

Composite materials, experimental stress analysis, nanomechanics

Terry D. Monson (tmonson@mtu.edu)

Professor of Economics

Adjunct Professor of Cognitive & Learning Sciences

PhD. University of Minnesota

International and labor economics

Kee S. Moon (kmoon@mtu.edu)

Adjunct Graduate Faculty

Associate Professor, San Diego State University

PhD, University of Illinois-Chicago

Industrial engineering, metrology and computer simulation

Peter D. Moran (pdmoran@mtu.edu)

Associate Professor of Material Science & Engineering and Physics

PhD, University of Wisconsin-Madison

Electronic and photonic heterostructures, wafer-bonding, X-ray diffraction analysis

Bruce A. Mork (bamork@mtu.edu)

Director, Power and Energy Research Center

Associate Professor of Electrical & Computer Engineering

PhD, North Dakota State University

Transients in electrical power systems, nonlinear dynamics and chaos theory, magnetic materials and saturation of transformers, computer simulation, power system protection, power quality

Faith A. Morrison, (fmorriso@mtu.edu)

Associate Professor of Chemical Engineering

PhD, University of Massachusetts-Amherst

Polymer rheology, melt-flow instabilities, block copolymers

Glenn D. Mroz (gdmroz@mtu.edu)

President of Michigan Technological University

Professor, School of Forest Resources and Environmental Science

Professor of Silviculture

PhD, North Carolina State University

Silviculture, forest soils, wetlands

Andrew Muhammad

Adjunct Graduate Fauclty

Assistant Professor, Department of Economics and Finance, Southern University and A&M College

Phd, University of Florida

Trade policy and theory, applied econometrics, economic impact anaylsis

and applied microeconomics

Abhijit Mukherjee (mukherje@mtu.edu)

Assistant Professor of Mechanical Engineering Engineering Mechanics

PhD, UCLA

Heat transfer, boiling, interfacial phenomena, micro- and nanofluidics

Amlan Mukherjee (amukherj@mtu.edu)

Assistant Professor of Civil Engineering

Engineering-Environmental (inter-disciplinary program)

PhD, University of Washington

Planning and decision making in construction management using situational simulations, information visualization, transportation infrastructure management, simulations of complex systems, system dynamics, expert novice cognition (especially among construction managers)

Michael E. Mullins, (memullin@mtu.edu)

Chair and Professor of Chemical Engineering,

PhD, University of Rochester

Sol-gel processing, surface science, environmental engineering

Pushpalatha P. N. Murthy (ppmurthy@mtu.edu)

Professor of Chemistry

PhD, Brown University

Mechanism of signal tranduction in living cells, metabolism of inositol phosphates and phytic acid, biochemistry and molecular biology of inositol phosphates metabolizing enzymes including phytases

Top

N

Jeffrey Naber (jnaber@mtu.edu)

Associate Professor of Mechanical Engineering/Engineering Mechanics

PhD, University of Wisconsin, Madison

Combustion, IC Engines, Alternative fuels including ethanol, biodiesel and hydrogen, and aftertreatment systems

Edward M. Nadgorny (nadgorny@mtu.edu)

Presidential Professor of Physics

PhD, Joffe Physical-Technical Institute, Leningrad, Russia

Dislocation physics

Linda M. Nagel (lmnagel@mtu.edu)

Associate Professor of Silviculture

PhD, University of Montana

Silviculture, forest vegetation dynamics, tree ecophysiology, invasive plants

Amitabh Narain (E-mail narain@mtu.edu) (website: http://www.me.mtu.edu/~narain)

Professor / ASME Fellow, Mechanical Engineering-Engineering Mechanics

PhD, University of Minnesota

Phase-change, condensing flows, heat transfer, fluid mechanics

Charles W. Nelson (cwnelson@mtu.edu)

Associate Professor of Language and Literature

PhD, University of Nebraska

Medieval and Elizabethan literature, British fantasy literature, theater history

David A. Nelson (danelson@usouthal.edu) http://www.biomed.mtu.edu/danelson/

Adjunct Professor of Biomedical Engineering

Professor and Chair of Mechanical Engineering, University of South Alabama

PhD, Duke University

Bio-heat transfer, biological effects of radio frequency radiation, human comfort and thermoregulation, heat pipe applications

Paul A. Nelson (pnelson@mtu.edu)

Associate Professor of Economics & Engineering Mgt.

PhD. University of Wisconsin-Madison

Economics of public utilities and other regulated

industries, engineering economy, capital budgeting, and benefit cost studies, industrial economics, change management, operations management.

Robert J. Nemiroff (nemiroff@mtu.edu)

Professor of Physics, Adjunct Professor of Cognitive & Learning Sciences

Member of the Computational Science and Engineering Research Institute

PhD, University of Pennsylvania

Gamma ray busts, gravitational lensing, cosmology,

night sky monitoring, astronomical image processing

Carl C. Nesbitt (cnesbitt@mtu.edu)

Associate Professor of Chemical Engineering

PhD, University of Nevada-Reno

Extractive metallurgy, hydrometallurgy, bio-processing of metals, waste management, particle separations

Michael R. Neuman (mneuman@mtu.edu)

Professor & Chair of Biomedical Engineering

Adjunct Professor of Electrical Engineering

PhD Case Institute of Technology, MD Case Western Reserve University

Biomedical instrumentation, biomedical sensors, microfabrication technology and perinatal medicine

David F. Nitz (dfnitz@mtu.edu)

Professor of Physics

PhD, University of Rochester

Experimental high energy physics, astrophysics research

Thomas Noland

Adjunct Associate Professor, Bilogical Sciences

PhD, University of Arkansas

Erik Nordberg (enordber@mtu.edu)

Graduate Faculty

MTU, University Archivist

MS, Wayne State University

Management and use of archival information

Top

O

Gregory M. Odegard (gmodergar@mtu.edu)

Assistant Professor of Mechanical Engineering/Engineering Mechanics

PhD, University of Denver

Multiscale modeling and characterization of advanced composite materials

Tamara R. Olson (trolson@mtu.edu)

Associate Professor of Mathematics

PhD, New York University

Applied mathematics, continuum mechanics, composites

Milton L. Olsson (miolsson@mtu.edu)

Chair of Fine Arts and Professor of Music

DMA, University of Colorado

Music history and criticism, role of arts in society

Nilufer Onder (nilufer@mtu.edu)

Associate Professor of Computer Science,

Member of the Computational Science and Engineering Research Institute

PhD, University of Pittsburgh

Artificial intelligence, planning, reasoning under uncertainty

Soner Onder (soner@mtu.edu)

Associate Professor of Computer Science,
Member of the Computational Science and Engineering Research Institute
PhD, University of Pittsburgh
Computer architecture, programming languages

Keat Ghee Ong (kgong@mtu.edu)
Assistant Professor, Biomedical Engineering
Adjunct Assistant Professor, Electrical & Computer Engineering
PhD, University of Kentucky
Biosensors, biomedical instrumentation, implantable sensors, wireless sensor networks, nanostructured materials for biomedical applications

Chukwu Onu
Adjunct Graduate Faculty
Professor of Civil & Environmental Engineering, Southern University and A&M College
Phd, West Virginia University
Biomass energy production, biochemical treatment processes, landfill technology,
solid and hazardous waste management

Clive Oppenheimer
Adjunct Graduate Faculty
Volcanic gas emissions, especially sulfur dioxide

Blair D. Orr (bdorr@mtu.edu)
Professor of Forestry;
PhD, University of Wisconsin-Madison
Economics, international forestry

Linda M. Ott (linda@mtu.edu)
Chair and Professor of Computer Science
Member of the Computational Science and Engineering Research Institute
PhD, Purdue University
Software measurement, software engineering

Top

P

Deborah S. Page-Dumroese
Adjunct Assistant Professor of Forest Soils

US Forest Service, Moscow, Idaho

PhD, University of Idaho

Forest soils, long-term site productivity

Brian J. Palik

Adjunct Assistant Professor, Forest Resources & Environmental Science

US Forest Service, Grand Rapids, MN

PhD, Michigan State University

Ecological and natural disturbance-based silviculture, riparian and seasonal wetland ecology

Ravindra Pandey (pandey@mtu.edu)

Chair and Professor of Physics

PhD, University of Manitoba, Canada

Modeling of materials

Sudhakar M. Pandit (pand@mtu.edu)

Professor of Mechanical and Industrial Engineering

PhD, University of Wisconsin, Madison

Data-dependent systems modeling, forecasting, computer control

Sachin Pannuri

Adjunct Professor, Chemical Engineering

Senior Research Engineer, Cambrix Corporation, New Jersey

PhD, Pennsylvania State University

Fermentation, Biotransformation Process Development at Cambrex, Molecular Biology Techniques

Gordon G. Parker (ggparker@mtu.edu)

Associate Professor of Mechanical Engineering

PhD, State University of New York-Buffalo

Dynamics; linear and nonlinear control; robotics; flexible,

multibody dynamic modeling and control; real-time parallel processing; fault detection and isolation

Chris E. Passerello, PE (cepass@mtu.edu)

Professor of Engineering Mechanics

PhD, University of Cincinnati

Vibrations, dynamics, finite elements

Robert L. Pastel (rpastel@mtu.edu)

Lecturer, Computer Science

PhD, University of New Mexico

Computer Architecture, Human-Computer Interaction, and Domain Specific Languages

Ravindra P. Patankar (rppatank@mtu.edu)
Adjunct Assistant Professor of ME-EM
PhD, Penn State University
Linear and nonlinear systems and control, stochastic
systems, networked control systems, drive-by-wire, fatigue modeling

Kurtis G. Paterson, PE (paterson@mtu.edu)
Assistant Professor of Civil and Environmental Engineering,
Engineering-Environmental (inter-disciplinary program)
PhD, University of Iowa
Public health, environmental data analysis, air pollution source identification, educational design

Ranjit Pati (patir@mtu.edu)
Assistant Professor of Condensed Matter Theory and Materials Science, Physics
PhD, State University of New York
Computational modeling of nano-electronic devices, electron transport theory, theoretical modeling of molecular self assembly, surface physics, optical and magnetic properties of nano-scale materials, spectroscopic (NQR) properties of molecular and solid state systems

Matthew R. Patrick (mpatrick@mtu.edu)
Postdoctoral Resercher, Geological & Mining Engineering & Sciences
PhD, University of Hawaii
Volcanology and remote sensing, natural hazards

Barry M. Pegg (bpegg@mtu.edu)
Associate Professor of Literature
PhD, University of Wisconsin-Madison
The literature of polar exploration: as literature, as a record of the response of cultures to terrain, and as a record of the interaction of those cultures; the relative ethical, utilitarian, and representational values of fiction and nonfiction

Karol I. Pelc (kipelc@mtu.edu)
Professor Emeritus and Adjunct Professor of Technology Management, School of Business and Economics
PhD (electronics), University of Uppsala, Sweden; PhD(economics), Technical University of Wroclaw
Poland Engineering management, management of innovation and technology

Wayne D. Pennington (wayne@mtu.edu)
Chair, Geological and Mining Engineering and Sciences
Professor of Geophysical Engineering
PhD, University of Wisconsin-Madison
Petroleum geophysics, well logging, seismology, induced seismicity

Warren F. Perger (wfp@mtu.edu)

Professor of Electrical and Computer Engineering

Professor of Physics

Member of the Computational Science and Engineering Research Institute

PhD, Colorado State University

Optical and infrared properties of energetic materials, atomic theory, electromagnetics

Judith A. Perlinger (jperl@mtu.edu)

Associate Professor of Civil and Environmental Engineering,

Engineering-Environmental (inter-disciplinary program)

PhD, Swiss Federal Institute of Technology

Air & Water Quality

Kevin Percy (kpercy@nrcan.gc.ca)

Adjunct Associate Professor, Forest Resources & Environmental Science

PhD, University of Bristol

Tree morphology, leaf surface chemistry and structure, impacts of air pollution and climate change

Susanna D. Peters (speters@mtu.edu)

Lecturer, Social Sciences

JD, University of Pennsylvania Law School

Matthew C. Peterson

Adjunct Assistant Professor Civil and Environmental Engineering

PhD. Michigan Technological University

Weather forecasting, impacts of solar activity and geomagnetic storm on communication systems and satellites; influence of long-range transport of pollutants on the composition of the global atmosphere

Rolf O. Peterson (ropeters@mtu.edu)

Research Professor, Forest Resources & Environmental Science

PhD, Purdue University

Wildlife management and ecology, animal behavior, and population dynamics

Linda D. Phillips (lindap@mtu.edu)

Lecturer, Civil & Enviornmental Engineering

Engineering-Environmental (inter-disciplinary program)

MS, Michigan Technological University

Construction and project management

James B. Pickens (jpickens@mtu.edu)

Professor of Forestry

Coordinator of the Master of Forestry program

PhD, University of Georgia

Operations research, harvest scheduling, optimal bucking, and financial decision making

Iosif Pinelis (ipinelis@mtu.edu)

Professor of Mathematics

PhD, Institute of Mathematics-Novosibirsk, Russia

Probability, statistics, optimization, operations research,

combinatorics, geometry, physics, mathematical biology, theoretical mechanics

Bruce J. Pletka (bjpletka@mtu.edu)

Professor of Materials Science and Engineering

PhD, Case Western Reserve University

Fracture of brittle materials, high temperature

deformation, solidification of ceramics, plasma spray processing

Mark R. Plichta (mrplich@mtu.edu)

Chair and Professor of Materials Science and Engineering

PhD, Michigan Technological University

Phase transformations and microstructural stability in metals and ceramics, electron microscopy

Stephen Pluhacek

Adjunct Assistant Professor of Humanities

PhD, Purdue University

Contemporary European philosophy; ancient philosophy

Christopher N. Plummer (cplummer@mtu.edu)

Assistant Professor of Visual and Performing Arts

MFA, University of Illinois

Sound design for theater

David A. Poplawski (pop@mtu.edu)

Associate Professor of Computer Science

PhD, Purdue University

Computer science education, instruction level parallelism,

parallel computer architectures

Scott L. Post (slpost@mtu.edu) http://www.me.mtu.edu/~slpost/

Assistant Professor of Mechanical Engineering-Engineering Mechanics

PhD, Purdue University

Combustion, sprays, engines, computational fluid dynamics, high speed photography, alternative fuels, turbulence, and aerodynamics

William Powers (wjpowers@mtu.edu)
Professor Emeritus, Department of Humanities
PhD, University of Illinois
Book history and narration

Fred J. Prata
Adjunct Graduate Faculty
Leader, Remote Sensing Team: CSIRO Division of Atmospheric Science
PhD, University of Oxford
Physics of atmospheric radiative transfer with specific application to satellite remote sensing

William W. Predebon (wwpredeb@mtu.edu)
Chair of Mechanical Engineering-Engineering Mechanics,
Professor of Engineering Mechanics
PhD, Iowa State University
Ceramic processing, behavior and characterization, wave propagation in solids, impact phenomena

Kurt S. Pregitzer (kspregit@mtu.edu)
Professor of Forest Ecology
Director, Ecosystem Science Center
PhD, University of Michigan
Forest ecology, landscape ecology, ecosystem science, global change, conservation and management of natural resources

John R. Probst
Adjunct Professor, Forest Resources & Environmental Science
PhD, Princeton University
Interregional natural resource assessment, landscape ecology and biodiversity, avian population assessment, openlands wildlife management, Kirtland's Warbler biogeography, fire ecology

Thomas G. Pypker (tgpypker@mtu.edu)
Assistant Professor, Forest Resources & Environmental Science
PhD, Oregon State University
Forest hydrology, micrometeorology, carbon cycling, stable isotopes, tree physiology

Top

Q

Howard (Hao) Qi (howardqi@mtu.edu)
Assistant Professor of Finance, School of Business and Economics
PhD. (Finance), Syracuse University
PhD. (Physics), University of Massachusetts - Amherst
Financial economics, corporate finance, asset pricing

R

J. Bruce Rafert (jbrafert@mtu.edu)
Adjunct Professor of Physics
PhD, University of Florida
Observational Astrophysics

Rupak M. Rajachar (rupakr@mtu.edu)
Assistant Professor of Biomedical Engineering
PhD, University of Michigan, Ann Arbor
Tissue and cellular-level biomaterials and biomechanics, mechanisms guiding biomineralization in vascular and bone-related cell types and tissues

Francid J. Ranney
Adjunct Graduate Faculty
PhD Miami University
Associate Professor, Department of English, Wayne State University
Classical and feminist rhetoric, legal discourse, womens' studies, technical communication, composition

Mohan D. Rao (mrao@mtu.edu) http://www.me.mtu.edu/~mrao/
Professor of ME-EM
PhD, Auburn University
Vibrations, acoustics and noise control, damping, composite materials

Chester A. Ray
Adjunct Graduate Faculty
PhD University of Georgia
Associate Professor, Dept. of Medicine (Cardiology), Pennsylvania State University

David D. Reed (ddreed@mtu.edu)

Vice President for Research; Dean of the Graduate School; Professor of Forest Biometry

PhD, Virginia Polytechnical Institute and State University

Forest stand dynamics, growth, and yield; mathematical modeling, quantitative analysis; resource assessment

Rolf S. Rees (rolf@mtu.edu)

Adjunct Professor of Mathematical Sciences

PhD, Queen's University, Ontario, Canada

Combinatorial design theory, cryptography, extremal graph theory

Robert R. Regis (rregis@mtu.edu)

Adjunct Associate Professor of Geology

Associate Professor of Geology, Northern Michigan University

PhD, Michigan Technological University

Glacial geology, remote sensing, geographic information systems

Sigrid C. Resh (scresh@mtu.edu)

Adjunct Assistant Professor of Forest Resources & Environmental Science

PhD, Colorado State

Terry S. Reynolds (treynold@mtu.edu)

Professor of the History of Science and Technology

Adjunct Professor of Cognitive & Learning Sciences

PhD, University of Kansas

History of technology (general); histories of water power, the engineering profession in America, and iron mining

Dana L. Richter (dlrichte@mtu.edu)

Research Scientist II and Adjunct Associate Professor, School of Forest Resources and Environmental Science

PhD, Michigan Technological University

Forest pathology, mycology, forest microbiology, mycorrhizae, wood decay and preservation

Mark C. Roberts (mroberts@mtu.edu)

Professor of Mineral Economics

PhD, University of Arizona

Mineral, energy, and natural resource economics; engineering economy and project evaluation

George W. Robinson (robinson@mtu.edu)

Professor of Mineralogy; Curator, Seaman Mineral Museum

PhD, Queens University-Ontario

Mineralogy, mineral deposits, museums

Tony N. Rogers, PhD, EIT, (tnrogers@mtu.edu)

Associate Professor of Chemical Engineering,

PhD, Michigan Technological University

Process improvement and environmental thermodynamics

Michael C. Roggemann (mroggema@mtu.edu)

Professor of Electrical and Computer Engineering

PhD, Air Force Institute of Technology

Image and signal processing, atmospheric and adaptive optics, pattern recognition, remote sensing

William I. Rose (raman@mtu.edu)

Professor of Petrology in Geological & Mining Engineering & Sciences

Member of the Computational Science and Engineering Research Institute

PhD, Dartmouth College

Volcanology, geochemistry, remote sensing, volcano/atmosphere interactions, global change

Robert J. Ross (rross@itis.com)

Adjunct Associate Professor, Forest Resources & Environmental Science

PhD, Washington State

Engineering mechanics, composites

Karl B. Rundman (krundman@mtu.edu)

Research Professor of Materials Science and Engineering,

PhD, Northwestern University

Austempering of gray and ductile irons, microsegregation

and its effects on structure-property relationships in ductile cast irons, ausforming-austempering of ductile cast iron,

structure-property relationships in cast and heat treated alloys

Top

S

L. Bogue Sandberg, PE (lbsand@mtu.edu)

Professor of Civil and Environmental Engineering

Adjunct Professor of Forest Resources and Environmental Science

Engineering-Environmental (inter-disciplinary program)

PhD, Vanderbilt University

Wood engineering, composite wood material, molded wood composites, structural adhesives, construction sealants

John F. Sandell, (jfsandel@mtu.edu)

Associate Professor of Chemical Engineering

PhD, Michigan Technological University

Environmental engineering, carbon technology, and civil infrastructure/materials

Ciro A. Sandoval (casandov@mtu.edu)

Associate Professor of Spanish and Comparative Studies

PhD, State University of New York-Stoney Brook

Interdisciplinary relations across literature, science and technology; the essay (Latin-American, French, English); literary, critical, and linguistic theory; translation and intercultural communication

Henry S. Santeford Jr., (hssantef@mtu.edu)

Professor Emeritus, Civil and Environmental Engineering

PhD, Colorado State University

Snow and ice engineering, hydrology, hydraulics of ice-covered rivers

Kimberly Anne Sawchuk

Adjunct Graduate Faculty

Associate Professor of Communication Studies, York University, Toronto, Canada

PhD, York University

Cultural study of science and technology with a specialization in feminist debates; new media art and its engagement with issues of biotechnology

Timothy J. Scarlett (scarlett@mtu.edu) http://www.ss.mtu.edu/people/scarlett.htm

http://www.ss.mtu.edu/faculty/Scarlett/Research/TJSresearch.htm

Assistant Professor of Archaeology, Department of Social Sciences

PhD, University of Nevada

Historical and Industrial Archaeology; Mormons and the American Intermountain West; Ecobiography and Landscape Studies; Globalization

Ralph H. Scheicher (rhs@mtu.edu)

Visiting Assistant Professor, Physics

PhD, University at Albany, SUNY

Ab initio studies of biological systems, nano-materials, and combinations of the two (nano-bio); study of hydrogen storage materials

Amy J. Schrank (ajschran@mtu.edu)

Adjunct Assistant Professor of Forest Resources and Environmental Science

PhD, University of Wyoming

Stream ecology, fish movement patterns, aquatic decomposition, temperature tolerance

Timothy J. Schulz (schulz@mtu.edu)

Chair and Professor of Electrical and Computer Engineering

DSc, Washington University-St. Louis

Statistical signal and image processing, remote sensing, estimation and detection theory, electron microscopy

Joanne L. Scillitoe (jlscilli@mtu.edu)

Assistant Professor of Management (School of Business and Economics)

PhD, Rutgers University

Incubators, incubation process, technological development of technology-based entrepreneurial ventures, university technology transfer, biotech-pharmaceutical alliances

Maximilian J. Seel (seel@mtu.edu)

Dean of Sciences and Arts; Professor of Physics

PhD, University of Erlangen, West Germany

Electron structure of polymers

Bruce E. Seely (bseely@mtu.edu)

Chair of Social Sciences and Professor of History

PhD, University of Delaware

Transportation history, especially development of American highways; history of engineering and engineering education; industrial archaeology; American iron and steel industry; societal implications of nanotechnology

Steven R. Seidel (steve@mtu.edu)

Associate Professor of Computer Science,

Member of the Computational Science and Engineering Research Institute

PhD, University of Iowa

Interprocessor communication algorithms, massively parallel computers, and interconnection networks

Marika Seigel (maseigel@mtu.edu)

Assistant Professor of Humanities

PhD, Pennsylvania State University

Technical communication, rhetoric of science and technology, environmental rhetoric, feminist science studies

Cynthia L. Selfe (cyselfe@mtu.edu)

Adjunct Graduate Faculty

PhD, University of Texas-Austin

Computers and their effects on writers, writing processes, and written text; the socio-political, economic, and ideological issues connected with technology use in educational settings

Richard J. Selfe Jr. (rselfe@mtu.edu)

Adjunct Graduate Faculty

PhD, Michigan Technological University

Theory and practice of communication technologies and their use in English studies curricula

Qiuying Sha (qsha@mtu.edu)
Assistant Professor of Mathematical Sciences
PhD, Michigan Technological University
Applied statistics, statistical genetics

Jeremy M. Shannon (jmshanno@mtu.edu)
Research Assistant Professor, Geological & Mining Engineering & Sciences
PhD, Micigan Technological University
Satellite remote sensing, volcanic gas monitoring, volcanic hazards, environmental geology

William R. Shapton (wshapton@mtu.edu)
Professor Emeritus of Mechanical Engineering
PhD, University of Cincinnati
Modal analysis, computer-aided engineering, kinematics

Raymond A. Shaw (rashaw@mtu.edu)
Associate Professor of Physics
PhD, Pennsylvania State University
Physics of atmospheric clouds and turbulence

Ching-Kuang Shene (shene@mtu.edu)
Professor of Computer Science
PhD, Johns Hopkins University
Geometric/solid modeling, computer-aided design, computer graphics, computational geometry, software visualization

David R. Shonnard, (drshonna@mtu.edu) http://www.chem.mtu.edu/~drshonna/deptbio/drshonnard.htm
Professor of Chemical Engineering,
PhD, University of California-Davis
Biochemical and enzyme engineering, alternative bio-based fuels, life-cycle assessment of chemical products and processes

Diane L. Shoos (dshoos@mtu.edu)
Associate Professor of Visual Studies and French
PhD, Ohio State University
Theories of visual representation, film theory, gender studies, twentieth-century French literature and cinema

Usha Shourie (ushashourie@yahoo.co.in)
Adjunct Lecturer of Humanities

PhD, Indian Institute of Tech, Delhi

Robert A. Shuchman (shuchman@mtu.edu)
Senior VP & Technical Dir, Michigan Tech Research Institute; Associated with Geological & Mining Engineering & Science
PhD, University of Michigan
Climate change, water quality, satellite oceonography decision support systems (GIS), Alaska North Slope issues (mapping, permafrost, hydrology, sea ice, etc)

Timothy W. Simpson (tws8@psu.edu)
Adjunct Graduate Faculty
Professor of Mechanical and Industrial Engineering and Engineering Design, Pennsylvania State University
PhD, Georgia Institute of Technology
Product platform and product family design, engineering design and optimization, approximation methods, and multi-dimensional visualization

Bradley S. Singer (bsinger@gology.wisc.edu)
Adjunct Graduate Faculty
Professor of Geology,University of Wisconsin-Madison
Phd, University of Wyoming
Geochronology and igneous geochemistry

Jennifer Daryl Slack (jdslack@mtu.edu)
Professor of Communication and Cultural Studies
PhD, University of Illinois
Cultural studies, communication theory, technology and culture, environment and culture, art and culture

Martha E. Sloan (masloan@mtu.edu)
Professor of Electrical and Computer Engineering
PhD, Stanford University
Computer networks, computer security

Darrell W. Smith (darsmith@chartermi.net)
Professor Emeritus of Materials Science and Engineering
PhD, Case Western Reserve University
Powder metallurgy processing, influence of porosity on mechanical and physical properties of crystalline solids

David E. Smith
Adjunct Graduate Fauclty
NASA Planning & Scheduling Group Leader
PhD, Stanford University

Automated planning and scheduling with emphasis on methods for dealing with time and concurrency, resources, uncertainity, and over-subscription in planning problems relevant to NASA missions

Erin Smith (ersmith@mtu.edu)
Assistant Professor of Technical Communication and New Media
PhD, University of Wisconsin-Madison
Techno poetics, new media and technical communications, composition studies

Martyn R. Smith (martyn@mtu.edu)
Adjunct Professor, Biomedical Engineering
Adjunct Profesor, Mathematical Sciences
PhD, Yale University
Risk perception & estimation, Internet learning & courseware, Applied statistical methodology

Thomas P. Snyder (tpsnyder@mtu.edu)
Associate Professor of Biological Sciences
PhD, University of Kansas
Molecular basis for male-determination in non-Drosophila Diptera; cloning and analysis of gene-enzyme systems; transposable elements as agents in eucaryotic speciation; biochemical population genetics and systematics

Henry Sodano (hsodano@mtu.edu)
Assistant Professor of Mechanical Engineering-Engineering Mechanics
Phd, Virginia Tech
Power harvesting, vibration control, smart structures, structural health monitoring, non-contact damping

Alice F. Soldan, MT(ASCP), CLS(NCA) (afsold@mtu.edu)
Director of Clinical Laboratory Science,
Lecturer of Biological Sciences,
Adjunct Lecturer of Cognitive & Learning Sciences
MS, Michigan State University
Clinical immunology, medical parasitology, urology, body fluid analysis, clinical laboratory core concept integration and application

Barry D. Solomon (bdsolomo@mtu.edu)
Professor of Geography and Environmental Policy
PhD, Indiana University
Environmental and energy policy, global climate change

Jon A. Soper
Adjunct Professor of Electrical Engineering
PhD, University of Michigan

Applied electromagnetics, Antennas, Microwave & RF Networks

Sheryl A. Sorby (sheryl@mtu.edu)
Associate Dean of Engineering
Chair, Department of Engineering Fundamentals
Professor of Civil and Environmental Engineering
Engineering-Environmental (inter-disciplinary program)
PhD, Michigan Technological University
Structural analysis, experimental stress analysis, engineering computation, engineering graphics and spatial visualization

Patricia J. Sotirin (pjsotiri@mtu.edu)
Associate Professor of Communication
PhD, Purdue University
Organizational communication, feminist studies, and qualitative methodologies

Orhan Soykan
Adjunct Assistant Professor Biomedical Engineering and Electrical and Computer Engineering
Medtronics Inc., Minneapolis, Minnesota
PhD, Case Western Reserve
Implantable devices, biosensors, molecular medicine

Mark Spalding
Adjunct Graduate Faculty
Research Scientist, Dow Chemical Company
PhD, Purdue University
Polymer processing with special expertise in rotational equipment design

William J. Sproule, PE, (wsproule@mtu.edu)
Professor of Civil and Environmental Engineering
Engineering-Environmental (inter-disciplinary program)
PhD, Michigan State University
Transportation planning, traffic engineering and safety, airport planning and design, public transit, automated people movers, hockey history

Suzanne A. Stephens (sastephe@mtu.edu)
Associate Professor of Fine Arts
PhD, Miami University, Ohio
Improvisation work in theatre and as communication aids, interpersonal communication and small group work, interpersonal exploration

Laurence G. Stevens

Adjunct Professor of Chemistry

Consultant and Retired VP, Indium Corporation

PhD, Wayne State University

Inorganic chemistry

Douglas R. Stinson

Adjunct Graduate Faculty

Professor of Computer Science, University of Waterloo, Canada

PhD, University of Waterloo

Cryptography, networks and distributed systems, algorithms and computational complexity, construction of combinatorial structures with applications in computer science and cryptography

Charles J. Stivale

Adjunct Graduate Faculty

Professor of French, Wayne State University

PhD, University of Illinois, Urbana – Champaign

Literary and cultural topics in 19th and 20th century French studies; the work of Gilles Deleuze and Felix Guattari; Cajun music and dance

Shari Stockero (stockero@mtu.edu) <mailto:stockero@mtu.edu>

Assistant Professor, Mathematics Education

PhD, Western Michigan University

Teacher learning, preservice teacher education, teacher professional development

Andrew J. Storer (storer@mtu.edu)

Associate Professor, School of Forest Resources and Environmental Science

PhD, University of Oxford, England

Forest insect ecology, insect/fungus/plant interactions, impacts of exotic species on forest ecosystems, interactions among fire, insects and diseases, urban forest health, chemical ecology

Allan A. Struthers (struther@mtu.edu)

Professor of Mathematics

PhD, Carnegie-Mellon University

Applied mathematics, continuum mechanics, nonlinear optics, solutions, constitutive theory, phase transitions

Ghatu Subhash (subhash@mtu.edu)

Adjunct Professor of Mechanical Engineering

Adjunct Professor of Materials Science and Engineering

PhD, University of California-San Diego

Dynamic behavior, experimental mechanics, nanomaterials, ceramics, fracture, wave propagation

Nikola Subotic (nsubotic@mtu.edu)

Techical Director, Michigan Tech Research Inst; Associated with Electrical & Computer Engrg

PhD, University of Wisconsin-Madison

Signal processing: detection and estimation theory, time frequency analysis and partial coherence sensing

Bryan H. Suits (suits@mtu.edu)

Professor of Physics

PhD, University of Illinois

Nuclear magnetic resonance

John W. Sutherland (jwsuther@mtu.edu)

Richard and Elizabeth Henes Chair Professor of Mechanical Engineering

Director, Sustainable Futures Institute

PhD, University of Illinois-Urbana/Champaign

Design and manufacturing for sustainability, manufacturing processes and systems, quality engineering, service systems engineering

Lawrence L. Sutter (llsutter@mtu.edu)

Associate Professor of Civil Engineering Technology

Adjunct Associate Professor of Civil and Environmental Engineering

PhD, Michigan Technological University

Materials characterization, electron microscopy, concrete and cement, industrial residual re-use

Christopher W. Swanston (cswanston@fs.fed.us)

Adjunct Assistant Professor, Forest Resources & Environmental Science

PhD, Oregon State University

Nitrogen dynamics, carbon & nutrient cycling in forest soils

Samuel R. Sweitz (srsweitz@mtu.edu)

Assistant Professor of Social Sciences

PhD, Texas A&M University

Historical and industrial archaeology; social, economic, and political dimensions of haciendas, plantations, and industinrial communities in the American West, Latin America, and the Caribbean; issues related to colonialism, world-systems analysis, and globalization

Douglas J. Swenson (dswenson@mtu.edu)

Associate Professor of Materials Science and Engineering

PhD, University of Wisconsin-Madison

Thermodynamics and phase diagram modeling, diffusion and solid-state reaction kinetics and the application of these

principles to the solution of materials problems

George W. Swenson (swenson@mtu.edu)
Adjunct Professor of Electrical and Computer Engineering
PhD, University of Wisconsin

Top

T

Dale R. Tahtinen (drtahtin@mtu.edu)
Vice President for Governmental Relations and Secretarty of the Board of Control
Associated with Social Sciences
PhD, University of Maryland
Foreign & domestic policy, international politics & economics, Middle East issues, national security policy, international business

Jindong Tan (jitan@mtu.edu)
Assistant Professor of Electrical and Computer Engineering
PhD, Michigan State University
Computer engineering, mobile robotics

Franz X. Tanner (tanner@mtu.edu)
Professor of Mathematics,
Member of the Computational Science and Engineering Research Institute
PhD, University of Illinois at Urbana-Champaign
Applied mathematics, computational reacting multiphase flows, scientific computing, optimal control

Caroline M. Taylor (cmtaylor@mtu.edu)
Assistant Professor of Chemistry
Member of the Computational Science and Engineering Research Institute
PhD, University of Chicago
Theoretical and computational chemistry, physical chemistry, molecular dynamics simulation, electronic structure, soft condensed matter, materials science, nanoscience, biophysics

Bin Tean Teh (BIN.TEH@vai.org)
Adjunct Professor of Mathematical Sciences
PhD, Karolinska Institute-Sweden

Ramesh C. Thakur (rcthakur@mtu.edu)

Assistant Research Scientist, School of Forest Resources & Environmental Science

PhD, University of Horticulture and Forestry, India

Forest tree improvement and genetic resouces, plant biotechnology and tissue culturing,

air pollution and climate change

Duane M. Thayer

Professor Emeritus/Research Professor of Materials Science & Engineering

MS, Michigan Technological University

Fine particle flotation, Fine particle characterization, Reclamation of metallurgical and chemical wastes

Martin J. Thompson (mthomps@mtu.edu)

Assistant Professor of Chemistry

PhD, Arizona State University

Biochemistry and Chemical Biology

Richard A. Thompson

Adjunct Graduate Faculty

PhD, University of Maryland

Analytical chemistry

Gerry Tian (ztian@mtu.edu)

Associate Professor of Electrical Engineering

PhD, George Mason University

Signal processing for wireless communications,

ultra-wideband communications, wireless sensor networks,

digital communication systems, statistical array and signal processing

Vladimir D. Tonchev (tonchev@mtu.edu)

Professor of Mathematics

DMSc, Bulgarian Academy of Sciences; PhD, University of Sofia, Bulgaria

Algorithms, computing, coding theory, cryptography, combinatorics, finite geometry

Bela Torok (bela.torok@umb.edu)

Adjunct Graduate Faculty

Faculty in Chemistry Dept., University of Massachusetts - Boston

Ph.D., Jozsef Attila University, Hungary

Catalysts for asymmetric synthesis immobilization of chiral

ligands on polymer or inorganic supports

Carl C. Trettin

Adjunct Assistant Professor of Forestry

Oak Ridge National Laboratory

PhD, North Carolina State University

Ecology and management of forested wetlands

Chung-Jui Tsai (chtsai@mtu.edu)

http://forest.mtu.edu/faculty/tsai/

http://biotech.mtu.edu

Associate Professor of Forest Biotechnology, Director of Biotechnology Research Center

PhD, Michigan Technological University

Functional genomics, metabolic engineering, phenylpropanoid metabolism, wood formation, genetic transformation

Roger M. Turpening (roger@mtu.edu)

Research Professor of Geophysical Engineering

PhD, University of Michigan

Petroleum seismology, borehole seismology (VSP, RVSP, x-well)

Top

U

Graham Underwood

Adjunct Professor of Biological Sciences

PhD, University of Sussex, Colchester, UK

Environmental Microbiology

Ram K. Upadhyay

Adjunct Graduate Faculty, Mechanical Engineering-Engineering Mechanics

Senior Research Engineer, GE Global Research Center

PhD, Cornell University

Polymer processes - injection molding, thermoforming, extrusion and compression molding; manufacturing processes for carbon-reinforced materials; ceramic powder injection molding; process control

Noel R. Urban, (nurban@mtu.edu)

Associate Professor of Civil and Environmental Engineering,

Engineering-Environmental (inter-disciplinary program)

PhD, University of Minnesota

Biogeochemistry, surface water quality, wetlands, impacts of human activities on the environment

Eugenijus Urnezius (urnezius@mtu.edu)

Assistant Professor of Chemistry

PhD, Case Western Reserve University - Cleveland, Ohio

Organometallic and inorganic chemistry, metallopolymers, ligand design, material chemistry

Donald R. Uzarski

Adjunct Graduate Faculty

Civil Engineer, U.S. Army Engineer Research and Development Center

PhD, University of Illinois

Railroad Engineering

Top

V

Madhukar Vable (mavable@mtu.edu)

Associate Professor of Engineering Mechanics

PhD, University of Michigan

Computational mechanics

John Vail

Adjunct Professor of Physics

PhD, Brandeis University

James W. Vallance (james@fuego.civil.mcgill.ca)

Adjunct Assistant Professor of Geology

PhD, Michigan Technological University

Volcanic hazards, debris flows, geomorphology, mechanics of granular materials

Thomas J. Van Dam, PE, (tvandam@mtu.edu)

Associate Professor of Civil and Environmental Engineering

Engineering-Environmental (inter-disciplinary program)

PhD, University of Illinois

Pavement analysis, design, and management; transportation

materials; characterization of bituminous mixtures and cementitious mixtures

Charles D. Van Karsen (cdvankar@mtu.edu)

Associate Professor of ME-EM

MS, University of Cincinnati

Experimental vibration, structural dynamics

Chelley M. Vician (cvician@mtu.edu)

Associate Professor of Information Systems, School of

Business and Economics

PhD, University of Minnesota

Technology mediated learning, group support systems, computer mediated communication, and information systems adoption

Carl R. Vilmann, PE (crvil@mtu.edu)

Associate Professor of Engineering Mechanics

PhD, Northwestern University

Fracture mechanics and finite elements

Stanley J. Vitton, PE, (vitton@mtu.edu)

Associate Professor of Civil and Environmental Engineering

Adjunct Associate Professor of Geological & Mining Engineering & Sciences

PhD, University of Michigan

Geotechnical engineering, soil and rock dynamics, aggregate research, geological hazards analysis

Marilyn Jo Vogler (mjvogler@mtu.edu)

Associate Director, International Programs & Services

PhD, Michigan Technological University

Gender and language, feminist theory, persistence in graduate education, dissertation practices

John A. Vucetich (javuceti@mtu.edu)

Research Assistant Professor of Forestry

PhD, Michigan Technological University

Demographic and genetic aspects of population biology

Leah M. Vucetich (lmvuceti@mtu.edu)

Research ASsistant Professor (School of Forest Resources and Environmental Science)

PhD, Michigan Technological University

Genetic properties of animal populations

Top

W

Craig Waddell (cwaddell@mtu.edu)

Associate Professor of Rhetoric

PhD, Rensselaer Polytechnic Institute

Examining and facilitating public participation in deliberative decision-making on such issues as environmental protection, neighborhood/community enhancement, and global poverty relief; and the relationship of the following to

this end: classical rhetoric; risk communication; journalism; qualitative research methods

Christa L. Walck (cwalck@mtu.edu)

Dean and Professor of Organizational Behavior, School of Business and Economics

PhD, Harvard University

Ecosocial research, place studies, sustainability, corporate social responsibility

Charles Wallace (wallace@mtu.edu) http://www.cs.mtu.edu/~wallace/

Associate Professor, Computer Science

Ph.D., University of Michigan

Software engineering, requirements analysis, usability engineering, formal methods,

parallel computing, programming languages, computer science education

Zhenlin Wang (zlwang@mtu.edu)

Assistant Professor, Computer Science

PhD, University of Massachusetts, Amherst

Optimizing compilers and high performance architectures

Lois J. Wardell

Adjunct Assistant Professor of Geological & Mining Engineering & Sciences

PhD, New Mexico Tech

Robert O. Warrington (row@mtu.edu)

Dean of Engineering, Professor of Mechanical Engineering

PhD, Montana State University, Bozeman

Micromanufacturing, microtransport processes, laser-based micromachining, heat transfer

Melissa S. Waters

Adjunct Graduate Faculty

Associate Professor of Economics, Southern University and A&M College

PhD, Louisiana State University

Applied Econometrics, applied microeconomics, economics of houshold behavior

David W. Watkins, (dwatkins@mtu.edu) http://www.cee.mtu.edu/~dwatkins/index.html

Associate Professor of Civil and Environmental Engineering,

Engineering-Environmental (inter-disciplinary program)

PhD, University of Texas at Austin

Water resources planning and operations, watershed management, hydrologic statistics, decision theory

I. Matthew Watson (watson@mtu.edu)

Research Assistant Professor of Geological and Mining

Engineering and Science

PhD, Cambridge University - Cambridge, UK

Remote detection of volcanic plumes using satellite- and ground-based multi-spectral sensors

Corey E. Weaver (cweaver3@ford.com)

Adjunct Assistant Professor, MEEM

PhD, University of Michigan Tech University

Christopher R. Webster (cwebster@mtu.edu)

Assistant Professor, School of Forest Resources and Environmental Science

PhD, University of Wisconsin

Quantitative ecology, forest management, silviculture

Robert S. Weidman (weidman@mtu.edu)

Associate Professor of Physics

PhD, University of Illinois

Electronic structures of solids

Klaus J. Weinmann (kjweinma@mtu.edu)

Professor Emeritus, Research Professor of Mechanical Engineering

PhD, University of Illinois-Urbana/Champaign

Plasticity, materials processing

Michael S. Wertheim (wertheim@mtu.edu)

Professor Emeritus of Physics

PhD, Yale University

Theory of fluids

Calvin L. White (cwhite@mtu.edu)

Professor of Materials Science and Engineering

PhD, Michigan Technological University

Interfaces, interfacial segregation, interfacial fracture, materials joining, intermetallic compounds

Dennis O. Wiitanen, PE (wiitanen@mtu.edu)

Professor of Electrical and Computer Engineering

PhD, University of Missouri-Rolla

Computer applications to power systems, distribution systems, power system modeling, properties of insulating materials

Cameron T. Williams (cam.williams@finlandia.edu)

Adjunct Assistant Professor of Exercise Science, Health & Physical Education

DPT, Simmons College

Physical Therapy

George J. Williams (George.Williams@grc.nasa.gov)

Adjunct Assistant Professor of Mechanical Engineering-Engineering Mechanics

PhD, University of Michigan

John G. Williams (jgwillia@mtu.edu)

Professor Emeritus of Chemistry

Adjunct Professor of Mechanical Engineering

PhD, Melbourne University, Australia

Plastics and composites, processing science of composites, crack propagation in glass resins, relaxation properties in polymers

R. Christopher Williams (rwilliam@iastate.edu)

Adjunct Assistant Professor of Civil and Environmental Engineering

Associate Professor Department of Civil, Construction, and Environmental Engineering, Iowa State University

PhD, Purdue University

Pavement analysis, design, and management; transportation materials; characterization of materials; construction materials specifications

Robert J. Winn (rwinn@nmu.edu)

Adjunct Graduate Faculty

Professor of Biology, Northern Michigan University

PhD, University of Illinois

Reproductive endocrinology, molecular initiation of brain tumor formation, dendritic cell immunotherapy of cancer, examination of hormonal control of cervical softening prior to parturition

John A. Witter

Adjunct Professor of Forest Entomology

University of Michigan

PhD, University of Minnesota

Forest entomology and acid rain

James R. Wood Jr. (jrw@mtu.edu)

Professor of Geology

PhD, Johns Hopkins University

Geochemistry, environmental geology, diagenesis, petroleum geology

Warren Kent Wray (wkwray@mtu.edu)

Professor of Civil & Environmental Engineering

Engineering-Environmental (inter-disciplinary program)

PhD, Texas A&M University

Geotechnical engineering, unsaturated soils, expansive soil theory,slab-on-ground foundations, soil-structure interaction

Ramakrishna Wusirka (wusirika@mtu.edu)

Assistant Professor of Biological Science

PhD, University of Pune

Molecular biology, genomics & bioinformatics

Albert S. Wylie, Jr. (aswylie@mtu.edu)

Adjunct Assistant Professor, Geological & Mining Engineering & Science

Geologist, Cabot Oil and Gas Corp

PhD, Michigan Technological University

Petroleum reservoir characterization and exploration, mineralogy, sedimentology, petrology

Anne Frances Wysocki (awysocki@mtu.edu)

Associate Professor of Visual and Digital Communication and

Director of GTI Education/Director of Writing Programs, Humanities

PhD, Michigan Technological University

Visual communication and culture, technologies of visual communication, visual rhetoric, image/word relationships, interactivity and design

X

Zhiyong Xu (zhxu@mtu.edu)

Research Scientist, Institute of Materials Processing

PhD, Michigan Technological University

FTIR investigation of cement hydration kinetics, reuse of industrial solid wastes in concrete, microwave reactor design and application

Top

Y

Song-Lin (Jason) Yang (slyang@mtu.edu)

Professor of Mechanical Engineering-Engineering Mechanics

PhD, University of Florida

Computational fluid dynamics, heat transfer

Weidong Yang (weyang@mtu.edu)
Instructor & Post doc, Electrical & Computer Engineering
PhD, Michigan Technological University
Laser optics and beam control; optical, holographic and synthetic aperture imaging; image processing

Yoke Khin Yap (ykyap@mtu.edu) http://www,phy.mtu.edu/faculty/Yap.html
Associate Professor of Physics
Adjunct Associate Professor of Materials Science and Engineering
PhD, Osaka University, Japan
Experimental materials physics, nanoscience, nanotechnology, and laser physics

William L. Yarroch (wlyarroc@mtu.edu)
Associate Professor of Cognitive & Learning Sciences
PhD University of Wisconsin-Madison

Zhanping You (zyou@mtu.edu)
Assistant Professor of Civil Engineering, Civil & Environmental Engineering
Engineering-Environmental (inter-disciplinary program)
PhD, University of Illinois
Pavements and transportation materials, micro mechanics, finite element analysis,
discrete element analysis, nanomodified asphalt, mechanical testing and
constitutive modeling of asphalt binders and mixtures

Byeng Dong Youn (bdyoun@mtu.edU)
Assistant Professor of Mechanical Engineering-Engineering Mechanics
PhD, University of Iowa
Engineering design, reliability and quality engineering, durability (fatigue) analysis,
statistical information technology, design sensitivity analysis

Charles T. Young, PE (ctyoung@mtu.edu)
Associate Professor of Geophysics
Adjunct Associate Professor of Electrical & Computer Engineering
PhD, University of Wisconsin-Madison
Exploration geophysics, electrical and electromagnetic
geophysics, geophysical signal analysis, ground-penetrating radar, environmental geophysics

Dae S. Young (dsyoung@mtu.edu)
Associate Professor of Mechanical Engineering

PhD, University of Utah

Mining engineering, rock mechanics, geostatistics

Heather Lynne Youngs (hlyoungs@mtu.edu)

Assistant Professor of Biochemistry, Biological Sciences

PhD, Oregon Health and Science University

Plant biochemistry and molecular biology, enzymology and kinetics, bioremediation

Top

Z

Seyed A. Zekavat (rezaz@mtu.edu)

Assistant Professor of Electrical Engineering

PhD, Colorado State University

Wireless communications, statistical modeling, radar systems and theory

Qiong Zhang (qiong@mtu.edu)

Senior Research Engineer, Civil & Environmental Engineering

PhD, Michigan Technological University

Environmental fate and transport modeling, risk assessment,

life cycle assessment, sustainability, water and wastewater treatment

Shuanglin Zhang (shuzhang@mtu.edu)

Associate Professor of Mathematics

PhD, Peking University, Beijing

Bioinformatics, statistical genetics, nonparametric function estimation, wavelets

Top

Last Updated:
05-Jun-2007

General Student Fees Paid by All On-Campus Students (per semester)	
Memorial Union Expansion Fee	15.00
Student Activity Fee	44.30 (10 in summer)
Student Development Complex Support Fee	31.00
Memorial Union Building Support Fee	37.10

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Questions?
Grad School Web Index
Site Map

All US citizens and eligible non-citizens are strongly encouraged to complete the FAFSA.

Contents of This Page

H1-Visa Jobs.Com—Career Center service providing an on-line database with contact information of companies that actually offered H-1B jobs to international professionals.

Campus / Local Student Job Postings

Assistantships

The application forms for admission to the Graduate School are also regarded as application forms for assistantships. All students admitted to the Graduate School are considered for these awards, which are made by the departments. In general, departments make awards in March and April for the ensuing academic year. Recipients of awards are notified by the department as soon as the awards are made. All departments with graduate programs support students through teaching assistantships. Positions associated with research grants or contracts are often available in some departments and research centers.

Regular assistantship appointments are for half-time work (20 hours/week), but departments can divide appointments, resulting in three-quarter time, half-time, or quarter-time appointments (with proportional adjustments of the stipend and tuition & fee support). Students' work load assignments, including teaching preparation and grading of papers, should not exceed the level of their appointments. Students on assistantship are paid bi-weekly.

Support includes stipend, a proportional amount of tuition and academic fees for full-time enrollment. Student-

voted fees—for instance, the student union expansion and student activities fees are not covered by support and must be paid by the student. If your department has not notified the Graduate School Office (GSO) about your assistantship by the time bills are mailed, you will be billed for tuition. If the GSO has still not been notified of the award by the payment deadline, you are responsible for your tuition. You will get a refund when your sponsor notifies the GSO that the award has been made.

All supported students must be registered as full-time graduate students. If you are supported at 20 hours per week, your support pays standard full-time tuition plus some fees. You are responsible for paying for any credits over the department cap that you enroll for, as well as for student activity fees. Note, too, that the 9 credits required for full-time status may include regular graduate course work and research credits, courses in other departments, audited courses, PE, modern languages, fine arts, ESL, undergraduate courses, and so on.

If you are on partial support, you must still be registered as a full-time student, but only a portion of your tuition and fees will be paid by your support. You are responsible for the rest. Support for 10 hours per week, for example, covers 50 percent of tuition and fees for 9 credits; support for 5 hours per week covers 25 percent of tuition and fees for 9 credits.

Teaching Assistantships (GTA, GTI)— Teaching assistantships are awarded by the department requiring instructional services. GTAs assists a faculty member in teaching. GTIs have full responsibility for the course(s) they are assigned to teach. The appointment is usually for the academic year of two semesters. Some opportunities exist for summer teaching assignments.

Research Assistantships (GRA, GA) —Research assistantships, usually associated with a specific research grant, contract, or internally supported research project, are awarded by the professor/department supervising the research activity. The appointment is usually for the academic year, but frequently includes the summer term. For standard support, time devoted to the research activity is expected to total an average of twenty hours per week, though in cases where the research is related to the student's thesis or dissertation, additional time is expected to meet requirements for research credits in which the student is enrolled. Coding indicates external support (GRA) or internal support (GA.

Administrative Assistantships (GADE, GADI)— Administrative assistantships are awarded by the departments to assist in their efforts to further develop graduate programs and enhance research. Students' duties may include, for instance, system administrator or journal editing responsibilities. The hours, stipend, and tuition support are the same as for a teaching assistant. Administrative assistants must be registered as full-time students. Coding indicates external (GADE) or internal (GADI) sources of funding.

SPEAK Test (International students whose first language is not English)—The Michigan Tech Center for Teaching, Learning, and Faculty Development (CTLFD) administers the SPEAK (Speaking Proficiency English Assessment Kit) Test to all international graduate students whose first language is not English. The SPEAK Test must be taken prior to the beginning of a student's assignment as a graduate teaching assistant (GTA).

The test is administered year round, but most incoming students take it during fall orientation week. Students are encouraged to take the SPEAK Test as early as possible after they arrive on campus so that if they do not pass the test and need to improve their English language skills, there will be adequate time to do so before departments make funding decisions for the following year. Practice SPEAK Tests are available for students to review prior to taking the actual test. Students wanting to take the test should contact the Center for an appointment.

The SPEAK Tests are administered and evaluated by trained CTLFD staff. Students who do not pass the test may not take it again. Instead, they are referred to the International Graduate Teaching Assistants Assistance Program (IGTAAP) for help in improving their English skills, presentation strategies, and cultural understanding. The IGTAAP has many resources for increasing vocabulary, improving pronunciation, understanding slang and idioms, and practicing conversation. In working one-on-one and in small groups with undergraduate coaches, the international graduate students gain insight into what students from the United States expect from their instructors. IGTAAP is coordinated by Sylvia Matthews in the Humanities Writing Center and is supported by the CTLFD for this purpose.

IGTAAP has many requirements that are clearly explained to the students who are referred to this program. Once those requirements are met, the student can schedule a mini-lesson presentation which is observed by a committee consisting of a faculty member (or designee) from the student's home department, an undergraduate student whose first language is English (preferably one majoring in the graduate student's home department), and a representative from the CTLFD. The committee must reach a consensus that the candidate is ready for instructional duties for the student to receive a "pass" on the mini-lesson. However, if the observers feel that the student's English skills need further improvement, the committee can make a variety of recommendations to the department chair—all of which include the student's continuing with IGTAAP. In either case, "pass" or "continue work", a letter will be sent to the student's home department chair with the committee's recommendations.

Because the SPEAK Test is a test of conversational English, passing it provides only partial assurance that the student will perform adequately in an instructional setting. The ultimate responsibility for assuring a GTA's adequacy in classroom teaching rests with the academic units. And in all cases, funding decisions rest with the academic units and the Graduate School.

Co-ops and Internships

Graduate students may seek placement in a co-op or internship. Students who complete a co-op receive academic credit as well as the co-op salary. Visit the MTU Career Center <http://www.career.mtu.edu/coop.php> for more information about co-ops and internships.

US Army Reserve Officers Training Program (ROTC)

The Department of Military Science offers instruction in leadership issues, management functions, teams and communications within an organization through guided discussions and experiential learning. The program provides two-year scholarship opportunities through the U.S. Army to graduate students who meet all qualification standards. In order to qualify for this program students must attend a four week summer training session called the Leaders Training Course, for which all travel, food and lodging expenses are paid for. They additionally receive a $750.00 stipend and 10–12 credit hours for the first two years of Army ROTC at Michigan Tech. Two-year scholarships are awarded upon the successful completion of the summer training. In order to qualify students must have a minimum 2.5 GPA, and meet all medical and physical requirements. They must also meet an age requirement of 27 years old or less by June 30 of the year of completion of degree and commissioning. Veterans are given waivers up to 32 years of age.

Need-based Financial Aid

To be considered for need-based financial aid, e.g. federal student loans and Graduate Assistance in Areas of National Need (GAANN Fellowships), students must submit the Free Application for Federal Student Assistance (FAFSA) to the federal processor with Michigan Technological University listed to receive the result (federal

school code 002292). You have the option of applying over the Internet, http://www.fafsa.ed.gov/, or using the paper form. To assure optimum processing, file the FAFSA by March 1. Awards will be determined approximately July 1, when cost of attendance and resource information is available.

Financial assistance is awarded for one academic year at a time. After January 1, you must reapply utilizing the FASFA or Renewal FAFSA provided by the US Department of Education.

For more information regarding financing opportunities available through the Financial Aid Office, visit http://www.admin.mtu.edu/finaid/finaid.htm.

Top

Loans

Loans are available to graduate students who meet the scholastic and loan program requirements.

Federal Stafford Loans—Students may be eligible for a student loan from the William D. Ford Federal Direct Loan Program. The FAFSA or FAFSA Renewal form is the application form needed. The annual loan limit for subsidized and unsubsidized Stafford Loans is up to $18,500 each academic year (only $8,500 of this amount may be in subsidized loans). Students may borrow up to a cumulative maximum of $138,500 as a graduate or professional student (only $65,500 of this amount may be in subsidized loans). The graduate debt limit includes Stafford Loans received for undergraduate study.

Federal Perkins Loans—These loans are provided by federal and University funds. Students may borrow up to a cumulative maximum of $20,000 as an undergraduate and $6,000 per year as a graduate student for a maximum cumulative total of $40,000, provided they demonstrate financial need. As long as the borrower is engaged in at least half-time study, there is no interest or repayment. Interest begins nine months after the borrower ceases to be at least a half-time student and may extend over a maximum period of ten years. Minimum payments are required. Deferment of repayment is permitted for certain kinds of federal and volunteer service.

Work-Study Programs: Michigan and Federal

These programs provide financial assistance through employment on campus. Every effort is made to place students in jobs related to their skills, interests, and field of study. Work-study participants generally are employed ten hours per week. Money awarded for a work-study job will be paid through biweekly paychecks after the work has begun.

Bureau of Indian Affairs Program

Financial assistance based on need is available to students who are enrolled Native American tribal members. Students should contact their tribal education office for application procedures.

Top

Financial Aid Policies

Satisfactory Progress Policy Statement

Federal financial aid regulations require students to make satisfactory progress to remain eligible for financial aid.

Financial aid programs affected by this policy include:

Federal and Michigan Work-Study	Federal Perkins Loans	
Federal Direct Subsidized Loans	Federal Direct Unsubsidized Loans	

This policy defines the minimum requirements for financial aid eligibility at MTU. Note that other types of financial aid (e.g., scholarships) may have more stringent requirements.

Students who do not meet the **GPA requirements** after **any semester** are not considered to be making satisfactory progress, and the affected financial aid for subsequent semesters will be canceled with the following exception. Students who do not meet the GPA requirement after their **first semester** at MTU will be placed on financial aid probation, and will remain eligible for financial aid for one semester. Students not meeting the **schedule of credits passed** after **spring semester** are not considered to be making satisfactory progress. **Both GPA and credits passed requirements must be met for aid to be reinstated.**

Graduate students receiving any kind of financial assistance, including fellowships and assistantships not listed above, are required to maintain, at the end of each term, a cumulative grade point average (GPA) of at least 3.0. Failure to do so will result in the student being placed on financial aid probation and may result in the loss of funding. After receiving notification of probation, graduate students must meet with their graduate program director as soon as possible to plan a course of action for resolving the situation.

Every student must adhere to the following schedule of credits passed, even if the academic major is changed. Audits (U or V) do not count toward credits passed. To reference credits passed, access your Unofficial Transcript at the Records and Registration website http://www.admin.mtu.edu/em/.

Semesters full-time at MTU	Master's credits passed at MTU	PhD credits passed at MTU
1	4	4
1.5*	6	6
2	8	8
3	12	12
4	16	16
5	20	20
6	24	24
7	28	28
8	32	32
9	no aid	36
10	no aid	40
11	no aid	44
12	no aid	48
13	no aid	52
14	no aid	56
more than 14	no aid	no aid

*half-time example

Credits passed include Progress grades (P). Audit grades (U or V) do not count as credits passed.

Note: For the complete statement, see http://www.admin.mtu.edu/finaid/documents/satprogpolicy.pdf.

Top

Eligibility Defined

All students, regardless of whether they are receiving aid, have a limited number of semesters for which they are eligible for such aid. For example, undergraduates who have attended MTU for 8 full-time semesters may be eligible for another 4 semesters of aid, regardless of whether or not they have received aid in the past. The record of full-time semesters increases by one for every semester an undergraduate student is enrolled for 12 or more credits at the end of the official add period. If an undergraduate student is enrolled for 6 through 11 credits, the full-time semesters increase by one-half. Full-time semesters will not increase during the semesters undergraduate students carry fewer than 6 credits.

M.S. and Ph.D. students' records of full-time semesters increase by one each semester in which they are enrolled for 9 or more credits at the end of the official add period. If an M.S. or Ph.D. student is enrolled for 5 through 8 credits, the full-time semesters increase by one-half. In all other cases, full-time semesters are not increased.

Credits passed include progress grades (P). GPA is calculated using all courses, which appear on the graduate transcript.

Appeals and Reinstatements

Because financial aid dollars are applied to the first billing each semester, and the progress status is not determined until semester-end grades are processed, necessary adjustments will appear on a subsequent billing of the semester following a change of progress status.

If completion of temporary grades (I or X) or other transcript changes (e.g. grade changes) warrant reinstatement, the student should notify the Financial Aid Office before the end of the semester following unsatisfactory progress.

Students not meeting the satisfactory progress requirements because of mitigating or extenuating circumstances may request reinstatement of financial aid by submitting a Satisfactory Progress Appeal Request Form along with the specified documentation. This form can be obtained from the Financial Aid Office or downloaded from the Financial Aid Office website. Appeals should be submitted to the Financial Aid Office no later than Tuesday of the first week of the semester following unsatisfactory progress. If a student's appeal is approved, when appropriate, the full-time semesters will be adjusted allowing continued eligibility.

Financial Aid Refund/Repayment Policy

A tuition/fee adjustment, according to a schedule available in the Office of Student Records and Registration, may be required for students withdrawing from the University. The adjustment will appear on the student's subsequent billing statement. Non-tuition refunds will be prorated according to the week of withdrawal. Withdrawing students must repay any financial aid that exceeds the charges incurred for the term.

Top

Return of Title IV Funds

Students who completely withdraw from all courses prior to completing more than 60 percent of a semester will have their eligibility for aid recalculated based on the percent of the semester completed. This policy shall apply to all students who withdraw, drop out, or are dismissed from the University and receive financial aid from Title IV funds. The term “Title IV Funds” refers to the following Federal financial aid programs:

Federal Direct Unsubsidized Loan
Federal Direct Subsidized Loan
Federal Perkins Loan.

Title IV aid is earned in a prorated manner on a per diem basis up to and including the 60 percent point in the semester. Title IV funds and all other aid is viewed as 100 percent earned after that time. The percentage of Title IV aid earned shall be calculated as follows:

(Number of days completed by the student)/ (Total number of days in the semester*) = Percent of Title IV aid earned

*The total number of days in the semester includes weekends, but does not include any scheduled breaks of more than five days.

A student's withdrawal date is determined by the University as (1) the date the student began the University's withdrawal process or officially notified the Office of Records and Registration of intent to withdraw; or (2) the midpoint of the semester for a student who leaves without notifying the University; or (3) the student's last date of attendance at a documented academically related activity.

University’s Portion to be Returned—The percentage of Title IV aid unearned (i.e., to be returned to the appropriate program) shall be 100 percent minus the percent earned. Any unearned aid to be returned by the University is the lesser of (1) the entire amount of unearned aid or (2) the total institutional charges multiplied by the percentage of unearned aid. Unearned Title IV aid shall be returned according to the following priority up to the amount received for the semester (1) Direct Unsubsidized Loan; (2) Direct Subsidized Loan; (3) Perkins Loan.

Student’s Portion to be Returned—When the total amount of unearned aid is greater than the amount returned by the University from the student’s account, the student is responsible for returning unearned aid to the appropriate program(s). The same priority as above would be used. Any loan funds that must be returned by the student will be repaid according to the terms of the promissory note.

Return of Non-Title IV Funds—The portion of state, university and other assistance that must be returned will be calculated based on the particular program's return policy. The student will be billed for any amount due to the University resulting from the return of Title IV and Non-Title IV funds.

Top

Please enable iframes on your browser. MTU Navigation

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Some documents are PDF.
Questions?
Get Help with PDF here.
Grad School Web Index
Site Map

Departments whose additional forms are available on the web

- Humanities
- Civil & Environmental Engineering
- Physics

Admission Requirements, Procedures, & Application Forms

General Requirements—To be considered for admission to the Graduate School as a regular student, the applicant must be

- the recipient of a bachelor's degree or its equivalent from an accredited institution (graduates of a 3-year bachelor's program outside the US see the Master's Path option);
- adequately prepared for advanced study in the chosen field of specialization as demonstrated by the previous program of study and the scholastic record; and
- recommended for admission by the head of the program or concentration.

Application Fee

If you are applying to Michigan Tech online, there is no fee for applying to the MTU Graduate School. If you apply via postal mail, the application fee is $40 for domestic applicants and $45 for international applicants.

Employee Admission—Any University employee may enroll in any graduate course, if properly qualified, subject to the approval of the appropriate supervisor. Employees do not pay the application fee.

Currently enrolled MTU graduate students (including non-degree seeking grad students) applying for a different graduate program should fill out a new application for database purposes, but a second application fee is not necessary.

Provisional/Conditional Admit—The Graduate School does not offer a provisional or conditional admit. Students who wish to take graduate courses prior to full acceptance in a program may apply for non-degree graduate status.

Deferral of enrollment —Enrollment may be deferred for a period of 12 months, for example, from one fall term to the next. Deferral beyond this time is not allowed, and admission will require a new application.

- **Domestic Students**
- **International Students**
- **Certification of Finances**
- **Graduate—Non-Degree Seeking**
- **Letter of Recommendation Standard Form**

Deadlines—The Graduate School does not have application deadlines; however, some departments do have deadlines. Please see the list here or consult individual departments regarding dates.

Application Procedure

Basic forms are available in the Graduate School and on the Graduate School Website at http://www.gradschool.mtu.edu/apply.html. You may also apply online at https://www.banweb.mtu.edu/pls/owa/bwskalog.P_DispLoginNon. **Note, however, that an on-line application is not yet available for non-degree admission. Please download that application here and mail or fax it to the Graduate School.**

Materials and forms specific to individual departments are available only from those departments. Please check the website of the department or departments to which you are applying regarding specific requirements they may have. Read the departmental requirements carefully because procedures vary from department to department. (Program links available here.)

Care should be taken in preparing the statement of purpose as it is quite important in decisions regarding admission.

Steps to Follow:

1. Complete all application forms, on-line and/or paper, and return them to the Graduate School. Distance Learning students should submit application materials to the Sponsored Educational Programs Office.
2. The application fee should be submitted with a paper application. It is nonrefundable and cannot be credited toward tuition or any other fees. It may be paid by
    - check or money order drawn on a United States institution and made payable to Michigan Technological University,
    - International Postal Money Order, payable in United States currency, made payable to Michigan Technological University, or
    - credit card (details here).
3. Request that the registrar of each college or university you have attended send official transcripts directly to the Graduate School. Transcripts for course work completed at Michigan Tech will be obtained by the Graduate School. A limited number of graduate courses taken as a graduate student at other universities may be accepted for graduate credit at MTU. Talk with the department to which you are applying.
4. **Admissions Tests**: The Graduate Record Exam (GRE) is required or encouraged by most departments. In some departments it is required if you wish to be considered for financial assistance. The GMAT is required for admission into programs of the School of Business and Economics. Test results should be sent directly to the Graduate School by ETS. Our code number is 1464. Please see the GRE Home page for more information on the exam.
5. Applicants whose native language is not English must supply results of an English proficiency examination. However, this examination is not required for Distance Learning students applying through a corporate partnered program. Usually, the Test of English as a Foreign Language (TOEFL) is submitted. Although a TOEFL score of 550 (213 on the computer-based test) is recommended by the Graduate School, the applicant should also check with individual departments to determine if a

higher TOEFL is required for admission to that department or program. Applicants who have completed a degree in the US may have the TOEFL requirement waived by the Dean of the Graduate School. This requirement may not be waived by departments, programs, or faculty.

Tracking your application status—When your initial application is received by the Graduate School, you will be sent a confirming e-mail with instructions for logging into your web portal. You may check the status of your application at any time via the web portal. Note that departments will generally not review applications until all materials, including letters of reference, have been received.

Please enable iframes on your browser. MTU Navigation

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Admission Requirements and Procedures

Questions?

Grad School Web Index

Site Map

Program Options

Doctor of Philosophy

Master of Engineering

Master of Forestry

Master of Science

Master's International Peace Corps Program

Master's Path (for students who have completed a three-year bachelor's program outside the US.)

Certificate Programs

Non-Degree Graduate Option

International Programs

Off-Campus Programs

Affiliated Programs

General Degree Requirements

Thematic Program Groups

- Atmospheric Sciences
- Biotechnology
- Composites
- Environmental
- Information Technology
- Nanotechnology
- Remote Sensing
- Transportation

Degree Programs

- Applied Ecology (MS)
- Applied Natural Resource Economics (MS)
- Applied Science Education (MS)
- Biological Sciences (MS, PhD)
- Biomedical Engineering (PhD)
- Business Administration (MBA)
- Chemical Engineering (MS, PhD)
- Chemistry (MS, PhD)
- Civil Engineering (MEng, MS, PhD)
- Computational Science and Engineering (PhD in Engineering)
- Computer Science (MS, PhD)
- Electrical Engineering (MS, PhD)
- Engineering Mechanics (MS)
- Engineering Physics (PhD)
- Environmental Engineering (MEng, MS, PhD in Engineering)
- Environmental Engineering Science (MS)
- Environmental Policy (MS)
- Forest Ecology and Management (MS)
- Forest Molecular Genetics and Biotechnology (MS, PhD)
- Forestry (MForestry, MS)
- Forest Science (PhD)
- Geological Engineering (MS, PhD)
- Geology (MS, PhD)
- Geophysics (MS)
- Industrial Archaeology (MS)
- Industrial Heritage and Archaeology (PhD)
- Master of Engineering (MEng)
- Materials Science and Engineering (MS, PhD)
- Mathematical Sciences (MS, PhD)
- Mechanical Engineering (MS)
- Mechanical Engineering-Engineering

Last reviewed on 06/08/2007

Contact **webmaster**.

Mechanics (PhD)

- Mining Engineering (MS, PhD)
- Physics (MS, PhD)
- Rhetoric and Technical Communication (MS, PhD)
- Sustainability (Grad Certificate)

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Questions?

Grad School Web Index

Site Map

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

Credit and GPA Requirements

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

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

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

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

Students must maintain an overall 3.0 GPA for all coursework taken as a graduate student. No course in which a grade lower than B (3.0) is received may be used toward a graduate degree without express permission of the Department Chair or Program Director.

Credit Definition

Academic advancement by students is measured in terms of semester-hour credits or simply credits. One credit should average 3½ hours of a student's time per week for one semester. Depending on course requirements, these 3½ hours may all be spent in the classroom or laboratory or may be divided between home study and class or laboratory attendance. One hour in class and 2½ hours in individual study is a typical division. Students should multiply the course credits by 3.5 to determine the demands the course will place on their time during a typical week of the semester. For example, in MA5524 Functional Analysis (a 3-credit course with no lab), one would expect to spend 10½ hours per week on the course (3 hours in class and 7½ hours out of class).

Residency Requirements—Academic

Master's students must complete a minimum of two-thirds of the course work in residence at MTU. Thesis credits must be supervised by MTU graduate faculty.

Doctoral students must spend at least four semesters on campus at MTU beyond attainment of a bachelor's degree, or two semesters beyond attainment of a master's degree, in a formal program of study and research under direct supervision of a given program/department. The semesters in residence do not have to be continuous and can include summer terms. In special pre-approved instances, this residency requirement may be waived.

Time Limits

All work for the master's degree must be completed within five calendar years of the first enrollment in the degree program. All work for the PhD must be completed within eight calendar years of the first enrollment in the degree program. Requests for extension must be made by the advisor to the Dean of the Graduate School.

Degree-Specific Requirements

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

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

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Questions?

Grad School Web Index

Site Map

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

- If you are a Tech master's student applying to a doctoral program, and substitution of the D1 for a regular application is okay with your department, file an Acceptance into the Doctorate Program form (D1)
- choose an advisor and file a Recommended Advisor form (D2)
- file a Preliminary Program of Study form (D3)
- successfully complete the comprehensive exam and file a report on the Comprehensive Examination form (D4)
- choose an advisory committee and chair and file a Recommend Advisory Committee form (D4a)
- file a Degree Schedule form (D5)
- develop and defend a dissertation plan and file an Approval of Dissertation Proposal form (D6)
- file a Scheduling of Final Oral Examination form (D7) and defend an approved dissertation in an oral exam
- file a Report on the Final Examination form (D8)
- fulfill the campus residency requirement
- submit the corrected, approved dissertation and associated forms
- finish the degree within the prescribed time limit
- Forms are available on-line at http://www.gradschool.mtu.edu/trackingforms.html

In addition to the Graduate School requirements, which are described below, individual departments may have higher standards. Students are expected to know their department's requirements.

Grades—All grades must be B (3.0 on a 4.0 scale) or better in the major subject area. The department chair can approve no more than 6 credits of BC (2.5) or C (2.0) in a cognate department. The student must maintain a cumulative grade point average of 3.0 or better to remain in good standing.

Campus Residency Requirement— Doctoral students must spend at least four semesters on campus at MTU beyond attainment of a bachelor's degree, or two semesters beyond attainment of a master's degree, in a formal program of study and research under direct supervision of their major advisor. The semesters in residence do not have to be continuous and can include summer terms. In special pre-approved instances, this residency requirement may be waived.

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

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

Advisory Committee

During the student's first semester of residence, an Advisor will be chosen to assume initial responsibility for the direction of the student's educational program and to hold meetings as needed to fulfill this responsibility. It is also possible that other members of the advisory committee will be chosen at the same time as the advisor. The advisor and committee, consisting of at least two members of the graduate faculty in addition to the advisor, will be appointed by the chair of the major department or program with the approval of the dean of the Graduate School and filed on the D2 and D4a forms. This committee, with the addition of a fourth, external member, will often become the Examining Committee (see "Oral Examination" below).

Preliminary Program of Study—Initially the Advisory Committee will meet with the student and prepare a program of course study and research work that will lead to the doctoral degree. This program must be filed in the Graduate School office during the second term of residence on the Preliminary Program of Study form (D3). Subsequent changes in the program can be made by the advisory committee and will appear on the final Degree Schedule form (D5). The Graduate School office must be notified in writing of any significant changes affecting the time required for obtaining the degree.

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

Comprehensive Examination

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

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

Final Degree Schedule—Upon satisfactory completion of the comprehensive examination, a final Degree Schedule form (D5) must be filed in the Graduate School office and approved prior to scheduling a final oral

examination. This Degree Schedule should include all course work taken since the last previous degree to be applied to the doctoral degree. It must be approved by the Advisory Committee as meeting the standards associated with the doctor of philosophy degree.

Dissertation

The research study undertaken as part of the doctoral degree program will be presented in the form of a dissertation that can be made a permanent acquisition of the library, along with an expanded abstract, not exceeding 350 words. Any classified or proprietary material that cannot be made available to the public is not acceptable as a dissertation. Completing the dissertation includes approval of the dissertation proposal, preparing the dissertation according to guidelines, and filing the completed (and successfully defended) dissertation.

The dissertation will be written and prepared under the supervision of the chair of the Advisory Committee according to discipline-specific writing requirements. Publication guidelines are found in Publishing Your Dissertation (UMI Dissertations Publishing). The Graduate School Office sends this booklet to students when the Scheduling of Final Examination Form (D7) has been received. A completed draft of the dissertation must be approved by the Advisory Committee two weeks prior to the final examination.

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

The corrected dissertation, as approved by the committee, along with an original signature page (advisor and department chair signatures), is submitted to the Graduate School Office as a pdf file on CD for printing and binding. The J. R. Van Pelt Library archives all doctoral dissertations. A paper copy, printed single sided, accompanied by the required form, attachments, and payment, is for submission to UMI Dissertations Publishing for microfilming and inclusion in Dissertation Abstracts International. If the student prepares appropriately, the UMI submission can be done electronically.

Oral Examination

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

The Examining Committee will be appointed by the dean of 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. The primary advisor, or a co-advisor who serves as chair of the committee, must be from the student's home department. For interdisciplinary and non-departmental programs, the outside examiner may not be affiliated with the interdisciplinary or non-departmental program. A person external to MTU may be appointed as an ad hoc member of the Graduate Faculty to serve as the outside examiner. Persons who are not members of the Graduate Faculty may not serve as voting members of doctoral examination committees.

The examination will be scheduled, by filing the Scheduling of Final Oral Examination form (D7) with the dean of the Graduate School, in consultation with the chair of the Advisory Committee. The date of the examination

must be at least two weeks following the approval of the completed draft of the dissertation by the Advisory Committee. A copy of the completed dissertation draft must accompany the D7 when it is filed in the Graduate School office. Copies of the completed draft must be distributed to any new members of the Examining Committee at least two weeks prior to the scheduled examination date.

Timeline to Degree—PhD

First reconcile this suggested chronology with your department's requirements. The sequence may not be the same as written here. Take this timeline to a meeting with your advisory committee to make sure your goals are consistent with their expectations.

		Date Done
		During the first semester of residence or soon thereafter
		[For internal applications from Master's program only] D1, Acceptance into the Doctoral Program*—completed by your department's graduate program coordinator, perhaps after a preliminary exam.
		Make sure the GSO has *official* final transcripts showing proof of your previous degrees (if not from MTU).
		Get a Social Security Number if you will be a GRA or GTA, or otherwise working.
		Fill out a Patent, Research, and Proprietary Rights form in your department office.
		Inform the Office of Student Records and Registration of any changes in your status, address, student identification number, etc.
		During the second semester of residence
		D2, Recommended Advisor—Your department chair/graduate program coordinator appoints an advisor to meet with you and prepare a program of courses and research work. If at any time you wish to change advisors, it should be approved by the department chair and reported to the GSO. Arrange a meeting with your advisor to work on the D3 and plan your degree path.
		D3, Preliminary Program of Study—This is a list of all courses you have completed since you received your BS and any additional courses your committee says you should take. This form is for student planning purposes only and is not submitted to the Graduate School. If credit transfers are necessary, use the Transfer Credits form.
		Proficiency Examination—if required by department
		Modern Language Requirements—if required by department
		As work goes on

		If your research involves animal subjects, human subjects, or recombinant DNA you must obtain approval from the appropriate administrative review committee(s). Applications for approval(s) may be found on the Research web site. If you need further assistance, please contact the Research Compliance Administrator by phone 906-487-3403.
		At least 2 semesters prior to scheduling the final oral examination and no more than five years after beginning your doctoral program, you will be given a written comprehensive exam (and perhaps an oral exam) after you have completed any modern language requirement. Satisfactory performance on the comprehensive exam usually indicates that no additional course work is needed, although you have the option of taking more.
		D4, Report on the Comprehensive Examination—Comprehensive exams must be completed and recorded in Banner within 5 years of starting the program and at least two terms prior to the dissertation defense. Results are recorded in Banner by academic department staff. This form is for use by departments for internal record-keeping and verification of exam results and should not be sent to the Graduate School.
		D4-A, Recommended Advisory Committee—Your department chair/ graduate program coordinator appoints an advisory committee of graduate faculty members to meet with you and prepare a program of research work. Any changes in the membership of this committee should be approved by the department chair and reported to the GSO. Arrange a meeting with your committee to work on D5 and plan your research path.
		D5, Degree Schedule—The GSO can start verifying your grades immediately. Your copy will be returned attached to the University Microfilms booklet on preparing your dissertation for publication.
		The Dissertation
		D6, Approval of Dissertation Proposal—This should be a simple statement of your research goal and plan of attack. (This is sometimes the oral part of the comprehensive exam.)
		At least 6 weeks prior to your defense, send the dissertation draft to your advisory (three-member) committee.
		D7, Scheduling of Dissertation Defense—due in the GSO with a copy of your best dissertation draft at least two weeks before the defense date but after the examining committee has approved your draft and signed the back of the D7. The examining (defense) committee must be comprised of at least four graduate faculty members, including at least one from a cognate department. Non-MTU members of your committee must be preapproved by the dean of the Graduate School. Your copy of the signed form will be returned with instructions on how to complete your degree.

		Dissertation Defense—Take your **D8, Report on Dissertation Defense**, to the defense for signatures. Your advisor/department may hold the signed form for up to two weeks following the defense; research grades will not be changed until this form is in the GSO.
		Submission of Dissertation—After the defense, make corrections as directed and get the new original dissertation signed. Determine whether you are submitting a CD for printing and binding or a fully linked ETD. Convert the file to the appropriate electronic format. If you are NOT submitting an ETD, you will need to print one complete copy for submission to UMI. Complete pages 3 and 4 of the UMI dissertation publishing document and submit them to the Graduate School. Read the document attached to your copy of the signed D7 carefully for other details related to completing your degree and submitting your dissertation. Bring a CD containing your dissertation and the following documents: • Heckman Bindery Form • UMI dissertation paper copy or second CD with links/bookmarks • UMI dissertation submission form pages 3 and 4 • Invoice for Thesis/Dissertation binding and UMI submission • Payment receipt (obtained from the Cashier's Office AFTER presenting the invoice to the GSO for verification) • Two paper copies of the title page • One paper copy of the abstract • Original signature page • Survey of Earned Doctorates • Life After Michigan Tech form • Signed D8 if not already sent by department to Graduate School • Signed M7/D9 and a third CD with links/bookmarks if you wish to upload your dissertation to the MTU library You can usually receive a certification letter immediately if all your degree requirements are complete. Please also take the Exiting Graduate Student Survey. This is optional, but will be very much appreciated.
		The Goal: Graduation—no more than eight years after starting the doctoral program. Your transcript will indicate degree granted by the 4th week of the next semester. If you have left a valid address, your diploma will be mailed to you about 90 days after semester end.
		Be sure the GSO and your advisor are aware of your commencement plans at the beginning of the commencement semester.

* All these forms can be sent to the GSO by your department's graduate secretary via campus mail. Copies of signed forms will be returned to you and the department. Be sure to keep a file of your paperwork.

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Questions?

Grad School Web Index

Site Map

The Master of Engineering degree is intended to be a terminal professional degree where the candidate demonstrates advanced ability in course work and with an advanced engineering design project, or practicum. The master of engineering student must do the following:

- file a preliminary Degree Schedule form
- choose an advisor and advisory committee
- complete a written and oral report on a practicum
- file a final Degree Schedule form
- fulfill the campus residency requirement
- finish the degree within the prescribed time limit
- file a successful practicum report form.
- Forms on-line at http://www.gradschool.mtu.edu/trackingforms.html

In addition to the Graduate School requirements, which are described below, individual departments may have higher standards. Students are expected to know their department's requirements. Currently, there are master of engineering degrees in civil engineering and in environmental engineering, as well as a non-departmental master of engineering administered through the office of the dean of engineering.

Grades—All grades must be B (3.0 on a 4.0 scale) or better in the major subject area. The department chair can approve no more than 6 credits of BC (2.5) or C (2.0) in a cognate department. The student must maintain a cumulative GPA of 3.0 or better in all courses taken as a graduate student.

Campus Residency Requirement—A minimum of one-half of the course work credits must be taken in residence at MTU. (Note that this is inconsistent with the general requirement that 2/3 of the course work be taken in residence. See Senate Proposal 5-98.)

Time Limit—All work required for the Master of Engineering degree must be completed within five calendar years of the first enrollment in the degree program.

Advisor—Initially the advisor may be the department's graduate coordinator, but as soon as possible, and by the end of the first semester in residence, a permanent advisor should be chosen. This MTU graduate faculty member advises the student on course selection and choice of practicum experience. The advisor is an important factor in the graduate student's timely and successful completion of his or her program of study.

Advisory Committee—The Advisory Committee is nominated by the chair of the major department, usually in consultation with the advisor, and approved by the College of Engineering. At least two of the three examiners must be members of the graduate faculty and at least one of the graduate faculty members must be from outside the major department.

Degree Schedule—The Proposed Degree Schedule and Work Plan form (MEng1), available from the College of Engineering and on the Grad School "forms" web page, is used to list all the courses that the

student will use for the Master of Engineering degree. The completed form must be approved by the student's advisor and department, the College of Engineering, and the Graduate School office during the first semester of enrollment.

The Final Degree Schedule form (MEng2), available from the College of Engineering and on the Grad School "forms" web page, must be filed during the first week of the second term in residence. It lists all the courses applied to the Master of Engineering degree, gives the advisory committee membership, provides an abstract of the practicum, and is endorsed by the student, the advisor, the department chair, the associate dean of engineering, and the dean of the Graduate School.

Changes in the Final Degree Schedule—Any changes must be approved. The chair of the major department must send a memo to the dean of the Graduate School.

Course Work —Courses taken must meet certain requirements, described below, and they must be approved by the advisor and the department chair. Courses taken while an undergraduate at Michigan Tech may be used for graduate degree credits if the Senior Rule form (available from the department secretary) has been appropriately filed. Courses taken while a post-grad may be used on the Degree Schedule with departmental approval. The minimum requirements are as follows:

Course work	26–28 credits
Practicum	2–4 credits
Total (minimum)	30 credits
Distribution of course work credit	
5000–6000 series (minimum)	12 credits
3000–4000 level (maximum)	14 credits

Master of Engineering Practicum—The practicum is an advanced independent study for students in the master of engineering program. The student in consultation with the advisor develops and executes a project demonstrating capabilities in problem solving, communication, and decision making. The practicum can be completed on campus or at the site of a Michigan Tech corporate partner. Students must submit a written report and make an oral presentation related to their project to their Advisory Committee.

The successful on-campus oral presentation will be evaluated by the committee on the MEng3 form, Report on Practicum.

Timeline to Degree—Master of Engineering

First reconcile this suggested chronology with your department's requirements. The sequence may not be the same as written here. When you consult your advisor for your degree schedule, take this timeline to the meeting so you and your advisor are in agreement on your plans.

The degree will be granted at the end of the semester in which all courses have been satisfactorily

completed and forms MEng1, MEng2, and MEng3 have been submitted and approved.

Date	Done	Task
		Enrolling for the first time— If you do not have a faculty advisor to help you choose courses, consult with Dr. Sheryl Sorby, Associate Dean of Engineering.
		Make sure the GSO has official final transcripts showing proof of your previous degrees if they are not from Michigan Tech.
		Fill out the Patent, Research, and Proprietary Rights form in your department office.
		If your research involves animal subjects, human subjects, or recombinant DNA, you just obtain approval from the appropriate administrative review committee(s). Applications for approval(s) may be found on the Research Website. If you need further assistance, please contact the Research Compliance Administrator by phone 906.487.3403.
		Inform the Office of Student Records and Registration of any changes in your status, address, student identification number, expected graduation date, etc.
		MEng1, Proposed Degree Schedule and Work Plan*— This form is due early in the first semester and is prepared in cooperation with your advisor. It establishes preliminary plans for your course work and nominates a committee to complete your advising and practicum report.
		MEng2, Final Degree Schedule—This form is due in the first week of your second term of enrollment. After you submit your Final Degree Schedule, you will receive a signed copy in return that includes Graduate School forms to help you finish your degree. All your grades in the courses used must be B or better in your major subject, and your cumulative GPA must be 3.0 or higher.
		Set up an appointment with your committee to report on your practicum.
		MEng3, Report on Practicum—This form is due when you have completed your practicum, including the oral presentation to your committee.

		The Goal: Graduation—no more than five calendar years after you started graduate school. Your graduation date is the end of the term in which you complete all degree requirements. Your transcript will not indicate your degree until about four weeks after the next term begins. Your diploma will be mailed to you about 90 days after the term ends if you have completed and submitted your Life After MTU form. You may request a degree certification letter as soon as your degree is completed.

* All these forms can be sent to the GSO by your department's graduate secretary via campus mail. Copies of signed forms will be returned to you and the department. Be sure to keep a file of your paperwork.

Last reviewed on 06/08/2007 Contact **webmaster**.

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Questions?

Grad School Web Index

Site Map

The master's degree demonstrates advanced ability, usually in both course work and research. The master's student must complete the following:

- choose an advisor & file a Recommended Advisor form (M2-GSO)
- file a Degree Schedule form (M4)
- complete one of three option plans: Note that plans B, C, and D are not offered by all departments.

  plan A—thesis and course work

  plan B—report and course work*

  plan C—course work with oral exam

  plan D—course work only

- complete an oral examination
- fulfill the campus residency requirement

  (Distance Learning students must document time on campus.)
- finish the degree within the prescribed time limit
- submit an approved document in plans A & B
- Forms are available on-line at http://www.gradschool.mtu.edu/trackingforms.html

In addition to the Graduate School requirements, which are described below, individual departments may have higher standards. Students are expected to know their department's requirements.

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

Grades—All grades must be B (3.0 on a 4.0 scale) or better in the major subject area. The department chair can approve no more than 6 credits of BC (2.5) or C (2.0) in a cognate department. The student must maintain a cumulative grade point average of 3.0 or better in all courses taken as a graduate student in order to remain in good standing.

Campus Residency Requirement—A minimum of two-thirds of the course work credits, i.e., non-research credits, must be taken in residence at MTU. Thesis credits must be supervised by MTU graduate faculty.

Time Limit—All work required for the master of science degree must be completed within five calendar years of the first enrollment in the degree program.

Advisor

Initially the advisor may be the department's graduate coordinator, but as soon as possible, and no later than the end of the second term in residence, a permanent advisor should be chosen. This MTU graduate faculty member advises the student on course selection and choice of research topic and supervises the research

experience. The advisor is an important factor in the graduate student's timely and successful completion of the program of study. Students in all plans must have an advisor.

Degree Schedule

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

The courses listed on the M4 must meet certain requirements, described in each option below, and they must be approved by the advisor and the department chair. Courses taken while an undergraduate at MTU may be used for graduate degree credits if the Senior Rule form (available from the department secretary) has been appropriately filed. Courses taken while a post-grad may be used on the Degree Schedule with departmental approval.

Changes in the Degree Schedule—Any changes must be approved. The chair of the major department must send a memo to the dean of the Graduate School requesting changes.

Options

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

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

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

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

Course work	24 credits

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

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

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

- Plan C requires a comprehensive oral examination.
- Plan D does not require a comprehensive oral examination. Research credits taken by students in Plan D may NOT be counted as coursework credits.

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

Oral Examination

Examination by and approval of a faculty committee is required for awarding a master's degree. This committee will examine the general professional knowledge, course work, and (in plans A and B) the written documents of each master's candidate. The defense is scheduled and the committee nominated via the Scheduling of Final Oral Examination form (M5), which must be in the Graduate School office two weeks prior to the defense date.

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

Thesis or Report

Distribute copies to the Examining Committee at least two weeks prior to the examination date.

Defense—Must be scheduled and the committee nominated via the Scheduling of Final Oral Examination form (M5). The committee's written evaluation must be filed on the Report on Oral Examination form (M6). The student must be enrolled to defend.

Timeline to Degree

First reconcile this suggested chronology with your department's requirements. The sequence may not be the same as written here. When you consult your advisor for your degree schedule, take this timeline to the

meeting so you and your advisor are in agreement on your plans.

		Date	Done	Task
				Enrolling for the first time—Get into course work under the direction of your departmental graduate coordinator.
				Make sure the GSO has official final transcripts showing proof of your previous degrees (if they are not from MTU).
				Fill out Patent, Research, and Proprietary Rights form in your department office.
				Get a Social Security Number if you will be getting a GRA or GTA, or otherwise working.
				Start looking for a **faculty advisor** for research projects; she/he should be chosen **by the end of the second term** in residence—your department will have its own way of handling this. **File your M2-GSO form** with the Graduate School.
				If your research involves animal subjects, human subjects, or recombinant DNA, you must obtain approval from the appropriate administrative review committee(s). Applications for approval(s) may be found on the Research web site. If you need further assistance, please contact the Research Compliance Administrator by phone 906-487-3403.
				Inform the Office of Student Records and Registration of any changes in your status, address, student identification number, expected graduation date, etc.
				During the semester prior to your defense (or earlier), complete the **M4, Degree Schedule*** in consultation with your advisor—if there are problems, you have a term in which to correct them. Because it is approved by your advisor/coordinator and your department chair, any changes must also have their approval. If credit transfers are necessary, use the Transfer Credits form.
				At least two weeks prior to your defense, complete **M5, Schedule of Oral Examination**, in consultation with your whole committee. This names your three-member examining committee and schedules your oral examination. (Check departmental policy on choosing your committee.)
				At least two weeks prior to your defense, distribute readable copies of the thesis/report to the examining committee.

		Oral Examination—Faculty and students will be invited to hear at least your presentation. It is wise to attend a few of these early in your tenure at Tech. Some departments also require a couple of preliminary seminars during your research. The examination for the course work option varies with the programs allowing this option. Take your **M6, Report on Oral Examination**, to the exam for signatures. (Your advisor/department may retain your M6 for up to two weeks following the defense while you make corrections; research grades are not changed until the M6 is in the GSO.
		Submission of final document — For Plan A Thesis and Plan B Report, make corrections as indicated by your committee. Get the signature page signed. For a Plan A Thesis, bring a CD with your approved document in .PDF format to the GSO. For a Plan B Report, bring one paper copy to the GSO, in a sturdy binder suitable for archiving in the Library. (Your advisor/department may want more copies.) All thesis option students and any report option students who want professional binding should also bring: • Heckman Bindery Form • Invoice for Thesis • Payment receipt (obtained from the Cashier's office AFTER presenting the invoice to the GSO for verification) • One paper copy of the title page • Original signature page ALL students must submit (Plans A, B, C, D): • Life After Michigan Tech form Please also take the Exiting Graduate Student Survey. This is optional, but will be very much appreciated.
		The Goal: Graduation—no more than five calendar years after you started Graduate School. When you have completed your degree requirements, you can usually receive a certification letter immediately. Your transcript will indicate degree granted by the 4th week of the next semester. Your diploma will be mailed to you about 90 days after the term ends. Leave a valid address with the Graduate School.
		Be sure the GSO and your advisor are aware of your commencement plans at the **beginning** of the commencement semester.

* All these forms can be sent to the GSO by your department's graduate secretary via campus mail. Copies of signed forms will be returned to you and the department. Be sure to keep a file of your paperwork.

Last reviewed on 06/08/2007 Contact **webmaster**.

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Questions?
Grad School Web Index
Site Map

Master's Path Program–for students who have completed a three-year bachelor's program outside the US.

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 twenty-three 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 and by the Graduate School.

Suggested minimum admissions criteria:

- Completion of recognized three-year degree in appropriate area
- Statement of purpose, application fee, official transcripts
- Three letters of reference
- Adequate academic achievement in pursuit of the three-year degree
- GRE/general test results, if required by department,
- Proof of English proficiency TOEFL (at least 550 written or 213 computer-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 departmental graduate committee, which delineates the specific course requirements needed for completion of the master's degree.

Based on the specific MTU 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 term 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 term, they may, at the discretion of their advisor, be eligible for a research and/or teaching stipend.

Brochure describing the program here.
Master's Path course planning form here.

Last reviewed on 06/08/2007 Contact **webmaster**.

Please enable iframes on your browser. MTU Navigation

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Questions?

Grad School Web Index

Site Map

Affiliated Programs & Agreements - Draft

MTU currently partners with a variety of other institutions to enhance and expand opportunities for graduate education. These opportunities include distance learning, exchange and transfer of credits, options for transferring in "graduate option" credits, and joint support and research arrangements. We invite other institutions to read through these agreements and propose similar or complementary affiliations. Contact Dr. Marilyn Vogler, Assistant Dean of the Graduate School, for information.

Northland College (transfer of graduate option credits)

Ford Motor Company (partnered distance learning)

Southern University A&M College (exchange term and transfer of credits)

Kettering (joint support and research)

John Deere (partnered distance learning)

MIGS (Michigan Graduate Schools transfer of credits)

Mayo (partnered distance learning)

Universidad del Turabo

Last reviewed on 06/08/2007 Contact **webmaster**.

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Questions?

Grad School Web Index

Site Map

Please understand the difference between registration and enrollment. When you sign up for particular courses, you are **registering**. After you register, you will be charged tuition and fees. When you pay those tuition and fees, you have confirmed your **enrollment**.

CONFIRMING YOUR ENROLLMENT IS REQUIRED, NECESSARY, & ESSENTIAL EVERY TERM YOU REGISTER FOR COURSES, INCLUDING CONTINUOUS ENROLLMENT COURSES OR COOP CREDITS. THIS IS YOUR RESPONSIBILITY!

Contents of this page

Steps to Confirm Enrollment

- MTU is no longer mailing paper bills. You may retrieve your bill via the web at http://www.admin.mtu.edu/acct/ [click Student On-line Bill].
- You must process your bill even if you have a zero ($0.00) or credit balance. If you have a zero or credit balance, click the button at the bottom of the page to confirm enrollment.
- You may pay your bill on the web by credit card (Visa, Mastercard, and Discover are accepted). Credit card payments may not be brought or phoned in to the Cashier's window.
- If you do not confirm your enrollment (process your bill) by the due date, you will be assessed a late fee of $50. If your bill is not processed by the first Wednesday of classes, your courses and/or research credits will be dropped, and you will be charged a late fee of $100. All fees must be paid before your schedule can be reinstated. This will not be paid by whoever is supporting you.
- If you get a bill for full tuition and have been told you'll be supported, verify with the cashier whether your support has been added by your department. If your support has been processed by your department, you can pay just the fees you owe (approximately $135).
- If your support has not been processed, contact your department immediately. DO NOT HOLD YOUR BILL BEYOND THE DUE DATE WAITING TO HEAR FROM YOUR DEPARTMENT.
- You may arrange a deferred payment with Accounts Receivable if you can't pay the bill in full by the due date.

Registration

To be enrolled, students are required to register each semester during the dates specified in the University Academic Calendar. Enrollment requires selecting classes, verifying course data, acquiring the combined billing statement, and making the applicable payment by the due date. Registration is confirmed when the billing statement is processed by the Cashiers' office. Distance Learning students register through Sponsored Educational Programs.

Although every effort is made to ensure that the Time Schedule Booklet is accurate at the time of printing, unforeseen circumstances or low enrollments may cause the cancellation of some section(s) or course(s). Michigan Tech also reserves the right to change the days, times, rooms, and/or instructors of section(s) or course(s) as deemed necessary.

Registration Changes

Dropping and adding credits may impact your bill. Changes to your registration should be made by the second Wednesday of the semester and, subject to the allowable maximum, students may make the following changes in their schedules: adding or dropping classes, changing credits on variable-credit courses, section changes, pass-fail versus letter-grade option changes, and audit versus letter-grade option changes.

Students may drop courses through the end of the third week of a semester without a grade being reported. From the beginning of the fourth week through the end of the eighth week of a semester, courses dropped will be indicated by a grade of W (late drop) on the transcript.

Full-Time Status

All graduate students, including Distance Learning students, who are using University services must be enrolled for at least one course or at least one credit of graduate research. Graduate students supported by teaching, research, or administrative assistantships or by fellowships must be registered as full-time students and must complete a certain number of credit hours each term in which they receive support (further information for students on assistantships). Full-time enrollment may also be required by insurance companies, your lending institution, and/or the Immigration and Naturalization Service.

A graduate student is considered full time during the academic year for all support, visa, and financial aid purposes if s/he enrolled for 9 or more credits (credits may be of any type: coursework or research, audit or graded, undergraduate or graduate, any department including PE). A student is considered half-time if s/he is enrolled for 5-8 credits. Before you sign up for fewer credits, be sure you're not jeopardizing your visa status, loans, fellowships, insurance, your department standing, and so on.

(Recent changes noted by brown text)

A student taking fewer than 9 credits is considered full time at Michigan Tech if any **one** of the following applies:

1. Student is enrolled in a course that carries full-time status regardless of the number of credits, e.g., co-op (UN5000). For a list of these courses click here;
2. Last term (completion) has been certified:

   a. **Must be recorded with GSO by the end of the previous term.**
   b. M4/D5 has been filed
   c. Advisor affirms in writing that student will complete the degree during the term.
   d. Students who have certified a "Documented Final Term" but do not complete the degree in that term must back-enroll for additional credits to bring their total to 9 if they were required to be full time for support, visa, or financial aid purposes. Source of original support will be billed (self, project, department).
3. Full time (progress) has been certified:
   a. **To be used ONLY when circumstances dictate dropping to below 9 credits following the last official drop/add day AND when advisor does not recommend replacing the dropped credits with a different COURSE.** (Adding additional research credits to maintain full-time status is not necessary.)
   b. Student must consult with advisor about decision to drop credits.
   c. Advisor must affirm in writing that student is making adequate progress to degree.
   d. Must be recorded with GSO in a timely fashion, generally prior to the actual change in registration
   e. International students must get a Reduced Course Load (RCL) I-20. See IPS as soon as you have a letter from your advisor.
4. Student is dual-enrolled for credits at Tech and an affiliated university and (1) the total credit enrollment equals or exceeds 9 credits, or (2) the student meets criteria 2 [last term] above. An affiliated university is one with whom MTU has a formal written agreement for exchange and/or dual enrollment of students. Enrollment at the affiliated university must be documented through the student's home department at Michigan Tech and the Graduate School.

Summer term enrollment of 1 credit of research or one course is considered full time.

Graduate students supported by teaching, research, or administrative assistantships or by fellowships must be registered as full-time students and must complete a certain number of credit hours each term in which they receive support. In both master's and doctoral programs, research credits may, but need not, be included for the purpose of determining whether the minimum criteria have been met.

Continuous Enrollment

Having begun a graduate program, students must be enrolled every fall and spring semester until they complete the degree. "Completing" a degree means turning in ALL THE PAPERWORK as well as the REVISED AND EDITED report, thesis, or dissertation. In general, graduate students are not required to register for summer term in order to fulfill the continuous enrollment policy. However, those graduate students who have summer financial support, who are completing their degree during summer term, or who are using University facilities or faculty time must register for summer term.

Also, students must be enrolled for one full credit the term of their final oral examination. Students who defend, but are not able to complete corrections must be enrolled each fall and spring term until all revisions are approved and the paperwork is turned in. Students turning in paperwork during summer must be enrolled summer term as well. In all cases, if a student must be enrolled during terms following the defense term, **and is no longer on campus**, enrollment in UN5952 is sufficient.

Continuous enrollment may be satisfied by being enrolled in:

- Regular course(s)
- Research credits
- Co-op
- UN5951, UN5952, or UN5953, as appropriate.

If a non-summer term is missed and a waiver of continuous enrollment was not granted by the Graduate School office, the student becomes inactive. Students who become inactive must apply for readmission and pay the continuous enrollment fee for each semester missed before returning to active status.

Waiver of Continuous Enrollment

A waiver of continuous enrollment status will remain available only for those students who for demonstrable extenuating circumstances will be making NO progress to degree during a given term. Waivers will be strictly limited to one term except in the most serious of situations. All waivers must be approved by the Dean of the Graduate School.

The “no progress” designation means NO use of campus facilities (e-mail, library, labs, computers, etc.) and NO use of faculty time.

Continuous Enrollment Courses

UN5951: Graduate Status - Maintenance of Continuous Enrollment
00 credits (fee only, $100)

1. Meets continuous enrollment requirement for graduate students needing "time out" for special circumstances and for programs with inactive terms
2. No access to advisor's time or campus facilities
3. Enrollment includes e-mail and library privileges

UN5952: Report, Thesis, Dissertation - Independent Writing & Revision
.25 credits (billed at regular tuition rate)

1. Meets continuous enrollment requirement for graduate students engaged in writing report, thesis, or dissertation
2. Open only to students who have completed all course and credit requirements
3. Limited access to advisor's time
4. No access to labs and other campus facilities
5. Enrollment includes e-mail and library privileges
6. NOTE: This course differentiates between students who are not engaging the advisor’s time (UN5951) and those who are (UN5952). Because the advisor must grant permission to register, all involved will understand that the student is actively involved in writing the report/thesis/dissertation and will be making limited demands on the advisor’s time. (At the standard 1 cr. = 1 hour contact, .25 cr. comes out to about 1 hour / month.)

UN5953: Terminal Graduate Registration
.75-1.0 variable credits (billed at regular tuition rates)

1. Meets defense-term enrollment requirement for graduate students defending report, thesis or dissertation
2. Open only to students returning from enrollment in UN 5951/5952
3. Allows decision late in the term to defend and complete
4. Late enrollment after the billing due date carries standard late fee; no waivers granted
5. Variable credit assigned to bring total term enrollment to minimum 1.0 credits
6. Computer lab access is not included; if campus computing facilities are necessary for post-defense revision, the BCF will need to be paid as well.

Readmission

Any University graduate student whose enrollment is interrupted for one or more non-summer semesters or who has been dismissed or requested to withdraw must apply for readmission. The application for readmission should be submitted well in advance of the beginning of the term in which the student wishes to resume his or her degree program.

Students returning after failing to maintain continuous enrollment must

1. apply for readmission and have the application approved
2. pay a readmission fee equivalent to the cost of having maintained continuous enrollment, calculated at the total cost of enrolling in UN5951 each non-summer term the student has not been active. This fee may not be waived.

Forthcoming Changes

This revised policy will be effective on July 1,2007 (PDF).

Last reviewed on 06/08/2007 Contact **webmaster**.

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Questions?

Grad School Web Index

Site Map

Paperwork that Must be on File in the Graduate School

Please be sure your graduate school file contains an official final transcript from your previous college and your signed, witnessed "Patent, Research, and Proprietary Rights Agreement," which is available on the Web at http://www.gradschool.mtu.edu/trackforms/PatentForm.pdf.

If your final transcripts do not include degree granted, then an official proof-of-degree is also required. Transcripts are not considered official unless they are sent directly to the Graduate School by the degree-granting institution or are received in a stamped, sealed envelope issued by the institution. MTU graduates do not have to request or pay for their transcripts—the GSO has access to them.

Various forms are used to inform the GSO of your progress through your degree program. They also serve as a kind of work contract between you and your advisor/committee, confirming that you're on the right track. These forms are on the Web at http://www.gradschool.mtu.edu/trackingforms.html. They should be filed in a timely fashion per instructions on each form and/or the timeline to your degree found in the degree requirements. There is also a summary of when forms are due at http://www.gradschool.mtu.edu/trackforms/SubmissionSchedule.pdf.

Last reviewed on 06/08/2007 Contact **webmaster**.

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Questions?

Grad School Web Index

Site Map

Transfer Credits

A limited number of course credits taken as a graduate student at other colleges or universities may be accepted for graduate credit at MTU. If these credits were taken before enrollment at MTU, a request for transfer credit should be made during the student's first term on campus. Transfer of credits taken after enrollment at MTU must be approved in advance of course registration. Courses intended primarily for undergraduates and courses used toward a prior degree are not transferable. The number of credits accepted depends on an evaluation by the major department and the dean of the Graduate School. In no case may the total number of transfer credits exceed 1/3 of the required non-research course credits. Link to Transfer approval request form.

Special agreements regulate the transfer of credits among Michigan graduate schools and the use of credits taken prior to completion of an undergraduate degree at MTU and at Northland College.

- Michigan Intercollegiate Graduate Studies (MIGS) Program
- Senior Rule
- Northland College Graduate Credit Option

MIGS

Graduate Students who are in good standing in a degree program are eligible to elect courses at several graduate schools in Michigan with the approval of both Host and Home faculty. This program for guest scholars enables graduate students to take advantage of unique educational opportunities throughout the state. Contact the MTU Graduate School office for a list of participating Universities and MIGS liaison officers.

Procedures:

1. The Student and Academic Advisor decide if the course(s) are appropriate to the program of study and are not available at the Home University (MTU).
2. The advisor discusses the plan with appropriate faculty members at the Host University.
3. The Host department is consulted to ensure that space is available for enrollment.
4. MIGS application is filled out, and returned with the Academic Advisor's signature to the MTU Graduate School office.
5. Signature from Liaison Officer (Nancy Byers-Sprague) is obtained and the application is forwarded to the Host University for completion.
6. Once the admission has been approved by the Host Department, the MIGS Liaison Officer at the Host University issues admissions documents, registration instructions, and forwards a copy of the letter to the MTU Graduate School.
7. After completing the course(s), the student is responsible for arranging to have two (2) official transcripts sent to the MTU Graduate School.

8. The student should also contact that office to indicate that a transcript is being sent for posting on the academic record as MIGS graduate credit.

   Fees: Students on a MIGS enrollment pay tuition and other fees normally charged by the Host University for the services rendered.

   Residency Status: It is the same as at the Home University.

   Credit: All credit earned under a MIGS enrollment will be accepted by a student's Home University as if offered by that University.

   Grades: Grades earned in MIGS courses will be applied toward the Home University grade point average.

   Part-Time: A student may combine a part-time enrollment at the Home University with a part-time MIGS enrollment with approval if the student's academic advisor.

   Fellowships: MIGS participation does not necessarily modify fellowship commitments made by a Home University for a given period. Therefore, specific arrangements for individual cases should be negotiated with the appropriate officials.

   Enrollments: Enrollments are limited to six (6) credit hours for master's or specialist degree students or nine (9) credit hours for doctoral degree students.

   Transcripts: The student is responsible for arranging to have transcripts certifying completion of work under a MIGS enrollment forwarded to the Home University.

Senior Rule

An MTU senior with a satisfactory undergraduate record may apply for permission to take courses for graduate credit while completing the bachelor's degree requirements. Permission to take classes should be obtained from the chair of the major undergraduate department and the chair of the prospective graduate department. Some departments limit the number of credits and/or courses that a student may take under senior rule. A student so enrolled and carrying 6 credits or more in 5000- or 6000-level courses may carry no more than 16 credits of course work per semester.

After the Senior Rule form has been submitted and approved, senior rule students may elect to have these credits appear on their graduate transcripts and be applied toward an advanced degree, in which case the designated credits will not be used to calculate the undergraduate GPA. This decision is irrevocable and must be made prior to the awarding of the undergraduate degree. The accumulation of senior rule credits does not constitute admission to a graduate program. The student must officially apply for admission to the Graduate School. If the student is admitted to a graduate program at MTU, these courses may be used on the graduate degree schedule provided the normal degree schedule approvals are obtained.

Please Note: Research credits taken at the undergraduate level may not be applied toward an advanced degree and therefore may not be put on the Senior Rule form.

Northland College – Graduate Credit Option

An agreement between Michigan Tech and Northland College allows students at Northland to use up to twelve credits obtained while enrolled at Northland College towards a graduate degree at Michigan Technological University. Details of the Graduate Credit Option are here.

Last reviewed on 06/08/2007 Contact **webmaster**.

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Questions?
Grad School Web Index
Site Map

Quarter to Semester Conversion

Master's Program Requirements*

	Master of Science			Master of Engineering
	Plan A	Plan B	Plan C	
	Course Work and Thesis	Course Work and Report	Course Work	Course Work and Practicum
	Q/S	Q/S	Q/S	Q/S
Min. coursework credits (total)	30/20	36/24	45/30	39/26
Min grad (5000-level) credits	18/12	18/12	27/18	21/12
Max undergrad (4000-level) credits	18/12	18/12	18/12	21/14
Practicum credits	—	—	—	3–6/2–4
Research credits†	9–15/6–10	3–9/2–6	—	—
Minimum total credits	45/30	45/30	45/30	45/30

*Semester credits apply to degrees completed after August 28, 2000.

†Research credits may also be used as continuous enrollment credits for those who leave before completing their degrees.

As always, departments can have special, more-stringent requirements, so check with your department coordinator before completing your M4 degree schedule. Departments may require more credits, may limit your out-of-department credits, may require specific courses, and so on.

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Questions?

Grad School Web Index

Site Map

Good Standing & Grading Policy

Good Standing

In order to remain in good standing, a student must maintain an overall 3.0 GPA for all graded courses taken while a graduate student. 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 or who receive a grade of "Q" (unsatisfactory) in research credits 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.

All courses used on a degree schedule must have B or better grades. However, at a student's major department's discretion, 6 credits of BC/C grades may be used toward your degree if they are not in your major department.

Grades in courses that are not on a degree schedule will not affect standing except as they affect overall GPA. Graduate students are allowed to repeat courses in which they have received less than a "B." The old grade stays on the academic record, but is exempted from computation of the overall GPA.

Courses which are needed for background or breadth but will not be used on the degree schedule may be audited or taken pass/fail so as not to affect GPA.

Grading Policies

Grades are assigned in accordance with University procedures. A grade of A, AB, or B must be obtained in each course used for credit toward a graduate degree with the exception that a total of 6 credits taken in cognate departments may carry a grade of BC or C, if approved by the chair of the major department. Graduate students must maintain a minimum 3.0 cumulative GPA in all course work taken while in graduate status.

Grading System & Grade Points

The grades awarded by the University are:

	A	Excellent	4.00 grade points/credit
	AB	Very good	3.50 grade points/credit
	B	Good	3.00 grade points/credit
	BC	Above average	2.50 grade points/credit
	C	Average	2.00 grade points/credit

	CD	Below average	1.50 grade points/credit
	D	Inferior	1.00 grade points/credit
	F	Failure	0.00 grade points/credit
	I	Incomplete (no grade points per credit)—Given only when a student is unable to complete a segment of the course because of circumstances beyond the student's control. It must be made up by the close of the next three semesters in residence or the incomplete grade becomes a failure (F). An I grade may be given only when approved in writing by the department chair. At graduation, an I grade is considered an F grade in computing the final GPA.	
	X	Condition (no grade points per credit)—Given only when the student is at fault in failing to complete a segment of a course, but in the judgment of the instructor does not need to repeat the course. The X grade becomes a failure (F) if it is not made up within the next semester in residence. An X grade is computed into the GPA as an F.	
	M	Missing grade—See instructor for clarification.	
	W	Late Drop (no credit, no grade points)—From the beginning of the fourth week through the end of the eighth week of a term, course drops will be indicated by a grade of W on a student's transcript. For the remainder of a term, special late drops for graduate students (also indicated by a W) will only be issued by the dean of the Graduate School to correct errors in registration or events of catastrophic impact beyond a student's control, such as serious personal illness, serious accidents, emergency hospitalization, and so on.	
	N	No grade (no credit, no grade points)—Given when a student officially withdraws from the University after the regular drop period, passing the subject. In these cases, the registrar notifies the instructor that the student has withdrawn from the University and should receive an N grade if passing as of the date of withdrawal. The student's grade form will come to the instructor at the end of the course in the normal manner. The instructor will enter the appropriate grade, N or F, thus notifying the registrar.	
	P	Progress—(no credit, no grade points) Should be used with 5000- or 6000-level research courses where projects carry over for more than one semester. May also be used for approved 3000- or 4000-level project courses.	
	Q	Inadequate Progress (no credit, no grade points)—Should be used with 5000- or 6000-level research courses where projects carry over for more than one semester. May also be used for approved 3000- or 4000-level project courses.	
	Cr	Credit—Given by advanced placement or examination.	
	S	Satisfactory (credit given, no grade points)—Given for courses taken under the Pass-Fail option. A grade of S is given for performance equal to a letter grade of A, AB, B, BC, or C. Also indicates successful completion of research courses as evidenced by a successful defense of report, thesis, or dissertation.	

	E	Effort Unsatisfactory (no credit, no grade points)—Given for courses taken under the Pass-Fail option. A grade of E is given for performance equal to a letter grade of CD, D, or F.
Note: Audit Option—Courses are typically taken for audit by students wishing to refamiliarize themselves with the material. A course taken as an audit may be taken at a later date for credit subject to the approval of the student's committee. Changes to audit option must be approved by the instructor. A student should find out what the instructor requires in an audit; it often is more than simply sitting in class.		
	V	Satisfactory audit (no grade points or credit)—Given for courses taken under the audit option.
	U	Unsatisfactory audit (no grade points or credit)—Given for courses taken under the audit option.

Grade Reports & Transcripts

Students may access their semester-end grades through Banweb. Enter your campus username and ISO password to login. Once you have gained access, click on student services, student records, then final grades. Grades are mailed to the student only upon request.

Students or alumni may request official transcripts of their academic records from the Office of Student Records and Registration at no charge. Current students or students who attended Michigan Tech since 2003 may login to Banweb to request a transcript. Enter your campus username and ISO password to login. Once you have gained access, click on student services, student records, then select an official or unofficial transcript.

Former students who enrolled prior to 2003 can request a transcript in person, by mail, or by fax. See the Office of Student Records and Registration web page for more details.

Disputed Grades

A student having an error in a final course grade should contact the instructor and the registrar as soon as possible but no later than one month after the beginning of the next semester. Graded student work (exams, papers, homework, and so on,) that has not been returned to the student should be retained by the instructor of record for at least one month after the beginning of the next semester or until existing disputes have been resolved.

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Questions?

Grad School Web Index

Site Map

Dismissal, Change of Status, and Grievance

Failure to Meet Academic Standards and/or Make Progress to Degree

If for any reason the faculty concludes that a student is not meeting the expected academic and/or progress standards, the Dean of the Graduate School, on the advice of the student's Advisory Committee and the Department Chairperson, may require the student to withdraw. The following procedure will be followed:

Dismissal—The Advisory Committee meets with the student and provides the student with the reasons which indicate, in their professional judgment, that progress in course work, research, or other requirements has not been satisfactory and that completion of the degree program is not likely. The student is given one week to reply orally or in writing. The Committee evaluates the student's reply and subsequently forwards a written recommendation to the Department Chairperson with a copy going to the student.

Having heard the student's reply, the Committee must file a recommendation whether it subsequently determines dismissal or change of status is warranted or not.

Change of Status—In lieu of dismissal of a doctoral student, the Committee may recommend transfer to the MS program if they judge that the student is likely to successfully complete that degree program. In this case, a written recommendation for a change of status is sent to the Department Chairperson with a copy to the student.

If the recommendation is for dismissal or change of status, the Department Chairperson evaluates the Advisory Committee's recommendation and discusses the recommendation with the student. If the Department Chairperson agrees with the recommendation and is satisfied that the student understands the basis for the recommendation and has had an opportunity to reply, a letter recommending dismissal or change of status is sent to the Dean of the Graduate School, together with the supporting documentation.

If the Dean of the Graduate School is satisfied that there is a basis for dismissal or change of status and that the student has been afforded due process, the Dean writes a letter to the student on behalf of the University terminating or changing the student's status in the Graduate School.

Grievance Procedures Following Dismissal or Change of Academic Status

Following receipt of a letter of dismissal or change of status from the Dean of the Graduate School, the student has two weeks to appeal the dismissal. If the student wishes to appeal, the student should write a letter to the dean explaining the specific reasons for reinstatement. The dean will review the case and notify the student of the disposition of the case. In general, reinstatement will be granted only in cases where either the intent of the procedure was not followed or where there are additional, extenuating circumstances

that affected the student's performance and were unknown at the time of the initial recommendation to the Dean of the Graduate School.

Conduct Violations

Graduate students are held to the same ethical and conduct standards as all Michigan Tech students. Conduct violations under the Code of Community Conduct or Academic Integrity Policy will be handled in accordance with these respective policies and procedures, including notification by Student Judicial Affairs of disciplinary sanctions, requirements, and conditions.

In cases involving suspension, expulsion for conduct violations under the Code of Community Conduct or Academic Integrity Policy through the Dean of Students/Office of Student Judicial Affairs, the student shall follow the appeal procedures set forth in the Code of Community Conduct or Academic Integrity Policy, whichever is applicable.

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Questions?
Grad School Web Index
Site Map

Late Withdrawals and Late Drops for Graduate Students

Between the fourth week and the eighth week of the semester, any courses dropped or withdrawals processed will be indicated by a grade of "W" on the transcript. After the eighth week of the semester, "W" grades will not be given without the approval of a late drop request. A graduate student may request a late drop and/or withdrawal from the dean of the Graduate School. The Dean of the Graduate School will consider only those requests that involve circumstances beyond the student's control.

Please Note: Procedures for withdrawals are currently being revised. 10 April 2007

University Withdrawal

If a student decides or needs to withdraw from the University, it is important that the student takes steps necessary to formally withdraw. If the student terminates coursework during the semester, it is important that the student be formally withdrawn. A form for withdrawal is available in the Office of Student Records and Registration.

Failure to withdraw formally may result in the assignment of "F" grades. Students supported by an assistantship must notify their department and advisor of their decision to withdraw. Students who plan to return at a later date should register for one of the continuous enrollment courses. A student who fails to continuously enroll during academic year semesters will be dropped from their graduate program. They will need to apply for readmission if they choose to reenter their graduate degree program.

Medical Withdrawal

Students who find it necessary to withdraw due to medical reasons may apply for a medical withdrawal. There will be no distinction made in the student's record between mental and physical illness or between cases initiated by the University and cases initiated by the student. Written requests for medical withdrawals should be submitted to the dean of the Graduate School . Requests should cite the reason for the withdrawal. The students should arrange to have written documentation regarding the nature of their illness and the need for a medical withdrawal submitted directly to the dean of the Graduate School by a physician or a mental health professional . The dean will contact the student's advisor and departmental graduate coordinator to notify them that the student has requested a medical withdrawal.

Upon approval by the dean, all credits in which a student is currently enrolled will be dropped. If necessary, the student may enroll in UN5951 in subsequent semesters to maintain continuous enrollment until they are able to return to the University.

Before the student may return to "progress" enrollment (i.e. a "progress" continuing enrollment course, co-op, coursework, or research credits) s/he must submit a written request to return from medical leave to the dean of the Graduate School . This request must be submitted to the dean at least two weeks prior to the beginning of the term in which the student wishes to return. At the same time, written documentation verifying that the student is ready to return should be submitted directly to the dean of the Graduate School by a physician or

mental health professional. The dean will review the submitted materials and will notify the student of the decision in a timely fashion.

Late Drop Request

Requests for a late drop will only be approved when extenuating circumstances prohibit a student from completing a course.

To request a late drop, students should submit a written request to the dean of the Graduate School explaining the circumstances. The request must also include the student's name, identification number, and the course(s) to be dropped. If the dean approves the request, a grade of “W” will appear on the student's grade report and transcript.

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Questions?

Grad School Web Index

Site Map

Graduation, Degree Certification & Commencement

A help sheet with procedures, dates, and deadlines for the current term can be found at http://www.gradschool.mtu.edu/pubs.html.

Graduation

You must remain enrolled until the end of the semester in which you complete all degree requirements. You graduate in a given semester if you have completed all degree requirements, including grade changes, before the first day of the next semester. You won't officially graduate, however, until the end of the term, so your degree won't be on your transcript until approximately the fourth week of the next term. Your diploma will be mailed to you about 90 days after the end of your graduation term.

Degree Certification

Provisional Certification

The Graduate School will issue a letter of Provisional Certification if requested by the student. The student must have completed all the requirements for an advanced degree, including depositing copies of the thesis, dissertation, or report in the Graduate School office.

Official Certification

The Graduate School office authorizes and mails the diplomas within approximately 90 days of the end of the term in which the student finishes. It is important to keep the Graduate School informed of current addresses. A replacement diploma costs $35.

The Board of Control receives and approves the list of degree recipients at its next regular meeting after the end of the term. That meeting date is the conferral date for the degrees, but the effective date is the end of the term in which the student finishes.

Commencement Ceremony

Michigan Tech has commencement at the end of fall and spring semesters. Commencement information is mailed to all eligible students about two months before the ceremony, generally in mid-March and early October. Any graduate student is eligible to participate in the nearest UPCOMING commencement if

(1) The student's advisor has signed the "Request to Participate in Commencement Prior to Final Submission of Documents" affirming his/her confidence that the student will defend, correct and submit to the Graduate School, their thesis/report/dissertation and all final paperwork prior to the official end date of the FOLLOWING semester.

(2) The Graduate School receives this form with the advisor's signature prior to the process

that initiates printing of commencement materials (about one month before commencement).

You may also defer participation to a later commencement by notifying the GSO via the LAM form or via phone or e-mail.

Please confirm your commencement plans with the GSO at the beginning of the term in which you intend to participate in commencement. Students who leave campus before commencement should keep the Graduate School office informed of their commencement plans and their current address.

Your name will appear in only one commencement program, either the commencement for which you are first eligible, or a later one if deferral is requested in a timely manner.

Last reviewed on 06/08/2007 Contact **webmaster**.

Please enable iframes on your browser. MTU Navigation

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Questions?

Grad School Web Index

Site Map

MTU Graduate School Catalog

- J. Robert Van Pelt Library Call No. LD3315.M52
- 2001-2003
- 2003-2005
- 2005-2006

Graduate Course Listing (5000-6000 level)

- 2002-03
- 2005-06

Last reviewed on 06/08/2007 Contact **webmaster**.

Please enable iframes on your browser. MTU Navigation

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

The streaming video on this page requires RealPlayer.

Free RealPlayer Download

Some documents are PDFs.

Get Help with PDFs here

Welcome!

The Graduate School of Michigan Tech welcomes all new and future graduate students. Here you can learn about Michigan Tech and the area surrounding its campus. The At-a-Glance brochure provides an overview of our programs.

Some Useful Links

- Apply to Michigan Tech - Apply online for free!
- Learn about the Keweenaw Peninsula - Home of Michigan Tech
- Visit Us - Tours, passes, and other services are available to anyone interested in applying to Michigan Tech
- Campus Map - A map of the Michigan Tech campus and its buildings
- Academic Calendar - The official university calendar includes information about deadlines for registration and enrollment
- Student Services - A list of links to service providers' websites
- Graduate Student Council - The official body representing graduate students on the Michigan Tech campus

Information for International Students

- Immigration Information - Up to date information about laws pertinent to international students who study in the US.
- English Language Institute - Improve English language skills through an extensive English as a Second Language Program.
- International Programs and Services - The office that caters to the needs of International students on Michigan Tech's Campus.

See Tech's Campus ...

- Composite Page of Recent Tech Videos - Links to a variety of video clips about Michigan Tech
- Michigan Tech Video Tour A 7-minute streaming RealMedia video of campus life.
- Michigan Tech Live WebCams - See what is happening around Michigan Tech.
- MTU School of Forest Resources and Environmental Science Tour - This is a javascript/HTML tour.

Last reviewed on 06/08/2007 Contact **webmaster**.

Please enable iframes on your browser. MTU Navigation

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Questions?

Grad School Web Index

Site Map

Application Procedures

Application Deadlines by Department and/or Program

Forms are in PDF Format (Get Help with PDF)

- Domestic Students
- International Students
- Certification of Finances
- Graduate—Non-Degree Seeking
- Letter of Recommendation Standard Form
- Application for Readmission (formerly enrolled students only)

On-Line Application Log-In Page

***NEW!** - If you apply online, the application fee is waived.

Last reviewed on 06/08/2007 Contact **webmaster**.

Please enable iframes on your browser. MTU Navigation

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Questions?

Grad School Web Index

Site Map

MTU's Graduate Faculty

This links to a searchable file of Michigan Tech's Graduate Faculty. Use 'Find' <ctrl-F> to search on keywords, name, title, degree, department, or Email.

J. Robert Van Pelt Library

Reference and Research Assistance—Contact the Reference Desk (487-2507), e-mail: refib@mtu.edu, or use library forms on the Website.

Academic Research Centers and Institutes

Office of the Vice President for Research

Research and Sponsored Programs Home Page—People, News, Funding Resources, Proposal Submission, Grants and Contracts, Internal Awards

Intellectual Property and Technology Commercialization

Forms—University and Agency forms related to research, including Estimated GRA Stipend Levels, Tuition & Fee Rates (PDF Format)

Research Accounting

Last reviewed on 06/08/2007 Contact **webmaster**.

Please enable iframes on your browser. MTU Navigation

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Questions?

Grad School Web Index

Site Map

Expenses

Cost of Education (including tuition, fees, books & supplies, transportation, room & board, and health insurance **will be updated when 2007-8 tuition rates are available**)

Tuition Rates

Computing Fees

Student Fees

How to pay by credit card

Tuition & Fee Payment and Refund Policies

Financial Assistance

Information about teaching and research assistantships, co-op and internship opportunities, need-based assistance (loans, tuition assistance, and work-study), Federal financial assistance policies, & the Free Application for Federal Student Aid (FAFSA)

Grants & Fellowships

Internal and external fellowship and grant opportunities for domestic and international students, links to external sources of information, selected agency web sites, employment opportunities

Tax Information for Graduate Students

Caps on tuition and fees paid for supported students (full 20 hr support)

Employment Links for Graduate Students

- H1-Visa Jobs
- Campus / Local Student Job Postings

Please enable iframes on your browser. MTU Navigation

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Questions?

Grad School Web Index

Site Map

Notes and deadlines for Current Semester graduates

The deadline for completing a degree in any given semester is to have defended and to submit all paperwork (dissertation/thesis/report and appropriate exit forms) to the Graduate School by 4 pm on the first day of classes of the following term. (Academic Calendar link HERE)

Student Forms

- **TRACKING FORMS** — Links to M- & D-forms, Patent form, Credit Transfer, etc.
- Continuous Enrollment Course Form (UN5951, UN5952, UN5953)
- Co-op Instructions and Forms
- "Early Walk" Request Form
- GSC Travel Funds Application
- Graduate Student Center Reservation Form
- Graduate Study/Research Abroad
- Proposal Incentive Award Guidelines & Application Form
- Senior Rule Form

Department Forms

- Graduate Faculty Appointment Form
- Request for Permission to Teach Graduate Courses (for an instructor who is not a member of the Graduate Faculty)
- Request for Graduate School Recruiting Funds
- Tuition-Only Fellowship Request Form
- Research and Sponsored Programs Forms
- Distance Learning IP template

Health Insurance Information

Health Insurance Forms (Other links for 2006-07 will be added as the forms are available.)

- MTU Student Insurance Office
- Comparability Worksheet
- Payroll Deduction Form : Supported Graduate Student (fall payroll deduction)
- Enrollment Forms/Policy Brochures

Last reviewed on 06/08/2007 Contact **webmaster**.

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Questions?

Grad School Web Index

Site Map

Master's Plan D—Coursework option requiring no final oral examination

The University Senate approved on 18 January 2006 the addition of a fourth Master's degree option: Plan D. Details of the plan can be found at: http://www.sas.it.mtu.edu/usenate/propose/06/7-06.htm.

Departments wishing to offer Plan D for any of their degree programs should complete the "Degree Requirements Form," obtain the signature of the appropriate school/college dean, and forward the form to the Graduate School Office.

If Plan D is being offered in place of a currently offered Plan C and the only change being made is the elimination of the final oral exam, students currently enrolled in the degree will complete Plan D. If other changes are being made, e.g., the list of required courses, students currently enrolled in the degree will have the option of completing either Plan C (including the oral examination) or Plan D.

Last reviewed on 06/08/2007 Contact **webmaster**.

Welcome
Defenses This Week
Graduate Programs
Course Descriptions
ELI / ESL
Financial Information
Research at MTU
Campus & Community

Graduate School (GSO)
Grad Home Page
Rules & Regs
Staff
Grad Faculty Council
Grad Student Council
Graduate Catalog

Forms
Application Forms
Grad School Forms

Questions?
Grad School A2Z
Site Map

GFC Voting Representatives & Alternates

Department / Office	Representative	Alternate
Biological Sciences	Nancy Auer	Heather Youngs
Biomedical Engineering	Seth Donahue	Mike Neuman
Business & Economics	Dana Johnson, Vice-President	Paul Nelson
Chemical Engineering	Carl Nesbitt	Jason Keith
Chemistry	Pushpa Murthy	Jian Liu
Civil & Environmental Engineering	Tess Ahlborn	Tom Van Dam
Computer Science	Soner Onder	Jean Mayo
Education	Bill Yarroch	Brad Baltensperger
Electrical & Computer Engineering	Brian Davis	Ashok Goel
Forest Resources & Environmental Science	Kurt Pregitzer	Linda Nagel
Geological & Mining Engineering & Sciences	Jimmy Diehl	Alex Mayer
Graduate Student Council	Dan Adler	
Humanities	Dennis Lynch, President	
Material Science & Engineering	Hao Wang	
Math	Jianping Dong	Renfang Jiang
Mechanical Engineering-Engineering Mechanics	Ghatu Subhash	Bill Endres
Physics	Brian Fick	
Non-Departmental PhD - Environmental	Judith Perlinger	
Social Sciences	Barry Solomon	Kim Hoagland

Non-Voting Members

Grad School	Jackie Huntoon	Marilyn Vogler
Research & Sponsored Programs	Dave Reed	Anita Quinn

Contact Us

The Graduate School
1400 Townsend Drive
Houghton, Michigan 49931

This chart is a new feature of our website and will be completed for all departments and programs as the information is gathered.

Department and/or Program	If your Department allows students to enter grad programs Fall, Spring, and/or Summer, complete this section. Mark only those that apply.					If your Department allows ONLY Fall entry, complete this section. Fill in a date in as many columns as apply to your department.				Other (describe below)
	Applications will be reviewed whenever they are received; students may enter the program at any time during the term by enrolling in research credits. [X]	Applications will be reviewed whenever they are received; students may enter the program at the start of the next term. [X]	Mark no more than two of these [D,E,F]. If all three are possible, mark col. C instead. Applications will be reviewed whenever they are received; students may enter the program at the beginning of the terms noted below. [X] Fall (August)	Spring (January)	Summer (May)	Students may enter the program only in fall term. Applications received after this date will be considered for the following YEAR. [date]	Applications for fall term received by this date get routine consideration for support. [date]	Applications for fall term received by this date will be considered, but support will probably not be available. [date]	Absolute deadline - no applications for fall term will be screened after this date. [date]	
Business Administration	Applications will be reviewed when received. The application deadline to be considered for financial aid is March 15. Students may begin the program at the beginning of the Summer or Fall terms. (No applications for beginning Summer term will be screened after March 15; no applications for beginning Fall term will be screened after July 15.)									
Chemical Engineering		X								
Computational Science & Engineering		X								
Conmputer Science		X								
Electrical & Computer Engineering	X	X								
Forestry Programs (SFRES)	X (very rarely)	X (mostly)	X	X						
Geo/Mining		X				To be considered for financial support for the upcoming academic year, completed applications must be received by March 1st.				
Humanities						Last day of spring term	January 15th	April 15th	Last day of spring term	
Mathematical Sciences		X								
ME-EM		X								
Physics							March 1	March 31		
Social Sciences	The Department recommends that students enter graduate programs in the fall semester; the normal application deadline in order to be considered for financial assistance is March 1. But special circumstances may justify alternative arrangements. Please contact the chair of the appropriate graduate program to discuss entering programs in the spring semester or in the case of industrial archaeology, during the summer field program.									

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Questions?

Grad School Web Index

Site Map

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

Conditions of Non-Degree Graduate (NDG) Admission:

- Graduate-level courses will appear on the transcript as, and be transferable as, graduate level credits.
- Students who are not concerned about graduate standing may apply through the undergraduate admissions office and will be charged at the undergraduate rate.
- NDG students are not eligible for financial assistance for coursework taken as a non-degree student.
- While no TOEFL or GRE scores are required for admission as a NDG, students whose academic or language proficiency is not sufficient for acceptable participation in the chosen class will be advised to register for a lower-level class and/or will be expected to take language courses concurrent with the NDG enrollment.
- Admission to a regular graduate program will require submission of a standard application for admission; no additional application fee will be required.
- Some programs limit the number of NDG credits that may be applied toward a graduate degree and thus, not all credits taken as a NDG student will necessarily be applicable to, or counted toward, a graduate degree(s).
- The department will evaluate for inclusion on the degree schedule any NDG credits the student wishes to have count toward a degree.

Admission Process for Non-Degree Seeking Students (Graduate Status)

Applications for admission as a non-degree student with graduate standing are reviewed by the Graduate School (GSO). Departmental approval is not required as it is for applications to a graduate program, though the GSO may request review by the academic department. A completed application for non-degree graduate status includes:

- Application Form
- Application Fee (only if applying via postal mail)
- Proof of Bachelor's Degree
- If you are participating in an exchange program or other formal program such as an employment training series, a statement explaining your situation will assist us in making certain your coursework at MTU meets your requirements and expectations. Distance Learning students should submit application materials to Sponsored Educational Programs.

Academic History

A transcript documenting receipt of a bachelor's degree or equivalent must be attached to this application. Alternatively, a letter certifying receipt of the degree or a diploma will be considered proof of a bachelor's degree. Photocopies are acceptable. MTU grads need not supply a transcript.

Transcript

Courses taken prior to approval of the application may in some cases be used toward a graduate degree at Michigan Tech if applicable. However, these courses will be recorded as undergraduate credits and will not transfer as graduate courses without authorization and associated tuition adjustments.

Cost of Study

Prior to formal approval of the application for non-degree graduate status, course registration will be billed at the **undergraduate** rate. Once NDG status has been approved, **all** credits taken will be billed at the graduate tuition rate.

Tuition for 2006-2007 is $500 per graduate credit hour. All graduate students, regardless of residency, will pay the same tuition, except that Distance Learning students will be billed at a different rate.

Please enable iframes on your browser. MTU Navigation

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Questions?

Grad School Web Index

Site Map

PDF Help

PDF refers to Portable Document Format, commonly used for printable online documents and forms.

- Download Free Adobe Acrobat Reader
- A text-only Acrobat Reader
- Convert PDF to HTML
- Learn more about Adobe's accessibility strategy at access.adobe.com.

Last reviewed on 06/08/2007 Contact **webmaster**.

APPLICATION FOR GRADUATE ADMISSION – NON-DEGREE SEEKING STATUS

Admission Process for Non-Degree Seeking Graduate Students

Applications for admission are reviewed by the Graduate School. The Graduate School may request review by an academic department.

A completed application for post-degree status includes:

- Application Form
- $40 Application Fee
- Proof of Bachelor's Degree (photocopy ok) – NOTE: Michigan Tech graduates do not need to provide proof of degree
- For K-12 Teachers ONLY: Proof of Current Certification (photocopy ok)

Application Deadlines and Graduate Standing

There is no application deadline. Courses taken prior to admission to non-degree seeking status will be reported on an undergraduate transcript and will not transfer as graduate coursework.

Cost of Study

Current tuition rates are available at http://www.admin.mtu.edu/admin/boc/policy/ch9/ch9p4.htm. Practicing K-12 teachers who provide proof of certification qualify for the Applied Science Education graduate tuition rate.

Conditions of Non-Degree Graduate Status

- Graduate-level courses will appear on the transcript as, and be transferable as, graduate level credits. NOTE: Failure to provide proof of bachelor's degree prior to completion of a course will result in any credits earned being reported on an undergraduate transcript.
- TOEFL or GRE scores are not required for admission. Students whose academic or language proficiency is not sufficient for acceptable participation in the chosen class will be advised to register for a lower-level class and/or will be expected to take language courses concurrent with the graduate enrollment.
- Admission to a graduate degree program will require submission of a standard application for graduate admission.
- Non-degree seeking students can transfer a maximum of 1/3 of the total number of non-research credits required for a specific graduate degree if they change from non-degree seeking to degree-seeking status at Michigan Tech.
- Departments and programs determine which courses taken by non-degree seeking students can be used to satisfy requirements for a specific degree.

Graduate courses are offered in the following areas:

Applied Science Education
Biological Sciences
Biomedical Engineering
Business Administration
Chemical Engineering
Chemistry
Civil Engineering
Computational Science & Engg
Computer Science
Electrical Engineering
Engineering Mechanics
Environmental Engineering
Environmental Policy
Forest Molecular Genetics & Biotechnology
Forestry
Geological Engineering
Geology
Geophysics
Industrial Archaeology
Materials Science & Engineering
Mathematical Sciences
Mechanical Engineering
Mineral Economics
Physics
Rhetoric & Technical Communication

A complete schedule of classes is available at http://www.admin.mtu.edu/em/students/plan/.

☑ Interactive

MichiganTech

The Graduate School
Michigan Technological University
1400 Townsend Drive
Houghton MI 49931-1295

Application for Graduate Admission – Non-Degree Seeking Status

A $40 application fee, made payable to Michigan Technological University, needs to be attached to this application. If you have previously ***enrolled*** as a ***graduate*** student at Michigan Tech, you will not have to pay the application fee.

Have you previously applied for admission to the MTU Graduate School? ___ Yes ___ No If yes, when? _____ Program _____

PLEASE PRINT OR TYPE.

Name _____ * _____
Last (Family) First Middle US Social Security Number or MTU ID Number

Mailing Address valid until _____

Street _____

City _____ State_____ ZIP _____

County (only if MI resident) _____

Telephone ( ) _____

Permanent Address valid until _____

Street _____

City _____ State_____ ZIP _____

County (only if MI resident) _____

Telephone ( ) _____

E-Mail Address _____ Is Father MTU Alum?_____ Is Mother MTU Alum? _____

Are you a U.S. citizen? _____ If no, country of birth _____ and country of citizenship_____

Are you a permanent resident of the United States? Yes ____ No ____ NA ____

If yes, alien registration number _____ Date of Issue _____

If no, what is your visa status _____

*Providing your social security number is optional. It will only be used to match test scores, financial aid data, and academic information with your application records.

Race/Ethnicity: This voluntary information is used to satisfy state/federal reporting requirements only.

___ (1) American Indian/Alaskan Native ___ (3) Asian American/Asian ___ (5) White/Non-Hispanic ___ (7) Multiracial (Specify)

___ (2) African American/Non-Hispanic ___ (4) Hispanic/Hispanic American ___ (6) Non U.S. Citizen ___ (8) Pacific Islander

Birth Date _____/_____/_____ **Sex** ___ M ___ F
Month / Day / Year

Term of Proposed Enrollment: ____ Fall 20_____ ____ Spring 20_____ ____ Summer 20_____

Education: From what institution did you receive your B.S. degree or equivalent? (Attach a transcript or diploma – photocopy ok). NOTE: If you fail to provide this information prior to completing a course, any credits you earn will be reported on an undergraduate transcript.

Institution	Location	Field of Study	Dates attended From Mo/Yr	to Mo/Yr	Name of degree or diploma rec'd/expected	Date degree rec'd/ expected (Mo/Yr)

K-12 Teachers ONLY: If you wish to apply for the special Michigan Tech Applied Science Education graduate tuition rate, **CHECK HERE** ____
Proof of current teacher certification must be attached to qualify for Applied Science Education graduate tuition rate.

I certify that the above information is true, correct, and complete. I have read the conditions of non-degree admission on the reverse side of this application and agree to them.

_____ _____
Applicant's Signature *Date*

For University Use Only **Approve** **Disapprove** (Circle one)

B.S. _____

App Fee_____

ASE Tuition _____ _____ _____

Graduate School Admissions Staff *Date*

Last Reviewed 2/6/07

Please enable iframes on your browser. MTU Navigation

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Questions?

Grad School Web Index

Site Map

Paying by Credit Card ...

Tuition & fees, including late registration fees, may be paid on-line at https://www.banweb.mtu.edu/pls/owa/twbkwbis.P_WWWLogin. Credit card payment for tuition and fees may not be phoned or faxed.

Other charges, including application fees, may be paid by credit card by calling 906.487.2246 or by faxing this completed form to 906.487.1816.

Last reviewed on 06/08/2007 Contact **webmaster**.

The Graduate School

Michigan Technological University
1400 Townsend Drive
Houghton, MI 49931-1295
906-487-2327
www.admin.mtu.edu/grad/

The University

Michigan Technological University is an independent unit in Michigan's state-supported system of higher education. Founded in 1885 as a mining college, it has since developed strengths in engineering, science, and related technological and business fields. The University has an enrollment of approximately 6,600 students; approximately 800 are graduate students.

Location

Michigan Tech's main campus stretches for about a mile along Portage Lake in Houghton, a city approximately 550 miles northwest of Detroit and 421 miles north of Chicago. Houghton is located on the Keweenaw Peninsula, an area known for its historic copper mines and its rugged and unspoiled natural beauty, including miles of Lake Superior shoreline.

The Keweenaw is an excellent area for such outdoor sports as hiking, alpine and nordic skiing, fishing, boating, biking, and snowmobiling. Michigan Tech has nordic ski trails, an alpine ski hill with chair lift, and an eighteen-hole golf course, as well as extensive indoor athletic facilities, including weight rooms, tennis and racquetball courts, running track, swimming pool, and an ice arena.

Programs of Study

College of Engineering

Biomedical Engineering—PhD
Chemical Engineering—MS, PhD
Civil Engineering—MS, PhD
Electrical Engineering—MS, PhD
Engineering (nondepartmental)—PhD
  Computational Science and Engineering
  Environmental Engineering
Engineering Mechanics—MS
Environmental Engineering—MS
Environmental Engineering Science—MS
Geological Engineering—MS, PhD
Geology—MS, PhD
Geophysics—MS
Master of Engineering—ME
Master of Engineering – Civil Engineering—ME
Master of Engineering – Environmental Eng —ME
Materials Science and Engineering—MS, PhD
Mechanical Engineering—MS
Mechanical Engineering–Engineering Mechanics—PhD

School of Forest Resources & Environmental Science

Applied Ecology—MS
Forest Ecology and Management —MS
Forest Molecular Genetics & Biotechnology—MS, PhD
Forest Science—PhD
Forestry—MS
Master of Forestry—MF

College of Sciences and Arts

Applied Science Education—MS
Biological Sciences—MS, PhD
Chemistry—MS, PhD
Computer Science—MS, PhD
Environmental Policy—MS
Industrial Archaeology—MS
Industrial Heritage and Archeology—PhD
Mathematical Sciences—MS, PhD
Physics—MS, PhD
Engineering Physics—PhD
Rhetoric and Technical Communication—MS, PhD

School of Business and Economics

Business Administration—MBA
Mineral Economics—MS

Master of Engineering

This is a terminal professional degree program requiring a combination of course work and an advanced program design project. The program can be completed in one year of full-time study.

Master's International Program (MIP)

This program offers a unique opportunity to become a Peace Corps volunteer as partial fulfillment of a graduate degree. Students may earn an MS in Forestry, Civil Engineering, Geology or Environmental Engineering. The programs combine a period of course work at MTU and two years of fieldwork with the Peace Corps.

Admission Process
The application is held in the Graduate School Office until it is complete. A completed application includes:

- **Application Form and Statement of Purpose**
- **Application Fee**
- **Official Transcripts**
- **TOEFL and GRE or GMAT scores if required**

The completed application is forwarded to the department/program for evaluation. After a decision has been made, the file is returned to the Graduate School with a recommendation. The applicant will be notified of the final decision in a letter from the Graduate School Office.

Please read the departmental requirements carefully because procedures vary from department to department. If reference letters are required by the department, the application may not be reviewed by the Graduate Committee until the forms/letters have been received. The Graduate School does not have application deadlines; however, some programs/departments do have deadlines, and they should be consulted regarding dates. Some committees review applications on a rolling basis, while others have scheduled meetings, where all applications are reviewed at one time for admission as well as financial assistance.

Academic Credentials
Official transcripts or certified copies of any previous academic work at the undergraduate and graduate level must be sent to the Graduate School Office by the granting institution. The transcript must show a detailed list of courses completed, grades received in each course, and the degree, diploma, or certificate awarded.

Financial Aid
To be considered for financial assistance, you must complete the FAFSA www.fafsa.ed.gov.
Assistantships and fellowships are awarded by the department/program, not the Graduate School, and questions regarding this form of aid should be directed to the department/program. Teaching and research assistantships for master's and doctoral students include stipends plus payment of tuition and fees. In general, awards are made in March and April for the ensuing academic year. Loans (for U.S. citizens only) may be arranged through the Financial Aid Office.

Cost of Study
Tuition for 2006-2007 is $500 per credit hour or $4,500 per semester (9 credits is full time) All graduate students, regardless of residency, will pay the same tuition.

Housing
Housing is available on campus in residence halls or in the apartment complex. More information is available at http://www.housing.mtu.edu/ or you may send an e-mail to residence-halls@mtu.edu or mtu-apartments@mtu.edu. There are also many privately owned student rentals close to campus. For a current list of available housing, write to the Undergraduate Student Government, Room 106 MUB. A list is also available on their Web site http://www.aux.mtu.edu/usghousing/

Michigan Tech is committed to assisting all members of the University community in providing for their own safety and security. Information regarding campus security and personal safety, including topics such as crime prevention, University Police law enforcement authority, crime reporting policies, crime statistics for the most recent three-year period, and disciplinary procedures, is available from the director of University Police at the Widmaier House Houghton, MI 49931-1295 or at our Web site www.admin.mtu.edu/dos/policies.htm

Information is current as of August 2006 and is subject to change without notice.

MichiganTech

Application for Graduate Admission

Return to:
The Graduate School Office
Michigan Technological University
1400 Townsend Drive
Houghton MI 49931-1295

PLEASE PRINT OR TYPE. A $40 application fee made payable to Michigan Technological University must be attached.
Have you previously applied for admission to the MTU Graduate School? __ Yes __ No If yes, when? _____ Program _____

Name _____ * _____
Last (Family) First Middle US Social Security Number

Mailing Address valid until _____
Street _____
City _____ State_____ ZIP _____
County (only if MI resident) _____
Telephone ( ) _____

Permanent Address valid until _____
Street _____
City _____ State _____ ZIP _____
County (only if MI resident) _____
Telephone ( ) _____

E-Mail Address _____ Is Father MTU Alum? _____ Is Mother MTU Alum?_____

If not a U.S. citizen, are you a permanent resident of the United States? _____ Yes _____ No

Alien registration number _____ Date of Issue _____

*Your Social Security Number is used to match test scores, financial aid data, and other academic information with your application records. It will become your student number. If you do not provide your Social Security Number, an alternate student number will be assigned.

Race/Ethnicity (check one) This voluntary information is used to satisfy state/federal reporting requirements only.

___ (1)American Indian/Alaskan Native ____ (3) Asian American/Asian ___ (5) White/Non-Hispanic ___ (7) Multiracial (Specify)
___ (2) African American/Non-Hispanic ____ (4) Hispanic/Hispanic American ___ (6) Non U.S. Citizen ___ (8) Pacific Islander

Birth Date ____/___/____ **Sex** ___M ___ F
Month / Day / Year

Program of Study
_____
(see list on information sheet)
_____
(area of concentration)

Program Level
(check one)
__ ME __ MS ___ PhD

Distance Learning Program?
__ Yes _ No

Term of Proposed Enrollment
_____Fall August 20 ____
_____Spring January 20 ____
_____Summer May 20 ____

Education List all **post-secondary institutions** you have attended or are attending. Have each institution submit an **official transcript**. MTU students do not need to request MTU transcripts.

Institution	Location	Field of Study	Dates attended From Mo/Yr	to Mo/Yr	Name of degree or diploma rec'd/expected	Date degree rec'd/ expected (Mo/Yr)

For University Use Only (Circle one) **Approve** **Reject**

Fee _____ _____
(Head/Chair of Major Department) Date

GRE/GMAT _____ Comments _____
Trans _____ Is this an off-campus program?__Yes __No. If 'yes', will enrollment be handled by EUP? __Yes __No
E-Mail sent_____ Off-campus research site (institution, city) _____
_____ Off-campus research advisor? (must be adjunct graduate faculty) _____

Statement of Purpose

Pay careful attention to this section. Many departments place strong emphasis on your statement.

Attach a brief, coherent statement of your purposes for graduate study, your professional and research interests, and your expectations for career and employment in the future.

Academic References List persons submitting recommendations to the department/program on your behalf (if required).

Name E-mail Address Telephone

_____

_____

_____

Work Experience List previous and current industrial or academic experience, including dates of employment, name of firm or college, and title of position(s).

_____

_____

_____

_____

_____

Graduate Tests (GRE, GMAT) If required by your department/program, **official** scores must be forwarded to the Graduate School.

Test #1_____ Score_____ Date (expected/completed)_____

Test #2_____ Score_____ Date (expected/completed)_____

Financial Assistance Submitting your application form **automatically** places students in consideration for assistance. Assistantships and fellowships are awarded by the department/program, not the Graduate School. Questions regarding assistantships should be directed to the department/program to which you are applying. Applicants are strongly expected to complete the FAFSA.

www.fafsa.ed.gov Date FAFSA completed _____

How did you hear about Michigan Tech?

__ Printed source (which)?_____Friend/relative? _____

__ Web site (which)? _____Other?_____

Your application will not be reviewed until all required materials have been submitted: (1) fee, (2) transcripts, (3) statement of purpose, (4) test results if required, and (5) letters of recommendation if required. Materials become the property of the Graduate School and will not be returned. Applications will be kept on file for one year after the first day of the term for which you apply.

I certify that the above information is true, correct, and complete.

_____ _____

Applicant's Signature Date

International Students

The Graduate School

Michigan Technological University
1400 Townsend Drive
Houghton, MI 49931-1295
906-487-2327
www.admin.mtu.edu/grad/

The University
Michigan Technological University is an independent unit in Michigan's state-supported system of higher education. Founded in 1885 as a mining college, it has since developed strengths in engineering, science, and related technological and business fields. The University has an enrollment of approximately 6,600 students; approximately 800 are graduate students.

Location
Michigan Tech's main campus stretches for about a mile along Portage Lake in Houghton, a city approximately 550 miles northwest of Detroit and 421 miles north of Chicago. Houghton is located on the Keweenaw Peninsula, an area known for its historic copper mines and its rugged and unspoiled natural beauty, including miles of Lake Superior shoreline.

The Keweenaw is an excellent area for such outdoor sports as hiking, alpine and nordic skiing, fishing, boating, biking, and snowmobiling. Michigan Tech has nordic ski trails, an alpine ski hill with chair lift, and an eighteen-hole golf course, as well as extensive indoor athletic facilities, including weight rooms, tennis and racquetball courts, running track, swimming pool, and an ice arena.

Climate
Houghton, latitude 47°N and longitude 80°W, has a very changeable climate. The spring, summer, and fall months are very pleasant, yet cool, with temperatures ranging from 0° to 25° C. Students from tropical and subtropical regions should be prepared to make a major adjustment to the long winters with a heavy snowfall and an average temperature of -6° C.

Programs of Study

College of Engineering
Biomedical Engineering—PhD
Chemical Engineering—MS, PhD
Civil Engineering—MS, PhD
Electrical Engineering—MS, PhD
Engineering (nondepartmental)—PhD
  Computational Science and Engineering
  Environmental Engineering
Engineering Mechanics—MS
Environmental Engineering—MS
Environmental Engineering Science—MS
Geological Engineering—MS, PhD
Geology—MS, PhD
Geophysics—MS
Master of Engineering —ME
Master of Engineering – Civil Engineering—ME
Master of Engineering – Environmental Eng—ME
Materials Science and Engineering—MS, PhD
Mechanical Engineering—MS
Mechanical Engineering-Engineering Mechanics—PhD

School of Business and Economics
Business Administration—MBA
Mineral Economics—MS

College of Sciences and Arts
Applied Science Education—MS
Biological Sciences—MS, PhD
Chemistry—MS, PhD
Computer Science—MS, PhD
Environmental Policy—MS
Industrial Archaeology—MS
Industrial Heritage and Archeology—PhD
Mathematical Sciences—MS, PhD
Physics—MS, PhD
Engineering Physics—PhD
Rhetoric and Technical Communication—MS, PhD

School of Forest Resources & Environmental Science
Applied Ecology—MS
Forest Ecology and Management—PhD
Forest Molecular Genetics & Biotechnology—MS, PhD
Forest Science—PhD
Forestry—MS
Master of Forestry—MF

Master of Engineering - This is a terminal professional degree program requiring a combination of course work and an advanced program design project. The program can be completed in one year of FT study.

Master's Path - for students who have completed a 3 year bachelor's program outside the U.S. This option provides students with a bridge curriculum needed for completion of the specified master's program.

Admission Process

The application is held in the Graduate School Office until it is complete. A completed application includes:

- **Application Form and Statement of Purpose**
- **Application Fee**
- **Official Transcripts**
- **TOEFL and GRE and/or GMAT scores if required**

The completed application is forwarded to the department/program for evaluation. After a decision has been made, the file is returned to the Graduate School with a recommendation. The applicant will be notified of the final decision in a letter from the Graduate School Office.

> **Please note**: No action will be taken on the application until the application fee has been received. **This fee will not be waived.**

Please read the departmental requirements carefully because procedures vary from department to department. If reference letters are required by the department, the application may not be reviewed by the Graduate Committee until the forms/letters have been received. The Graduate School does not have application deadlines; however, some programs/departments do have deadlines, and they should be consulted regarding dates. Some committees review applications on a rolling basis, while others have scheduled meetings, where all applications are reviewed at one time for admission as well as financial assistance.

Academic Credentials

Official transcripts or certified copies of any previous academic work at the undergraduate and graduate level must be sent to the Graduate School Office by the granting institution. The transcript must show a detailed list of courses completed, grades received in each course, and the degree, diploma, or certificate awarded.

English Proficiency

Applicants whose native language is not English must demonstrate to the satisfaction of the proposed program and the Graduate School that proficiency in English is sufficient to begin graduate-level work. The Graduate School requires a minimum score of 213 on the computer-based test (550 on the paper test) of the Test of English as a Foreign Language (TOEFL). Many departments require a higher score, and they should be consulted regarding their minimum requirement. Applicants who have completed a degree in the U.S. may have the TOEFL requirement waived.

Qualifying Tests

Official TOEFL and GRE and/or GMAT scores should be sent to the Graduate School by the Educational Testing Service (ETS). Michigan Tech's code number is 1464. Photocopies are not considered official score reports. Students from countries where English is the native language, such as the United Kingdom and Canada (except Quebec), are not required to submit TOEFL results.

Expenses

Tuition for the 2006-2007 academic year is approximately $9,000 for full time enrollment. Tuition is $500 per credit, regardless of your residency. Living expenses are approximately $7,595. Miscellaneous expenses for student and computing fees, books and supplies are approximately $4905. The estimated expenses for the academic year are $21,500.

Financial Aid

Submitting the application form automatically places the applicant in consideration for assistance. Assistantships and fellowships are awarded by the department/program, not the Graduate School, and questions regarding this form of aid should be directed to the department/program. While Michigan Tech receives applications from many qualified international students, only a few are accepted, and even fewer receive financial assistance their first year.

Housing

Housing is available on campus in residence halls or in the apartment complex. More information is available at http://www.housing.mtu.edu/. You may also send an e-mail to the University Housing Offices at residence-halls@mtu.edu or mtu-apartments@mtu.edu. There are also many privately owned student rentals close to campus. For a current list of available housing, write to the Undergraduate Student Government, Room 106 MUB. A list is also available on their Web site at http://www.aux.mtu.edu/usghousing/.

Travel Arrangements

Regardless of the port of entry, flight plans should continue on to Detroit, Michigan, or Minneapolis, Minnesota, and then on to the Houghton County Airport (code CMX) in Hancock, Michigan. Northwest is the only airline serving our area. The airport is located seven miles from the campus.

Michigan Tech is committed to assisting all members of the University community in providing for their own safety and security. Information regarding campus security and personal safety, including topics such as crime prevention, University Police law enforcement authority, crime reporting policies, crime statistics for the most recent three-year period, and disciplinary procedures, is available from the director of University Police at the Widmaier House, Houghton, MI 49931-1295 or at our Web site www.admin.mtu.edu/dos/policies.htm.

Information is current as of August 2006 and is subject to change without notice.

MichiganTech

Return to:
The Graduate School Office
Michigan Technological University
1400 Townsend Drive
Houghton, MI 49931-1295

Application for Graduate Admission
International Student (*For non-US citizens*)

PLEASE PRINT OR TYPE. A $45 application fee made payable to Michigan Technological University must be attached.
Have you previously applied for admission to the MTU Graduate School? __ Yes __ No If yes, when?_____ Program _____

Name _____ * _____
Last (Surname) First Middle US Social Security Number
NOTE: Please enter name as it appears or will appear on passport

E-Mail Address _____

Mailing Address valid until _____
Street _____
_____
City _____ State_____
Country _____ Zip _____
Telephone ( )_____

Permanent Address **(in native country)** valid until _____
Street _____
_____
City _____
Country _____ Zip_____
Telephone ( )_____

Birth Date ____/____/____ **Sex** M __ F__ **Nation of Birth** _____ **Nation of Citizenship** _____
Month / Day / Year

If currently ***in*** the USA, state of visa status? _____ If currently ***outside*** the USA, what type of visa do you plan to obtain? _____

*Your Social Security Number is used to match test scores, financial aid data, and other academic information with your application records. It will become your student number. If you do not provide your Social Security Number, an alternate student number will be assigned.

First Name

Program of Study
_____
(see list on information sheet)
_____
(area of concentration)

Program Level
(check one)
___ME __ MS ___ PhD ___ Master's Path

Distance Learning Program?
___Yes __ No

Term of Proposed Enrollment
_____ Fall August 20_____
_____ Spring January 20____
_____ Summer May 20____

Education List all **post-secondary institutions** you have attended or are attending. Have each institution submit an **official transcript**. MTU students do not need to request MTU transcripts.

Institution	Location	Field of Study	Dates attended From Mo/Yr to Mo/Yr	Name of degree or diploma rec'd/expected	Date degree rec'd/ expected (Mo/Yr)

Last Name

English Proficiency If your native language is not English, you must submit evidence of proficiency. Generally, the Test of English as a Foreign Language (TOEFL) is taken.
Name of test taken _____ Date (completed/expected) _____ Score _____

Graduate Tests If required, by your department/program, official scores must be forwarded to the Graduate School
GRE and/or GMAT (date expected/completed) _____ **Test score** _____

For University Use Only (Circle one) **Approve** **Reject**
Fee_____ _____
(Head/Chair of Major Department) Date

GRE/GMAT____ / ____ **Comments**_____
TOEFL_____ Is this an off-campus program?Yes ____No. If 'yes', will enrollment be handled by EUP? ___Yes ___ No
Trans _____ Off-campus research site (institution, city) _____
Email _____ Off-campus research advisor? (must be adjunct graduate faculty) _____

Statement of Purpose

Pay careful attention to this section. Many departments place strong emphasis on your statement.

Attach a brief, coherent statement of your purposes for graduate study, your professional and research interests, and your expectations for career and employment in the future.

Academic References List persons submitting recommendations to the department/program on your behalf (if required).

Name	E-mail	Address	Telephone

Work Experience List previous and current industrial or academic experience, including dates of employment, name of firm or college, and title of position(s).

_____
_____
_____
_____
_____

Financial Assistance Submitting your application form **automatically** places you in consideration for assistance. Assistantships and fellowships are awarded by the department/program, not the Graduate School. Questions regarding assistantships should be directed to the department/program to which you are applying.

How did you hear about Michigan Tech?

__ Printed source (which)? _____ Friend/relative? _____
__ Web site (which)? _____ Other? _____

Source of Funds	**Amount in US Dollars**
Family and/or friends*—Print name(s) _____	$ _____
Personal savings*—Print name(s) _____	$ _____
Scholarship*—Print name of agency/sponsor _____	$ _____
Other*—Specify _____	$ _____

*All personal and parental funds listed above must be documented by bank statements and letters of support. Funding from scholarships and other sources must be documented by official letters stating the amount of funding available and for what period of time. **Photocopies are not acceptable**.

Your application will not be reviewed until all required materials have been submitted: (1) fee, (2) transcripts, (3) statement of purpose, (4) test results if required, and (5) letters of recommendation if required. Materials become the property of the Graduate School and will not be returned. Applications will be kept on file for one year after the first day of the term for which you apply.

I certify that the above information is true, correct, and complete.

_____ _____

Applicant's Signature Date

☑ Interactive

Return to
The Graduate School Office
Michigan Technological University
1400 Townsend Drive
Houghton, MI 49931-1295
USA

Certification of Finances

A Certificate of Eligibility (Form I-20) will be authorized when this form is satisfactorily completed and shows that adequate funds are guaranteed for the student's educational needs.

Estimated Expenses for 2006-2007*

Fall and Spring Semesters

Tuition ($500 per credit; $4,500 per semester)	$9,000
Fees (computer, lab, student activity, etc.)	1,500
Living Expenses (housing, food, health insurance, etc.)	10,000
Other (books and supplies)	1,000
Total for two semesters	**$21,500**

**The above schedule is subject to change without notice*.
Upon arrival, student must have a minimum of $10,000 for immediate disbursement.

Student's name as on application _____

MichiganTech ID number _____

Source of funds	**Amount in U.S. Funds**
Family and/or friends* - Print name(s) _____	$ _____
Personal savings* - Print bank name _____	$ _____
Scholarship* - Print name of agency/sponsor _____	$ _____
Other* - Specify _____	$ _____

*All personal and parental funds listed above must be documented by bank statements and letters of support. Funding from scholarships and other sources must be documented by **official** letters stating the amounts of funding available and for what period of time. **Photocopies are not acceptable.**

I certify that the above information is true, correct and complete.

_____ _____

Student's signature **Date**

☑ Interactive

Department _____

Michigan Technological University

Letter of Recommendation for Graduate School

To Applicant

Fill in your name and the name of the person recommending you. Sign one of the waiver statements below and give this form (two pages) to a faculty member who is acquainted with you and your academic work. In addition, provide an envelope to the recommender with your name on it. Please send the completed Letter of Recommendation Form along with your application to the Graduate School, Michigan Technological University, 1400 Townsend Dr., Houghton, MI 49931.

Name of applicant (print or type) _____ Program: ☑ PhD ☐ Master's
Last Name First Name

Desired enrollment beginning in the _____semester (Fall or Spring), of 20_____

Name of recommender _____

The recommendation will not be considered unless you sign one of the statements below.
The family Education and Privacy Act of 1974 gives the student the right to inspect letters of recommendation written in support of the applications for admission or fellowship. The law also permits students to waive this right if they choose, although such a waiver cannot be a condition of admission or award.

The undersigned hereby waives any right to inspect the recommendation submitted by the person to whom this form is being given.

_____
Applicant's signature Date

The undersigned, if admitted to graduate study at Michigan Technological University, reserves the right, after enrollment, to inspect the recommendation submitted by the person to whom this form is being given.

_____
Applicant's signature Date

To Recommender

Please address the 5 questions below, then fill out the information at the bottom of page two.

1. In what capacity do you know the applicant _____

2. I have known the applicant for ___ years and _____ months.

3. Please evaluate the applicant's abilities in the table below where the educational level of the group you are using for comparison is:
[ ] Undergraduate Seniors [ ] Master Students [ ] Doctoral Students

	No basis for judgement	Average	Good (Top 11-25%)	Excellent (Top 4-10%)	Outstanding (Top 3%)
Fundamental knowledge of field					
Experimental/research techniques					
Oral communication					
Written communication					
Leadership					
Imagination and creativity					
Self-reliance and independence					
Emotional stability and maturity					
Overall ability to do graduate level research					

Letter of Recommendation

4. Please check one of the options below regarding your overall recommendation for this student to pursue a graduate degree. If you check (b) or (c) please elaborate in the space provided.

   a. [ ] I recommend the applicant without reservation as an excellent prospect.
   b. [ ] I recommend the applicant with some reservation.
   c. [ ] I cannot recommend the applicant at this time.

5. Please comment on the applicant's suitability for graduate work and potential as a teaching or research assistant. If the applicant is currently registered in a graduate program at your institution, do you know the reason he or she is changing institutions? You may use the space below, or attach a separate sheet.

Signature: _____

Date: _____

Note: Please return your recommendation directly to the student in a sealed envelope with your signature across the back flap.

Name: _____

E-Mail: _____

Title: _____

Department: _____

Address: _____

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Questions?

Grad School Web Index

Site Map

Program Regulations

The program of study for each student will be planned and supervised in accordance with existing University and School policies. The student's Advisory Committee (which includes the student's Advisor) must insure that each M.F. candidate's course work meets the standards of a Master's program. A minimum of 30 course work credit hours beyond the bachelor's degree is required, as well as an oral examination. The proposed Master of Forestry will have completely specified course work requirements.

Master of Forestry (Plan B and Plan C)

The Master of Forestry (M.F.) degree program will be Plans B and C only, and will be directed at students who want a course work-only professional degree or who may be interested in working on a small project with a report. Students in this program will most likely lack a forestry background at the Bachelors level, and would find the Master of Forestry degree more appropriate than any of the other options within the School. The structure of this program is significantly different from our present Master of Science in Forestry and from the proposed Master of Science Degree programs in Forest Ecology and Management, Applied Ecology, and Forest Molecular Genetics and Biotechnology. In addition to a Bachelors degree, students applying for this program are expected to have had 1 semester of Chemistry, and 1 semester of Elementary Statistics. The curriculum for Plan C is listed below. Students completing plan B may choose to take 2-6 research credits in lieu of the required course work listed below, upon consultation with their advisor. Curriculum:34 credits, depends on previous course work (at a minimum 30 credits)

Fall Semester (11 credits)

FW5510 Measuring Forest Resources & Vegetation of North America (4 cr)

FW3020 Forest and Landscape Ecology (3 cr)

FW3330 Soil Science (4 cr)

Spring Semester (13 credits)

FW3110 Natural Resource Policy (3 cr)

FW3540 Remote Sensing/GIS (4 cr)

FW4130 Biometrics (2 cr)

FW5080 Advanced Forest Economics and Finance (3 cr) **NEW COURSE**

FW5800 Master's Graduate Seminar (1 cr)

Fall Semester (10 credits)

FW5510 Special Topics in Natural Resources (1 cr)

FW5700 Graduate Field Forestry (7 cr)

FW5760 Graduate Tropical Forestry (2 cr)

Advisory Committee

The student's Graduate Advisory Committee should be appointed by the second semester of residence. The Advisory Committee will consist of at least four members, including one member designated as Chair. The chair is the student's graduate advisor. The Chair must be a member of the School of Forest Resources and Environmental Science and the MTU Graduate School faculty. At least one member of the Advisory Committee must be from outside the School. The Advisory Committee must approve the report (Plan B), and the necessary course work to successfully complete the project. The student's Advisor is responsible for

ensuring the report (Plan B) is within the capability of the student and can be completed within a reasonable period of time. The Advisor and the Advisory Committee are responsible for ensuring the report (Plan B) and course work (Plans B and C) fall within the Masters program selected by the student and the student's Advisor. The role of the Advisory Committee for Plan C students is to help the student choose course work, keep track of the student's progress in his/her course work, and to test the student's knowledge on his/her course work at the student's oral defense.

General Procedures

A plan of work showing the courses to be taken, the topic of the report (Plan B), and the report format (Plan B) will be prepared by the student with his/her Advisor. The student's Advisory Committee will review the course work (Plans B and C) and design of study (Plan B) by the end of the second or third semester in residence. For a plan B Masters, the study plan must be presented to the student's Advisory Committee no later than the end of the second semester in residence. A copy of the approved study plan will be given to all committee members once approved by the Advisory Committee.All graduate students are required to be enrolled each academic term following entry into the Masters program until completion of all degree requirements. A full-time student on an assistantship must enroll in a minimum of 9 credit hours per semester and not more than 12 credit hours each semester. During the summer, a full-time student on an assistantship must enroll for one credit hour.All Masters students will go through an oral defense. The oral defense for Plan B Masters students will focus around the student's report and their course work. Early in the student's last semester, a draft of the report should be submitted to the student's Advisor. Following review and revisions by the Advisor, the report should be submitted to the student's Advisory Committee at least two weeks before the scheduled oral examination. Plan B students must give a scheduled oral presentation before their defense. The oral defense for Plan C students will focus on their course work. All work required for the M.F. degree must be completed within five years after first registering for classes.

Grades

All grades must be B (3.0 on a 4.0 scale) or better in the major subject area. The Associate Dean of the School of Forest Resources and Environmental Science can approve no more than six credits of C (2.0) in a cognate department. The student must maintain a cumulative grade point average of 3.0 or better.

The master’s degree demonstrates advanced ability. The master’s student must complete the following:

- choose an advisor and file a Recommended Advisor form (M2-GSO)
- file a Degree Schedule form (M4)
- complete the coursework requirements
- complete an oral examination
- fulfill the campus residency requirement
- finish the degree within the prescribed time limit
- submit an approved document in plans A & B
- Forms are available on-line at http://www.gradschool.mtu.edu/trackingforms.html

Advisor

Initially the advisor may be the department’s graduate coordinator, but as soon as possible, and no later than the end of the second term in residence, a permanent advisor should be chosen. This MTU graduate faculty member advises the student on course selection. The advisor is an important factor in the graduate student’s

timely and successful completion of the program of study.

Degree Schedule

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

The courses listed on the M4 must meet certain requirements, described in each option below, and they must be approved by the advisor and the department chair. Courses taken while an undergraduate at MTU may be used for graduate degree credits if the Senior Rule form (available from the department secretary) has been appropriately filed. Courses taken while a post-grad may be used on the Degree Schedule with departmental approval.

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

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

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

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

Oral Examination

Examination by and approval of a faculty committee is required for awarding a master's degree. This committee will examine the general professional knowledge, course work, and (in plans A and B) the written documents of each master's candidate. The defense is scheduled and the committee nominated via the Scheduling of Final Oral Examination form (M5), which must be in the Graduate School office two weeks prior to the defense date.

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

Thesis or Report

Distribute copies to the Examining Committee at least two weeks prior to the examination date.

Defense—Must be scheduled and the committee nominated via the Scheduling of Final Oral Examination form (M5). The committee's written evaluation must be filed on the Report on Oral Examination form (M6). The student must be enrolled to defend.

Timeline to Degree

First reconcile this suggested chronology with your department's requirements. The sequence may not be the same as written here. When you consult your advisor for your degree schedule, take this timeline to the meeting so you and your advisor are in agreement on your plans.

		Date	Done	Task
				Enrolling for the first time—Get into course work under the direction of your departmental graduate coordinator.
				Make sure the GSO has official final transcripts showing proof of your previous degrees (if they are not from MTU).
				Fill out Patent, Research, and Proprietary Rights form in your department office.
				Get a Social Security Number if you will be getting a GRA or GTA, or otherwise working.
				Start looking for a **faculty advisor** for research projects; she/he should be chosen **by the end of the second term** in residence—your department will have its own way of handling this. **File an M2-GSO form**.
				If your research involves animal subjects, human subjects, or recombinant DNA, you must obtain approval from the appropriate administrative review committee(s). Applications for approval(s) may be found on the Research web site. If you need further assistance, please contact the Research Compliance Administrator by phone 906-487-3403.
				Inform the Office of Student Records and Registration of any changes in your status, address, student identification number, expected graduation date, etc.
				During the semester prior to your defense (or earlier), complete the **M4, Degree Schedule*** in consultation with your advisor—if there are problems, you have a term in which to correct them. Because it is approved by your advisor/coordinator and your department chair, any changes must also have their approval. If credit transfers are necessary, use the Transfer Credits form.

			At least two weeks prior to your defense, complete **M5, Schedule of Oral Examination**, in consultation with your whole committee. This names your four-member examining committee and schedules your oral examination. (Check departmental policy on choosing your committee.)
			At least two weeks prior to your defense, distribute readable copies of the thesis/report to the examining committee.
			Oral Examination—Faculty and students will be invited to hear at least your presentation. It is wise to attend a few of these early in your tenure at Tech. Some departments also require a couple of preliminary seminars during your research. The examination for the course work option varies with the programs allowing this option. Take your **M6, Report on Oral Examination**, to the exam for signatures. (Your advisor/department may retain your M6 for up to two weeks following the defense while you make corrections; research grades are not changed until the M6 is in the GSO.
			Submission of final document (Plan A & B)—Make corrections as indicated by your committee. Get the new original signed. Plan B report: 1 copy to the GSO, in a sturdy binder suitable for archiving in the Library. (Your advisor/department may want more copies.) Plan A thesis: The Graduate School requires the approved copy converted to . pdf and saved on CD. Instructions for payment and submissions are on the invoice and Heckman bindery form you will receive when you defend.
			The Goal: Graduation—no more than five calendar years after you started Graduate School. When you have completed your degree requirements, you can usually receive a certification letter immediately. Your transcript will indicate degree granted by the 4th week of the next semester. Your diploma will be mailed to you about 90 days after the term ends. Leave a valid address with the Graduate School.
			Be sure the GSO and your advisor are aware of your commencement plans at the **beginning** of the commencement semester.
		* All these forms can be sent to the GSO by your department's graduate secretary via campus mail. Copies of signed forms will be returned to you and the department. Be sure to keep a file of your paperwork.	

Please enable iframes on your browser. MTU Navigation

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Questions?

Grad School Web Index

Site Map

Students may earn an MS in conjunction with the US Peace Corps, combining academic study with supervised, practical field experience and research.

Please review the MTU Graduate School Policy for Peace Corps Status for details on eligibility.

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

After completing a program of on-campus academic work, students serve two years with the US Peace Corps. Students return to campus for one additional semester following their Peace Corps tour to complete their degree requirements. Additional information is available through the links above.

Last reviewed on 06/08/2007 Contact **webmaster**.

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Questions?
Grad School Web Index
Site Map

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

Graduate Certificates

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

Undergraduate/Graduate Certificates

Design Engineering—Contact the College of Engineering

Industrial Forestry Certificate—designed to give students a working knowledge of critical aspects of business and forestry. Contact the School of Business and Economics or the School of Forestry and Wood Products.

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

Media —Contact the Humanities Department

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

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

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

In addition, the following proficiency certificates are available:

- Certificat Pratique de la Chambre de Commerce de Paris—certifies French proficiency adequate for business

- Zertifikat Deutsch*—certifies German proficiency adequate for work; Zentrale Mittelstufenprufüng*—certifies German proficiency adequate for university work
- Prüfung Wirtschaftsdeutsch International*—certifies German proficiency adequate for business.

(*Tests for these certificates are provided through the Goethe Institute and are recognized worldwide.

Writing—contact the Department of Humanities.

Teacher Certification Program

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

Please enable iframes on your browser. MTU Navigation

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Questions?

Grad School Web Index

Site Map

International Programs and Services

International Programs and Services provides service-oriented leadership in support of Michigan Tech's goals and priorities in the areas of international programming, education exchange, and student and faculty services. More than 575 students from seventy-two countries are enrolled at MTU. In addition to sponsoring many international events on campus, IPS offers students opportunities to study, conduct research, and/or intern abroad as part of their educational experience.

Please be sure to read the Welcome Brochure for all new International students..

ESL Programs

ESL training and support for both undergraduate and graduate international students is offered through the English Language Institute.

Japan Center for Michigan Universities (JCMU)

JCMU is a unique consortium of fifteen state-of-Michigan universities that allows students to spend a summer, a semester, or an academic year at the Center in Hikone, Japan. Students study Japanese language and culture intensively and may take such elective courses as Japanese business, history, religion, and so on. No prior knowledge of Japanese is required, and scholarships are available.

Council on International Educational Exchange (CIEE)

Through IPS, students can earn university credit by participating in semester, academic year, and summer programs. Financial aid does apply to most international study programs.

International Exchanges

MTU maintains cooperative agreements with several institutions of higher learning to expand international educational cooperation through exchanges of students, faculty, and administrators. Programs are available in over twenty countries around the world.

International Research and Exchanges Board

Through IREX, graduate students and faculty may participate in research-related exchanges in the newly independent states of the former Soviet Union.

Bahamian Field Station

By agreement with the Bahamian Field Station, students of biological sciences may participate in field work on San Salvador Island in the Bahamas.

Summer Internships

In conjunction with the German Academic Exchange Service and the American-Scandinavian Foundation, MTU coordinates summer internships that allow students to work in their fields in Germany and in the Scandinavian countries.

International Scholarships, Fellowships, and Research Funding

International Programs and Services provides detailed information on the many types of funding available to all students and faculty who wish to pursue their learning abroad.

Please enable iframes on your browser. MTU Navigation

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Questions?

Grad School Web Index

Site Map

Michigan Tech promotes knowledge enrichment and personal development through graduate level credit courses and programs, as well as noncredit courses and seminars offered via on-line and distance delivery technologies to individuals and corporate sponsors. For information about MTU's off-campus options for individuals outside of partnership agreements, visit Tech Online. Most on-line courses are delivered via streaming video and WebCT. A preview of a streamed video lecture can be found on this page.

Michigan Tech is linked with several consortia that provide distance education courses to major industries and to students throughout the world. These include the Association for Media-Based Continuing Education for Engineers (AMCEE), National Technological University (NTU), and the Michigan Virtual University.

Partnered Research Master's and PhD Degrees

- Partnered Master's Options
- Partnered Doctoral Options

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

The heart of this option lies not only in the student-advisor mentoring relationship, but also in opportunities for students to work together and for the advisory committee to meet with the student. Distance learning research-based degrees at both the master's and doctoral level are designed to ensure fidelity to these relationships and thus maintain the high standards of MTU graduate degrees. At the same time, we recognize the need for flexibility in providing access to our programs. Thus, although our partnered programs involve some time in residency on the MTU campus in Houghton, that time may be accumulated in a variety of ways. The public defense of theses, dissertations, reports, and projects must occur on campus. Currently all programs require the coursework final examination and oral defense to occur on campus. Students in partnered programs may take up to 1/3 of the required coursework credits from other universities provided the course plan is approved in advance of course registration.

Master's Partnered Option

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

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

Agreements may also include additional requirements, e.g., MTU faculty time on site with the student, summer school residency, video-conferences for periodic reviews, etc. All residency weeks must be documented on the M-OC form.

Doctoral Partnered Programs

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

- approval of the site facilities (laboratories, libraries, computer facilities, etc. as appropriate to the program)
- appointment of a qualified on-site co-advisor to adjunct graduate faculty status
- all degree exams (qualifiers, preliminaries, comprehensives, and dissertation defense and oral examination) are conducted on the MTU campus. No exception to this requirement may be granted. Repeated exams, if required, must also be taken on campus. Doctoral students are expected to spend a period of residency on campus at the time of each exam as detailed in specific program guidelines (generally 1-2 weeks). These visits must be documented on the D-OC form.
- additional periodic visits to the MTU campus in Houghton.
- MTU advisor will be supported by the partner and will spend substantive time on site at the student's research facility
- some remote programs require one or more semesters in residence on the MTU campus, which can be met by enrollment in the full (12-week) summer term.

For more information contact Sponsored Educational Programs at 1.800.405.4678 or visit us at http://www.admin.mtu.edu/disted. E-mail inquiries should be made to disted@mtu.edu.

Please enable iframes on your browser. MTU Navigation

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Special Purpose Forms:

- Off-Campus Residency Documentation
- Senior Rule

Questions?

Grad School Web Index

Site Map

Please DO NOT use old forms. Current versions of all Graduate School forms are available as individual PDF files through the links below. Most are interactive so that you can fill them in and print them from the pdf. (Get Help with PDF)

To determine when the tracking forms need to be submitted, please view the Graduate School Tracking Forms Submission Schedule.

Forms For When You First Arrive:

- Graduate Student Patent, Research, and Proprietary Rights Agreement
- Transfer Credits
- MIGS Transfer Form
- Master's Path Bridge Courses

Forms For When You're Ready to Finish:

- MTU's Electronic Document Project: Theses, Project Reports, and Dissertations
- Sample of Title Page for MS Theses
- Sample of Title Page for PhD Dissertations
- Degree Completion Checklist—MS
- Degree Completion Checklist—PhD
- Invoice for Thesis/Dissertation/Electronic Project Report Processing
- Thesis/Dissertation Bindery Form
- Permission for UMI to Publish Abstract of MTU-Only Access Documents (PhD only - if restricting publication)
- Graduation, Commencement, and Certification Definitions and Deadlines
- Request to walk in commencement prior to completion
- Life-After-MTU (LAM form)
- Questionnaire for Exiting Graduate Students
- UMI dissertation publishing agreement form located in the UMI document for preparing and publishing your dissertation through ProQuest. Pages 3 and 4 must be completed and submitted to the Graduate School. It is recommended to select publishing option TR-1. Select option TR-2 if publication is to be delayed (an embargo). **Prior written approval of the Dean of the Graduate School is required for TR-2 option.**

Forms to Document Your Progress Along the Way:

Tracking Forms—Graduate Certificate

- GC(SFI)1—Degree Schedule—Certificate in Sustainability

Tracking Forms—Master of Engineering

- MEng1—Proposed Degree Schedule—Master of Engineering (student worksheet)
- MEng2—Final Degree Schedule—Master of Engineering
- MEng3—Report on Practicum—Master of Engineering

Tracking Forms—Master of Forestry, Master of Science

- M2-GSO—Recommended Advisor / Advisory Committee
- M3—Preliminary Course Plan (Student Worksheet)
- M4—Degree Schedule—Master of Science
- M5—Scheduling of Final Oral Examination
- M6—Report on Oral Examination
- M6-D—Verification of Completion - Plan D
- M7/D9—Electronic Thesis and Dissertation Approval Form (Only if you wish your thesis/ dissertation to be available via MTU library website)

Tracking Forms—PhD

- D1—Acceptance into the Doctoral Program (Only for MTU Masters Students)
- D2—Recommended Advisor
- D3—Preliminary Program of Study—PhD
- D4—Report on the Comprehensive Examination (Required by some departments)
  - D4-EngPhysics—Report on the Comprehensive Examination
- D4A—Recommended Advisory Committee
- D5—Degree Schedule—PhD
- Things to Do Between D5 and Defense
- D6—Approval of Dissertation Proposal
- D7—Scheduling of Final Oral Examination
- D8—Report on Final Oral Examination
- M7/D9—Electronic Thesis and Dissertation Approval Form (Only if you wish your thesis/ dissertation to be available via MTU library website)

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Questions?

Grad School Web Index

Site Map

Table of Contents

Membership

The graduate faculty consists primarily of Michigan Tech tenure and tenure-track academic faculty (assistant professors, associate professors, and professors) who have been appointed by the dean of the graduate school. Tenure and tenure-track faculty appointments at the university are associated with automatic appointment to the graduate faculty. Tenure and tenure-track faculty who are awarded emeritus status upon retirement remain members of the graduate faculty.

The graduate faculty also includes others with an ongoing professional relationship with Michigan Tech who are willing and qualified to contribute to the university's graduate programs. Such individuals typically have been appointed as research, part-time, visiting, or adjunct faculty members, or lecturers or instructors. These people are nominated to the dean of the graduate school for appointment to the graduate faculty by the department chair and college dean or school dean of the academic unit that most closely matches the nominee's area of expertise. Nominees must possess either the terminal degree in their field or be able to demonstrate that their academic training and professional experience qualify them for appointment. All nominations should be made using the Recommendation for Graduate Faculty Appointment form and must include a copy of the nominee's vitae.

Individuals with no formal appointment at MTU and individuals who do not qualify for full appointment to the graduate faculty may apply for an ad hoc appointment to the graduate faculty if they are interested in being a part of a graduate student's committee and they have the potential to make substantive contributions to that student's education. Ad hoc appointments terminate with the completion of the particular task for which the appointment was granted. Ad hoc graduate faculty are considered external members of graduate students' committees.

Members of the graduate faculty who leave the university may, upon request of the chair of the department or dean of the school affected, remain on the graduate faculty in ad hoc status until all of the students they are advising or serving on committees for leave the university.

Privileges

Members of the graduate faculty are eligible to teach graduate courses (5000- and 6000-level). They may supervise master's and PhD students, and serve as examining members on master's and PhD committees. Faculty with adjunct status in a department or school may not serve as the external examining member on committees for students in that department.

Persons who are not members of the graduate faculty may teach 5000- and 6000-level courses only after obtaining written approval from the dean of the graduate school. Requests for permission should be prepared by department chairs or school deans and should include a completed Request for Permission to Teach Graduate Courses form and a copy of the nominee's vitae. This documentation should be forwarded to the dean of the graduate school who will approve or decline the request.

Review of Graduate Faculty

Department chairs and college/school deans are expected to continually review the performance of all individuals in their respective units holding graduate faculty appointments. When, in a chair's or dean's professional judgment, a faculty member holding a graduate faculty appointment is no longer satisfactorily functioning in this capacity, s/he must recommend to the dean of the graduate school that the individual in question be removed from the graduate faculty. The dean of the graduate school may also initiate the removal process in consultation with the appropriate chair and/or dean.

Publishing Your Doctoral Dissertation with UMI® Dissertation Publishing

Legitimacy ▪ Recognition ▪ Exposure ▪ Dissemination

www.il.proquest.com

CONTENTS

UMI® Dissertation Publishing
ProQuest Information and Learning
789 East Eisenhower Parkway
Ann Arbor, MI 48106
1. 800. 521. 0600 x. 7020
disspub@il.proquest.com

Legitimacy ▪ Recognition ▪ Exposure ▪ Dissemination

THE IMPORTANCE OF PUBLISHING GRADUATE WORKS

- Doctoral dissertations and master's theses are primary literature. They are valuable contributions to the discourse in every field of inquiry and to the culture of all creative fields.
- UMI-published dissertations and theses become part of the single most comprehensive collection of graduate-level creative work and research in the world.
- The UMI Collection is the safest, most sustainable repository for dissertations and theses, archiving this component of the primary literature in perpetuity.

For these reasons, and others important to the mission of your institution, publishing your dissertation or thesis with ProQuest Information and Learning's UMI® Dissertation Publishing is a graduation requirement in your program.

It is also in *your* best interests to publish your dissertation or thesis with ProQuest/UMI. You have many options for widely disseminating your published work, or restricting dissemination if that is in your best interests.

- Publishing your dissertation or thesis provides you with a legitimate citation for your curriculum vitae and for other scholars who refer to your work. Otherwise, scholarly convention requires that your work be listed as an "unpublished manuscript."
- Reference to your published dissertation or thesis appears in the world's most widely used sourceworks for graduate-level research, increasing the impact of your contribution to your field.
- You may also choose to make your work available to society, through open access publishing, ensuring that it is discoverable through major search engines, and through reliable third party retailers.

This document contains instructions on how to submit your manuscript and information about the dissemination options available to you, copyright issues, your rights as an author and our rights and obligations as your publisher, and a Publishing Agreement, which you must sign and provide to us along with your manuscript. PLEASE READ THIS INFORMATION so that your choices accurately reflect how you want ProQuest/UMI to manage your published work.

If you have questions that are not covered in this document, contact our Author Relations staff at disspub@il.proquest.com or call 1-800-521-0600, ext. 7020.

The Submission Process

STEP 1: Know your institution's submission procedures

Your institution's graduate school or its equivalent determines how your dissertation or thesis will actually be delivered to ProQuest/UMI. If your graduate school uses our ETD Administrator, you will be uploading your manuscript online and providing us with all necessary submission information via the web. If not, you will be filling out the paperwork in this document and providing it to us through your graduate school or library or other designated campus office.

STEP 2: Secure any necessary co-authorship and/or copyright permissions

If you share authorship with anyone else for any part of your dissertation or thesis, you need to acquire his or her permission to include that content. Likewise, if any content in your manuscript, including appendices, is already under another copyright, you need to acquire permission from the copyright holder to use that content. All such permissions must accompany your submission. See Guide 5 for more information, Guide 6 for a sample permission letter, and Copyright Law & Graduate Research: New Media, New Rights, and Your New Dissertation by Kenneth D. Crews for a comprehensive guide to copyright issues relative to your dissertation or thesis. You may view and/or download a free copy of Crews' book at www.proquest.com/products_umi/dissertations/copyright/. ProQuest/UMI may elect not to distribute your dissertation or thesis if, in its reasonable judgment, it believes all necessary rights of third parties have not been secured.

STEP 3: Read and understand the Licensing and Rights sections of the publishing agreement.

This agreement grants ProQuest/UMI the right to reproduce and disseminate your work according to the choices you make. This is a non-exclusive right; you may grant others the right to use your dissertation or thesis as well. You retain your copyright.

STEP 4: Choose your publishing option.

You may choose either open access or traditional publishing. If you choose Open Access Publishing, the published version of your dissertation or thesis will always be available for free download to anyone who has access to the Internet. The Traditional Publishing option works on a standard copy-sales and royalty-payments model. We sell copies of your work (in any format) and pay royalties as described in the Publishing Agreement. Either option gets your graduate research out where other scholars can find and use it through the ProQuest® Dissertations and Theses (PQDT) database, subscribed to by more than 3000 libraries worldwide.

In this step, you will also choose your options for release, dissemination and distribution, and restrictions. NOTE: your institution may require you to choose open access publishing and may have explicit policies regarding embargoes and restrictions. Check with your graduate school or program if you are not sure. Also see Guide 3: Open Access versus Traditional Publishing and Guide 4: Embargoes & Restrictions.

STEP 5: Sign the publishing agreement.

Publication of your work may be delayed or impossible if your signature is missing.

STEP 6: Provide your personal information, contacts, and degree data.

We require a limited amount of personal information to process your submission, provide records to your institution, and to communicate with you if necessary. We request your Country of Citizenship because libraries and researchers are often interested in searching for all dissertations published by authors of a given nation or region. We use your personal information solely for publishing and dissemination purposes, and do not sell or supply your personal information to any third party. The name you provide on the Submission Form should be identical to the name on your title page.

We know you are likely to relocate after you graduate. We ask for both your current contact information, and for permanent or stable contact information (e.g. your parents or another relative unlikely to move) to increase the chances of reaching you if there is an issue with your submission and to pay you royalties when/if you are eligible. If we are not able to reach you during the publishing process, the release of your dissertation or thesis and production of any print copies you order may be substantially delayed. If you have one, please provide us with your non-academic/non-professional email address; e.g. a hotmail-type web mail address.

Please use full and official names when completing the information about your university, school or college and department or program; e.g., The University of California at Berkeley, Graduate Division, Department of Integrative Biology. Please also use the correct abbreviation for the degree you earned. Finally, please provide the full name of your advisor/committee chair; e.g. James H. Smith, not Jim Smith.

STEP 6: Provide information about your dissertation or thesis.

We require this information to create the bibliographic data that establishes your dissertation or thesis in the primary literature. It is important that this information is accurate and corresponds precisely with the information in your manuscript. Discrepancies between the data you provide in this form and your manuscript can delay publication of your work and/or make it difficult for other researchers to discover your work.

Title

Make sure that the title you provide on the submission form is the same as the title on your manuscript's title page. For the sake of standardization, your title will appear in sentence case regardless of the conventions of your discipline; e.g., "The long and short of it: a sample title." Whenever possible, use full proper names of people, organisms, places, etc. For example: "Samuel Clemens" not "S. Clemens"; *Hyla arenicolor*, not *H. arenicolor*. Try to spell out abbreviations for specialized vocabulary; e.g., "Triassic" rather than "Tr." Use word substitutes for formulas, symbols, superscripts, subscripts, Greek characters, etc. For example, use "potassium", not "K"; "first", not "1st"; "delta", not "Δ". Be sure to include all appropriate accents and diacritical marks.

Subject Categories

The first (primary) subject category that you enter is the one under which your dissertation or thesis will occur in our citation and abstract indices. Using Guide 2, choose the category that most closely corresponds with the subject of your research. If you add one or two more subject categories, these will be associated with your work and may increase its exposure to search engines.

Keywords

Adding good keywords is another way to increase the chances that your work will be discovered. For example, geographic locations or specialized terms that do not occur in your title or abstract can increase exposure of your work.

STEP 7: OPTIONAL: Instruct us to file your application for copyright registration.

We can prepare and file the application to register your claim of copyright to your dissertation or thesis. You acquire copyright through the act of creating your manuscript, regardless of registering with the U.S. Copyright Office. A registered copyright, however, allows a court of law to award you monetary damages if your copyright is infringed. For more information, see the section on Copyright and Your Dissertation or Thesis.

STEP 8: OPTIONAL: Order copies.

You may order bound copies or microfiche of your dissertation or thesis at a discount. Your copies will be produced and shipped after the publication process is complete and your work is released for dissemination.

STEP 9: Make sure your manuscript is correctly organized

Follow your institution's guidelines for organization and required sections. Do NOT include the signature page in your submitted manuscript. This prevents a likeness of signatures from being distributed digitally.

STEP 10: Provide your dissertation or thesis.

Provide your manuscript and abstract in the form and format described in Guide 1: Preparing Your Manuscript for Submission to ProQuest/UMI to ensure that your manuscript will reproduce well in both print and microform. MAKE SURE all your fonts are embedded fonts. Guide 1 includes instructions on embedding fonts. Manuscripts without embedded fonts can cause ALL punctuation and formatting to disappear when the document is printed from the digital file and causes delays in our publishing process.

STEP 11: Attach Pages 3 and 4 (Agreement signature page and Submission Form page) to your manuscript and submit according to your institution's instructions.

SUBMISSION CHECKLIST

❒ Is your full name on the title page of the work, the abstract, and the submission form? Are all three identical? (If not, we will use the name on your title page).	❒ Have you indicated your choice of Open Access or Traditional Publishing?
❒ Have you included the full names of your advisor/committee chair?	❒ Have you indicated your choice regarding third-party sales?
❒ Have you indicated the appropriate subject category on the submission form?	❒ Have you indicated any necessary embargo or restriction?
❒ Have you attached a copy of your abstract and title page to the Submission Form? These must be identical to the abstract and title page in your manuscript.	❒ Have you attached permission letters for materials under another copyright attached? Do they state that the materials may be included in the published version of your work?
❒ Have you substituted words for formulas, symbols, and abbreviations in the title? Are accents included?	❒ If you choose to have us register your copyright, have you provided all necessary information on the submission form?
❒ Did you make sure your fonts are embedded?	❒ If you want personal copies, did you fill out the order form?
❒ Have you included an abstract and title page in English, if the original is in another language?	❒ Have you enclosed any payments that you will make directly to us? NOTE: please ensure that the form of payment you use will not expire in the 6 months following your submission!
❒ Are all pages of your manuscript present and appropriately numbered? (The most common problem with submissions is missing pages).	❒ Have you signed the publishing agreement in the space provided and ATTACHED **PAGES 3 AND 4** TO BE SUBMITTED WITH YOUR MANUSCRIPT?

PLEASE ALLOW UP TO 16 WEEKS

FOR THE RELEASE OF YOUR DISSERTATION OR THESIS

As with any scholarly publication, there is substantial lag time between submission of your manuscript and release of the published work. The actual time between submission and release can vary widely, depending on your institution's process and workflow, and the time of year. Most universities hold all submitted dissertations and theses until the end of the semester or quarter, then deliver them to us all at once. This is also true for your institution's transmission of ETD's using our online submission system.

Once your manuscript actually arrives at UMI, another 6 to 10 weeks can pass before its release. While there is no peer review process on our end (your committee serves the same purpose prior to submission), our editorial, bibliographic, reproduction and archiving processes all require individual attention to each individual dissertation and thesis. We publish more than 60,000 graduate works each year (72,000 in 2006), and most of them arrive at UMI between the middle of May and the end of June. While most submissions are processed without complication, approximately 20% on average are problematic. Handling problem submissions slows down the process for an entire cohort.

You can increase the chances of a speedy publishing process by following all instructions, guidelines, and requirements precisely. Use the Submission Checklist above. And if you have any questions, call our Author Relations Team at 1. 800. 521. 0600 x.7020.

ProQuest/UMI Publishing Agreement

This Agreement is between the author whose signature appears below (Author) and ProQuest Information and Learning Company, through its UMI® Dissertation Publishing business (ProQuest/UMI). Under this Agreement, Author grants ProQuest/UMI certain rights to preserve, archive and publish the dissertation or thesis, abstract, and index terms (the Work) provided by Author to ProQuest/UMI and more fully described in the Submission Form.

Section I. License for Inclusion of the Work in UMI® Publishing Program

Grant of Rights. Author hereby grants to ProQuest/UMI the non-exclusive, worldwide right to reproduce, distribute, display and transmit the Work (in whole or in part) in such tangible and electronic formats as may be in existence now or developed in the future. Author further grants to ProQuest/UMI the right to include the abstract, bibliography and other meta-data in ProQuest/UMI's Dissertation Abstracts International and any successor or related index and/or finding products or services.

UMI® Publishing Program – Election and Elements. The rights granted above shall be exercised according to the option selected by Author in Section IV below, and subject to the following additional Publishing Program requirements:

> Redistribution of the Work. Except as restricted by Author under Section IV (below), the rights granted by Author *automatically* include (1) the right to allow sale and distribution of the Work, in whole or in part, by agents and distributors, including but not limited to commercial retail outlets and (2) the right to make the Abstract and bibliographic data associated with the Work available to search engines and harvesters. .
>
> Restrictions. ProQuest/UMI will use commercially reasonable efforts to restrict the distribution of the Work as provided under the publishing option selected by Author in Section IV (below) or as later elected by Author through direct contact with ProQuest/UMI. Such election is subject to Author's Degree Granting Institution Directives (see below). With respect to restrictions requested after submission of the Work, Author acknowledges that ProQuest/UMI cannot recall or amend previously distributed versions of the Work. Refer to Guides 3 and 4 for information about access and restrictions.
>
> Removal of Work from the Program. ProQuest/UMI may elect not to distribute the Work if it believes that all necessary rights of third parties have not been secured. Refer to Guide 5 for information about copyright and your dissertation or thesis. If Author's degree is rescinded, and the degree-granting institution so directs, ProQuest/UMI will expunge the Work from its publishing program in accordance with its then current publishing policies.
>
> Degree Granting Institution Directives. Author is solely responsible for any conflict between policies and directions of Author's degree-granting institution, Author's choice of publishing model, and/or any restriction Author places on the use of the Work. For the avoidance of doubt, ProQuest/UMI is not responsible for access to the Work that is provided by Author's degree-granting institution through its library or institutional repository. Author must work directly with Author's degree granting institution to ensure application of any restrictions to access relating to the Work by Author's degree granting institution.

Copyright and Deposit with the Library of Congress. At Author's option as indicated in Section V below, and upon payment of the applicable fee, ProQuest/UMI will submit an application for registration of Author's copyright in the Work in Author's name. In addition, regardless of whether copyright registration of the Work is sought, ProQuest/UMI may make a copy of the Work available to the Library of Congress in digital, microform or other format as required by the Library of Congress.

Publishing Fees and Royalties. Author shall remit the publishing fees and the optional copyright registration fees as appropriate for the publishing option chosen in Section IV (below), and as specified by Author's degree-granting institution. Except as provided under the Traditional Publishing options, no royalties shall be due from ProQuest/UMI to Author.

Delivery of the Work. Author shall provide to ProQuest/UMI the Work and all necessary supporting documents according to the Instructions for Providing Your Dissertation or Thesis to ProQuest/UMI (Guide 1).

Rights Verification. Author represents and warrants that Author is the copyright holder of the Work and has obtained all necessary rights to permit ProQuest/UMI to reproduce and distribute third party materials contained in any part of the Work, including all necessary licenses for any non-public, third party software necessary to access, display, and run or print the Work. Author is solely responsible and will indemnify ProQuest/UMI for any third party claims related to the Work as submitted for publication.

Section II. Rights pursuant to Open Access publishing.

Author's signature below and election of option OA-1 or OA-2 in Section IV below confirm Author's choice to have ProQuest/UMI publish the Work according to the Open Access Publishing option described here.

A. Open Access Publishing. In addition to the rights granted under Section I of this Publishing Agreement, ProQuest/UMI may reproduce, distribute, display and transmit the Work in electronic format in the ProQuest® Dissertations and Theses Open database (PQDT Open) or successor database(s), where it will be made available for free download. PQDT Open may be accessed by the academic community as well as the through major search engines and open access harvesters. ProQuest/UMI may also provide an electronic copy of the Work to Author's degree-granting institution where it may also be posted for free open access.

B. Copy Sales: ProQuest/UMI and its agents and distributors may offer copies of the Work for sale in tangible media, including but not limited to microform, print and CD-ROM, as well as in electronic format either individually or as part of its subscription-based electronic database and reference products. No royalties shall be due to Author.

C. Publishing Fees: Author's payment of the additional Open Access fee is a one-time, up-front fee in addition to the UMI® dissertation or thesis publishing fee. Author's institution may assess additional fees to be collected along with the Open Access and publishing fees.

Section III. Rights pursuant to Traditional Publishing.

Author's signature below and election of option TR-1 or TR-2 in Section IV below confirm Author's choice to have ProQuest/UMI publish the Work according to the Traditional Publishing option described below.

A. Traditional Publishing. ProQuest/UMI may reproduce, and distribute, and sell the Work, in whole or in part, in accordance with the rights granted under Section I above, in such tangible and electronic formats as may be in existence now or developed in the future, whether individually or as part of subscription-based electronic database and reference products.

B. Publishing Fees and Royalties. Author's payment of the dissertation or thesis publishing fee is a one-time, up-front fee. Author's institution may assess additional fees to be collected along with the publishing fee. ProQuest/UMI will pay royalties of 10% of its net revenue from sales of the Work, conditioned on Author maintaining a current address on record with ProQuest/UMI. Royalties are paid in any year in which royalties accrued during such year reach at least $10.00. No royalties shall be due for periods in which Author has failed to maintain a current mailing address with ProQuest/UMI.

Section IV. Publishing Options

Most accredited institutions that offer graduate degrees adhere to the principle that scholars are obligated to make the results of their research available to other scholars. A growing proportion of institutions and scholarly disciplines actively promote an extension of this principle: that scholars are obligated to make the results of their research available to society at large. We help your institution meet its mission, and you to meet your scholarly obligations, by publishing and disseminating your dissertation or thesis. After almost 70 years of dissemination primarily to the academic community, we now also provide options for you to make your work available beyond scholarly avenues. Please read the options on the next page carefully, and choose those that best serve both your interests and your scholarly obligations.

Select ONE of the options below.

For help in deciding among these options, see the guides for Open Access versus Traditional Publishing and Embargoes & Restrictions.

Open Access Publishing Options

❒ **OA-1**

OPEN ACCESS

IMMEDIATE* Release

Retail copy sales

Accessible to search engines

I want the broadest possible dissemination of my work as soon as it is published, and I want to provide free global access to the electronic copy of my work via the internet. I want people to be able to buy a copy of my work via commercial retailers, and I want major search engines to discover my work. I understand that there is an additional fee for Open Access Publishing, and that I will not be eligible to receive royalties.

❒ **OA-2**

OPEN ACCESS

I want the broadest possible dissemination of my work and I want to provide free global access to the electronic copy of my work via the internet. I may provide further instructions as indicated below. I understand that there is an additional fee for Open Access Publishing and that I will not be eligible to receive royalties.

If no boxes are checked below, your work will be released immediately with no restrictions.

Release Options*:

- ❒ 6 month embargo
- ❒ 1 year embargo
- ❒ 2 year embargo

Restriction Options:

- ❒ No search engine access
- ❒ No sales via third-party

Traditional Publishing Options

❒ **TR-1**

TRADITIONAL Publishing

IMMEDIATE* Release

Retail copy sales

Accessible to search engines

I want to make my work widely available for purchase as soon as it is published, and I want to be eligible to receive royalties on the sale of my work. I want people to be able to buy a copy of my work via commercial retailers, and I want major search engines to discover my work. I understand that I must maintain a current mailing address with ProQuest/UMI in order to be eligible to receive royalties.

❒ **TR-2**

Traditional Copy Sales & Royalties

I want to make my work widely available for purchase and I want to be eligible to receive royalties on the sale of my work. I may provide further instructions as indicated below. I understand that I must maintain a current mailing address with ProQuest/UMI in order to be eligible to receive royalties.

If no boxes are checked below, your work will be released immediately with no restrictions.

Release Options*

- ❒ 6 month embargo
- ❒ 1 year embargo
- ❒ 2 year embargo

Restriction Options:

- ❒ No search engine access
- ❒ No sales via third-party

* Embargoes start from the date we receive your manuscript at ProQuest/UMI. Note that there can be a delay of up to a semester at your institution before the work is forwarded to us.

Section V. Author's signature.

Acknowledgment: I have read, understand and agree to this Publishing Agreement, including all rights and restrictions included within the publishing option chosen by me as indicated above.

Author's signature_____**Date**_____

INCLUDE THIS PAGE WITH YOUR SUBMISSION

Form PQS07DPA

Dissertation Submission Form

Please type or print in block letters.

Please do not write in this space.

Restriction Code	
Total Pages	
Vol./Issue	
School Code	
Year	
Copyright	❒ Yes ❒ No

Personal Information

Last Name _____

First Name _____

Middle Name or Initial _____

Country (ies) of Citizenship _____

Current Contact Information

Street Address _____

City, State, Zip _____

Country _____

Daytime Phone _____

Evening Phone _____

Email Address _____

Future and/or Stable Contact Information

Effective Date _____

Street Address _____

City, State, Zip _____

Country _____

Daytime Phone _____

Evening Phone _____

Email Address _____

Degree Information

Full name of university conferring degree _____

Abbreviation of degree awarded _____

Year degree awarded _____

Official name of College, School, or Division (if applicable) _____

Official name of Department or Program _____

Year manuscript completed _____

Dissertation Information ▪ IMPORTANT! Attach copies of your dissertation title page and abstract to this form.

What language is your dissertation written in? _____

Primary Subject Category: Enter the 4-digit code and category name from Guide 2 that most closely corresponds with the subject of your research.

Your abstract will be listed in our citation index products under this category. _____ _____

Optional: Enter up to two secondary subject category codes and descriptors that may aid in the discovery of your work in our digital database.

_____ _____ _____ _____

Provide up to 6 keywords or short phrases for citation indices, library cataloging, and database searching.

_____ _____ _____

_____ _____ _____

INCLUDE THIS PAGE WITH YOUR SUBMISSION

Form PQS07DPA

Copyright Registration Form -- Optional

We can file your application to register your copyright on your behalf. We supply all application materials, the two copies of your dissertation or thesis required for review and deposit in the Library of Congress, pay the filing fee and additional fees for corrected filings, and monitor the registration process.

The fee for this service is $65.00, and includes the filing fee set by the U.S. Copyright Office.

❒ YES; I want UMI® Dissertation Publishing to handle the application for registration of my claim to copyright, and am providing the necessary information as follows:

I hereby request and authorize UMI® to submit an application for registration of my copyright in the Work in my name. I will receive the registration confirmation form directly from the U.S. Office of Copyright.

(Indicate one):

I have NOT ❒ previously registered my published dissertation/thesis, or an earlier version of the manuscript with the U.S. Office of Copyright.

I HAVE ❒ previously registered my published dissertation/thesis, or an earlier version of the manuscript with the U.S. Office of Copyright. The previous registration was made by

_____ in _____

Name year

That registration number is_____

Previous registration number

Author's signature_____ Date_____

Include this page IF you want us to register your copyright

Form PQS07DPA

AUTHOR DISCOUNT OFFER

Bound Copies of Your Dissertation

Producing copies of your dissertation is least expensive at the time of publication. Share in these savings by taking advantage of this discount offer. Order copies of your work:

- for handy reference
- for distribution to family and colleagues
- for your personal satisfaction

Order Now and Save up to 45%

1. Identify your dissertation.

Last name as it appears on your dissertation _____ Year degree awarded _____

First name _____ Middle name/ initial _____

Institution where degree was conferred _____

Permanent/stable email address _____

2. Tell us where to ship your order.

Street Address or PO Box _____

City _____

State/Province _____ Country _____ Postal code _____

Daytime telephone number _____

What will your bound copy look like? Book covers are medium blue with white lettering. Printing is double-sided in black and white.

How long will it take to receive my copies? Please allow 2 to 3 months after the end of the semester in which you submitted before anticipating delivery of your copies. We cannot start the publishing process or produce your copies until your university forwards your manuscript to us.

Bound Size	Format	Qty	Price	Total Price
8 ½ x 11	Hardbound cloth		$47 each	
			3 for $125	
			4 for $162	
6 x 9	Hardbound cloth		$42 each	
			3 for $110	
			4 for $142	
8 ½ x 11	Softcover		$36 each	
6 x 9	Softcover		$30 each	
	Microfiche		$17 each	
Add sales tax for the state to which your order will be shipped.			Subtotal	
			Sales Tax	
Prices are subject to change.			**Order Total**	

I am enclosing a signed Postal Money Order payable to ProQuest Information and Learning, in the amount of $_____

Please charge my:

❒ Visa ❒ MasterCard ❒ American Express

Card no. _____

Expiration date (MM/YY) _____

Signature _____

NOTE!

- Author orders do not earn royalties.
- Full payment must accompany your order.
- We can ONLY accept credit/debit cards and Postal Money Orders for copy orders.
- We are legally required to charge your credit card or deposit your check as soon as we receive your order, though it may be some time before you receive your copies.
- PLEASE notify us if your address changes! If your copies are shipped to an address that is no longer valid, we must charge you again to replace the order.

Questions? Call Author Relations at 1. 800. 521. 0600 x. 7020 or email disspub@il.proquest.com

Include this page if you wish to order copies.

Guide 1: Preparing Your Manuscript for Submission to ProQuest/UMI

Abstract

As a section of your dissertation or thesis, your abstract (if you include one; check with your institutions requirements) must meet the specifications provided below for your manuscript.

Please supply an additional copy of your abstract in English, if the primary language of your dissertation or thesis is NOT English.

We no longer have a word limit on your abstract, as this constrains your ability to describe your research in a section that is accessible to search engines, and therefore would constrain potential exposure of your work. However, we continue to publish print indices that include citations and abstracts of all dissertations and theses published by ProQuest/UMI. These print indices require word limits of 350 words for doctoral dissertations and 150 words for master's theses. Additionally, our print indices allow only text to be included in the abstract. In the editorial process for these print publications, we will simply truncate your abstract if it exceeds these word limits and remove any non-text content. You may wish to limit the length of your abstract if this concerns you. **The abstract as you submit it will NOT be altered in your published manuscript.**

Manuscript Specifications

Regardless of how you submit your dissertation or thesis, it will eventually be produced in digital, microform and or microfiche, and probably print media. Your library may have a standing order for reduced (6" x 9") size bound copies. Achieving a legible copy of acceptable quality in all of these formats and sizes requires a conservative approach to paper size and quality, fonts, font sizes, spacing, images and graphics. Your institution may provide you with specifications for some or all of these details, in addition to specifications for required sections, organization, pagination, and others. In cases of variation, **your institution's specifications supersede ours.** Please adhere to either/both your institutional specifications and those that follow here to ensure the highest quality reproduction of your work.

To prevent the release of digital signatures, do NOT include the signature page in your submitted manuscript.

MAKE SURE all your fonts are embedded fonts. See the end of this guide for instructions on embedding fonts. Manuscripts without embedded fonts can cause ALL punctuation and formatting to disappear when the document is printed from the digital file, and causes delays in our publishing process.

DIGITAL MANUSCRIPT	
File Format: Manuscript	Adobe PDF required. NO compression; NO password protection; NO digital signature. You are responsible for the appearance of your manuscript in PDF. It will appear and may be downloaded exactly as you submit it.
Multimedia files and formats	Acceptable with external or internal links.
Images	GIF (.gif); JPEG (.jpeg); TIFF (.tif)
Video	Apple Quick Time (.mov); Microsoft Audio Video Interleaved (.avi); MPEG (.mgp)
Audio	AIF (.aif); CD-DA; CD-ROM/XA; MIDI (.midi); MPEG-2; SND (.snd); WAV (.wav)
Margins	Left: 1 ½"; Right: 1"; Top and Bottom: 1". Applies to all material except page numbers, including figures, headers/footers, footnotes/endnotes, and full-page images. Page numbers: at least ¾" from edge of page.
Fonts	Embedded fonts REQUIRED. Post Script Type 1 fonts required. Any legible font except script, italic, or ornamental fonts equivalent in scale to 10pt. Arial or 12pt. Times New Roman accepted. Italicized font may be used for non-

	English words and quotations. Applies to all text including captions, footnotes/endnotes, citations, etc.
Line spacing	Double-space: abstract, dedication, acknowledgements, table of contents, and body of the manuscript, except for quotations as paragraphs, captions, items in tables, lists, graphs, charts. Single-space: footnotes/endnotes, bibliographic entries, lists in appendices.
Color	Native digital manuscripts will appear in color when viewed electronically. Microfilm and print reproductions will NOT preserve color; colors will appear in shades of gray and may compromise legibility of figures, illustrations, photographs, and graphics. Data and information that is color-coded or based on color shading may not be interpretable. For best results, have color photographs reprinted in black and white by a professional lab.
PAPER MANUSCRIPT	
Preferred	Laser printed copy with crisp, dark black characters
Acceptable	High-quality photocopy with crisp, dark black characters
Paper Size	8 ½ " x 11"
Paper Type	High-quality, 24 lb bright white; high contrast
Do NOT use erasable paper	
Single-side printing	Required
Margins	Left: 1 ½"; Right: 1"; Top: 1"; Bottom: 1". ALL material, including figures, headers/footers, footnotes/endnotes, and full-page images must appear within the margins of the manuscript. Page numbers are the only exception; these must appear at least ¾" from the edge of the page, but do not need to appear within the margins.
Fonts	Any legible font except script, italic, or ornamental fonts equivalent in scale to 10pt. Arial or 12pt. Times New Roman. Italicized font may be used for non-English words and quotations. Applies to all text including captions, footnotes/endnotes, citations, etc.
Line spacing	Double-space: abstract, dedication, acknowledgements, table of contents, and body of the manuscript, except for quotations as paragraphs, captions, items in tables, lists, graphs, charts. Single-space: footnotes/endnotes, bibliographic entries, lists in appendices.
Black & White	Preferred for paper submissions
Color	Acceptable. Microfilm and print reproductions will NOT preserve color; colors will appear in shades of gray and may compromise legibility of figures, illustrations, photographs, and graphics. Data and information that is color-coded or based on color shading may not be interpretable. For best results, have color photographs reprinted in black and white by a professional lab.
Oversize materials	Acceptable. Fold maps and other material larger than 8 ½" x 11" to manuscript size, or roll and place in a mailing tube clearly identified as part of your submission.

Embedding Fonts

This guidance assumes you are writing your manuscript in MS Word on a PC. If you are using a Mac, similar guidance should exist in help files.

To begin with, create your manuscript using a TrueType font—NOT a scalable font. See below for a list of recommended TrueType fonts and point sizes. Then:

1. On the **Tools** menu, click **Options**, and then click the **Save** tab.
2. Select the **Embed TrueType fonts** check box.
3. Save the document.

Alternatively, if you have Acrobat Professional available to you, you can follow the excellent instructions provided by the Graduate Thesis Office at Iowa State University:

1. Open your document in Microsoft Word.
2. Click on the Adobe PDF tab at top. Select "Change Conversion Settings."
3. Click on Advanced Settings.
4. Click on the Fonts folder on the left side of the new window. In the lower box on the right, delete any fonts that appear in the "Never Embed" box. Then click "OK."
5. If prompted to save these new settings, save them as "Embed all fonts."

6. Now the Change Conversion Settings window should show "embed all fonts" in the Conversion Settings drop down list and it should be selected. Click "OK" again.
7. Click on the Adobe PDF link at the top again. This time select Convert to Adobe PDF. Depending on the size of your document and the speed of your computer, this process can take 1-15 minutes.
8. After your document is converted, select the "File" tab at the top of the page. Then select "Document Properties."
9. Click on the "Fonts" tab. Carefully check all of your fonts. They should all show "(Embedded Subset)" after the font name.
10. If you see "(Embedded Subset)" after all fonts, you have succeeded.

Some recommended TrueType fonts and point sizes

*Arial	10pt
Century	11pt
*Courier New	10pt
Garamond	12pt
*Georgia	11pt
Lucida Bright	10pt
Microsoft Sans Serif	10pt
Tahoma	10pt
*Times New Roman	12pt
*Trebuchet MS	10pt
*Verdana	10pt

* Web font. Designed for easy screen readability. Since many readers are likely to view and/or use your dissertation or thesis onscreen, you may wish to improve the readability of your text by using one of these fonts.

Guide 2: Subject Categories

The ProQuest® Dissertations and Theses (PQDT) database and the ProQuest/UMI citation indices are arranged by subject categories. Please select the one category below that best describes the overall subject of your dissertation or thesis. You may add one or two additional categories on your submission form that will also be associated with your work as secondary subjects.

THE HUMANITIES AND SOCIAL SCIENCES

COMMUNICATIONS AND THE ARTS

Architecture	0729
Art History	0377
Cinema	0900
Dance	0378
Design and Decorative Arts	0389
Fine Arts	0357
Information Science	0723
Journalism	0391
Landscape Architecture	0390
Library Science	0399
Mass Communications	0708
Music	0413
Speech Communication	0459
Theater	0465

EDUCATION

General	0515
Administration	0514
Adult and Continuing	0516
Agricultural	0517
Art	0273
Bilingual and Multicultural	0282
Business	0688
Community College	0275
Curriculum and Instruction	0727
Early Childhood	0518
Educational Psychology	0525
Elementary	0524
Finance	0277
Guidance and Counseling	0519
Health	0680
Higher	0745
History of	0520
Home Economics	0278
Industrial	0521
Language and Literature	0279
Mathematics	0280
Music	0522
Philosophy of	0998
Physical	0523
Reading	0535
Religious	0527
Sciences	0714
Secondary	0533
Social Sciences	0534
Sociology of	0340
Special	0529
Teacher Training	0530
Technology	0710
Tests and Measurements	0288
Vocational	0747

LANGUAGE, LITERATURE, AND LINGUISTICS

Language	
General	0679
Ancient	0289
Linguistics	0290
Modern	0291
Rhetoric and Composition	0681
Literature	
General	0401
Classical	0294
Comparative	0295
Medieval	0297
Modern	0298
African	0316
American	0591
Asian	0305
Australia, New Zealand, and Oceania	0356
Canadian (English)	0352
Canadian (French)	0355
Caribbean	0360
English	0593
Germanic	0311
Latin American	0312
Middle Eastern	0315
Romance	0313
Scandinavian and Icelandic	0362
Slavic and East European	0314

PHILOSOPHY, RELIGION, AND THEOLOGY

Philosophy	0422
Religion	
General	0318
Biblical Studies	0321
Clergy	0319
History of	0320
Philosophy of	0322
Theology	0469

SOCIAL SCIENCES

American Studies	0323
Anthropology	
Archaeology	0324
Cultural	0326
Medical and Forensic	0339
Physical	0327
Biography	0304
Black Studies	0325
Business Administration	
General	0310
Accounting	0272
Banking	0770
Management	0454
Marketing	0338
Canadian Studies	0385
Economics	
General	0501
Agricultural	0503
Commerce-Business	0505
Finance	0508
History	0509
Labor	0510
Theory	0511
Folklore	0358
Geography	0366
Gerontology	0351
Gender Studies	0733
Hispanic American Studies	0737
History	
General	0578
Ancient	0579
Medieval	0581
Modern	0582
African	0331
Asia, Australia, and Oceania	0332
Black	0328
Canadian	0334
Church	0330
European	0335
Latin American	0336
Middle Eastern	0333
Military	0722
Russian and Soviet	0724
United States	0337
History of Science	0509
Jewish Studies	0751
Law	0398
Military Studies	0750
Museology	0730
Native American Studies	0740
Political Science	
General	0615
International Law and Relations	0616
Public Administration	0617
Recreation	0814
Social Work	0452
Sociology	
General	0626
Criminology and Penology	0627
Demography	0938
Ethnic and Racial Studies	0631
Individual and Family Studies	0628
Industrial and Labor Relations	0629
Organizational	0703
Public and Social Welfare	0630
Social Structure and Development	0700
Theory and Methods	0344
Transportation	0709
Urban and Regional Planning	0999
Women's Studies	0453

THE SCIENCES AND ENGINEERING

BIOLOGICAL SCIENCES

Agriculture

General	0473
Agronomy	0285
Animal Culture and Nutrition	0475
Animal Pathology	0476
Fisheries and Aquaculture	0792
Food Science and Technology	0359
Forestry and Wildlife	0478
Horticulture	0471
Plant Culture	0479
Plant Pathology	0480
Range Management	0777
Soil Science	0481
Wood Technology	0746

Biology

General	0306
Anatomy	0287
Animal Physiology	0433
Bioinformatics	0715
Biostatistics	0308
Botany	0309
Cell	0379
Ecology	0329
Entomology	0353
Genetics	0369
Limnology	0793
Microbiology	0410
Molecular	0307
Neuroscience	0317
Oceanography	0416
Parasitology	0718
Physiology	0719
Plant Physiology	0817
Veterinary Science	0778
Virology	0720
Zoology	0472

Biophysics

General	0786
Medical	0760

EARTH SCIENCES

Atmospheric Sciences	0725
Biogeochemistry	0425
Geochemistry	0996
Geodesy	0370
Geology	0372
Geophysics	0373
Hydrology	0388
Mineralogy	0411
Paleobotany	0345
Paleoecology	0426
Paleontology	0418
Paleozoology	0985
Palynology	0427
Physical Geography	0368
Physical Oceanography	0415
Remote Sensing	0799

HEALTH AND ENVIRONMENTAL SCIENCES

Environmental Sciences	0768

Health Sciences

General	0566
Audiology	0300
Dentistry	0567
Education	0350
Epidemiology	0766
Health Care Management	0769
Human Development	0758
Immunology	0982
Medicine and Surgery	0564
Mental Health	0347
Nursing	0569
Nutrition	0570
Obstetrics and Gynecology	0380
Occupational Health and Safety	0354
Oncology	0992
Ophthalmology	0381
Pathology	0571
Pharmacology	0419
Pharmacy	0572
Public Health	0573
Radiology	0574
Recreation	0575
Rehabilitation and Therapy	0382
Speech Pathology	0460
Toxicology	0383

Home Economics	0386

PHYSICAL SCIENCES

Pure Sciences

Chemistry

General	0485
Agricultural	0749
Analytical	0486
Biochemistry	0487
Inorganic	0488
Nuclear	0738
Organic	0490
Pharmaceutical	0491
Physical	0494
Polymer	0495
Radiation	0754

Mathematics	0405

Physics

General	0605
Acoustics	0986
Astronomy and Astrophysics	0606
Atmospheric Science	0608
Atomic	0748
Condensed Matter	0611
Electricity and Magnetism	0607
Elementary Particles and High Energy	0798
Fluid and Plasma	0759
Molecular	0609
Nuclear	0610
Optics	0752
Radiation	0756
Theory	0753

Statistics	0463

Applied Sciences

Applied Mechanics	0346
Artificial Intelligence	0800
Computer Science	0984
Energy	0791

Engineering

General	0537
Aerospace	0538
Agricultural	0539
Automotive	0540
Biomedical	0541
Chemical	0542
Civil	0543
Electronics and Electrical	0544
Environmental	0775
Industrial	0546
Marine and Ocean	0547
Materials Science	0794
Mechanical	0548
Metallurgy	0743
Mining	0551
Nuclear	0552
Packaging	0549
Petroleum	0765
Robotics	0771
Sanitary and Municipal	0554
System Science	0790

Geotechnology	0428
Operations Research	0796
Plastics Technology	0795
Textile Technology	0994

PSYCHOLOGY

General	0621
Behavioral	0384
Clinical	0622
Cognitive	0633
Developmental	0620
Experimental	0623
Industrial	0624
Personality	0625
Physiological	0989
Psychobiology	0349
Psychometrics	0632
Social	0451

Guide 3: Open Access versus Traditional Publishing

What is Open Access?

The now-common usage of the term "open access" means freely available for viewing or downloading by anyone with access to the internet. Sometimes a distinction is made for "limited open access" meaning that material is available free of charge to a limited group of authorized users. Our usage of "open access" means the former; that is, dissertations and theses published for Open Access with ProQuest/UMI will be available at no charge for viewing or downloading by anyone with access to the internet, indefinitely.

What is Traditional Publishing?

Traditional publishing at UMI® corresponds with the model that generated the publishing industry as soon as mass-reproduction of printed material was possible. That is, the owner of intellectual property and author of the work contracts with the publisher to reproduce, distribute, and sell copies of the work. The publisher pays the author a certain portion of the revenue thus generated. That is why we also refer to our Traditional Publishing model as the "copy sales and royalty payments" model. It's been our business model since 1938, and we've paid out hundreds of thousands of dollars in royalties to the authors of dissertations and theses over the decades.

Why do we offer both options for publishing your work?

Just as the modern printing press stimulated the modern publishing industry, technology and the ubiquity of the worldwide web have revolutionized the dissemination of intellectual property—including graduate works. The scholarly community in particular has benefited as more and more of its reference materials and the latest literature in every discipline becomes available online—especially when it's free whether or not you or your institution subscribe to the publication. The primary literature is accelerating toward open access as scholarly publishers work to create new business models that will support this demand while sustaining the quality of their product. Where the primary literature goes, so does ProQuest/UMI, because we believe graduate works are primary literature.

At the same time, society is rapidly altering its notion of intellectual property, as access to information becomes a mouseclick rather than a trip to the library or bookstore. There is a strong and growing notion that information should be free to all members of society. While academia has long argued that there is a difference between information and intellectual property, it is clear that the distinction becomes ever more blurred as the Web grows and search engines become increasingly intelligent and powerful. The notion that information is a global commons, that society has a right to access the results of research that it supports, and the increasing call for academic accountability are together generating powerful forces that will affect how you publish as a scholar from this point forward. For example, search the internet under the term "Federal Research Public Access Act" and you will see that Congress may soon require the published results of all federally funded research to be held in open access repositories. In a nutshell, it is time for ProQuest/UMI to offer an open access publishing option to the authors of graduate works.

So why will we continue to offer the traditional copy-sales and royalties publishing option? The landscape of scholarly publishing is evolving—not changing overnight—so we are evolving with it by offering a range of options to suit the best interests of all graduate student authors.

How do you choose between Open Access and Traditional publishing?

- Check in with your graduate school or its equivalent first. Your university may require that you publish for Open Access, particularly if your research was supported by federal funds.

- Check into any restrictions imposed by a funding source. If your work was funded by industry or a corporate interest, as part of their research and development efforts, there may be some restrictions on the dissemination of all or part of your published dissertation or thesis.
- If you have a patent pending, or there is patentable work in your dissertation or thesis, you should already be working with your institution's technology transfer office or higher-level research office. If this is the case, see Guide 4: Embargoes and Restrictions and take appropriate steps to ensure that any patentable rights are protected.
- Next, check in with your advisor, committee chair, and any trusted mentors in your field. Your disciplinary community may share strong sentiments either for or against open access publishing. In some disciplines, open access is seen as a threat to the peer-review system because of the financial stress it causes for non-profit scholarly societies who publish journals. Other fields share a common and strong ethic *for* open access, particularly if its contributions are important to individual and societal decision-making. While you may not wish to have your decision governed by the norms of your discipline, you should at least be aware of any strong culture for or against open access in your field. Your mentor should also be able to advise you on whether or not your work is commercially viable in and of itself. If, for example, it is likely that your dissertation or thesis would sell well, you may not want to forgo earned royalties. Finally, your mentor should be able to help you decide if there is content in your work that should remain within academic circles, at least for a while. In such cases, you could still choose to publish for open access, but delay the release of your work for a fixed time (see Embargoes and Restrictions).
- Lastly, check in with your own value system and your professional goals. Do you believe that society will benefit from your research? Was your graduate work supported by public funds or by a charitable source with a strong social mission? If so, you may feel like giving back by making your work free to anyone who wants or needs it. Are you on your way to a career in the fine or performing arts? If so, you may not want to give away the unique platform you've built through your graduate work, and prefer to let interested readers or viewers pay for the privilege. Did you create or develop something with tangible value to industry or business? Again, perhaps you should start requiring payment for your expertise now. In the end, there is no right or wrong to either open access or copy sales and royalties as a basis for disseminating your work. We have developed the means for you to choose the model that best serves your professional and personal interests.

Open Access graduate works will be maintained in the new PQDT Open database, comprising the subset of our collection for which authors have paid the one-time fee for open access (currently $95). 2007 graduates will be the first cohort to have the Open Access Publishing option. For more information on PQDT Open and Open Access Publishing with ProQuest/UMI, go to www.proquest.com/products_umi/dissertations/ and click on "New! Open Access Publishing."

What about Copyright and Open Access publishing?

We have been asked whether there is any benefit in retaining your copyright or registering your claim to copyright with the U.S. Copyright Office if you publish anything for open access. There certainly is good reason, if not more reason to retain and protect your copyright if you publish open access, though you must decide for yourself about registering your claim (see the following section). By giving open access to your work, you are inviting people to read, reference, think about, build upon, refute, and perhaps even enjoy your work. You are NOT granting the right to take your work as one's own and/or to use it as one's own and/or to use it for commercial purposes without your permission. That is a copyright infringement.

Guide 4: Embargoes & Restrictions

Consideration	Recommended Action				
	Choose Traditional Publishing	Place an embargo of 6-months, 1 year, or 2 years	Do NOT choose third-party distribution	Restrict from Google/search engines and harvesters	See your institution's technology transfer or research officer. Consult with your advisor and graduate dean.
Likely submission to a peer-reviewed journal	✓	✓	✓		
Interested/potential interest by an academic or commercial press	✓	✓	✓		
Ethical need to prevent disclosure	✓	✓	✓	✓	
Patentable rights in the work/ other commercial potential	✓	✓	✓	✓	✓

University Policies

Many universities enforce explicit policies regarding the delayed release (embargo) and/or restriction of dissemination of dissertations and thesis. These policies may also apply to the delay or restricted shelving of a copy of your work in the university library. Such policies serve the scholarly convention of sharing one's research with others. Simply put, you are not contributing to your field or to general knowledge if others cannot examine the results of your scholarly work.

When you instruct us to embargo or restrict dissemination of your dissertation or thesis, we assume that you are complying with the policies of your institution.

University policies generally require that you petition for permission to embargo or restrict the dissemination of your dissertation or thesis. You will need to substantiate the reason for your request, and receive approval from the required persons and/or authorities. Considerations that are likely to be deemed reasonable for granting permission to embargo and/or restrict dissemination include:

- Patentable rights in the work or other issues in which disclosure may be detrimental to the rights or interests of the author.
- The ethical need to prevent disclosure of sensitive or classified information about persons, institutions, technologies, etc.
- The interest of an academic or commercial press in acquiring the rights to publish your dissertation or thesis as a book*.
- Content that is likely to be submitted to a peer-reviewed journal*.

Your Decisions

We provide you additional choices about dissemination and restriction that your university may not be concerned about, as long as you are fully informed of your options. These involve the extent to which you make your dissertation or thesis available to non-academic readers, through our own distribution channels, third-party distributors, and major search engines such as Google and Google Scholar.

For example, if you wish your work to be available to the largest potential population of interested readers, both general and academic, you would choose Open Access Publishing with immediate release, opt to have it available through third party retailers for sale to the non-academic reader, and not restrict access by Google and other search engines (Option OA-1 on page 1). You will choose this option if you feel that society has an interest in and a right to view the results of the research it supports by funding higher education. You should not choose this option if considerations such as those described above would make such wide access a detriment to your scholarly, professional, or personal future.

We began allowing Google and Google Scholar to search the bibliographic data and abstracts of dissertations and thesis in 2006. Internet search engines are quickly becoming a preferred tool for all of academia, and we believe graduate works should be easy for researchers to find. Therefore, if you need to limit dissemination of your work, you will need to exclude it from the data that we provide to select internet search engines. We provide you the ability to "opt out" of such exposure through the Publishing Agreement (Page 3). PLEASE NOTE, however, that internet search engines are likely to find your dissertation or thesis **through other access points, especially through the library or institutional repository** at your graduate institution. If you truly need exclusion from search engines, you will need to petition for restriction at your graduate institution in addition to restricting such access through ProQuest/UMI

***Publishing with UMI® Dissertation Publishing: Effects on publishing your content elsewhere**

The first thing to remember is that YOU own your copyright; unlike most scholarly publishers, ProQuest/UMI does NOT acquire copyright when we publish your dissertation or thesis. You are free to re-publish your work in whole or in part, with whomever you choose without asking our permission.

Some authors are concerned that journals and other publishers will not accept content that has been published in or as a dissertation or thesis. This concern is less valid in the case of peer-reviewed journals, and potentially more valid in the case of commercial book publishers. While every case is unique, here are some general rules of thumb in examining this issue with regard to your own work:

- In most cases, you will not be submitting your dissertation or thesis *as is* to a peer-reviewed journal (unless it is a journal that publishes a monograph series). Most often, the content submitted for journal publication is an excerpt, chapter, or section of your dissertation or thesis. At the very least, it would be a significantly shorter distillation of your graduate work. The content is likely to be rearranged and reformatted to fit the style of the journal to which you submit. Finally, the content is likely to be revised and updated through the peer-review process and finally the editorial process if it is accepted. All of these processes mean that the material as finally published by a journal is substantively and substantially refined and therefore different from the content that is published as your dissertation or thesis. For this reason, journals are not historically concerned about your content having appeared and been distributed as a published graduate work. This is particularly true in the STEM disciplines (science, technology, engineering, and mathematics).
- Academic presses, monograph publishers, and commercial presses are more likely to consider your dissertation or thesis as a book. This is more often the case with the humanities, social sciences, and arts. Still, even if not peer-reviewed, the editorial process that turns your graduate work into a book is likely to change it substantially. The key in this consideration is whether the content changes substantively; i.e., is there a real difference in the content that makes the press comfortable with investing its resources in producing a book from your dissertation/thesis. Historically, presses have not been terribly concerned that distribution of your graduate work would harm potential sales as a book. However, as dissertations and theses have become widely available over the internet through libraries,

consortia and institutional repositories as well as from our subscription database, more presses may look more carefully at the question of marketability.

As with exercising caution around open access, you should seek the advice of well-established mentors in your field if you feel that your future ability to publish dissertation/thesis content might be jeopardized by wide dissemination. If you decide that it might, you will want to take one or more of the precautions shown in the table below.

Guide 5: Copyright and Your Dissertation or Thesis

"Copyright is one of the most confounding and misunderstood laws affecting colleges and universities." Kenneth D. Crews, Indiana University, wrote these words in 1992 in the preface to his book on copyright law for graduate research and repeated them in the first line of the 2002 edition of Copyright Law & Graduate Research: New Media, New Rights, and Your New Dissertation (© Copyright 2000, ProQuest Information and Learning).

In terms of your dissertation or thesis and copyright, there are two considerations: how to avoid infringing on someone else's copyright, and how to protect your own copyright. Outside of becoming an expert yourself, the best way to handle these to necessities is to read and refer often to Crews guide, which he wrote with the cooperation and support of ProQuest Information and Learning and the Council of Graduate Schools. Dr. Crews is a Professor at Indiana University, in the School of Law-Indianapolis, and the School of Library and Information Science, and serves as Associate Dean of the Faculties for Copyright Management. Crews' guidance is far superior to any advice we can offer here. You can view and/or download a free copy of the book at http://www.proquest.com/products_umi/dissertations/copyright/.

We have excerpted a few of the most general guidelines from Crew's book to help you determine when and how to seek further guidance in addressing copyright issues.

Avoiding Copyright Infringement in Your Dissertation or Thesis

Copyright law protects "original works of authorship" that are "fixed in any tangible medium of expression." Legal use, without permission, of copyrighted work is limited to "fair use" of the work. Educational and research use is not necessarily "fair use", especially if the work is published, as your dissertation or thesis will be with ProQuest/UMI and as (hopefully) many of your future journal articles or books will be. You may be better off acquiring permission to use the work in question from the start, or to figure out how not to use material of questionable copyright in your dissertation or thesis. The table here, taken from Crew's book, shows general guidelines for determining whether the age, authorship, and status of a work means that it is, or is not likely to be copyrighted. At the end of this section is a sample permission letter (again, taken from Crews) that will satisfy our requirements for using material under another copyright in your dissertation or thesis.

Creation/Publication of the Work	General Rule of Duration
Created in or after 1978 by a named author acting in an individual capacity, whether published or not.	Life of the author, plus seventy years.
Created in or after 1978 by an anonymous or pseudonymous author, or by a corporate author, or a work-made-for-hire.	The earlier of either ninety-five years from publication, or 120 years from creation.
Created before 1978, but not published.	The later of either seventy years after the death of the author, or through December 31, 2002. The expiration date is extended through December 31, 2047, if the copyright owner publishes the work before the end of 2002.
Published after 1922 and before 1978 with a copyright notice and renewed if required.	Ninety-five years from the date of original publication.
Created and published before 1923.	Copyright has expired.

The following are the kinds of materials that we might expect to see accompanied by a permission letter if they appear in your manuscript, or that may cause us to contact you regarding permission or other resolution. You are responsible for obtaining proper permissions for all material used within your work.

- **Long quotations** from pre-existing materials that extend for more than one and one-half single-spaced pages.

- **Reproduced publications.** Examples include copies of standard survey instruments or questionnaires and journal articles. This applies even if you are the author of the original work, as the original publisher may have acquired copyright.
- **Unpublished materials.** Extensive reference to unpublished works raises a variety of issues about copyright and about privacy and access to collections.
- **Poetry and Music Lyrics.** Fair use for highly creative works is relatively limited. Lengthy excerpts will raise critical questions. Some publishers require permission for all quotations from poems.
- **Dialogue from a play, screenplay, broadcast, or novel.** While fair use is relatively narrow for creative and fictional works, it should allow brief quotations in the context of scholarly critiques.
- **Music.** Excerpts in your dissertation should be brief and should be closely tied to your research objectives.
- **Graphic or pictorial works.** The material should be closely related to your research objectives, tied to critical analysis, and not supersede the market for the original.
- **Computer Software.** Dissertations embodied in new media, such as on a website or on CD-ROM, may incorporate reader programs or other application software to make the new work accessible or useful. Reproducing such programs to accompany your dissertation will almost invariably require permission. Consult any license agreement that may apply to the programs, and prepare to seek permission from the copyright owner. "Shareware" is also not necessarily freely available for copying. Shareware is a protected work made available under generous or lenient licensing terms; read the license carefully before integrating the program into your dissertation.
- **Sources located on the Internet.** Easy availability does not change copyright status. Materials on the Web are protected by copyright just as if they appeared in a book or on tape.

Protecting Your Own Copyright

Copyright privileges now vest immediately upon creating your work, without the requirement of notice or registration. However, you should still include a copyright notice on your dissertation. Your graduate school may even require that you do. Typical copyright notices take this form:
Copyright 2001, Jane Student or © 2001, Jane Student. The notice should appear in a conspicuous location, customarily just after the title page.

Registration is also technically optional, but still recommended. It establishes a public record of your dissertation and copyright. In the U.S., registration is required before you can file an infringement lawsuit. You should therefore register before that possibility ever arises then hope it never does. Registration also allows you to be awarded damages and attorney fees in an infringement action. Generally, you must have registered before the infringement occurs to have these benefits.

One final reason for registration is that you must deposit two copies of your dissertation to the Library of Congress anyway. Thus, early registration secures your rights and satisfies the deposit requirement as well. ProQuest/UMI can do the registration for you and deposit the required copies. You may instead register the copyright yourself by filing the appropriate forms.

Guide 6: Sample Permission Letter for Use of Previously Copyrighted Material

Modified from Crews, Kenneth D. 2000. Copyright Law & Graduate Research: New Media, New Rights, and Your New Dissertation
http://www.proquest.com/products_umi/dissertations/copyright/

[Letterhead stationery or return address]

[Date]

[Name and address of addressee]

Dear _____:

I am completing a doctoral dissertation at _____ University entitled "_____." I would like your permission to reprint in my dissertation excerpts from the following:

[Insert full citation and description of the original work.]

The excerpts to be reproduced are: [insert detailed explanation or attach copy].

The requested permission extends to any future revisions and editions of my dissertation, including non-exclusive world rights in all languages, and to the prospective publication of my dissertation by ProQuest Information and Learning (ProQuest) through its UMI® Dissertation Publishing business. ProQuest may produce and sell copies of my dissertation on demand and may make my dissertation available for free internet download at my request. These rights will in no way restrict republication of the material in any other form by you or by others authorized by you. Your signing of this letter will also confirm that you own [or your company owns] the copyright to the above-described material.

If these arrangements meet with your approval, please sign this letter where indicated below and return it to me in the enclosed return envelope. Thank you very much.

Sincerely,

[Your name and signature]

PERMISSION GRANTED FOR THE
USE REQUESTED ABOVE:

_____
[Type name of addressee below signature line]

Date: _____

Instructions for permission letters:

1. Be sure to include your return address, telephone and fax numbers, and date at the top of the letter.
2. Spare no effort in confirming the exact name and address of the addressee. Call the person to confirm the copyright ownership.
3. State clearly the name of your university and your dissertation's title.
4. Describe precisely the proposed use of the copyrighted material. If necessary or appropriate, attach a copy of the quotations, diagrams, pictures, and other materials. If the proposed use is extensive, such as the general use of an archival or manuscript collection, describe it in broad and sweeping terms. Your objectives are to eliminate any ambiguities and to ensure that the permission encompasses the full scope of your needs.
5. The sample signature form at the end of the sample letter is appropriate when an individual grants the permission. When a company, such as a publishing house, is granting permission, use the following signature format:

PERMISSION GRANTED FOR THE USE REQUESTED ABOVE: [Type name of company] By: _____ Title: _____ Date: _____

6. *For More Information about Permissions*. Various organizations grant permissions for certain works. For example, the Copyright Clearance Center offers a "Republication Licensing Service" that may prove helpful: www.copyright.com.

Please enable iframes on your browser. MTU Navigation

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Questions?
Grad School Web Index
Site Map

Enrollment in any of the following courses DOES constitute "full-time" for purposes of visa, financial aid, and/or support.

Peace Corps Master's International

(Field work outside of the US - campus code F)

1. FW 5730, one credit. The name for the FRES course is being changed to "Field Work in International Forestry."
2. CE 5994, one credit. International Engineering Practicum. The PCMI students take this while serving in the Peace Corps.
3. GE 5994, one credit. International Geological Practicum. Geological field work outside of the U.S. used by Peace Corps Master's International students during their field assignments.

Co-op

(campus code 4)

- UN 5000, variable 1-6 credits (generally 1). Graduate level co-op course, permission of Career Center required.

Internships-off campus

(campus code 7)

- FW 5150, one credit. A new course, taken by Peace Corps Fellows students. It was created for the MS in Forestry Fellows working for the USFS. Any MS in EP Fellows could take it 2004-05.
- SS xxxx, one credit. A parallel course to FW 5150 for MS in EP Fellows to be added.

SUMMARY

			Course	Type	Full-time @ 1 cr.	Campus fees	Basic computing fee	Need health ins. Documentation	Special tuition rate	Current campus code
			CE 5994	PC-MI	Yes	No	No	No	Yes	F
			FW 5150	PC-FEL	Yes	No	No	Yes	No	7
			FW 5730	PC-MI	Yes	No	No	No	Yes	F
			GE 5994	PC-MI	Yes	No	No	No	Yes	F
			SS xxxx	PC-FEL	Yes	No	No	Yes	No	-
			UN 5000	CO-OP	Yes	No	No	Yes	No	4

Table of Contents

Registration

Graduate students are required to register each academic-year semester (fall and spring) from the time that they enter a graduate program until the time they receive their degree. Although every effort is made to ensure that the schedule of classes is accurate, unforeseen circumstances may result in cancellation or changes in the days, times, rooms, and/or instructors of section(s) or course(s) between the time that courses are first announced and the time that registration and enrollment are due.

Students must complete their initial registration **and** enroll prior to the billing due date (posted on the Academic Calendar; typically the Wednesday before classes start). Students who fail to enroll prior to that date will be charged a $50 late enrollment fee. Students who fail to enroll by the close of business on the first Wednesday of each academic-year semester will have their schedules dropped and a $100 late registration/enrollment fee will be assessed upon enrollment.

Students may make changes to their schedules without penalty up until the second Wednesday of each academic-year semester. Students should note that schedule changes may result in a refund or additional charges on their bill.

Students may drop courses through the end of the third week of each academic-year semester without a penalty. No grade will be reported. From the beginning of the fourth week through the end of the eighth week of a semester, courses dropped will be indicated by a grade of W (late drop) on the transcript. Courses cannot be dropped after the eighth week of a semester without the written permission of the dean of the Graduate School. Such permission is granted only in rare instances.

Important Note: There is a difference between registration and enrollment. The process of signing up for courses is called **registering**. Students are charged tuition and fees when they register. Students are **enrolled** after they pay the tuition and fees. **It is each student's personal responsibility to properly register and enroll for courses.**

Tips on Registering and Enrolling

- To register, go to the Web Registration page (Banweb).
- After registering, go to the online billing page to view and pay bills.

- It is important that students process their bills even if there is a zero ($0.00) or credit balance. If there is a zero or credit balance, click the button at the bottom of the online bill to complete enrollment.
- Bills may be paid on the web using a credit card (Visa, MasterCard, and Discover are accepted).
- Bills may be paid in person at the Cashier's Office using cash, check or money order. Credit card payments are processed online only.
- Late fees are the responsibility of the student. They will not be paid by academic departments or the Graduate School.
- If a student is receiving financial support from Michigan Tech, a credit will appear on their billing statement on the first business day after the department initiates the internal-support process. If a student finds that promised support is not credited, the student should contact the academic department immediately. Each student is responsible for making sure their bill is paid by the payment due date.
- If a student is unable to pay their bill in full by the payment due date, a deferred payment plan is available through consultation with Accounts Receivable. Click the button at the bottom of the online bill to apply.

Enrollment Policies

All graduate students, including Distance Learning students, must be enrolled during each academic-year semester.

Graduate students supported by teaching, research, or administrative assistantships or by fellowships must be registered as full-time students and must complete a full-time credit load during each semester (including summer) for which they receive support. Full-time enrollment may also be required by insurance companies, lending institutions, and/or the Immigration and Naturalization Service.

Full-Time Status

A graduate student is considered full time during the academic year if they enroll for at least nine credits. Enrollment in one credit of research or one course is considered full time during the summer semester. A student is considered half-time if they are enrolled for five to eight credits during an academic-year semester.

Students enrolling in fewer than the full-time number of credits may be at risk of losing their financial assistance or visa. Any international student who is considering enrolling for less than nine credits should consult International Programs and Services (IPS) to ensure that their visa status will not be jeopardized.

A graduate student taking fewer than nine credits during an academic-year term is considered full time at Michigan Tech in the following instances:

- The student is enrolled in a course that carries full-time status regardless of the number of credits, e.g., co-op (UN5000). A list of these courses can be found at on the Full-Time Course List webpage.

- The student is dual-enrolled at Michigan Tech and an affiliated university and the student's total credit load equals or exceeds nine credits. An affiliated university is one with whom Michigan Tech has a formal written agreement for exchange and/or dual enrollment of students. Enrollment at the affiliated university must be documented to the Graduate School by the student's home department at Michigan Tech.
- The student has successfully completed their final oral defense (if required) during one of the two preceding semesters (including summer).
- The student has successfully completed all of the courses required for their coursework-only degree during the preceding semester (including summer).
- The student is faced with extenuating circumstances that make it impossible to maintain a full-time load. Written requests for permission to drop below full-time should be submitted to the dean of the Graduate School. The Dean of the Graduate School will consider the student's request and will make a decision after consulting with the student's advisor and/or others involved.

Continuous Enrollment

Having begun a graduate program, students must be enrolled every academic-year semester until they complete their degree. "Completing" a degree means successfully completing all required courses, turning in all paperwork, and, if required by the degree program, defending and turning in a final version of a report, thesis or dissertation. Graduate students are not required to register for summer term in order to fulfill the continuous enrollment policy. Graduate students who are supported, completing their degrees, or using University facilities during the summer must be enrolled for summer semester.

Students must be enrolled for a minimum of one full credit during the term in which they complete their degree. Students who defend their report, thesis, or dissertation, but fail to submit a final version or fail to complete any paperwork must be enrolled each fall and spring semester until their degree is completed. Students turning in paperwork or a report, thesis, or dissertation during summer must be enrolled for summer semester.

A waiver of continuous enrollment status is available to students who will be making no progress toward their degree during a given term due to extenuating circumstances. Waivers will be for one semester except in the most serious situations. All waivers must be approved by the dean of the Graduate School. Students who are not enrolled have no access to campus facilities (e-mail, library, labs, computers, etc.) and no access to faculty time.

If a student fails to continuously enroll and the requirement for continuous enrollment has not been waived by the Graduate School, the student will be considered inactive. Inactive students must apply for readmission and pay all past-due continuous enrollment fees prior to returning to active status.

Continuous Enrollment Courses

Students who find themselves in situations that make it impossible for them to register and enroll in regularly scheduled courses, including research or special topics courses, may be eligible to register and enroll in one of the following continuous enrollment courses.

UN5951: Graduate Status - Maintenance of Continuous Enrollment
00 credits (fee only, $100)

1. Meets continuous enrollment requirement for graduate students needing "time out" for special circumstances and for programs with inactive terms.
2. No access to advisor's time or campus facilities.
3. Enrollment includes e-mail and library privileges.
4. Requires Graduate School permission to register.

UN5952: Report, Thesis, Dissertation - Independent Writing and Revision

0.25 credits (billed at regular tuition rates)

1. Meets continuous enrollment requirement for graduate students engaged in writing or revising a report, thesis, or dissertation while off campus.
2. Open only to students who have completed all course and credit requirements.
3. Limited access to advisor's time (about 1 hour per month based on the standard conversion of 1 credit = 1 contact hour per week).
4. No access to labs and other campus facilities.
5. Allows for e-mail and library privileges.
6. Requires advisor’s permission to register.

UN5953: Final-Term Graduate Registration

0.75-1.0 variable credits (billed at regular tuition rates)

1. Can be used to meet the one-credit final-term enrollment requirement for graduate students completing degrees.
2. Students enrolled in UN5951/5952 may add this course at any time during a semester.
3. Late enrollment after the billing due date carries the standard late fee; no waivers granted.
4. Computer lab access is not included. If campus computing facilities are necessary, the student must pay the basic computing fee to the appropriate department.

Readmission

Any University graduate student whose enrollment is interrupted for one or more non-summer semesters or who has been dismissed or requested to withdraw must apply for readmission. The application for readmission should be submitted well in advance of the beginning of the term in which the student wishes to resume her/his degree program.

Students returning after failing to maintain continuous enrollment must apply for and be granted readmission and must pay a readmission fee equivalent to the cost of having maintained continuous enrollment through enrollment in UN5951 for each non-summer term during which the student was inactive.

Send this form directly to the Graduate School Office

Michigan Technological University
Graduate School

Graduate Student Patent, Research, and Proprietary Rights Agreement

I understand that as a graduate student of Michigan Technological University it may be my duty or privilege to participate in research activities and have access to proprietary data. I agree that the facilities, equipment, funds, and/or stimulation provided to me may greatly contribute to my research effort and to the conception and/or reduction to practice of discoveries, developments, inventions, apparatus, or software and/or the creation of related documentation, data, and reports (hereinafter proprietary information).

A. In consideration of being accepted by the University in its Graduate School and being mindful of the benefits to be derived from that association; and in order to settle in advance any question regarding the ownership of any patent or copyright which may be granted to me, or the rights in any proprietary information which may be developed by me; I agree that the University shall own any proprietary information that is reduced to practice or conceived by me, either solely or jointly with others, while I am a graduate student of the University, and/or through the use of the facilities and/or equipment of the University, and the University also shall own any patents or copyrights relating to such proprietary information. I further agree:

1. I will promptly and fully disclose such proprietary information to the University's Research Office.
2. The University may (1) determine in its sole discretion that the ownership of the proprietary information will not be retained by the University and it will notify me of the relinquishment of its rights to me, (2) notify me that the proprietary information will be accepted on a provisional basis, or (3) accept the proprietary information.
3. I will cooperate with the University in making application for U.S. and foreign patents or copyrights at the request of and at the expense of the University should it determine, in its sole discretion, that an application is warranted. I will do all acts required to assist the University in obtaining, maintaining, and enforcing patents and copyrights or other proprietary interests in programs and software systems and in otherwise protecting proprietary information in any and all countries, all to be done without further compensation to me other than reimbursement for direct expenses in providing such assistance.
4. Upon request of the University, I will assign to its Board of Control all proprietary information and/or applications for patents and/or patents or copyrights issued on such proprietary information based on my disclosure, with full rights, powers, and privileges of ownership.
5. The Board of Control of the University may assign the ownership of the proprietary information and/or applications, patents, or copyrights on such proprietary information back to me should it determine, in its sole discretion, that further expense for development is unwarranted.
6. If proprietary information, or patents or copyrights relating thereto, are sold or licensed by the University, the University shall share royalties and/or other income received as follows:
   a. initial $1,000 to me,
   b. income from $1,000 to $30,000 divided 15% to me and 85% to the University,
   c. income from $30,000 to $180,000 divided equally among the University, my department, and myself, and
   d. income in excess of $180,000 divided 1/3 to me and 2/3 to the University.

   Payments will be made to me within 60 days of the end of the calendar year. If the proprietary information is the product of collaboration with others entitled to participate in the royalties, who have also entered into agreements with the University, payment will be made in proportionate shares as we (I and the others collaborating with me) may agree upon, the aggregate to all persons not to exceed the amount of percentage set forth in this agreement. If the University has not been advised of the amount of the proportionate shares at the time a distribution is to be made, the University may make such distribution as it, in its sole discretion, determines.
7. Progression to the sharing ranges of paragraph 6 above shall occur on the basis of cumulative income received by the University over the life of any agreement.
8. In some instances, the University may incur extraordinary expenses, for example either in further developing a concept in order that it be reduced to practice, or in enhancing the marketability for licensing by establishing a pilot plant project, or in enforcing its patents or other proprietary rights against infringers or others who have misappropriated same or in defending same from attack by others. In those extraordinary instances, before sharing any of the aforesaid income with me, the Univer-

sity will reimburse itself for actual out-of-pocket expenses incurred (for example, costs of land site, buildings, equipment, and labor in connection with a pilot plant project or legal fees and other expenses related to litigation). These extraordinary expenses will be credited against any income received by the University and generally expenses incurred in a given calendar year will be credited against income received in that calendar year; however, if income does not cover all expenses in any given year, any remaining balance will be carried forward to succeeding years until credited in full but not back to prior years.

B. In the event that I am engaged in sponsored research or other projects under a contract between the University and an outside agency during my enrollment at the University, I also agree that:

1. The terms of the contract shall control as to any conflict with this agreement.
2. I will be bound by the contract as to any obligation which extends beyond the term of this agreement, and I will execute any and all documents which the University deems necessary, in its sole discretion.
3. Any change in the terms of this agreement or obligations imposed by this paragraph B shall be effective for the term of the commitment governing the sponsored project.

C. From time to time, I may undertake to perform consulting services for third parties but will do so only if such consulting services do not either conflict with University administrative policies or present a conflict of interest. In the event I do undertake to perform such consulting, I agree that:

1. The University will be advised if such consulting services will involve the use of University equipment. Such equipment shall only be used with prior approval from the University and upon payment of a charge should the University, in its sole discretion, determine that such a charge should be imposed in return for the use of such equipment, and for the University relinquishing the claim it would have on the results of consulting services because of the use of its equipment.
2. If the consulting arrangement is to include the assignment of inventions and/or patents to the consultee, the University will be so advised before I complete the consulting arrangement and the consultee shall be advised of this agreement and the University's background patent and/or other proprietary rights positions in the area of the consultation. Any consulting agreement shall provide that the consultee does not receive a license under the University's background patents and/or other proprietary rights unless the University and consultee enter into a separate agreement concerning same.

D. I understand that paragraphs B and C in no way diminish my obligation to fully and promptly disclose to the University any discovery or invention I make in the course of my association with the University regardless of the source of funds for financial support.

E. I will not directly or indirectly during or after the time during which I am a graduate student (1) give to any person, not authorized in writing by the University to receive it, any information classified for purposes of internal University security or specifically designated by the University as "limited," "private," or "confidential"; or (2) give to any person not authorized in writing by the University to receive it, any of the University's proprietary data or information relating to products, programs, software, systems, inventions, ideas, processes, research, and the like and including, without limitation, drawings, programs, software, system sketches, layouts, formulae, specifications, reports, and other written manufacturing, technical, or scientific information.

I have read and understood this agreement in its entirety (both sides of this document).

WITNESSES:

_____
Signature

_____
Signature

Send this form directly to the Graduate School Office

_____
Graduate student's signature *Date*

_____
Student's name printed or typed *Department*

_____
Student ID #

[NOT NEEDED FOR GRADUATE STUDENTS]

_____
Accepted by (Human Resources)
Michigan Technological University

GRADUATE SCHOOL TRACKING FORMS
SUBMISSION SCHEDULE

EVERY GRADUATE STUDENT

Graduate Student Patent, Research, and Proprietary Rights Agreement – **First Term**

MASTER OF ENGINEERING

MEng1 – Proposed Degree Schedule – for planning purposes: do **not** submit to Grad School
MEng2 – Final Degree Schedule – **Term before the degree will be completed**
MEng3 – Verification of Degree Requirements Completion – **Term in which all degree requirements are completed**

MASTER OF SCIENCE, MASTER OF FORESTRY & MASTER OF BUSINESS ADMINISTRATION

M3 – Preliminary Course Plan – for planning purposes only: do **not** submit to Grad School
M2-GSO – Recommended Advisor/Advisory Committee – **Second Term**
M4 – Degree Schedule – **Term Prior to Final Oral Exam**
M5 – Scheduling of Final Oral Exam – **Two Weeks Prior to Defense** – email electronic version of abstract (*.doc) to nspr@mtu.edu (Not needed for Plan D)
M6 – Report on Oral Exam – **Two Weeks After Defense** (Thesis/report due by 1st day of following semester)
M6-D – **End of Final Exam Week of Final Term** (Plan D)

DOCTOR OF PHILOSOPHY

D2 – Recommended Advisor – **Second Term**
D3 – Preliminary Program of Study – for planning purposes only: do **not** submit to Grad School
D4 – Report on Comprehensives – Entered directly into Banner by departments: do **not** submit to Grad School
D4A – Recommended Advisory Committee – Term following completion of comprehensives
D5 – Degree Schedule – **Term Prior to Final Oral Exam**
D6 – Approval of Dissertation Proposal – **When Topic and Committee Set**
D7 – Scheduling of Final Oral Exam – **Two Weeks Prior to Defense**
- email electronic version of abstract (*.doc) to nspr@mtu.edu
D8 – Report on Final Oral Exam – **Two Weeks After Defense** (Dissertation due by 1st day of following semester)

GRADUATING STUDENTS –

To GRADUATE in any given term, **all** paperwork must be received in the Graduate School by 4:00 p.m. on the first day of classes of the NEXT term.

To participate in COMMENCEMENT, either all paperwork OR an early walk form must be submitted by 4:00 p.m. Friday SIX WEEKS prior to the ceremony.
http://www.admin.mtu.edu/rgs/graduate/trackforms/EarlyWalk.pdf

Check the University Academic Calendar. http://www.admin.mtu.edu/em/services/calendar/

DON'T FORGET SIDE TWO

When you submit your report/thesis/dissertation or finish course work, on-campus students should bring these things **personally** to Room 407B Administration Building. Forms are available on the Grad School website at: http://www.gradschool.mtu.edu/trackingforms.html → [individual forms] Please allow 30 minutes with me for submitting your final paperwork. Please also take the Exiting Graduate Student Survey at the following link. This is optional, but will be ***very much*** appreciated http://www.surveymonkey.com/s.asp?u=164563181339

MENG

- Life-After-MTU Information
- MEng3 if not already submitted by department

MS, MBA & MFor COURSE WORK OPTION – Plan C or Plan D

- Life-After-MTU Information – even if you plan to continue at MichiganTech
- M6 (Plan C) or M6-D (Plan D) if not already submitted by department

MS & MFor REPORT OPTION

- Paper Copy of Report in a Stiff Binder with 1½ inch LEFT Margin
  - If you desire professional binding then see Thesis Option
- Report must Include Signature Page with ORIGINAL Signatures
- Life-After-MTU Information – even if you plan to continue at MichiganTech
- M6 if not already submitted by department

MS THESIS OPTION

- CD of Thesis in .pdf format with **1½** inch LEFT Margin
  - (*Note that Microsoft Word sets the standard at 1.25 which is not wide enough.*)
- Heckman Bindery Form plus
  - Paper Copy of Title Page
  - Signature Page with ORIGINAL Signatures
- Invoice for Thesis plus
  - Proof of Payment - Cashier's Receipt and/or Account Number with Authorized Signature
- Life-After-MTU Information – even if you plan to continue at MichiganTech
- M6 if not already submitted by department
- Doing an ETD? See * below… (ETD is optional)

PhD DISSERTATION

- CD of Thesis/Dissertation in .pdf format with **1½** inch LEFT Margin
  - (*Note that Microsoft Word sets the standard at 1.25 which is not wide enough.*)
- Heckman Bindery Form, plus
  - Paper Copy of Title Page
  - Signature Page with ORIGINAL Signatures
- Invoice for Thesis/Dissertation plus
  - Proof of Payment - Cashier's Receipt and/or Account Number with Authorized Signature
- UMI Doctoral Dissertation Publishing Agreement Form
  - One Paper Copy OR a Linked/Bookmarked Version in .pdf format on another CD for UMI
  - Title Page with Advisor's Name Printed
  - Abstract
- Survey of Earned Doctorates
- Life-After-MTU Information
- D8 if not already submitted by department
- Doing an ETD? See * below… (ETD is optional)

* If you also wish to have your thesis/dissertation/report put on the web through the MTU Library, you must submit it on a second CD in .pdf format with Bookmarks and/or a Linked Table of Contents and a completed, signed M7/D9 form.

Interactive

Michigan Technological University
Graduate School

Transfer Credits

1. Working from a copy of the student's transcript* and a course description/syllabus, the major department's graduate coordinator or the student's advisor determines which off-campus courses are to be used in the MichiganTech degree schedule and lists them below, along with the equivalent MichiganTech course number & credits. Transfer courses cannot have been used to meet the requirements for a previous degree, either at MichiganTech or elsewhere.
    a. The form must be signed by someone in the department associated with the course listed in the column labeled "MichTech Course No."
    b. If no equivalent MichiganTech course exists, credits should be listed in the "Unassigned" column and a course prefix should be listed in "MichTech Course No." column (such as MA, CE, HU, etc.).
2. The Department Graduate Coordinator or the Department Chair must sign the form. If the courses listed are not in the major department, signatures from both departments are required.
3. The Graduate School will check, approve (usually), and forward information to the Office of Student Records and Registration with copies to the department and the student's file.
4. It is Graduate School policy that no more than one-third of a graduate student's course work can be completed elsewhere. Research must be completed under the supervision of MichiganTech graduate faculty.

Graduate School
Off-Campus Course Information Form

Please use one form per equivalence-granting department.

_____

Student ID *Last name* *First name* *Michigan Tech Curriculum* *Date*

Quarter/Semester

_____

Name of university *(Check one)* *Dates of attendance*

Course No. on Transcript	Title	Cr.	Grade	MichTech Course No.	Credits† Assigned	Credits† Unassigned
Dept. Approval				Total Credits Approved		

_____ _____

Signature ***Please print name after signature***

_____

Assistant to the Dean of Graduate School (signature) *Date*

Return completed, signed form to the Graduate School Office with or before the final degree schedule.

* An official transcript must be on file in the Graduate School Office.

† e.g., 3 semester credits = 4.5 quarter credits. They may all be assigned to an MTU equivalent if MichiganTech's course is 4.5 credits or more, or they may be assigned as, e.g., 3.0 MichTech credits + 1.5 unassigned credits.

Transcript rec'd. _____
2-sided copy to dept. _____
2-sided cc:
OSRR-N.Gagnon, Student _____
SHASUBJ check _____
To student file _____

Rev.12/5/2006

Michigan Intercollegiate Graduate Studies (MIGS) Program
Application Instructions

Graduate Students who are in good standing in a degree program are eligible to elect courses at several graduate schools in Michigan with the approval of both Host and Home faculty. This program for guest scholars enables graduate students to take advantage of unique educational opportunities throughout the state. Contact your graduate office for a list of participating Universities and MIGS liaison officers.

PROCEDURES:

1. The Student and Academic Advisor decide if the course(s) are appropriate to the program of study and are not available at the Home University.
2. The advisor discusses the plan with appropriate faculty members at the Host University.
3. The Host department is consulted to ensure that space is available for enrollment.
4. MIGS application is obtained from the Home Department, filled out, and returned to the MIGS office.
5. Signatures from the Academic Advisor, and Liaison Officer are obtained and the application is forwarded to the Host University for completion.
6. Once the admission has been approved by the Host Department, the MIGS Liaison Officer at the Host University issues admissions documents, registration instructions, and forwards a copy of the letter to the Home University.
7. After completing the course(s), the student is responsible for arranging to have two (2) official transcripts sent to the Records/Registrars Office at the Home University. The student should also contact that office to indicate that a transcript is being sent for posting on the academic record as MIGS graduate credit.

FEES: Students on a MIGS enrollment pay tuition and other fees normally charged by the Host University for the services rendered.

RESIDENCY STATUS: It is the same as at the Home University.

CREDIT: All credit earned under a MIGS enrollment will be accepted by a student's Home University as if offered by that University.

GRADES: Grades earned in MIGS courses will be applied toward the Home University grade point average.

PART-TIME: A student may combine a part-time enrollment at the Home University with a part-time MIGS enrollment with approval if the student's academic advisor.

FELLOWSHIPS: MIGS participation does not necessarily modify fellowship commitments made by a Home University for a given period. Therefore, specific arrangements for individual cases should be negotiated with the appropriate officials.

ENROLLMENTS: Enrollments are limited to six (6) credit hours for master's or specialist degree students or nine (9) credit hours for doctoral degree students.

TRANSCRIPTS: The student is responsible for arranging to have transcripts certifying completion of work under a MIGS enrollment forwarded to the Home University.

Michigan Intercollegiate Graduate Studies (MIGS Program)
APPLICATION FORM

Please Print or Type

_____ _____ _____
Name of Student (Last name , First, Middle) Birthdate (mm/dd/yy) Social Security No. (required)

_____ _____ _____
Student's mailing address at home institution (City, State, Zip Code) Telephone Number E-mail Address

_____
Home Institution ID No.

[ ] U.S. Citizen [| Non-U.S. Citizen _____
Country of Citizenship and Birth, if different

|] Permanent U.S. Resident, Registration No. _____

Residency status at Home Institution:
[ ] Michigan
[ ] Non-Michigan

_____
B.A./ B.S Source: Institution egree Date

Current Degree Sought:
[ ] Master's
[ ] Specialist
[ ] Doctorate

From:_____
Home Institution Student's Field at **Home** Institution

To:_____
Host Institution Student's Field at **Host** Institution

Effective:
[ ] Spring [ ] Fall
[ ] Winter [ ] Summer
[ ] Spring/Summer

_____
Faculty contact at Host Institution Telephone No.

_____(*year*)

Course(s) to be elected at Host Institution:

Title of Course	Dept/Course Number	Credits: [|Quarter [ ]Semester

Have you previously participated in the MIGS Program? [ ] No [| Yes If yes, date:_____

Have you ever previously enrolled in the Host Institution? [ ] No [ ] Yes If yes, date:_____

I agree to observe all the rules and regulations of the Host Institution and the MIGS program,

_____
Signature of Student *Date*

The above named student is in good standing and is approved by the Home Institution for enrollment at the Host Institution in the above course(s) or for other activity for the term beginning_____19_____ and ending_____20_____. The residency status as claimed above is correct.

Approval by the Home Institution:

_____
Academic Adviser *Date*

_____
MIGS Liaison Officer *Date*

_____
*Registrar (where applicable)** *Date*

Approval by the Host Institution:

_____
Faculty Contact at Host Institution *Date*

_____
Department Chairperson *Date*

_____
MIGS Liaison Officer *Date*

**The MIGS Liaison Officer at the Home Institution shall decide whether the signature of the Registrar is required.*

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Questions?
Grad School Web Index
Site Map

Michigan Technological University

Graduate Credit Option for Students at Northland College

The purpose of this agreement is to allow students at Northland College to use up to twelve credits obtained while enroll towards a graduate degree at Michigan Technological University. The agreement is effective upon the date it is signed b

Each institution will designate an advisor as a contact for the program.

Implementation and Requirements for Student Applications

An interested student shall consult with the Northland College advisor and designate up to twelve credits which he or she graduate credits to Michigan Technological University. The courses may not be used towards the graduation requiremen Students must have junior or senior standing at Northland College. Students and advisors are encouraged to consult wit unit at Michigan Technological University prior to completing the form. Credits must be at the 300 or 400 level and stude any class designated for transfer. Courses do not need to have a Michigan Technological University equivalent course.

Students will apply to the Michigan Tech graduate school using the standard graduate application procedure, including s program they wish to enter. After admission to the graduate school the student will complete the Northland College - Mic University Graduate Credit Transfer Form (available as a pdf here) for review in a timely manner, so that courses may be attends the first class session of the Northland College course(s). Send the form to:

The Graduate School
Michigan Technological University
1400 Townsend Drive
Houghton MI 49931

The graduate school will consult with the appropriate academic unit on campus and approve or disapprove all or some o the form to the student and the Northland College advisor in a timely fashion.

This agreement is self-reviewing on an annual basis. Either party may dissolve the agreement by giving written notice a termination of the agreement.

SIGNATURES AND DATES

Dr. Glenn D. Mroz	Dr. Karen Halbersleben
President	President
Michigan Technological University	Northland College
_____	_____
Signature	Signature
_____	_____
Date	Date

Last reviewed on 06/08/2007 Conta

Michigan Technological University
Graduate School

Request to Participate in Commencement Prior to Final Submission of Documents - (Early Walk)

Due in the Graduate School by 4:00 p.m. Friday SIX WEEKS prior to the date of the ceremony in which the student wants to walk. Student: remind your advisor of your plans closer to the ceremony date as (s)he might need to order academic garb to attend.

See the WebCal for dates: http://www.admin.mtu.edu/urel/events2/

or check the Academic Calendar: http://www.admin.mtu.edu/em/services/calendar/

Name _____ Student ID number _____

To avoid mispronunciation, please enter the phonetic pronunciation of your name in English - use "sounds like" words if that is helpful, e.g., "Wiideman" WEED-a-mun -or- "Taaffe" sounds like safe.

E-mail _____ Department _____

requests permission to walk in _____ commencement.
Term (e.g., Fall 2006)

Expected Graduation Term _____ (e.g., Spring 2007) and Degree _____

The student and the student's primary advisor agree that all materials, including the revised and approved thesis/report/dissertation, will be completed and turned in to the Graduate School prior to the official end date of the semester following the commencement ceremony in which the student walks.

PhD Candidates ONLY:
I will attend commencement with this student and hood her/him.

_____ (advisor or advisor alternate name PRINTED)

_____
signature of alternate if advisor will not attend

Signatures
Please print name next to signature

_____
Advisor (or 1st co-advisor) *Date*

_____
Assistant to the Dean of the Graduate School *Date*

Grad School Use Only
Copies to:
Student
Advisor
Department
Attach original to M4/D5

Rev. 6/7/2007

MICHIGAN TECHNOLOGICAL UNIVERSITY GRADUATE SCHOOL
LIFE-AFTER-MTU INFORMATION

REQUIRED FOR EACH GRADUATE DEGREE SOUGHT

Today's date _____

My ID# _____

Name as it should appear on my diploma (type or print clearly):

_____

Degree:(Check one) MBA MEng MFor MS PhD

In (major): _____

My advisor is: _____

Commencement:

EITHER:

I plan to attend commencement (or already attended)in December, 20 ____ (indicate year)

May, 20 ____ (indicate year)

Please enter the correct pronunciation of your name, e.g., WEE-da-mun (Wiideman)

_____

OR:

I do not plan to attend commencement. I understand that my name will be listed in the next commencement program. Initial HERE: _____

Plans: Date leaving campus: _____

For a job at (employer): _____

State/non-USA Nation _____

or For more school at (university): _____

State/non-USA Nation _____

PLEASE SEND MY DIPLOMA TO THIS ADDRESS: _____

_____

_____

Effective start date of this address: _____

Off campus email address: _____

Also make it my ☐ Mailing Address ☐ Alumni Address

International Students MUST change their mailing address with International Programs and Services.

(I understand my diploma will not be mailed unless this form is on file in the GSO):

Other:

I would like to receive my diploma folder now Yes No

also a Provisional Certification (PC) Letter as soon as my degree is audited. (This is primarily for students finishing well before the end of a semester.) Yes No

Contact the Graduate School Office if diploma or commencement information changes.

Student
Chapter 9. Fees

Effective Date: 06/22/2006

9.4. Tuition Rates

2006-2007 Tuition	
Undergraduate Resident per Credit Rate	$275.70
Undergraduate Non-Resident per Credit Rate	$668.00
Graduate Resident and Non-Resident per Credit Rate	$500.00
Graduate Resident and Non-Resident per Credit Rate for Applied Science Education and on-campus Peace Corps Students	$345.00
Engineering/Computer Science Tuition fee per semester for Undergraduates taking fewer than 6 credits and Graduate Students taking fewer than 5 credits	$250.00
Engineering/Computer Science Tuition fee per semester for Undergraduates taking 6 credits or more and Graduate Students taking 5 credits or more	$500.00
The Engineering/Computer Science Tuition fee applies to all students in the College of Engineering - all majors except Applied Geophysics, Geology, and Geophysics and to all students in Computer Science in the College of Science and Arts. **This fee does not apply to First-Year students.**	

History

Prior: 03/20/81
01/28/82
03/19/82
11/19/82
07/15/83
07/13/84
09/21/84
03/22/85
09/20/85
03/21/86
09/19/86

03/20/87
01/22/88
07/22/88
09/23/88
09/23/88
07/21/89
07/20/90
07/19/91
11/22/91
05/22/92
05/21/93
05/20/94
06/16/95
06/21/96
06/27/97
05/22/98
07/07/99
06/29/2000
07/17/2001
05/10/2002
06/25/2003
06/25/2004 Implemented differential tuition
06/24/2005 Implemented per credit hour

Adopted: 06/22/2006

<< previous :: top :: next >>

Chapter Table of Contents :: Table of Contents :: Policy Search :: Board of Control Office :: MTU Home

Address policy questions to Janet Hayden at jkhayden@mtu.edu.
Address web questions about this page to Ann Roth at aroth@mtu.edu.

- Home
- **Privacy / FERPA**
  - Information
  - Forms/Documents
- **Services**
  - Office Information
  - Academic Calendar
  - Enrollment Statistics
  - University Policy
  - Transcript Request
  - Classroom Scheduling
- **Students**
  - Address Change
  - Schedule Planning
  - Degree Services
  - Academic Records / Transfer Services
  - Vehicle & Parking
  - Veteran's Services
  - Guest Access
- **Faculty / Staff**
  - Course Catalog
  - Advisor Resources
  - Banner / Reporting
  - Image Release
  - Internal Information
  - Student Information
  - Department Schedulers

Departmental Computing Access Fees

Students are required to pay their academic departments a fee for basic computing as designated below. The Departmental Computing Access Fee is based on Major as shown below **plus** an additional $8 security surcharge.

Department	Undergraduate Fee / Semester	Graduate Fee / Semester
Biological Sciences and Clinical Laboratory Sciences	$225	$325
Biomedical Engineering	$210	$295
Chemical Engineering	$210	$210
Chemistry	$240	$262
Civil & Environmental Engineering	$210	$295
Computer Science	$75	$100
Computer Engineering	$225	-
Electrical Engineering	$190	$300
Engineering (BS)	$195	$300
Engineering Fundimentals	$210	-
Forest Resources and Environmental Sciences	$165	$300
General Sciences & Arts	$225	-
Geological and Mining and Engineering Sciences	$235	$340
Humanities	$225	$235
Materials Science and Engineering	$210	$295
Mathematical Sciences	$80	$80
Mechanical Engineering-Engineering Mechanics	$195	$300
Physics and Applied Physics	$108	$143
Psychology	$205	-
School of Technology	$195	-
Social Sciences	$205	$205

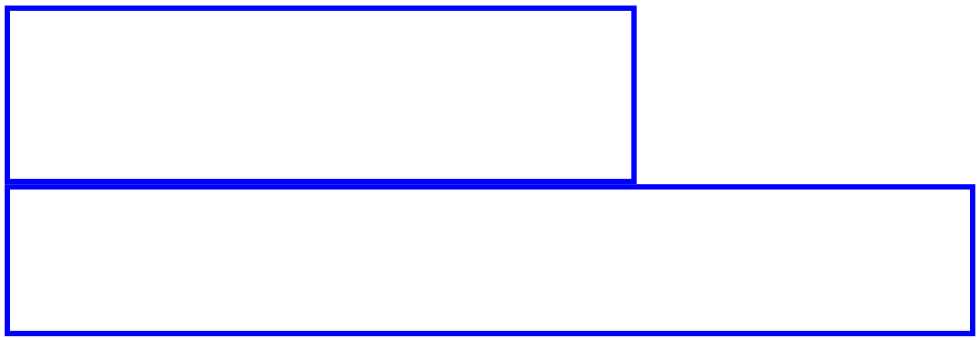
NOTE: Following are the departments (as well as the repective computing access fee) offering computer access to Non-Degree Seeking or Post Degree Study students who would like full computing access (onsite and offsite) during Fall/Spring Semester 2005/2006:

Chemistry, 717 Chem Sci Bldg	shane@mtu.edu	$240
Forest Resources & Env Science, 144D Noblet Bldg	jmoore@mtu.edu	$165
Humanities, 130 Walker	klwest@mtu.edu	$225
School of Business & Economics, G 008 Academic Office Bldg	mpheyse@mtu.edu	$165

Michigan Technological University
Office of Student Records and Registration
1400 Townsend Dr, Houghton, Michigan 49931-1295
Email: **stuosrr@mtu.edu**
Phone: (906) 487-2319
Fax: (906) 487-3343
Contact Webmaster
Accessibility Statement
Site Map

Search the OSRR site: Search
Last modified Monday August 29th, 2005

Prospective Students
Current Students
Majors
Athletics
Alumni/Friends
Parents
Faculty/Staff
Search
A2Z



Apply Now
Featured Students
Alumni

SBE Home
About Us
Graduate Programs
MBA Program
Admission Requirements
Prerequisites
Model Schedule
Alumni Success Stories
Graduate Student Handbook
MS Applied Natural Resource Economics
Undergraduate Programs
Prospective Students
Current Students
Faculty & Staff
Positions Available

Contact Us

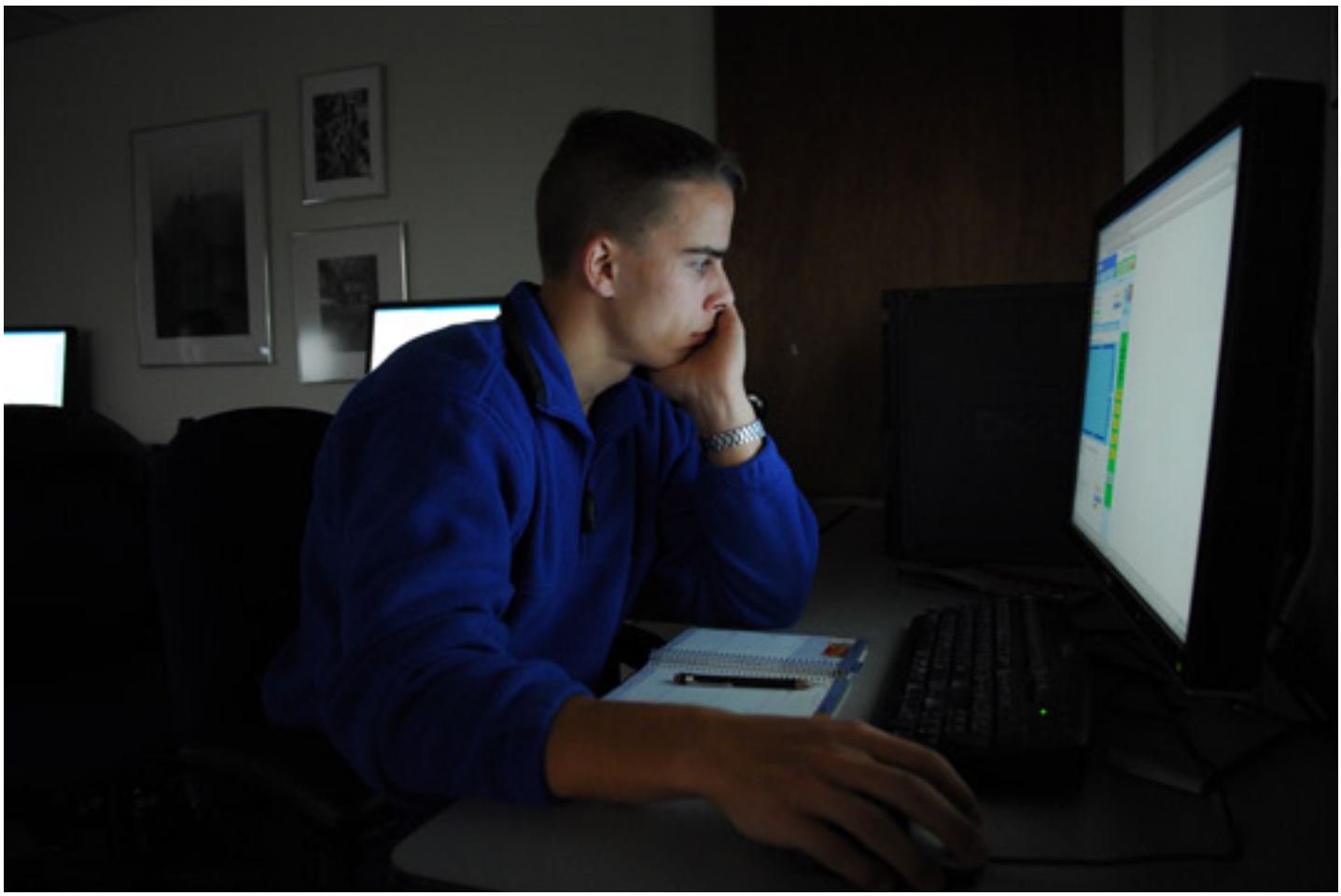
Computing

Master's of Business Administration (MBA)

Our one-year, 3 semester program provides students with undergraduate degrees primarily in the sciences and engineering with a solid foundation in the fundamental business disciplines. In addition, we offer students opportunities to improve their communication skills, learn how to manage technology and innovation, and understand how to manage financially sound but sustainable organizations.

The 36-credit program is designed so that students take eight core business classes during the Fall and Spring semesters and four elective business classes during the Summer session.

The current graduate tuition rate is $500 a credit hour, resulting in a total program tuition cost of $18,000 for the 2006 - 2007 academic year. Limited opportunities for graduate support though GTA positions and scholarships are available.



For more information see:

- Alumni Success Stories

- Program and model schedule
- Admission Requirements
- Application Procedures

If you have further questions, contact the Graduate Business Programs Director at msba@mtu.edu.

Undergraduate Programs

Graduate Programs

- Welcome
- General Program Information
- Graduate Faculty
- Recent Masters Theses and Reports
- Recent Ph.D. Dissertations
- Course Work Offerings
- Information for Prospective Students
  - Admission Requirements
  - Open Graduate Assistantship Positions
  - FAQs
- Information for Current Students
  - Masters Degree Programs
  - Doctoral Degree Programs
  - Code of Conduct
  - Where to go for ...
  -
- Seminars
  - Distinguished Ecologist Series
  - Graduate Student
  - Departmental
  - University-wide

Graduate Studies - Welcome!

"For those of you who plan on entering our program, we welcome you and wish you all the best in your graduate studies." ~ **Chandrashekhar P. Joshi**, Graduate Program Director

Thank you for your interest in the School of Forest Resources and Environmental Science's graduate programs at Michigan Technological University. Our school offers graduate programs leading to seven different degrees:

- **Master of Forestry (M.F.)**
- **Master of Science in Forestry (M.S.)**
- **Master of Science in Forest Ecology and Management (M.S.)**
- **Master of Science in Applied Ecology (M.S.)**
- **Master of Science in Forest Molecular Genetics and Biotechnology (M.S.)**
- **Doctor of Philosophy in Forest Science (Ph. D.)**
- **Doctor of Philosophy in Forest Molecular Genetics and Biotechnology (Ph. D.)**

New! Apply online at **no cost**. To apply online for **free** ***click here***

The following information is provided to serve as a general guideline for prospective Masters and Ph.D. students. Basic academic requirements for each degree program are presented along with information on the past theses and dissertations written by our graduate students and descriptions of our faculty's research interests.

Please do not hesitate contacting me if you have any questions.

Graduate Program Director
Chandrashekhar P. Joshi
Associate Professor
School of Forest Resources & Environmental Science
Michigan Technological University
906.487.3480|
E-mail: **cpjoshi@mtu.edu**
Fax: 906.487.2915

Last updated: April 26, 2007

WITH FALL 2005 REGISTRATION
WE'VE CHANGED THE PROCEDURES FOR CONTINUOUS ENROLLMENT.
PLEASE READ THIS CAREFULLY.

STEP-BY-STEP THROUGH CONTINUOUS ENROLLMENT – UN5951, UN5952, UN5953
Available only to students who are NOT on the MichiganTech campus. On-campus students should enroll in research or other courses.

The graduate student registering for continuous enrollment …

1. Determines, in consultation with his/her advisor, which continuous enrollment course is appropriate.

2. Fills out and prints the continuous enrollment form (below). Alternatively, the student may contact the DEPARTMENT and request that someone there complete the form, obtain signatures, and submit it to the Graduate School.

   Note: A "no-fee" section of UN5951 is available for students on active military duty. If this applies to you, please indicate this on the form.

3. Submits the completed form, signed by the graduate advisor AND departmental graduate coordinator, to the graduate school office.

4. If the student is currently off-campus, the completed form should be faxed to the student's DEPARTMENT for signatures. The department then forwards the form to the Graduate School.

Once the form has been submitted to the Graduate School Office…

5. Student's record is checked to verify course and section choices.

6. BANNER records are updated to allow registration.

7. Student is notified by email that s/he can register and pay the bill and/or validate enrollment (copy to department and advisor).

8. Advisor and department secretary are sent copies of the signed permission form.

While on continuous enrollment, each student…

9. Must register for each term on continuous enrollment and for the term s/he intends to return to campus. It is the student's responsibility to find out when registration should be completed and to complete it in a timely manner.

10. Should begin the process of registering for the upcoming term at least two weeks before bills are due.

11. Must pay her/his bill AND validate enrollment. Enrollment must be validated, and tuition and fees must be paid on time, or courses will be dropped. Re-registering will result in a late fee.

☑ Interactive

MichiganTechnological University
Graduate School

Permission for Registration in Continuous Enrollment Course

THESE COURSES DO NOT MEET THE REQUIREMENT FOR HALF- OR FULL-TIME STATUS FOR FINANCIAL AID, LOAN DEFERRAL, OR VISA STATUS PURPOSES.

Enrollment in any of these courses includes e-mail and library privileges.

Course Requested:

_____ UN5951: "Graduate Status - Maintenance of Continuous Enrollment" (.00 cr.)
Meets continuous enrollment requirement for graduate students needing "time out" for special circumstances and for programs with inactive terms. No access to advisor's time or campus facilities.
COURSE FEE: $100.00

_____ UN5952: "Report, Thesis, Dissertation - Independent Writing & Revision" (.25 cr.)
Meets continuous enrollment requirement for graduate students engaged in writing report, thesis, or dissertation. Limited access to advisor's time. No access to labs and other campus facilities. This course differentiates between students who are not engaging the advisor's time (UN5951) and those who are making ***limited*** use of an advisor's time (UN5952). Students working extensively with their advisor should enroll in regular course, research, independent study, or special projects credits even if they are off campus. Enrollment in UN5952 does not meet the requirement that a student be enrolled for 1 credit during the term they defend. Students who are enrolled in UN5952 and decide to finish their degree during that term must enroll for an additional .75 credits of UN5953. COURSE TUITION (no fees) = ¼ of current tuition for 1 credit. For 2006-07 it is ¼ of $500 or $125.00.

_____ UN5953 "Terminal Graduate Registration"
Register for this course only when CERTAIN this is your final semester; if not sure, enroll in UN5952 for 0.25 credits and add 0.75 credits of UN5953 later **in the same semester** when defense is scheduled. Open only to students who have *permanently* relocated away from campus prior to the beginning of the enrollment term. NO ACCESS to campus computing facilities. Students requiring campus computer labs to complete the thesis should enroll in regular research credit(s).

_____ Credits (Variable from .75 to 1.0 cr.)

_____ **Defense date**. Student must be enrolled for 1 full credit to defend.

COURSE TUITION (no fees) = (CURRENT TUITION FOR 1 CREDIT * VARIABLE) [Example: Tuition for 0.75 cr. = $500 * 0.75 or $375.00].

Course Being Scheduled	
Student Number	
Last Name	
First Name	
Preferred e-mail	
Department	
Academic Advisor	
Semester/Year	
On Active Military Duty	Yes ☐ No ☐

All three of the following signatures are required for registration in UN 5951, UN5952, or UN5953.

_____
Dept Chair or Dept Grad Coordinator's Approval *Date*

_____
Advisor's Approval *Date*

_____
GSO – Assistant Dean Approval (Instructor of Record) *Date*

✔ Interactive

Michigan Technological University
Graduate Student Council

Graduate Student Center Reservation Form

The user of the room is required to read and complete this reservation form.

Date room needed _____ Time _____ to _____

Contact person _____ Phone _____

User _____ Phone _____

Department or affiliation _____

User Type Check one

☐ Graduate Student Council ☐ Graduate student ☐ Faculty member
☐ Administrator ☐ ROTC ☐ Community group
☐ Undergraduate student ☐ Campus committee ☐ Other _____

Event Type Check one

☐ GSC event or meeting ☐ Defense or oral ☐ Faculty meeting, workshop, seminar
☐ ROTC workshop or seminar ☐ Practice defense ☐ Admin. meeting, workshop, seminar
☐ Other _____

After each use, the Graduate Student Center must be left in the same condition in which it was found. During business hours, ROTC staff can usually unlock the room. However, they are not responsible for the Blue Room equipment or use, nor is any of their office or equipment available to Blue Room users. A phone is available on the GSC desk for on-campus calls. If needed, the Graduate School (Admin. 316) also has a key for the room.

Available equipment in the Blue Room includes

- PC with floppy, zip, and CD drives
- LCD data/video projector
- Overhead projector (extra bulbs in cabinet)
- Slide projector with remote (extra bulbs in cabinet)
- Laser pointer (batteries in cabinet)
- G3 Mac with floppy, zip, and CD drives
- Microsoft Office software
- Wireless presentation mice (PC/Mac)
- VCR
- Folding tables (behind divider)

NOTE: This equipment is generously provided by the GSC. Unfortunately there is nO technical support available for the computers/data projection systems. You are **strongly encouraged** to plan a practice/test session prior to use and to be prepared with backup options.

To room user

Please complete the checklist below, sign it, and leave it on the GSC desk behind the divider before departing. Failure to comply with room-use guidelines may result in denial of future room-use privileges. Thank you for your help.

☐ I have **turned off** and put away all electronic equipment (computer, stereo, VCR, etc.)

☐ I have placed food, beverages, and containers outside the door and called the Memorial Union (7-2434) for pickup.

☐ I have returned all tables and chairs to their original positions.

☐ I have turned off all lights, closed windows, and made certain the door is locked.

☐ I confirm that I have left the Blue Room as I found it and have noted any problems below.

Room user's signature _____

Any comments or problems? _____

_____

_____

NOTE: Cabinets and work areas behind the dividers are for GSC use only. Occasionally, GSC staff or representatives will be in the back office. Those needing confidentiality for their proceedings should contact the GSC secretary (e-mail address available on our Web site) in advance of their meeting time to make arrangements.

http://www.sos.mtu.edu/gsc

Graduate Study/Research Abroad
Registration Form

✔ Interactive

Please complete this form the semester prior to your international study/research abroad. International Programs and Services (IPS) will invite you to attend a Pre-Departure Orientation session prior to your departure. These sessions are held at the end of the fall and spring semesters each year.

Student Information:

Name: _____
Last First m.i.

Student ID Number: _____ Email: Interactive _____

Degree: ☐ Master's ☐ PhD Program/Department: Interactive _____

Advisor: Interactive _____

Local Address: _____ Telephone: _____

_____

Study/Research Information:

Program Site (name of university, company, etc with city and country): _____

_____

Site Contact Person: _____ Title: _____

Contact Email: _____ Contact Phone: _____

Type of Experience (study, research, other): _____

Semester(s) and/or dates you plan to be abroad: _____

Please also provide IPS an address at which you can be reached while abroad and an emergency contact in the U.S. These addresses will also be shared with the Graduate School. If you do not have it at this time please send it as soon as possible to ips@mtu.edu or fax (906) 487-1891.

Address Abroad: _____ Email: _____

_____ Phone: _____

_____

_____

Emergency Contact in the U.S. _____ Relation: _____

Address: _____ Phone: _____

_____ Email: _____

Continued on the back.

Plan of Study/Research:

In the table below please provide the specifics of your plan of study/research abroad. If you can not provide this information at this time please write in the space below or attach a narrative of what you plan to accomplish while abroad.

Site course number and title	Site credits	MTU course equivalency	MTU Credits

Narrative of plan of study/research abroad:

Student Signature: _____ Date: _____

Advisor Signature: _____ Date: _____

Department Head Signature: _____ Date: _____

Please return this form to International Programs and Services, 131 Administration Building, upon completion.

A copy of this form will be sent to the Graduate School (date sent _____)

Michigan Technological University
Graduate School

Proposal Incentive Award Program Guidelines

Students should contact Peter A. Larsen, Administrator of Research Enhancement at the start of the proposal process. He is available to help identify sources of funding, discuss program guidelines, review proposal requirements, edit, and assist with proposal submission. Contact pete@mtu.edu or 487-2906.

Within the following guidelines, graduate students will be eligible for incentive awards for the preparation and submission of research proposals.

1. Proposals must be complete, well-prepared, and meet all internal budget, conflict of interest, signature, and other appropriate requirements.
2. Both the proposal and the Proposal Incentive Award Application must be submitted by the proposal deadline. If the student is working with the Administrator of Research Enhancement during the proposal process, a one month grace period will be allowed for submission of the Proposal Incentive Award Application. No other deadline exceptions will be granted for submission of the Proposal Incentive Award Program application.
3. A student may receive up to 2 incentive awards per academic year. For this program, the academic year is defined as beginning on the first day of the Fall Semester and continuing until the day before the next Fall semester.
4. Only proposals submitted to external funding entities (excluding the Michigan Tech Fund) are eligible.
5. The incentive award may not be utilized for matching requirements.
6. If more than one student is deemed to have had primary responsibility for a proposal, one award will be shared.

Awards of $100 per proposal submitted will be made to any student who is primarily responsible for preparing and submitting a proposal that will provide at least one of the following for the preparing student:

1. full support for at least 1 term (stipend at base level and full-time tuition & fees). Actual expenditure of funds could be spread over 2 terms / term of support so that a student could, e.g., be a 10-hour GTA while on 10-hour support from the proposal.
2. significant support for the student's research/travel/equipment/etc. (> $2000).

Awards of 5% of the proposed budget (up to a maximum $100) per proposal submitted will be made to any student who is primarily responsible for preparing and submitting a proposal that will provide at least one of the following for the preparing student:

1. travel, per diem, registration, and/or related conference fees for a **national** or **international** conference.
2. travel, per diem, registration, and/or related conference fees for a **regional conference** may be approved with an advisor's documentation that the regional conference serves a discipline in a way that is comparable to most national conferences.
3. support for the student's research/travel/equipment/etc. (< $2000) if the student is on internal support, is supported through a project funded via #1 above, or is unsupported
4. monies to make an international exchange experience of at least one term possible for a domestic student (travel, room & board, etc.)

To be eligible for this award, a student must:

1. meet all program requirements to be eligible to apply for and be awarded the grant/fellowship;
2. be a graduate student currently enrolled in an on-campus program at Michigan Tech;
3. contact the Administrator of Research Enhancement early in the proposal process (contact information above);
4. be primarily responsible for preparation and submission of the proposal—faculty advisor/mentor/grad coordinator may make suggestions and direct the preparation, but the student must be the principal preparer;
5. have all forms (Patent, M- & D- forms) up to date;
6. submit the a copy of the proposal and the Proposal Incentive Award Application to the Graduate School before the proposal deadline.

PROPOSAL PREPARATION INCENTIVE AWARD APPLICATION

(Complete this form and submit it to the Graduate School Office with a copy of the proposal.)

PART I — To be completed by student: **Student ID: _____**

Name _____ E-Mail _____ Master's ___ PhD____
Department _____ Advisor _____
Funding Organization _____ Date Proposal Submitted _____

Amount of proposed budget intended for student support _____
Purpose of student support (Please provide details: stipend, tuition & fees for what terms; travel funds for what conference; etc.): _____
_____
_____
_____

Incentive Award requested: $_____ (5% of amount budgeted for student support, up to $100)

This is the (circle one) **1st** **2nd** request for an incentive award I've made this academic year.

I am the primary preparer of this proposal and meet all requirements of eligibility to submit a proposal for and receive this grant. If received, the grant will be spent as indicated above. I will notify the Graduate School as soon as I receive word about the grant.

_____
Student's Signature Date

PART II — To be completed by advisor:

The student applying for this incentive award was **wholly or primarily** responsible for preparation of this proposal, including conceptualizing the project, writing the proposal, working on the budget, 'packaging' the proposal for submission, and submitting it. If awarded, the grant will be used to support this student as indicated above. The assistance the student received from me in preparing the proposal was limited to the following: _____
_____
_____

_____ Funding will be received by the student directly, with no involvement on the part of Research Services, Research Accounting, or the department.
_____ Funding will be received by MTU prior to disbursement to the student; Research Services has a copy of the proposal with an approved transmittal sheet. MTU Proposal # _____

_____
Advisor's Signature Date

NOTE: We encourage you to list the student as a Co-PI on sponsored project proposals (see MTU Research Services policy at http://www.admin.mtu.edu/research/sprot/policies/pidefinition.html).

PART III— To be completed by Graduate School office:

GPA: _____ Active status: _____ On-Campus program: _____
Forms are up to date: _____ Entered in database: _____
Projected graduation date: _____ Award Approved (initials): _____
Check request made (date): _____ Check sent to student (date): _____
Notice received from funding entity (date): _____
_____Proposal awarded
_____Proposal rejected

Interactive

Michigan Technological University

Graduate School

Please Print or Type

Recommendation for Appointment to Graduate Faculty

Name: _____
First *Middle Initial* *Last*

ID#: _____ E-mail: _____

Michigan Tech department recommending appointment: _____

Brief description of research interests for the *Graduate School Bulletin* (see current listings for examples HERE):

_____

_____

_____

Do you (does this person) have a continuing appointment at MichiganTech (e.g., current faculty or staff, adjunct or emeritus faculty)? _____yes _____ no

If "yes," attach a CV and obtain appropriate signatures at the bottom of this form. No further information is necessary. If "no," attach a CV and complete the rest of this form.

Current Position (e.g., University & Department): _____

_____

(Supply the full business/university name & address.)

If highest degree is not terminal degree in field, please list key qualifications of applicant:

_____

_____

_____

_____

_____

Michigan Tech student on whose committee ad hoc graduate faculty member is to serve:

_____ Degree: MS PhD
Name ***Circle One***

Departmental Head Recommendation/Comments: _____

_____

_____ _____
Signature *Date*

College/School Dean's Endorsement: _____ _____
Signature *Date*

Dean of the Graduate School Approval: _____ _____
Signature *Date*

Full _____ Ad Hoc _____

Rev. September 06

Michigan Technological University

Graduate School

Please Print or Type

Request for Permission to Teach Graduate Courses

Name of Nominee: _____
First *Middle Initial* *Last*

ID: _____ E-mail: _____

Does this person have a continuing appointment at MTU (e.g., current faculty or staff, adjunct or emeritus faculty)? _
_____ yes _____ no

Attach a CV and obtain appropriate signatures at the bottom of this form.

List graduate course(s) to be taught: 1) _____
2) _____

Departmental Head/Chair Recommendation/Comments: _____

_____

_____

_____

_____

_____
Department Head/Chair Signature *Date* *Department*

College/School Dean's Endorsement: _____
Signature *Date*

Dean of the Graduate School Approval: _____
Signature *Date*

Rev. August 06

TUITION-ONLY FELLOWSHIP MEMO

To: Bonnie Woods, Finance Coordinator and Office Manager, Graduate School

From: _____ (Student's Advisor)

Date: _____

Subject: Request for Approval of Tuition-Only Fellowship

I would like to award _____ a tuition fellowship for _____.
(Student) (Term)

This fellowship will cover _____ credits.

Is this fellowship for a student on co-op? _☑_ Yes _☐_ No

Index number to be charged: _____. **The number must be a general fund, research incentive or Michigan Tech Fund account. Tuition-only fellowships may not be charged to sponsored research accounts.**

Financial Manager's approval:_____ _____
(Date)

I understand that this fellowship will cover tuition for the number of credits noted above, lab fees, and the basic computing fee for the student's department.

I also understand that while I can expect the student to show progress toward completion of his/her degree while on this fellowship, there can be no work requirement attached to this fellowship.

Advisor's signature:_____ _____
(Date)

Terms of the fellowship:

- Registration for more than the specified number of credits will result in the forfeiture of this fellowship.
- This fellowship does not cover the student activity fee, the MUB support and expansion fees, the SDC support fee, or miscellaneous charges such as parking fees, parking tickets, or library fines. **(Students on co-op do not pay student fees).**
- This fellowship is awarded to support research and/or studies, and thus there are no requirements in terms of hours of work required.
- This fellowship is for tuition and fees only; it is not taxable.

I accept the terms of this tuition fellowship.

_____ _____
(Student) (Student's ID Number)

_____ _____
(Student's Department) (Date)

Approved: _____ _____
Finance Coordinator and Office Manager, Graduate School (Date)

Approved copy to: Accounting (original)
Advisor
Department
Financial Aid
Graduate School
Student

Please enable iframes on your browser. MTU Navigation

- Welcome
- Application Forms
- Graduate Programs
- Graduate Catalog
- Research at MTU
- Financial Information
- Campus & Community
- English Language Institute
- Student Stories
- Rules & Regulations
- Grad School Forms
- Grad Home Page
- Grad Faculty Council
- Grad Student Council
- Grad School Staff
- Defenses This Week

Questions?

Grad School Web Index

Site Map

Health Insurance Information for MTU grad students

Who is required to have health insurance?

All enrolled graduate students, with the exception of distance learning students and students on continuous enrollment (UN5951, UN5952, and UN5953), must have health insurance. In some cases (Peace Corps students on assignment, for instance) the Graduate School knows students have insurance and we do not require that you contact us, but in general it is the student's responsibility to inform us that you have or want to purchase insurance coverage. More specifically:

- Unsupported students must have plan 126-3 (or comparable coverage) during any terms in which they are enrolled. They may opt to purchase a 12-month plan.
- Supported students must have plan 126-1 (or comparable coverage) through the end of the policy year (generally mid-August). Supported students may not opt to purchase a partial year of insurance.

Additional Information

- MTU Student Insurance Office
- Policy Brochures/Enrollment Forms
- Worksheet for students wishing to claim comparable coverage with a different plan
- Payroll deduction form (Supported Graduate Students - Fall Enrollments Only)
- Questions? - Contact Ingrid Cheney or Maryann Wilcox

Last reviewed on 06/08/2007 Contact **webmaster**.

Michigan Technological University
Graduate School Policy for Peace Corps Status

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

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

Students who are administratively separated or early terminate may appeal to maintain Peace Corps status. The appeal is made to a committee composed of the Program Directors of the Michigan Technological University Peace Corps Master's International Programs. If the student is not satisfied with decision of the committee, the student may appeal to the Dean of the Graduate School. The decision of the Dean of the Graduate School is final. Appeals may be made at any time prior to graduation, however decisions are not retroactive. Therefore, it is in the student's best interest to appeal promptly if the student wishes to maintain Peace Corps enrollment status.

2. Any student who is medically declined by Peace Corps maintains Peace Corps status.

3. Students who do not enter a country of service after completing Peace Corps staging, except those medically declined by Peace Corps, lose Peace Corps status. This group of students includes those students who voluntarily choose to change programs including, but not exclusively, those who are medically deferred.

4. Any student who loses Peace Corps status must develop a new graduate committee and find a new advisor. This responsibility lies with the student and not the Department or School. This change of status is a change of graduate programs and acceptance into the new graduate program is at the discretion of coordinator, director, dean, or department chairs responsible for the new graduate program selected by the former Master's International graduate student. The new advisor and student will be required to file a new set of forms with the Graduate School.

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

MP-1

Michigan Technological University
Graduate School

Bridge Courses — Master's Path

Due in the Graduate School Office the first term in the program

Name _____ Student ID _____ E-mail _____

Degree Program_____ Advisor _____

List ***all*** courses to be taken in each term prior to completion of the bridge program. Indicate with a check in the last column which courses will be used as bridge courses. These courses will be recorded on a separate, non-graduate transcript and will not count toward the master's degree. The student normally completes all bridge courses within 2 semesters of enrolling in the program.

Fall 20___

Course Title	Number	Semester Credit	Check if Bridge Course
			☐
			☐
			☐
			☐

Subtotals: Bridge _____ Advanced: _____ Total: _____

Spring 20___

Course Title	Number	Semester Credit	Check if Bridge Course
			☐
			☐
			☐
			☐

Subtotals: Bridge _____ Advanced: _____ Total: _____

Summer 20___

Course Title	Number	Semester Credit	Check if Bridge Course
			☐
			☐
			☐
			☐

Subtotals: Bridge _____ Advanced: _____ Total: _____

Bridge Program Approved: (Please print name after signature.)

_____

Advisor *Date*

_____

Department Chair or Grad Coordinator *Date*

_____

Assistant to the Dean of the Graduate School *Date*

- # MTU's Electronic Document Project: An Introduction
- # Instructions for the Preparation of Electronic Theses, Project Reports, and Dissertations (ETDs)

MTU's Electronic Document Project

Introduction

What is an ETD?

Michigan Tech's Graduate School has initiated two document submission projects within the last couple of years.

1. DIGITAL BINDING COPIES (these are not ETDs) - Dissertations and theses, as well as project reports that the author and/or advisor want to have professionally bound, must be submitted in simple pdf format on a CD. The files do not need to have links and bookmarks, for example, from table of contents listings to the chapters. These digital copies are forwarded to Heckman Bindery where they are printed and bound. Documents are not made available to be read on line. For information: http://www.admin.mtu.edu/rgs/graduate/forms/BindingForm.pdf

2. ETD PROJECT - Michigan Tech graduate students can secure global exposure of their work and master the skills needed to create substantive electronic documents by choosing to submit a wholly electronically formatted copy. ETD submission requires thorough linking and bookmarking so that the document can be read on line easily. If you choose to submit an ETD, the same file can be sent to Heckman for binding, but if you submit a simple pdf for binding, that file does not constitute an ETD.

An Electronic Thesis or Dissertation (ETD) is a document that explicates the research of a graduate student and is expressed in a form simultaneously suitable for machine archives and worldwide retrieval. An ETD must have the same content as a traditional paper version, such as text, figures, tables, footnotes, and references. However, being electronic, It may also include multi-media and interactive objects and links. An ETD can be displayed on the World Wide Web and can be retrieved and archived electronically. It is available to anyone who can browse the Web. An ETD can be very simple, such as a traditional text-only document converted into an electronic version with links and bookmarks. Or an ETD can be enriched with new electronic tools characteristic of emerging areas of scholarly communication. You prepare your ETD using nearly any word processor or document preparation system, but the electronic format provides you with a technologically advanced medium for expressing your ideas.

When considering whether to include an ETD copy of your work, however, you should consider all the implications. Here are some important things for you to consider…

Skills acquired with an ETD

Preparing an ETD will require some time and effort on your part, but will prove to be an invaluable experience in a world where electronic communication is increasingly important. In fact, many careers already assume you have mastered some of these skills:
* Using word-processing software proficiently.
* Using Adobe Acrobat software to create a substantial PDF document.
* Preparing multimedia enhancements such as those you might wish to incorporate in your ETD.

Why submit an ETD?

There are many reasons to prepare and submit an ETD:
* Richer document content. Multi-media components such as high-resolution images, video, and audio clips, as well as some databases and programs can be imbedded in an ETD.
* Broader, faster exposure of your work. Your document will have worldwide 24/7 accessibility shortly after you submit and release your ETD.
* Inclusion of Master's theses and reports. Currently, only doctoral dissertations are available via UMI.
* Enhanced full text searchability. Searches are no longer limited to just keywords and indexing data. Links allow easy access.

* Experience preparing a large electronic document. These skills are a valuable asset for future employment.
* More efficient submission to UMI. Digital information permits FTP submission to UMI Dissertations Publishing and is the most efficient means of submission.

Are there any concerns?

ETDs raise important issues about scholarly publishing:
* Intellectual property rights to the work
* Ability to publish a book or article derived from your research already "published" on the World Wide Web
* Long-term availability. Electronic archival standards and software convertibility are still being developed
* Fair-use and copyright standards.

Learn the facts about these concerns from resources on the website of the National Digital Library of Theses and Dissertations (NDLTD) http://www.ndltd.org/~etd/faq/index.html .

Facts about ETDs

About 50,000 doctoral dissertations and an even greater number of master's theses are produced annually in the U.S. A typical dissertation is ordered no more than six times from University Microfilms; it is often checked out from a university library even fewer times. ETDs change that. At one university more than 80% of the collection of 2500 ETDs had been accessed at least 100 times each.

Steps in the ETD process

* Start early to plan, organize, and develop needed skills.
* Learn about ETDs and MTU's program.
* Read through "Instructions for the Preparation of Electronic Theses and Dissertations (ETDs).
* Learn the formatting capabilities of your word processor and how to automate the pdf process.
* Learn about copyright & publication.
* Discuss preparation of an ETD with your advisor, committee, and the Graduate School Office.
* Indicate on your M5/D7 that you intend to file an ETD.
* Prepare and defend your thesis or dissertation.
* Convert the final version of your document to an ETD and submit the CD along with a second CD for binding to The Graduate School Office.

Instructions for the Preparation of Electronic Theses and Dissertations (ETDs)

At the present time, ETDs must be submitted in Adobe Acrobat PDF (Portable Document Format). Documents may also be submitted in html format, and some authors may prefer to have this version displayed on the MTU ETD Web site; however, a PDF version is required from everyone submitting an ETD. This temporary system may be redundant, but it has been adopted to ensure optimal protection of your work.
If you choose to submit an ETD, we strongly recommend that you assume direct responsibility for reformatting the document into Adobe PDF and for checking the reformatted document for accuracy.

ETD's must have adequate links and bookmarks to facilitate easy navigation throughout the document. Files without bookmarks and links will not be accepted.

It is the student's fundamental responsibility to -

- Prepare and submit an ETD version of the document as defended;
- Properly embed fonts;
- Test the ETD to ensure that fonts and graphics display clearly and properly on a monitor when accessed;
- Test all links to ensure that the ETD can be readily navigated whether it is composed of a single or multiple files; and
- Test to be sure that the printed PDF version will be clear and legible, including any figures or images.

Some requirements for ETDs

- Compression or password protection must ***not*** be used.
- All fonts used should be embedded in the document. If they are not, your work may not display properly when accessed, and the text may not be fully searchable.
- Either external or internal links to multimedia files are acceptable. If such elements are used, file formats should be identified in the abstract.
- Only selected multimedia file formats are automatically approved for inclusion (see list below).
- Paper copies of the Title Page and Abstract as well as paper copies of any reprint permission letters and any required third-party software licenses must accompany all dissertation ETDs and any theses which the author wishes to submit to UMI.
- ETDs must be submitted on CD-ROM and should be hand-delivered to the Graduate School Office.
- Any player, reader or application required to display, play, or read the document must be free ware or licensed third party software, available on the submitted removable digital media and fully licensed to be copied and installed on a reader's machine.
- The textual portion of the ETD must be submitted in PDF format. The text will be migrated to maintain availability into the future. Because of this, we require the portable document file (PDF) format. This format can provide consistent reproduction in a variety of formats, print or electronic, which HTML cannot provide.

Proprietary Content.

A thesis, report, or dissertation may sometimes contain information of a proprietary nature. The Graduate School will generally honor a written request to hold a thesis or dissertation for a period of up to six months before releasing it for publication and archiving in the University Libraries.

Prior written approval of the Dean of the Graduate School is required.

Formatting PDF versions

Adobe Acrobat PDF (Portable Document Format) software essentially prepares a page-oriented electronic document. What you see on the monitor and what you print out on paper should be formatted in standard 8½ x 11" page size. Owing to this fundamental page orientation and also to keep requirements specific to ETDs as simple as possible, the student should maintain the same formatting for both the version to be printed and bound and the ETD, with a few exceptions...

1. **Signatures.** NO signatures are to be reproduced in ETDs because they would then be available on the Web. Therefore, the solid lines for signatures (but not the titles of the persons signing) should be deleted from the signature page.
    - TYPE the author's name and the date on the abstract page.
    - TYPE the names of the Advisor / Co-Advisors of the thesis or dissertation, the name of the department chair, and the names of the committee on the signature page.
2. **List of files.** Add a page containing an ordered List of files that comprise your ETD immediately after the list of figures (if you have figures), and just prior to the body of the text. The list should include the name of each file, the file type (.pdf, .gif, etc.), and the size of the file.
3. **Naming of files.** To avoid possible cross-platform problems and difficulties in future archival processes, the file names of all the files comprising an ETD must follow the DOS 8+3 naming convention: abcdefgh.xyz. Use English letters and Arabic numbers only; no extra punctuation or diacritical marks or spaces are allowed. For example, JJSthes.pdf, not John Smith Thesis.pdf; Chapt2.pdf, not Chapter 2.pdf; Fig04.jpg, not Figure 4.jpg.
4. **Multiple files**. We recommend that you name files so that a computer will sort them in some logical manner. For example, each file name can begin with a 1- or 2-digit number, depending on how many files you have, to ensure they will sort logically: 01Abstr.pdf, 02Prelim.pdf, 03Lists.pdf, 04Chap1.pdf, …, 09Append.pdf, then any optional external multimedia files, and so forth.
5. **List of file formats**. If multimedia elements are used in the document, UMI requires the student to include a list of the file formats used in the abstract. If applicable, add this listing to the Abstract prior to the author name and date. For example: Multimedia Elements Used: JPEG (.jpg); Apple Quick Time (.mov); WAV (.wav).
6. **Linking files.** Many people recommend submitting the full text of an ETD as a single PDF file. For longer ETDs, one very large file can become cumbersome to work with. If you choose to submit your ETD as a set of PDF files, you must include (and test) sufficient navigational links so that the reader can readily move from one file to another without having to close out one file in Acrobat and then open the next PDF file.
7. **Copyright.** In any work, copyright implicitly devolves to the author of that work whether or not you state so. Copyright arises automatically when a work is first fixed in a tangible medium such as a book or manuscript or in an electronic medium such as a computer file or email. To make your ownership of the work clearer, however, the Graduate School recommends that a copyright notice be placed centered at the bottom of the abstract title page and the document title page: for example, Copyright © John J. Smith 2001.
    - Because of the high visibility of an ETD, we recommend that you place this or a similar copyright statement (e.g., Copyright 2001, John J. Smith) at several unobtrusive places in the body of the thesis, report, or dissertation—the bottom line on the last page of each chapter is one possible location.

Formatting html Versions

Clearly, physical formatting requirements for ETDs in html format make less sense than for PDF format because html is not a page- and print-oriented system; it is a more truly electronic approach. The six formatting exceptions listed above for ETDs in PDF format, however, also apply for html versions.

Approved multimedia enhancement formats

Multimedia objects include tables, complex equations, graphs, diagrams, digital pictures, digital video, digital audio, virtual reality, and even computer software that you have developed.

PLEASE NOTE THAT WHEN UMI PREPARES AND SELLS A PAPER COPY OF YOUR DISSERTATION, ONLY THE PRINTABLE PORTION IS PROVIDED TO A CUSTOMER
An ETD must be carefully prepared with this in mind.

The ETD must be written so that all of the important information is contained in the body of the basic PDF and html documents. For example, images can be inserted into the document in PDF format, with links to higher-resolution or enhanced GIF or JPEG versions.

Inclusion of enhanced multimedia elements in the basic PDF or html document is optional. Owing to the large number of formats available for various multimedia enhancements, the fact that they quickly rise and fall in popularity, and the difficulty inherent in long-term archiving and migrating of these formats as softwares evolve and change, only selected multimedia elements are automatically approved for inclusion in ETDs. These are shown in the list at the end of these instructions. The list of approved formats will undoubtedly change as time goes on.

A word of caution: There is some higher level of long-term risk associated with the inclusion of multimedia enhancements. The University will make every attempt to migrate the file formats listed below indefinitely, but their preservation cannot be guaranteed. There are essentially three levels of commitment the University has made in regard to the long-term archiving of ETDs: (1) A very strong commitment to migrate the body of the work in the basic PDF or html format, much the same as that for the paper copies that have been submitted for decades. We will do everything possible to ensure long-term availability. (2) A strong commitment to migrate the added multimedia elements in the formats that have been approved. (3) Little or no commitment to migrate any non-approved multimedia formats. These are included at the author's risk. A student who wishes to include an optional multimedia enhancement in a non-approved format must submit a written request for permission to do so to the Graduate School before submitting the document.

Simple objects

Most simple objects like tables, graphs, and diagrams can be embedded in your ETD using your word processor.

- Put the object at the point of reference or “float” it to the top or bottom of the page or to the top of the next page.
- Give the object a concise, descriptive title.

For example:

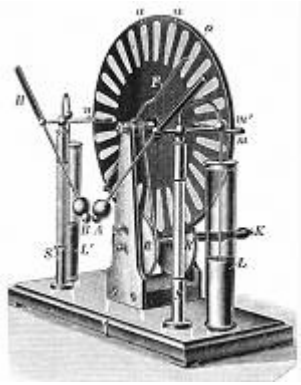


Figure 1.4. Example Multimedia Object (GIF, 32k)

Complex objects

More complex multimedia objects require special treatment. They either do not fit naturally on a page or the file size is too large to fit reasonably within a document. For complex objects, do the following:
Place the type and number of the object, along with a concise, descriptive title, centered on a line by itself. In parentheses, include the media encoding (e.g., JPEG) and file size (e.g., 1.5 Megabytes).
Be sure to submit each multimedia object file you have linked when you submit your PDF file.
Note that many complex multimedia object types have a simple object version (often called a “thumbnail”) that is a reduction of the picture or one frame of video. If possible, we recommend that you include this reduction in the main document along with a PDF link to the complex object.

Quality of graphics:

- Poor quality image scans are unacceptable.
- Digital reproductions of images (computer scans) should be sufficiently legible on screen when zoomed in on and / or produce legible laser print copies at 600 dpi. The committee and student may decide the necessary level of detail, so long as the above requirements are met.
- Poor quality screen fonts are unacceptable, usually produced by improper document conversion.

Color vs. black-and-white

- Images and illustrative text in an ETD may be in black-and-white or color. Keep in mind that maximum clarity for microfilming and duplicating is attained when there is good black-and-white or color palette contrast.
- Color photographs should be used when they are essential for understanding the methods or results of the research.
- If color photographs are used, appropriate labels must be provided to assist the readers of reproduced copies, which are made in black-and-white.
- Do not use only different colors to distinguish multiple lines in a plot or figure. Use lines that are segmented in various ways or data points of different shapes.

Some general hints and guidelines for preparing ETDs

Color. Color can add vitality to an ETD. Remember, however, that an ETD is a scholarly document. Please, no orange text on a lime-green background unless this is intrinsic to the creative nature of the work itself. Note that problems can be encountered when colored material is printed on a black-and-white printer or copier; some colors may no longer be distinguishable, especially if the printer/copier is set to a high-contrast mode. Some colors may be so light as to be illegible after printing or in a photocopy. In particular, when UMI prepares a microform or paper version of your ETD, colors are lost; the readability may also be lost.

Bells-and-Whistles. Avoid use of flashing text, animated areas, and “dramatic” sound clips (tadaa!) in your ETD unless they are intrinsic to the nature of the work. Some adornments can certainly have a dramatic effect and catch the reader's attention, but these cannot be used as a substitute for, nor overshadow the content of, the document. An ETD is fundamentally a scholarly document.

Put it all in the text. It is especially important to include all of the critical information in your thesis or dissertation in the body of the text in the case of an ETD. This imposes a somewhat increased burden on the author who chooses to use multi-media to explain or summarize in words all the important material in the work. For example, for a linked image file do not simply say, “Figure 2 shows the changes in…” Note or summarize what the important changes are. For an audio or video file, summarize the broad, important features of what would be displayed or heard. For data and calculated quantities in a linked spreadsheet that the reader can manipulate, it might be desirable to duplicate some or all of the information or embedded equations in a table or appendix in text format.

Navigational aids. To assist the reader in readily navigating your ETD document, you must build sufficient internal navigational aids into your work. This can be done by adding internal links to the first page of each chapter, to other major parts listed in the Table of Contents, to each figure and table from the List of Figures/Tables, etc. Use of Adobe Acrobat's “Bookmarks” feature is a particularly easy way to include navigational links.

If you have used any one of several modern word processors, including Microsoft Word, to create your document, if you have used your word processor’s style sheet consistently in formatting your document, and if you have had it generate the table of contents and lists of figures, Acrobat can automatically generate links and bookmarks.

The creator of a PDF document can add additional bookmarks in an existing PDF document, to another PDF document, or to a Web page. We encourage the use of all available options in Adobe Acrobat

Exchange. Your ETD will be easier to view and browse and will encourage users to navigate through your entire ETD.

Some of these include:

- Adding Links from the Table of Contents (required)
- Adding Links to the Table of Contents
- Adding Bookmarks (required)
- Adding Thumbnails
- Adding Yellow Stickies
- Adding Links to the List of Figures and Tables
- Inserting Multi-media Objects
- Linking to Internal and/or external Multimedia Objects
- Adding Hyperlinks

Helpful submission hints

- Check your PDF files for missing pages, poor font translation, and other anomalies.
- Check the content and style of abstracts, tables of contents, and lists of tables and illustrations. Be sure that all information contained in your contents pages is accurate (e.g., that Chapter 2 begins on page 35 if that is what is specified in your table of contents).
- Make sure that all materials in your appendix are readable and in an approved style.
- Check to be sure that all your pages are numbered correctly.
- Be sure that your document has been adequately proofread and is in a good state of finish. Remember that your document represents the University, your department, and your advisor, as well as you and your work.

UMI Publishing Guidelines

The University sends a copy of all doctoral dissertations, but not master's theses or project reports, to UMI to be "published": UMI prints the abstract in Dissertation Abstracts International, and sells copies of the dissertation to the public in paper, microform, and electronic format. At this time, UMI will accept ETDs only in Adobe PDF.

UMI makes available a brochure entitled "Publishing Your Dissertation" that contains, among other items, a "Doctoral Dissertation Agreement Form" and some helpful hints on preparing your dissertation.

Every MTU doctoral student receives a copy of this document attached to their D5/Degree Schedule. Single printed copies are available from the Graduate School Office (4th Floor, Administration Building), by calling UMI (800-521-0600 x 7020), or by using their electronic order form http://www.umi.com/hp/Support/DServices/order/PacForm.html .

ETD Hints and Guidelines from other Universities

A number of universities have been accepting ETDs for several years now and have developed extensive Web sites with information about and instructions for preparing them. We urge you to review some of these Web sites.

Virginia Tech has been the national leader in ETDs. They were the first university to require that all students submit ETDs, beginning in 1997. Their ETD Web site (http://etd.vt.edu/) is extensive. It includes a tutorial on how to configure Microsoft Word to thesis format requirements, which includes actual pictures of on-screen menus and dialog screens. West Virginia University was the second educational institution to require that all students submit an ETD. After only one year's pilot project, it became mandatory in Fall 1998. They accept ETDs only in PDF format. Their Electronic Theses and Dissertations page http://www.wvu.edu/%7Ethesis/ contains extensive information including a link to their Preparing and Submitting ETDs page.

The University of Texas-Austin now requires that all doctoral students who will graduate after the Spring 2001 Semester submit an electronic dissertation. Their Electronic Dissertations page

http://www.utexas.edu/ogs/etd/index.html includes links to reasonable tutorials on creating PDF documents from Word, WordPerfect, and postscript documents whether you are using Microsoft Windows or Macintosh. It also includes instructions for handling images, tables, and graphs in PDF.

The University of Georgia's Electronic Thesis and Dissertation page (http://www.gradsch.uga.edu/For_Students/Enrolled_Students/etd.html) includes a link to an interesting site from which you can download free Alladin Ghostscript software that they claim can create a PDF document in Windows, Macintosh, or Unix systems as easily as Adobe Acrobat. They also advise installing GSView software, which is the graphical interface for Ghostscript, after the latter is installed.

PDF Information and Hints from Adobe Acrobat

Adobe Systems Incorporated is the company that produces and sells Adobe Acrobat, the proprietary software used to produce documents in PDF. Free technical information is available on the Adobe Web site, including:

- Creating PDF files using Microsoft Word http://www.adobe.com/epaper/tips/pdfapps/page2.html
- Acrobat Q & A http://www.adobe.com/products/adobemag/archive/qaacro.html

A distinction needs to be made between the full Adobe Acrobat suite, which permits the preparation and editing of PDF documents (and must be purchased), and the Adobe Acrobat Reader, which only permits the reading and printing of documents already in PDF format (and is available free for download onto your computer).

Approved Formats for Optional Multimedia Enhancements

Images

PDF (.pdf) use Type I PostScript fonts
CompuServe GIF (.gif)
JPEG (.jpg); also requires the TIFF file
TIFF following version 6.0 or later, including CCITT G4 (.tif)
CGM Computer Graphics Metafile (.cgm)
PhotoCD
Adobe Photoshop (.ppd)
Post Script (.eps)
PowerPoint (.ppt)
(Recommend a minimum resolution of 600 dpi for images of pages with text, and suggest that imbedded images be available in several possible resolutions)

Video

Apple Quick Time (.mov)
Microsoft Audio Video Interleaved (.avi)
MPEG (i.e., MPEG-1, MPEG-2) (.mpg)

Audio

AIF (.aif)
CD-DA
CD-ROM/XA (A or B or C)
MIDI (with timing information) (.midi)
MPEG-2 (.mpg)
WAV (.wav)
SND (.snd)

Special

Spreadsheet - Excel (.xls)
AutoCAD (.dxf)
ArcView (GIS)

Referring

"Handles" such as URNs (URLs do not last very long and are discouraged)
ISBN, ISSN

(Sample of **Title Page** for MS theses—reports are similar)

SURFACE EFFECTS ON TRANSITION FROM FILM BOILING

By

JOHN J. DOE

A THESIS

Submitted in partial fulfillment of the requirements

for the degree of

MASTER OF SCIENCE IN MECHANICAL ENGINEERING

MICHIGAN TECHNOLOGICAL UNIVERSITY

2002

(Sample of **Approval Page** for MS theses—reports are similar)

This thesis, "Surface Effects on Transition from Film Boiling," is hereby approved in partial fulfillment of the requirements for the Degree of MASTER OF SCIENCE IN MECHANICAL ENGINEERING.

DEPARTMENT or PROGRAM:

Mechanical Engineering-Engineering Mechanics

Signatures:

Thesis Advisor _____

Typewritten Name _____

Department Chair _____

Typewritten Name _____

Date _____

(Sample of **Title Page** for PhD dissertations)

DETERMINATION OF THE MAGNETIC FIELD EXTENSION PROFILE FOR REDUCING THE END LOSSES IN THE MHD GENERATOR CHANNEL

By

MARY A. DOE

A DISSERTATION

Submitted in partial fulfillment of the requirements

for the degree of

DOCTOR OF PHILOSOPHY

(Mechanical Engineering-Engineering Mechanics)

MICHIGAN TECHNOLOGICAL UNIVERSITY

2002

(Sample of **Approval Page** for PhD dissertations)

This dissertation, "Determination of the Magnetic Field Extension Profile for Reducing the End Losses in the MHD Generator Channel," is hereby approved in partial fulfillment of the requirements for the degree of DOCTOR OF PHILOSOPHY in the field of Mechanical Engineering-Engineering Mechanics.

DEPARTMENT or PROGRAM:

Mechanical Engineering-Engineering Mechanics

Signatures:

Dissertation Advisor _____

*Typewritten Name*_____

Committee (optional) _____

*Typewritten Name*_____

_____

*Typewritten Name*_____

_____

*Typewritten Name*_____

_____

*Typewritten Name*_____

Department Chair _____

*Typewritten Name*_____

Date _____

Michigan Technological University
Graduate School

Degree Completion Checklist – Thirteen Things to do

TO: Defending Master's Students DATE: June 2006 on

FROM: Nancy Byers Sprague, Graduate School Office 7-2755 *or* nspr@mtu.edu

Now that you have scheduled your defense/examination **through the Graduate School** 2 weeks in advance of the event, you are anxious to complete the degree, but the defense is only the beginning of the end!

This checklist should help.

___ 1.a. (Plans A, B, C) Successfully **defend**, get the M6/MEng3 signed right there if possible, and submit it to the GSO within 2 weeks of your defense. If corrections and/or revisions will take longer than two weeks, we must get a "provisional" copy of the M6 within 2 weeks of the defense. Research grades will be changed to "S" when the final M6 comes in. If you are completing coursework option C or a Master of Engineering, you are done, except for finishing any incomplete courses and turning in final paperwork (skip to the last two items of #9).

___ 1.b. (Plan D) After all final exams are taken your last term, obtain signatures on your M6-D and submit it to the GSO. Skip to the last two items of #9 ...

___ 2. Make **corrections & revisions** to your thesis/report as directed by your committee.

___ 3. Get the corrected thesis/report signature page **signed by your advisor and your department chair**.

___ 4.a. Report Option: You don't need to have your report professionally bound. Submit 1 paper copy with a signed original signature page, in a **sturdy binder**, to the GSO for archiving in the Library. Give 1 paper copy to your advisor. These are required by the Graduate School. Your department may require additional paper copies.

If you are completing the thesis option, complete steps 4.b.- 8.

If you are completing the report option, go to step 9, pg 2.

___ 4.b. Thesis Option: **Do not submit paper copies without special permission.** Make a .pdf file of your thesis with **1 ½ inch LEFT margins**. Determine the number of **bound copies of the final version** of the thesis that you'll need. That number must include 2 bound copies to be kept in the Library. Your department/program will likely want a bound copy & your advisor, too, perhaps even your committee members. We hope they will pay for that binding; some do, some don't. And you probably want a bound copy for yourself...

___ 5. Burn the final copy of your thesis. [Whoa! to a **CD, right?]**. **IF** you are submitting an ETD (with links &/or bookmarks so that your thesis can be uploaded to MTU's Library web), we will need **TWO CD**'s, one for the Library and one for Heckman.

___ 6. **Complete the dissertation/thesis invoice and Heckman Bindery form** that are available on the web with all the other tracking forms. If your advisor and/or department will pay for all the binding, you have it easy: they just have to sign-off at the appropriate spots on the invoice! Otherwise, you must pay the MTU Cashier for all or part of the bill. (Binding is $20/copy if there are no special printing requirements like color pages.)

___ 7. Make sure your department knows **what to do** with the bound copies of your bound thesis when the Library returns them.

___ 8. If you must **pay**, FIRST bring the invoice to the Grad School (Room 407B) so I can check the total, then take the date-stamped invoice and your money to the cashier's windows.

___ 9. Bring the following to the **GSO**, **Admin. 407B** by **4PM** the first day of classes of the semester **following** the one in which you plan to graduate. Starred forms (*) are on the web at http://www.gradschool.mtu.edu/trackingforms.html → [individual forms]):

*___M6 if it has not already been turned in

___CD with .pdf version of your thesis to be bound **OR** report in a sturdy binder

*___the invoice and all proofs of payment (thesis option only);

*___Heckman Bindery form with a copy of the title page & signature page with original signatures (thesis only)

*___If you are submitting an ETD, you must bring a copy of the ETD Approval Form (M7/D9) and a second CD

*___Life After MTU form, completed

___Questionnaire for Exiting Graduate Students – optional but very much appreciated
http://www.surveymonkey.com/s.asp?u=164563181339

___ 10. TURN IN LIBRARY BOOKS.

___ 11. TURN IN KEYS to Public Safety and/or department, as appropriate.

___ 12. SETTLE ANY FINANCIAL OBLIGATIONS to the University. Your grades, transcripts, and diplomas will not be released until you are clear financially.

___ 13. CELEBRATE with friends.

Michigan technological university
Graduate school

Degree Completion Checklist – Thirteen Things to do

TO: Defending Doctoral Students DATE: June 2006 on

FROM: Nancy Byers Sprague, Graduate School Office 7-2755 *or* nspr@mtu.edu

Now that you have scheduled your dissertation defense/examination **through the Graduate School** 2 weeks in advance of the event, you are anxious to complete the degree, but the defense is only the beginning of the end! This checklist should help.

___ 1. Successfully **defend**, get the D8 signed right there if possible, and submit D8 to the GSO within 2 weeks of your defense. If corrections and/or revisions will take longer than two weeks, the Grad School must have a "provisional" copy of the D8 within 2 weeks of the defense [check "provisional" on D8 & get all signatures]. Research grades will be changed to "S" when the final D8 comes in.

___ 2. Make **corrections & revisions** to your dissertation as directed by your committee.

___ 3. Get the signature page **signed by your advisor and your department chair** (or program committee chair in the case of the EPDs). Committee **members'** signatures are optional but nice.

___ 4. Make a .**pdf file** of the final version of your dissertation. This will be **EITHER a simple .pdf** file for Heckman to use to print and bind your dissertation **OR an ETD**, an interactive .pdf file complete with links and/or bookmarks. Heckman can print from a linked file, but a simple file cannot be submitted as an ETD.
CHECK YOUR PDF FILE: The file MUST be formatted with 1½ inch LEFT margins or you will have to re-do it.

___ 4.a. Determine the number of **bound copies of the final version** of the dissertation that you'll need. That number must include 2 bound copies to be kept in the Library. Your department/program will likely want a bound copy; your advisor and committee members, too. We hope they will pay for binding; some do, some don't. And you will probably want a bound copy for yourself.

___ 5. Burn the final copy of your dissertation. [Whoa! to a **CD, right?]**. **IF** you are submitting an ETD (with links and/or bookmarks so that your dissertation can be uploaded to MTU's Library web), we will need **THREE CD**'s, one for UMI, one for the Library, and one for Heckman.

___ 5.a. IF YOU ARE NOT SUBMITTING AN ETD, **print 1 (one) paper copy** of your dissertation to be microfilmed by UMI. If you are submitting an electronic dissertation (ETD), you don't need to submit a paper copy to us at all.

___ 6. **Complete the invoice** and **Heckman Bindery form**. These are available on the web along with all the tracking forms. If your advisor and/or department will pay for all the binding, the microfilm fee, and the optional copyright fee, you have it easy: they just have to sign-off at the appropriate spots on the invoice! Otherwise, you must pay the MTU Cashier for all or part of the bill.

___ 7. If you must **pay**, FIRST bring the invoice to the Grad School (Room 407B) so I can check the total, then take the date-stamped invoice and your money to the cashier's windows.

(OVER)

___ 8. Bring the following documents to the **GSO**, **Admin. 407B** by **4PM** the first day of classes of the semester **following** the one in which you plan to graduate. All starred (*) forms are on the web: http://www.gradschool.mtu.edu/trackingforms.html → [individual forms]

*___D8 with signatures if it hasn't already been turned in.
*___Heckman bindery form with a paper copy of the **title page** and **signature page with original signatures**
___CD with .pdf of your dissertation for binding
___Two additional CDs with linked and/or bookmarked .pdf of your dissertation if you are submitting an ETD to be uploaded to the MTU Library web (One of these is for UMI, the other is for the Library to upload to their web.) …

OR

___ One loose copy of your dissertation for UMI if you are not submitting an ETD
*___ ETD Approval Form (M7/D9) for electronic submission (**ONLY** if you are submitting a CD for the MTU library to upload to the web.)
*___ Invoice and all proofs of payment
___ UMI agreement form completed, with attachments of title page with advisor's name printed on it, and a paper copy of your abstract (both paper and ETD)
___ UMI payment receipt (included on Invoice above)—the same for paper and electronic submission: ($55 for microfilming and inclusion in Dissertation Abstracts International; $65 for optional registration of your copyright).
*___ Life After MTU form, completed
___ Questionnaire for Exiting Graduate Students – optional but very much appreciated http://www.surveymonkey.com/s.asp?u=164563181339

The following document is not on the web, but was sent to you with your signed D7 (defense scheduling form):

___ Survey of Earned Doctorates, completed

___ 9. Make sure your department knows **what to do** with the bound copies of your dissertation when the Library returns them. GSO will return the unbound UMI copy to the department also.

___ 10. TURN IN LIBRARY BOOKS.

___ 11. TURN IN KEYS to Public Safety and/or department, as appropriate.

___ 12. SETTLE ANY FINANCIAL OBLIGATIONS to the University. Your grades, transcripts, and diplomas will not be released until you're clear financially.

___ 13. CELEBRATE WITH FRIENDS!

Michigan Technological University — Graduate School
INVOICE for thesis/dissertation binding & UMI submission

To be completed by doctoral students and master's students completing the thesis option
Binding of reports is optional, but may be done using this invoice form if desired.

Students:

- ❑ First, read both sides of this page; then complete as much of the form below as you can.
- ❑ **Get appropriate signatures (initials to charge expenses to accounts AND verification at bottom of page).**
- ❑ Bring this invoice, along with other documents noted on the "Degree Completion Checklist – Thirteen Things to do," to the Graduate School Office (GSO), Admin 407B.
- ❑ If you are paying all or part of the binding fees yourself, GSO will verify the amount on the invoice. You then take the invoice to the Cashier's window, pay the amount due and return the invoice and receipt to the GSO.

Student name _____ **Student ID no.**_____

Degree: __MBA __MEng __MFor __MS __ PhD **Major:** _____
(listed on reverse side/page 2)

ETD (linked and/or bookmarked for on-line reading) is being submitted: ____ yes ____ no

Title as on final version of document (this will appear on your transcript – be sure it is accurate and readable!):

_____

_____

*Figure the **number of copies** and **per copy binding charge** on the Heckman Bindery form before completing this section.*

Binding charge:	***Per Copy Binding Chg.***	***Total Amt.***	***Student pays this***	***Dept/Adv. pays this*** ***Amt.***	***Index***	***Initials***
Total number of copies to be bound _____	_____	_____	$ _____BD56	_____	_____	___
				_____	_____	___
University Microfilms Charges: (PhD only)						
UMI fee	$55	*(UMI fee is required for both paper and electronic dissertations)*				
Copyright registration ($65)	_____	*(Optional)*				
Open Access Fee ($95)	_____	*(Optional)*				
Total UMI Charges	_____		$ _____BD29	_____	_____	___
TOTAL DUE $ =	_____		**$**_____ *(paid by student)*	+ **$**_____ *(charged to MTU acct)*		

Department verification of document and paperwork:

___ appropriate dept signatures on thesis/report/dissertation *(must be original signatures)*

___ GSO has verified document has **1½ inch** left margin

___ title on form same as on document

Check title page and signature page, too!

___ Dept has info for mailing bound copies

___ appropriate degree name (listed on reverse side)

___ initials obtained for charges to department accounts

Please check account numbers carefully; we are not generally allowed to charge thesis binding to sponsored project accounts.

___ if document publication is to be restricted/delayed, attach prior written approval from the Dean of Graduate School
PhD: also attach "Permission for UMI to publish abstract" form

___ if an ETD (linked and/or bookmarked electronic document) is being submitted, attach ETD Approval Form (M7/D9).

Required Signature: _____
Advisor or Department Secretary/Aide

Received in GSO (date stamp & initials)

Revised April 07

MASTER OF BUSINESS ADMINISTRATION	
MASTER OF ENGINEERING	
Civil Engineering	Environmental Engineering
MASTER OF FORESTRY	
MASTER OF SCIENCE	
Applied Ecology	Forestry
Applied Science Education	Geological Engineering
Biological Sciences	Geology
Chemical Engineering	Geophysics
Chemistry	Industrial Archaeology
Civil Engineering	Materials Science and Engineering
Computer Science	Mathematical Sciences
Electrical Engineering	Mechanical Engineering
Engineering Mechanics	Mineral Economics
Environmental Engineering	Mining Engineering
Environmental Engineering Science	Physics
Environmental Policy	Rhetoric & Technical Communication
Forest Ecology and Management	
Forest Molecular Genetics and Biotechnology	
DOCTOR OF PHILOSOPHY	
Biological Sciences	Forest Science
Biomedical Engineering	Geological Engineering
Chemical Engineering	Geology
Chemistry	Industrial Heritage and Archaeology
Civil Engineering	Materials Science and Engineering
Computer Science	Mathematical Sciences
Electrical Engineering	Mechanical Engineering/Engineering Mechanics
Engineering—Environmental	Mining Engineering
Engineering—Computational Science & Engineering	Physics
Engineering Physics	Rhetoric & Technical Communication
Forest Molecular Genetics and Biotechnology	

Heckman Bindery, Inc. MichiganTech Thesis / Dissertation Binding

Title (As it should be printed on volume): _____

_____

_____

Titles will be printed on the front cover and the spine. Titles will be truncated to fit if necessary.

Author's Name (As it should be printed on volume): _____

What program was your thesis created/saved* in: _____

*Document must be saved in .pdf format on a cd-rom.

PRINTING: Note that the binding-edge margin must be 1½ inches
Pages should be (choose one)

☐ Single-sided

☐ Double-sided (File must be formatted for double sided printing; be especially careful of the binding edge margin.)

PAPER TYPE / COLOR (must be the same for all copies)

☐ Standard White

☐ Off-white

☐ Cotton Fiber (Only in White) Calculate cost immediately below.

Additional cost for Cotton Fiber is .10 per page:

____ pages x .10/page = $ _____ *per copy* for cotton fiber paper

When determining the number of pages, please include the title page, table of contents, etc. Price per page is based on **total** pages, not numbered pages only.

COLOR PRINTING:
Color printing is available at an additional charge of .21 per standard page or .42 per over-sized page.

Number of 8½ x 11 pages in one copy to be printed in color @ .21 / page:

____ pages x .21/page = $ _____ *per copy* for standard-size color

Number of pages *over* 8½ x 11 in one copy to be printed in color @ .42 / page:

____ pages x .42/page = $ _____ *per copy* for over-sized color

Page numbers of **ALL** pages to be printed in color:

BLACK AND WHITE NON-STANDARD SIZE:
Black & white printing of non-standard size pages has an additional charge of .17 per pg.

Number of pages *over* 8½ x 11 in one copy @ .17 / page:

____ pages x .17/page = $ _____ *per copy*

Page numbers of all over-sized pages to be printed in black & white:

PLEASE COMPLETE SIDE TWO OF THIS FORM →

BINDING OPTIONS

Cover Colors	**Print Color**
Red (188)	Gold
Navy Blue (598)	Black
Black (990)	White
Dark Green (494)	
Other (See swatch book in GSO)	

Number of copies	Cover Color	Print Color
__2__ (Library Copies)	___990___	__White__
_____	_____	_____
_____	_____	_____
_____	_____	_____

_____ Total number of copies (Use this number below when calculating Standard Binding Fee) **Remember your department, your committee, and yourself.**

Additional Instructions:

SIGNATURE PAGE ATTACHED: One copy of the signature page with original signatures is attached to this form. It is to be copied and a copy bound in each volume.

LIBRARY USE ONLY
1st Library Call No. _____ (original signature page bound in)
2nd Library Call No. _____

Other:

AMOUNT DUE:

Extra *per copy* charge for color (from side 1) ..... _____

Extra *per copy* charge for cotton paper (from side 1) ..... _____

Extra *per copy* charge for non-standard size (from side 1) ..... _____

Standard Binding Fee @ $20.00 *per volume* ..... _____

Amount per copy: _____

Number of copies: _____

Total amount due: _____

Paper and/or CD copies being submitted:

For printing and binding: ☐ PDF on CD

UMI copy (PhD only) ☐ ETD ☐ Paper copy

Media forms for binding into document ☐ CD ☐ Audio Tape ☐ Other _____

Attach one copy of the title page so the Library will have the information necessary to catalog the document.

Attach one copy of the signature page with original signatures.

For Dissertation Submissions with MichiganTech-only access

Permission for UMI to publish abstract

Complete ONLY if restricting publication of your dissertation (PhD)

U.S. universities, including MichiganTech, use the services of University Microfilms (UMI) to publish abstracts of dissertations in Dissertation Abstracts and to make available for sale copies of your dissertation in digital, microform, and/or hard copy. Abstracts of dissertations that have access restricted to MichiganTech will not automatically be published in Dissertation Abstracts. If you choose to restrict your dissertation to MichiganTech access only, you may still submit your dissertation to UMI and have your abstract published in Dissertation Abstracts while retaining the option of restricting distribution in specific formats. At your request, UMI will publish your abstract, but will withhold distribution of copies of your dissertation in any or all formats until you notify UMI otherwise.

If you desire to make use of this service, please complete the form below and return it with your UMI form to the Graduate School at the time you submit your dissertation.

Request to have University Microfilms International Publish the Dissertation Abstract while withholding distribution of the Dissertation

Original to be signed and attached to the UMI Form

I, _____, request that UMI publish the abstract in Dissertation Abstracts.
Name

Further, I request that UMI withhold distribution of my dissertation in

____ digital, ____ microform, ____ paper, ____ all formats until date _____ . I also understand that I may change the cut-off date of restriction at any time by notifying UMI in writing of my desire to make my dissertation available for distribution or to extend the restriction.

Signed _____

Date _____

Please make a copy for your records.

THIS IS IMPORTANT INFORMATION
READ CAREFULLY
THESE INSTRUCTIONS WILL HELP YOU GET DONE

READ ALL ATTACHMENTS that are sent back to you with a copy of your APPROVED M5/D7
The forms must be completed and returned to the Graduate School when you complete your degree.

Michigan Technological University Graduate School
Graduation, Commencement, and Certification

You must remain enrolled through the term in which you complete your degree.
Completing your degree means:

- Getting all forms appropriately completed and submitted
- Submitting your corrected thesis/report/dissertation according to instructions
- Having your course work grades complete

Michigan Tech graduates each term those who have their degree requirements **completed before the first day of the next term.**

TO BE CONSIDERED A FALL 2006 GRADUATE, YOU MUST COMPLETE ALL DEGREE REQUIREMENTS AND TURN IN ALL PAPERWORK BY
Monday, 15 January, 2007, 4:00 p.m.

TO BE CONSIDERED A SPRING 2007 GRADUATE, YOU MUST COMPLETE ALL DEGREE REQUIREMENTS AND TURN IN ALL PAPERWORK BY
Monday, 14 May 2007, 4:00 p.m.

MTU has 2 commencements. **In order to participate, you must have either completed your degree** (see note above) **or completed and submitted an "**Early Walk**" form**. You may participate in the commencement the semester BEFORE you finish your degree by completing this form. You can **defer** participation and listing to a future commencement if you let the Grad School know your plans by your regular deadline.

Information and reply forms for those who have already left campus are mailed in early October and early-March.

FALL TERM 2006 COMMENCEMENT is 16 December, 2006
You must have completed all degree requirements or submitted an Early Walk form (http://www.admin.mtu.edu/rgs/graduate/trackforms/EarlyWalk.pdf **)**
by 4:00 p.m., Friday, 3 November, 2006
to participate in Fall Term Commencement.

Your degree appears on your **transcript** about 3 weeks into the next term after you graduate; your **diploma** is usually mailed within 60-90 days after the end of the semester in which you graduate. In the meantime, I can do a **provisional certification letter,** at your request, when you're all done. Be sure to keep me informed of your commencement plans and your address.

Nancy Byers Sprague, Assistant to the Dean; nspr@mtu.edu or 487-2755

✔

Michigan Technological University
Graduate School & Sustainable Futures Institute

Degree Schedule - Graduate Certificate in Sustainability

Due in the Graduate School Office following completion of all required coursework.

Name _____ Student ID # _____ E-mail _____
as it should appear on certificate

Graduate Program (Major) _____ Semester MS/PhD expected _____

Indicate which of the following courses you have taken to complete requirements for the Certificate: 15 credits required. *(See requirements side 2 of this form)*

Policy and Societal Systems & Economics (requires minimum of one course)

Course Number & Name	Term	credits
BA 4790 Ecological Sustainability & Organizations		
EC4600/EC5600 Natural Resource and Environmental Economics		
EC4620/EC5620 Energy Economics		
SS5200 Environmental Decision-Making		
SS5300 Environmental Policy and Politics (PPOL750 transfer equivalent)		
SS5350 Environmental Policy Analysis (PPOL714 transfer equivalent)		
SS5400 Sociology of the Environment		

Industrial Systems (requires minimum of one course)

Course Number & Name	Term	credits
BA4630 (or BA5630) Operations Strategy		
CE5408 Public Transit		
CE5560 Air Quality/Built Environment		
CE5610 Engineering Systems Analysis		
CM4720 Design for the Environmental		
MEEM5653 Life-cycle Engineering		
MEEM5685 Environmentally Responsible Design & Mfg		

Sustainability (requires minimum of two courses)

Course Number & Name	Term	credits
ENG5510/SS5510 Sustainable Futures I (PPOL/EX 780 & transfer equivalent)		
ENG5520/SS5520 Sustainable Futures II (PPOL/EX 625 transfer equivalent)		
-or- CE5993 Field Engineering in the Developing World + 1 credit CE5994/GE5994/ED5994/FW5730		

Environmental Systems (requires minimum of one course)

Course Number & Name	Term	credits
BL3850 Environmental Toxicology & Society		
BL4860 Toxicology		
CE4504 Air Quality Engineering & Science		
CE4505 Surface Water Quality Engineering		
CE4506 Application of Environmental Regulations		
CE5405 Environmental Impacts of Transportation		
CE5501 Environmental Process Engineering		
CE5504 Surface Water Quality Modeling		
CE5505 Atmospheric Chemistry		
CE5506 Air Quality Modeling		
FW3540 Introduction to GIS for Natural Resource Management		
FW5550 Geographical Information Systems (PPOL786 transfer equivalent)		
SS5100 Global Environmental Systems		

Approval Signatures

Please print name after signature

Major Advisor		*Date*
SFI Director / Co-Director		*Date*
Assistant to the Dean of the Graduate School		*Date*

This certificate is only open to students with graduate standing. This Certificate formally recognizes curricular breadth in the following areas: i) policy, societal, and economic systems, ii) environmental systems, and iii) industrial systems.

The certificate requires a total of 15 credits. Students must obtain a grade of B or higher in each of the courses. Students must be enrolled in a graduate program. At least 9 of the total certificate credits must be at the 5000-level or higher. Students can only substitute a course if they have the prior approval of the Sustainable Futures Institute Director and Graduate School Dean. If a course is substituted, a memo signed by the Sustainable Futures Institute Director (or one of the Co-Directors) must be attached to this degree schedule explaining that the course content for the substituted course meets the requirement of the Certificate.

Michigan Technological University
Graduate School

Proposed Degree Schedule and Work Plan-Master of Engineering

For student planning purposes only – This form does not need to be turned in to the Graduate School.

Name _____ Student ID _____ E-mail_____

Area of study _____ Semester degree expected _____

List the courses to be applied to your degree in the order they appear on your transcript. Designate (*) those that have not been completed. List additional courses on the back of this form. If credit transfers are necessary, use the Transfer Credits form found on the GSO forms web page.

List of Courses

Course Title	Course Number	Semester Credits

Credit Summary

Graduate course work (5000-6000)_____ (12-credit minimum)
Upper-level undergrad (3000-4000) _____ (14-credit maximum)
Practicum (e.g., ENG5998) _____ (2-4 credits) Practicum Waived _____ Check Here
Total credits _____ **(30-credit minimum)**

Skip to Approval Signature if Practicum Waived

Proposed Committee Membership
(Proposed committee membership is not binding on either the student or the faculty member.)
Please print names.

1. _____
   Chair (Advisor)
2. _____

3. _____
   Outside member

Proposed Work Plan
With your advisor, develop a brief abstract of your proposed work plan. Outline the objectives of your program of study and practicum and your method for achieving them.

_____

_____

_____

_____

_____

_____

_____

_____

_____

Approval Signature

Please print name after signature

_____

Committee Chair/Advisor *Date*

GSO USE ONLY
Active _____
Diploma ___
Sequence ___
Standing_____
Repeats? ___
Patent_____
Time_____

MEng2$_1$

Michigan Technological University
Graduate School

Final Degree Schedule-Master of Engineering

Due in the Graduate School Office the semester before the degree will be completed.

.

Name _____ Student ID _____ E-mail_____
Name as it should appear on diploma

Area of study _____

List the courses to be applied to your degree in the order they appear on your transcript. Designate (*) those that have not been completed. List additional courses on the back of this form. If credit transfers are necessary, use the Transfer Credits form found on the GSO forms web page.

List of Courses

Course Title	Course Number	Semester Credits

Credit Summary

Graduate course work (5000-6000) _____ (12-credit minimum)
Upper-level undergrad (3000-4000) _____ (14-credit maximum)
Practicum (e.g., ENG5998) _____ (2-4 credits) Practicum Waived _____ Check Here
Total credits _____ **(30-credit minimum)**

Skip to Approval Signatures if Practicum Waived

Committee Membership
(The committee is responsible for grading the student's practicum.)
Please print names.

1. _____
   Chair (Advisor)
2. _____
3. _____
   Outside member

Title of Practicum _____

Abstract (Give a brief description of the practicum.)

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Date of Oral Presentation _____

Approval Signatures
Please print name after signature

_____
Committee Chair/Advisor *Date*

_____
Department Chair *Date*
MEng – Civil or Environmental only

_____
Associate Dean of Engineering *Date*
For students NOT Civil or Environmental

_____
Assistant to the Dean of the Graduate School *Date*

✔

MEng3

Michigan Technological University
Graduate School

Verification of Degree Requirements Completion— Master of Engineering

_____ successfully completed the practicum for the Master of
Student's name

Engineering degree on _____ .
Date

Title of Practicum: _____

The committee found the student's knowledge and understanding satisfactory and recommends that the student be granted the Master of Engineering in _____ .

Approval Signatures
Please print name after signature.

1. _____
   Committee Chair/Advisor
2. _____
3. _____
   Outside member

Comments and Conditions:

_____

_____

_____

- OR -

Practicum Waived: _____ check here

This is to certify that _____ has completed the course work required
Student's name

for the Master of Engineering Degree.

Please print name after signature

_____
Committee Chair/Advisor *Date*

_____
Department Chair *Date*
MEng – Civil or Environmental only

_____
Associate Dean of Engineering *Date*
For students NOT Civil or Environmental

_____
Assistant to the Dean of the Graduate School *Date*

✔

M2-GSO

Michigan Technological University
Graduate School

Recommended Advisor / Advisory Committee

Due in the Graduate School Office during second term

Semester/Year of entry into program_____

The following member of the Graduate Faculty is recommended to serve as the Advisor

for_____, _____ , a Master's student in the
Student's name *Student ID number*

Degree Program of _____ .

(Please print names)

Advisor* Co-Advisor*

_____ _____

The Department may recommend other members of the advisory committee at this time, but appointment of the full committee is not required until the M5 is filed: **

_____

_____

_____ *External* _____
Dept. or Affiliation

Approval Signatures
Please print name next to signature

_____
Department Chair/ Non-Departmental Program Chair or Graduate Coordinator *Date*

_____
Assistant to the Dean of the Graduate School *Date*

* The primary advisor, or a co-advisor who serves as chair of the committee, must be from the student's administrative home department. Students may opt to have a co-advisor even if one is not required.

** The committee will consist of at least three members of the graduate faculty. At least one of these will be from outside the student's administrative home department.

Michigan Technological University
Graduate School

Preliminary Course Plan — Master of Science

For student planning purposes only – This form does not need to be turned in to the Graduate School.

Name _____ Student ID _____ E-mail _____

Degree Program _____ Semester degree expected _____ **(See Final term options on reverse)**

List all courses and research credits in which you plan to enroll. Plan your enrollment carefully. It is less expensive to pay for an extra credit or two during an early term than to pay for an extra semester because you are a credit short. Full-time status requires 9 credits in academic year semesters and 1 credit in the Summer. Student must be continuously enrolled (except Summers) until completion of a degree.

Course Title	Course Number	Credits	Counts toward Degree (check)
1st semester (circle one and add year) Fall Spring Summer _____			
2nd semester (circle one and add year) Fall Spring Summer _____			
3rd semester (circle one and add year) Fall Spring Summer _____			
4th semester (circle one and add year) Fall Spring Summer _____			
5th semester (circle one and add year) Fall Spring Summer _____			
6th semester (circle one and add year) Fall Spring Summer _____			

If credit transfers are to be counted toward your degree, list them below and process the Transfer Credits form as soon as possible.

Title	Number	Credits	Counts toward Degree (check)

PLANNING YOUR THESIS/REPORT/COURSEWORK DEFENSE

Work closely and early with your advisor to plan for your final semester. Taking three credits in a Summer, or an extra credit during an academic semester may mean you won't need to enroll for an "extra" semester and "extra" credits to finish up.

Work closely and early with your advisor and committee to schedule your defense. If, for example, *you* plan to defend the last week of summer semester but then find out that your advisor has a research trip planned and won't be back until Fall classes start, you will have to enroll for Fall semester. Exceptions will be granted only in the case of an advisor's ***unplanned*** absence that prevents a ***scheduled*** defense from occurring.

Your graduation semester is the semester in which you have completed ALL requirements, including paperwork. You must have all materials (thesis, report, paperwork, etc.) turned in to the Graduate School BEFORE 4:00 p.m. of the first day of classes of the following semester or you will be required to enroll for the semester that has begun. For example, if you defend Fall semester and do not get materials in before 4:00 p.m. the first day of Spring semester classes, you will be required to enroll for Spring semester and you will be a Spring graduate. The ONLY exception to this is in the case of the *unplanned* absence of your advisor which delays a defense or approval of thesis/report revisions. One credit of UN5953 may, in some circumstances, satisfy this requirement.

Semester degree is expected _____ (M4 should be turned in the semester before this)

Credit Summary (Courses from Side One of this form that will be used toward the degree)

	Semester Credits (MTU)	**Semester Credits (transfer)**
Grad-level course work	_____	_____
Upper-level undergrad	_____	_____
Practicum	_____	_____
Report Research	_____	_____
Thesis Research	_____	_____
Subtotal	_____	_____

Total credits (30 minimum) _____ (MTU + transfer)

Please indicate which MS you are taking: Plan ☐ A (thesis) ☐ B (report) ☐ C (coursework) ☐ D (coursework, no exam)

Degree Requirements (semester credits)	**Master of Science, Master of Forestry**			**Master of Engineering**	**Master of Business Admin**
	Plan A Course Work and Thesis	**Plan B Course Work and Report**	**Plan C & D Course Work**		**Plan D Course Work**
Min. grad credits (5000 level)	12	12	18	12	36
Max. undergrad credits (3000-4000 level)	12	12	12	14	0
Min. course work credits (total)	**20**	**24**	**30**	**26**	**36**
Practicum credits (MEng)	-	-	-	2-4	-
Research credits*	6-10	2-6	-	-	-
Minimum total credits	**30**	**30**	**30**	**30**	**36**

Approval Signature:

_____

Major Advisor *Date*

GSO USE ONLY
Active _____
Diploma ____
Sequence ____
Standing _____
Repeats? ____
Patent_____
Time_____

✔

Michigan Technological University
Graduate School

Degree Schedule — Master of Science

Due in the Graduate School Office in the term prior to defense term

Name _____ Student ID _____ E-mail _____
as it should appear on diploma

Degree Program_____ Semester degree expected _____

BS_____ MichiganTech Advisor _____
Year *University*

List the courses to be applied to your degree in the order they appear on your transcript. Designate (*) those that have not been completed. List additional courses on the back of this form. If credit transfers are necessary, use the Transfer Credits form found on the GSO forms web page.

List of Courses (Do not include research credits)

Course Title	Course Number	Semester Credits

Credit Summary (rules on page 2)
Plan: ☐ A: Thesis ☐ B: Report ☐ C: Course Work with exam ☐ D: Course Work–no exam

	Semester Cr.	School Year	Indicate all terms* when you were enrolled
Grad-level course work (5000-6000)	_____	19___-___ :	F W S Su
Upper-level undergrad (3000-4000)	_____	20___-___ :	F S Su
Report Research	_____	20___-___ :	F S Su
Thesis Research	_____	20___-___ :	F S Su
Other University	_____	20___-___ :	F S Su
Total credits (30 minimum)	_____	20___-___ :	F S Su

GSO USE ONLY
Course:_____

	(Cr/Gr)		
F	W	Sp	Su
__	__	__	__
__		__	__
__		__	__
__		__	__
__		__	__

"Final Term" status:
Barring unforeseen circumstances, all degree requirements will be completed _____ . _____
Term/Year *Advisor Initials* **

Approval Signatures: Please print name after signature.

_____
Committee Chair/Advisor *Date*

_____
Department Chair/ Non-Departmental Program Chair or Graduate Coordinator *Date*

_____
Assistant to the Dean of the Graduate School *Date*

* Student must be continuously enrolled (except Summers) until completion of a degree.
If next term is ***not* the student's final term, please note final term.

Master's Degree Requirements - semester credits

	Master of Science, Master of Forestry				Master of Engineering	Master of Business Admin
	Plan A Course Work and Thesis	**Plan B Course Work and Report**	**Plan C & D Course Work Including DL**	**DL Global Thesis (ME)**		**Plan D Course Work**
Min. grad credits (5000 level)	12	12	18	12	12	36
Max. undergrad credits (3000-4000 level)	12	12	12	3	14	0
Min. course work credits (total)	**20**	**24**	**30**	**15**	**26**	**36**
Practicum credits (MEng)	-	-	-	-	2-4	-
Research credits*	6-10	2-6	-	16	-	-
Minimum total credits	**30**	**30**	**30**	**31**	**30**	**36**

YOU MUST REMAIN ENROLLED UNTIL THE END OF THE TERM IN WHICH YOU COMPLETE ALL DEGREE REQUIREMENTS.

Michigan Technological University
Graduate School

Scheduling of Final Oral Examination

Due in the Graduate School Office two weeks prior to event

Master's Degree Options *(check one)*

☐ Plan A: Thesis
☐ Plan B: Report
☐ Plan C: Course Work

Plan D students do not file the M5.

Semester/Year of entry into program_____

The following are recommended to serve as a committee* examining _____
(Student's name)

concerning the oral examination required of candidates for the Master's degree in

_____ .

Please print or type names.

1. _____
   Committee Chair / Advisor
2. _____
3. _____ (optional)
4. _____ , _____ Department

The examination is scheduled as follows: **Date** _____

Time _____

Place _____

Please send an electronic copy of the abstract of your thesis/report (MSWord please) as an attachment or in the body of an e-mail to nspr@mtu.edu.

Thesis/Report Title

_____

_____

_____

Approval Signatures

Please print name after signature

_____
Committee Chair/Advisor *Date*

_____
Department/Non-Departmental Program Chair or Graduate Coordinator *Date*

_____
Assistant to the Dean of the Graduate School *Date*

* The committee will consist of at least three members of the graduate faculty. At least one of these will be from outside the student's administrative home department. This form should be completed and approved by the advisor and the department chair/ non-departmental program chair or graduate coordinator prior to forwarding it to the Graduate School.

Michigan Technological University
Graduate School

Report on Oral Examination

Due in the Graduate School within two weeks of the oral defense

Master of Science Options *(check one)*

☐ Plan A: Thesis
☐ Plan B: Report
☐ Plan C: Course Work

The oral examination of _____, in partial fulfillment of the requirements
Student Name
for the degree Master of _____. in _____

was held on _____ at _____ .
Date *Time*

Thesis/Report Title _____

_____

_____

Examination Results (check one box):

☐ **Award:** The examining committee found the student's knowledge and understanding satisfactory and recommends that the degree be awarded*

☐ **Provisional:** Examination was satisfactory; required corrections and/or revisions to the thesis/report (or other uncompleted requirements for the degree) are expected to take longer than two weeks. ***Explain below in "Comments/Conditions" and submit a second copy of the M6 when conditions noted are met. The signature of the advisor is sufficient on the second copy.***

☐ **Failure (more than one signature in "Dissent" column):** The examining committee found the student's knowledge and understanding unsatisfactory. Recommendation detailed in "Comments/Conditions" below.

Signatures (Please print or type names beside signatures.):

Approve	Dissent (addressed on reverse page)
_____	_____
Committee Chair/Advisor	
_____	_____
_____	_____
_____	_____
Outside member	

Comments/Conditions: ***(If the student is given written conditions/requirements, a copy should also be attached.)*** _____

_____

_____
Department Chair/ Non-Departmental Program Chair or Graduate Coordinator *Date*

_____
Assistant to the Dean of the Graduate School *Date*

* The degree will not be awarded until it has been verified by the Graduate School that the student has fulfilled all degree requirements and that all required paperwork has been submitted.

Addressing Dissent

To be completed only if there is a dissenter's signature on side one. This part must be signed by the committee chair **after revision** of the thesis/report.

The candidate addressed comments of the dissenting committee member and the final thesis/report copy is accepted without further revision or correction.*

Approval Signatures

_____		
Committee Chair/Advisor		*Date*
_____		
Department Chair/ Non-Departmental Program Chair or Graduate Coordinator		*Date*

* A thesis/report is acceptable when no more than one member of the examination committee dissents. The degree candidate must address the dissenting comments for approval by the chair of their committee and the assistant to the dean of the Graduate School.

Michigan Technological University
Graduate School

Verification of Degree Requirements Completion

Master of Science / Master of Business Administration

Due in the Graduate School Office by the end of Final Examination Week

☐ Plan D: Course Work – No Exam

This is to verify that _____ has completed

Student Name

the course work required for the degree Master of _____ in _____ as initially reported on the student's M4.

Semester / date of completion* _____

_____

Advisor *Date*

_____

Department Chair/ Non-Departmental Program Chair or Graduate Coordinator *Date*

_____

Assistant to the Dean of the Graduate School *Date*

* The degree will not be awarded until it has been verified by the Graduate School that the student has fulfilled all degree requirements and that all required paperwork has been submitted.

✔

M7/D9

Michigan Technological University
Graduate School

Electronic Thesis and Dissertation Approval Form

To be signed and submitted with the completed and signed D8 or M6;

Submit this form ONLY if you have prepared your thesis/dissertation to be available as an electronic document via the web. ETDs must comply with formatting guidelines to facilitate navigation, including bookmarks and/or internal links. Information about MichiganTech's ETD project can be found at http://www.admin.mtu.edu/rgs/graduate/trackforms/ETDIntructions.pdf

Student Name: _____

ID#: _____ Degree Program: _____

Degree: __ Master's __ PhD

Document Type: __ Report __ Thesis __ Dissertation

Document Title:

_____

_____

_____

STUDENT AGREEMENT

I hereby certify that, if appropriate, I have obtained and attached hereto a written permission statement from the owner(s) of each third-party copyrighted matter to be included in my thesis, dissertation, or project report, allowing archiving and accessibility as specified below.

I hereby grant to Michigan Technological University and its agents the non-exclusive license to archive and make accessible my thesis, dissertation, or project report in whole or in part in all forms of media, now or hereafter known. I retain all other ownership rights to the copyright of the thesis, dissertation, or project report, except to the extent that it contains proprietary information related to inventions or computer software as provided by MTU Operating Procedures Manual Sec. 11.1.

My advisory committee and I agree that the above mentioned document be placed in the ETD archive.

_____ _____ Date _____

Student Signature *Printed name*

_____ _____ Date _____

Chair/Advisor Signature *Printed name*

_____ Date _____

Assistant to the Dean of the Graduate School Signature

D1

☑

Michigan Technological University
Graduate School

Acceptance into the Doctoral Program from a Michigan Tech Master's Program

To be submitted only by Michigan Tech master's students applying to a doctoral program when the department is willing to accept a D1 in lieu of a regular application. In these cases, a regular application is not needed by the Graduate School Office.

Due in the Graduate School Office before the end of the first week of the first term as a doctoral student

Name _____ Student ID# _____ E-mail _____

has been accepted for admission to the doctoral program in _____
Degree Program

Please check all that apply:

☐ Change the student's status to "doctoral" as of _____
term/year

☐ Change the student's status upon completion of their current master's degree on _____
term/year

☐ This student will not be completing their current master's degree.

Approval Signatures
Please print name next to signature

_____
Department Chair/ Non-Departmental Program Chair or Graduate Coordinator *Date*

_____
Assistant to the Dean of the Graduate School *Date*

✔

D2

Michigan Technological University
Graduate School

Recommended Advisor

Due in the Graduate School Office during second term

Semester of entry into program _____

The following member of the Graduate Faculty is recommended to serve as the Advisor for

_____, _____ , a doctoral student in the
Student's name *Student ID number*

Graduate Degree Program of _____ .

_____
Advisor* **Please print name**

_____
Co-Advisor** Please print name

Approval Signatures
Please print name next to signature

_____
Department Chair/ Non-Departmental Program Chair or Graduate Coordinator *Date*

_____
Assistant to the Dean of the Graduate School *Date*

*The advisor must be a member of the Graduate Faculty. If s/he is an ad hoc member of the graduate faculty, the student needs to have a co-advisor who is a regular member of the graduate faculty as well.

**Students may opt to have a co-advisor even if one is not required. The co-advisor may be in the student's home department or in another department, school, or college.

✔

Michigan Technological University
Graduate School

Preliminary Program of Study-PhD

For student planning purposes only – This form does not need to be turned in to the Graduate School

Name _____ Student ID number _____ E-mail_____

Degree Program _____ Semester of entry into the program _____

List all non-research courses taken since completing the BS and any future courses your committee requires for the doctoral program. Also list any graduate courses taken under MichiganTech's Senior Rule. Indicate those included on your MTU master's degree schedule with an M.

To receive credit for non-MichiganTech courses, complete the Transfer Credits form available on the GSO forms website.

Preliminary List of Courses

Special Case*	MS Schedule	Title	Number	Semester Credits	University	Year

*Indicate special circumstances: Senior Rule (SR), Transfer (T); Post-Degree, that is, taken after completion of last degree but prior to entry into doctoral program (PD)

Tally **ALL CREDITS Beyond Bachelors/Masters TO BE COUNTED TOWARD PHD THAT YOU:**

1. PLAN TO TAKE AT MTU OR

2. THAT YOU HAVE TAKEN AT MTU OR

3. THAT YOU HAVE TRANSFERRED OR PLAN TO TRANSFER TO MTU

Michigan Tech:

3000/4000 Series..... _____

5000 Series..... _____

6000 Series..... _____

MS/MEng Research (e.g., MY5990).... _____

PhD Research (e.g., MY6990)..... _____

Subtotal – coursework & research... _____

Transfer from another University ..... _____ Paperwork has been completed Yes No

TOTAL*..... _____ *Check one*

Research Topic _____

Date of advisory committee's planning meeting _____

Notes/recommendations _____

_____

_____

_____

Approval Signatures

Advisor _____ Date_____

Note: Student must be **continuously enrolled** (except Summers) until completion of a degree.

***Required**: As of Fall 2000, a minimum of 30 semester credits beyond the master's degree or 60 semester credits past the bachelor's degree are required.

D4

Michigan Technological University

Report on the Comprehensive Examination

Comprehensive exams must be completed and recorded in Banner within 5 years of starting the program and at least two terms prior to the dissertation defense. This form is for use by departments for internal record-keeping and verification of exam results and should **not** *be sent to the Graduate School*

Semester of entry into program _____

Semester degree expected _____

This certifies that _____ of _____
Doctoral student *Degree program*

Student ID _____

☐ has ☐ has not* satisfactorily completed the Department's Comprehensive Examination:

_____ (and _____).
Date(s) of written exam *Date of oral exam (indicate 'n/a' if not applicable in dept.)*

Approval Signatures
Please print name next to signature

_____
Committee Chair/Advisor
_____

_____

_____

_____
Department or Non-Departmental Program Chair *Date*

*Result of failure will be: (explain) _____
_____
_____
_____

Michigan Technological University

Report on the Comprehensive Examination

Comprehensive exams must be completed and recorded in Banner within 5 years of starting the program and at least two terms prior to the dissertation defense. This form is for use by departments for internal record-keeping and verification of exam results and should **not** *be sent to the Graduate School*

Semester of entry into program_____

Semester degree expected_____

This certifies that_____ of _____
Doctoral student *Degree program*

Student ID _____

☐has ☐has not***** satisfactorily completed the Department's Comprehensive Examination:

_____ and_____.
Date(s) of written physics exam(s) *Date of Engineering Qualifying Exam*

Approval Signatures
Please print name next to signature

Physics Qualifying Examination Committee	**Engineering Qualifying Exam Committee**
_____	_____
Committee Chair/Advisor	*Engineering faculty member of advisory committee*
_____	_____
_____	_____
_____	_____

_____
Department Chair *Date*

*****Result of failure will be: (explain)

_____

_____

_____

_____

D4-A

Michigan Technological University
Graduate School

Recommended Advisory Committee

Due in the Graduate School Office after Comprehensive Exams completed or when Committee selected

Semester of entry into program _____

The following members of the Graduate Faculty are recommended to serve as the Advisory Committee* for

_____, _____ , a doctoral student in the
Student's name *Student ID number*

Graduate Degree Program of _____ .

Please print names

1._____

2._____

3._____

(4._____) External _____
Dept or Affiliation

5._____ (optional)

Approval Signatures
Please print name next to signature

_____
Department Chair/ Non-Departmental Program Chair or Graduate Coordinator *Date*

_____
Assistant to the Dean of the Graduate School *Date*

*The external examiner must be a member of the Graduate Faculty; at least three others must also be members of the Graduate Faculty.

GSO USE ONLY
Active _____
Diploma ___
Sequence ___
Standing_____
Repeats? ___
Patent_____
Time_____

D5$_1$

Michigan Technological University
Graduate School

Degree Schedule — PhD

Due in the Graduate School Office prior to the semester of the final oral examination

Name _____ Student ID _____ E-mail _____
Name as it should appear on diploma

Degree Program _____ Semester degree expected _____

Year and institution of

BS _____

Master's _____

Michigan Tech Advisor _____

This form should be submitted after **most** required course work and the comprehensive examination have been completed. Any changes must be approved by your advisor. Please list courses in the order they appear on your transcript. Do **NOT** list any courses you have used towards another degree at MichiganTech (e.g. Master's) If credit transfers are necessary, complete the Transfer Credits form available on the GSO forms website

List of Courses To Be Counted Toward PHD Degree
(Do not include research courses.)

Title	Course Number	Semester Credits

TOTAL CREDITS BEYOND previous degree that you (1) plan to take at MichiganTech, or (2) have taken at MichiganTech, or (3) have transferred to MichiganTech from another institution, to be used toward your PhD. For example, **do not** list courses that were on your M4 if you also got a master's degree at Tech.

Total Credit Summary

3000 & 4000 Series	_____
5000 Series	_____
6000 Series	_____
Master's Research(e.g.MY5990)	_____
PhD Research (e.g. MY6990)	_____
Subtotal	0
Other University	_____
Total**	0

Indicate **all** Terms/Semesters when you were enrolled *

School Year		Terms			
19___-___	:	F	W	S	Su
20___-___	:	F		S	Su
20___-___	:	F		S	Su
20___-___	:	F		S	Su
20___-___	:	F		S	Su
20___-___	:	F		S	Su
20___-___	:	F		S	Su
20___-___	:	F		S	Su
20___-___	:	F		S	Su

GSO USE ONLY
Course: _____

(Cr/Gr)			
F	W	Sp	Su
__	__	__	__
__		__	__
__		__	__
__		__	__
__		__	__
__		__	__
__		__	__
__		__	__
__		__	__
__		__	__

Research Topic _____

Comment _____

_____

_____

_____

Approval Signature

_____ _____ _____
Committee Chair/Advisor *Date*

"Final Term" status:
Barring unforeseen circumstances, all degree requirements will be completed _____ . _____
Term/Year *Advisor Initials*

_____ _____ _____
Department Chair/ Non-Departmental Program Chair or Graduate Coordinator *Date*

_____
Assistant to the Dean of the Graduate School *Date*

* Student must be continuously enrolled (except summers) until completion of a degree.

**Required: As of fall 2000, a minimum of 30 semester credits beyond the master's degree or 60 semester credits past the bachelor's degree are required.

Michigan Technological University
Graduate School
PhD Students, D5 Attachment

Between D5 and Defense:

Visit the UMI website on dissertation preparation (http://www.umi.com/umi/dissertations/authors.shtml) and read through it carefully so you know what can and cannot be easily included in your dissertation, paying special attention to sections on permission to use others' figures, charts, data, etc.

If you are considering submitting an electronic dissertation (ETD) read our instructions carefully **before** you begin typing your dissertation:
http://www.admin.mtu.edu/rgs/graduate/trackforms/ETDInstructions.pdf

DATELINE – fill out in pencil, probably several times!

_____Choose your **desired defense date.** (Be prepared: It often can't happen then because Professor X is going to be out-of-town, or you haven't given Professor Y a good enough draft of the dissertation 4 weeks before, or..)

_____What date is **2 weeks before the defense date?** That's when your **D7 is due** in the Graduate School Office. This is also when any new member(s) of your defense committee should get a good copy of your dissertation.

_____What date is **2 weeks before that D7 due date?** That is the time to tell your committee your hoped-for defense date so you get on their calendars. This is also when your committee should get a well worked draft of your dissertation.

_____Now go back **another 2 weeks.** Ideally THIS is when the committee should get your draft so they have 2 weeks to read and correct, you have the next 2 weeks to re-work, and at D7 time they'll KNOW it's definitely ready to defend.

If you and your advisor follow this time line, you should have minimal post-defense editing to do. Remember that your committee is made up of faculty members who have great expertise to share, but who are busy, both here and off-campus. They need time to be able to give you their best help and to plan for that defense date. Help them help you.

Degree requirements include defending, correcting, submitting the dissertation for binding and microfilming, and a few other steps and forms that you get when you defend. You must **remain enrolled** through the term in which you complete ALL the degree requirements.

Now, back to the research, get that information together, and start writing! See you in 2 years!

Nancy, Graduate School Office

Graduation Date is the last day of the semester in which you finish – for paperwork and grade change purposes you have until the first day of the next semester. A little confusing, but generous.

Commencement Info is emailed about 8 weeks before the ceremony (approximately mid-October or mid-March) according to your graduation term as entered in Banner. *Keep me informed if you change your expected graduation date* (7-2755 or nspr@mtu.edu)

Interactive

D6

Michigan Technological University
Graduate School

Approval of Dissertation Proposal

Semester/year of entry into program _____

Name _____ _____
Doctoral student *Student ID*

Degree Program _____

This certifies that a proposal for research on the topic

_____

_____

_____

_____,

presented by the above student, has been examined and approved by the Advisory Committee (as named on the D4-A) as appropriate for a PhD dissertation.

Approval Signatures
Please print name next to signature

_____

_____

_____

(_____)

_____
Department Chair/ Non Departmental Program Chair or Graduate Coordinator *Date*

Response from the GSO is a copy of "received" stamped form.

Michigan Technological University
Graduate School

Scheduling of Final Oral Examination

Due in the Graduate School Office two weeks prior to the event

Date _____

The following are recommended to serve as a committee* examining _____
(Student's name)

concerning his/her field of research with special reference to his/her doctoral examination in the

Degree Program of _____ :

1. _____
Committee Chair / Advisor
2. _____
3. _____
4. _____ , _____ Department
(5._____)

The examination is scheduled as follows:

Date _____

Time _____

Place _____

Please send an electronic copy of the abstract of your dissertation MSWord please) as an attachment or in the body of an e-mail to nspr@mtu.edu.

Title of Dissertation

_____

_____

_____

Approval Signatures - Please print name next to signature

_____
Major Advisor *Date*

_____
Department Chair/ Non-Dept Program Chair *Date*

_____
Assistant to the Dean of the Graduate School *Date*

* minimum of four members, all graduate faculty with at least one from a cognate department or program or from outside MichiganTech

Michigan Technological University
Graduate School

Report on Final Oral Examination

*Due in the Graduate School within **two weeks** of the oral defense*

Semester of entry into program _____ Date _____

The oral examination of _____,
Student Name

in partial fulfillment of the requirements for the degree Doctor of Philosophy

in the field of _____, was held on

_____ at _____ .
Date *Time*

Title of Dissertation _____

_____

_____

Examination Results (check one box):

☐ **Award:** The examining committee found the student's knowledge and understanding of his/her research and profession satisfactory and recommends that degree be awarded.*

☐ **Provisional:** Examination was satisfactory; required corrections and/or revisions to the dissertation (or other uncompleted requirements for the degree) are expected to take longer than two weeks. ***Explain below in "Comments/Conditions" and submit a second copy of the D8 when conditions noted are met. The signature of the advisor is sufficient on the second copy.***

☐ **Failure (more than one signature in "Dissent" column):** The examining committee found the student's knowledge and understanding of his/her research and profession unsatisfactory. Recommendation detailed in "Comments/Conditions" below.

Signatures (Please print or type names beside signatures.)

Approve	Dissent (addressed on reverse page)
_____	_____
Committee Chair/Advisor	
_____	_____
_____	_____
_____	_____
_____	_____
Outside Member	

Comments/Conditions: ***(If the student is given written conditions/requirements, a copy should also be attached.)*** _____

_____

_____

Department Chair/ Non-Departmental Program Chair or Graduate Coordinator *Date*

_____

Assistant to the Dean of the Graduate School *Date*

* The degree will not be awarded until it has been verified by the Graduate School that the student has fulfilled all degree requirements and that all required paperwork has been submitted.

Addressing Dissent
To be completed only if there is a dissenter's signature on side one. This part must be signed by the committee chair **after revision** of the dissertation.

The candidate addressed comments of the dissenting committee member and the final dissertation copy is accepted without further revision or correction.*

_____

Chair of Examining Committee/Advisor *Date*

_____

Department Chair/ Non-Departmental Program Chair or Graduate Coordinator *Date*

_____

Assistant to the Dean of the Graduate School *Date*

*A dissertation is acceptable when no more than one member of the examination committee dissents and the degree candidate addresses the dissenting comments for approval by the committee chair and the Graduate School.