University of Idaho

GRADUATE STUDENT HANDBOOK

TECHNOLOGY MANAGEMENT

College of Engineering

June 2012

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PREFACE

This handbook describes the policies and procedures of the Technology Management Program at The University of Idaho and supplements the information in the current University of Idaho General Catalog. It includes discussions of academic and examination requirements for both thesis and non-thesis programs. The MS program requirements are, at a minimum, consistent with those of the College of Graduate Studies. A summary of the University of Idaho requirements for graduate degrees can be found at the Registrar's Office under the catalog link. Information in this handbook is offered as a guide for advising and is subject to change without notice. The General Catalog and university policies and regulations supercede materials in this handbook.

Technology Management Faculty
June 2012

1.0 Introduction

1.1 Purpose of Handbook

This handbook describes the policies, rules, and procedures of the Technology Management Program of The University of Idaho. The College of Graduate Studies website provides the rules and policies governing graduate programs and offers a multitude of resources designed to encourage a successful graduate experience.

Any waivers or revisions concerning the policies and requirements set forth in this handbook must be approved by the Technology Management program and in some cases the College of Graduate Studies. However, it should be stressed that the TM graduate program is flexible and can be adapted to the student's needs when appropriate.

If you have questions concerning the policies and procedures outlined in this handbook please contact one of the people listed below.

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Graduate Faculty
Technology Management
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208-282-7713

Denise Engebrecht
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Graduate Admissions:
www.uidaho.edu/graduateadmissions

College of Graduate Studies:
www.uidaho.edu/cogs

Technology Management:
www.uidaho.edu/engr/technologymanagement

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1.2 Educational Philosophy of the Technology Management Program

A graduate degree is more than additional course work. Adjusting from undergraduate to graduate work involves a transition in the way you approach your studies. Graduate education is a transition period from being a student to that of an advanced professional. It is a time for the graduate student to grow intellectually and personally, create new knowledge, learn to work independently, and gain experience in performing applied research and development. Graduate studies provide the opportunity to broaden the individual's knowledge base, to obtain a depth of understanding in a chosen field and to prepare oneself for an increasingly competitive job market. The faculty value your success and are available to assist in your growth and development as technology manager and as a professional person.

The faculty at the University of Idaho believe an interdisciplinary approach to graduate education and the collaboration that it brings sets a good example for the real world in which our graduates work and grow.

1.3 Graduate Student Code of Research and Scholarly Conduct

The University of Idaho expects students will engage in academic activity with high standards of honesty and integrity. The academic enterprise is dependent upon such behavior. These values are central to the educational process and are also cornerstone values for citizenship and professional conduct after you leave the University. Graduate students are responsible for learning about appropriate standards for ethical research and scholarly conduct and for following all university policies related to ethical research and scholarly conduct.

The University of Idaho has specific academic honesty expectations described in the Student Code of Conduct. These are minimum standards that are generally applied across the University. However, professors may more specifically define standards for their courses through information described in the course syllabus or other documents. You must learn the expectations of each instructor since learning environments do vary both in content and teaching style. Sometimes the issues of academic integrity are obvious but other times you may struggle with issues that appear to be less clear. Talk with your instructor if you have a concern about what is expected of you.

2.0 GRADUATE STUDIES ADMISSION POLICY

Admission to the College of Graduate Studies (CoGS) is open to any student who holds a baccalaureate degree and who presents a scholastic record indicating probable success in graduate work. The General Catalog lists the University's GPA admission requirements.

3.0 ADMISSION TO THE TECHNOLOGY MANAGEMENT GRADUATE PROGRAM

3.1 Admission

Admission to the Technology Management masters degree is open to any student who is admissible to the College of Graduate Studies and who has a bachelor's degree in a technical field or a bachelor's degree and 3 years experience in a technology related work environment.

The Technology Management degree offers both a thesis and non-thesis option. Each is listed as M.S. Students do not need to specify thesis or non-thesis during the application process. After admission, students work with the Major Professor to determine which is the best fit for the students' goals.

3.2 International Student Admissions

The Technology Management degree is available worldwide. Much of the core coursework and some of the electives are delivered by distance education methods (i.e. web based) only. Due to the delivery methods of the courses, it is difficult or not possible for International Students to meet the enrollment requirements of a student visa. International Students may be admitted to the degree program if they will be completing the coursework from their home country and not seek a student visa to the U.S.

3.3 Graduate Record Examination and GPA

The Graduate Record Examination (GRE) is not required of students who have earned a U.S. bachelor's degree from an accredited institution recognized by the College of Graduate Studies. The grade point average (GPA) requirements for the degree are the same as for admission to the University.

3.4 Proof of English Competency (TOEFL)

For Graduate Admission purposes, all students must meet Academic and Language Requirements. A waiver for this requirement is automatically granted to applicants whose education is from countries where English is the official/native language. The most common and widely accepted test is the TOEFL (Test of English as a Foreign Language).

The TOEFL iBT test measures your ability to use and understand English at the university level. And it evaluates how well you combine your listening, reading, speaking and writing skills to perform academic tasks. For more info about test content please visit www.ets.org/toefl.

The institution code for the TOEFL is 4843.

Minimum Required Test Scores
Internet Based: 83
Paper Based: 560

*All tests must have been taken within 2 years of the semester you are applying.

4.0 M.S. DEGREE REQUIREMENTS & PROCEDURES (NON-THESIS)

Thirty-one credits are required for the M.S. (non-thesis) degree in Technology Management

- At least 18 credits must be at the 500 level.
- No credits may be at the 300 level or lower.
- No classes required for the undergraduate degree can be used as part of the graduate program.

The combined total of transfer credits, correspondence credits, non-matriculated credits, and approved credits more than eight years old at the time the degree is awarded shall not exceed 12 credits for master's programs. It is advisable for students to apply for admission prior to, or early in, their coursework.

Credits earned at an institution that does not grant graduate degrees cannot be transferred to University of Idaho for graduate credit. For questions about the transferability of a course, contact the TM Program Lead, Program Coordinator or COGs.

All other credits submitted to meet the requirements for a Master's degree must have been earned within the eight consecutive years that immediately precede the academic session in which the degree is completed.

4.1 Program

Students interested in the program should contact the Program Lead or an Advisor well in advance of the first registration for a tentative evaluation of educational preparation. Deficiencies in undergraduate course preparation for the graduate program will be identified.

4.2 Nomination of Major Professor

The student, Program Lead, and potential Major Professor should discuss and formalize the nomination of the Major Professor **before the student has completed three classes**. The nominated Major Professor, in conjunction with the student must submit the Appointment of Major Professor and/or Committee Form to the College of Graduate Studies.

4.3 Committee

A supervisory committee is not required for the M.S. non-thesis degree.

4.4 Study Plan

Your Study Plan should be prepared **by the time three classes are completed**. The Major Professor, Program Lead and Graduate Dean approve the study plan submitted by the student through the university's VandalWeb. The Major Professor must be listed on VandalWeb, before the plan can be approved. Students are encouraged to create a draft prior to this.

4.5 Capstone Requirement

Students should meet with their Major Professor to discuss options for the capstone. A comprehensive exam, paper submitted for publication, and other scholarly activities may be considered for this requirement. After the capstone is completed, the Non-Thesis Requirement Report must be completed by the Major Professor and submitted to the College of Graduate Studies.

4.6 Application for Advanced Degree

The Application for Advanced Degree is completed on-line through VandalWeb before the end of the semester prior to the semester in which the student intends to graduate.

4.7 Information

Further information on university and general regulations may be obtained from the University of Idaho College Of Graduate Studies and the Office of the Registrar.

5.0 M.S. DEGREE REQUIREMENTS & PROCEDURES (THESIS)

Thirty credits are required for the M.S. (thesis) degree in Technology Management.

- At least 18 credits must be at the 500 level.
- No credits may be at the 300 level or lower.
- No classes required for the undergraduate degree can be used as part of the graduate program.

The combined total of transfer credits, correspondence credits, non-matriculated credits, and approved credits more than eight years old at the time the degree is awarded shall not exceed 12 credits for master's programs. It is advisable for students to apply for admission prior to, or early in, their coursework.

Credits earned at an institution that does not grant graduate degrees cannot be transferred to University of Idaho for graduate credit. For questions about the transferability of a course, contact the TM Program Lead, Program Coordinator or COGs.

All other credits submitted to meet the requirements for a Master's degree must have been earned within the eight consecutive years that immediately precede the academic session in which the degree is completed.

5.1 Program

Students interested in the program should contact the Program Lead or an Advisor well in advance of the first registration for a tentative evaluation of educational preparation. Deficiencies in undergraduate course preparation for the graduate program will be identified.

5.2 Nomination of Major Professor

The student, Program Lead, and potential Major Professor should discuss and formalize the nomination of the Major Professor **before the student has completed three classes**. The nominated Major Professor in conjunction with the student must submit the Appointment of Major Professor and/or Committee Form to the College of Graduate Studies.

5.3 Committee

The Committee will be discussed by the student and the Major Professor in consultation with the Program Lead. Your committee must include:

- ✓ Major Professor (Chair)
- ✓ One member from the Technology Management Program (Inside Member)
- ✓ One member from another department (Outside Member)

The Chair must be UI Graduate Faculty, the Inside Member may be UI Faculty or an eligible Adjunct Faculty member. Additional members may be appointed if desired. An Outside Member from another institution may be approved if graduate faculty at that institution if the department determines that he or she is appropriate for the student's committee. At least fifty percent (50%) of the committee members must be members of the graduate faculty.

5.4 Study Plan

Your Study Plan should be prepared **by the time three classes are completed**. The major professor, program lead and graduate Dean approve the study plan submitted by the student through VandalWeb. The major professor must be listed on VandalWeb, before the plan can be approved. Students are encouraged to create a draft prior to this. Faculty members on the committee are expected to have input on the study plan development.

5.5 Application for Advanced Degree

The Application for Advanced Degree is completed on-line through VandalWeb before the end of the semester prior to the semester in which the student intends to graduate.

5.6 Request to Proceed to Final Defense

After detailed consultations with the major professor, the student provides each committee member with a copy of the thesis that will be defended. It is recommended that the committee be given 3-4 weeks to review the study.

Students must schedule the defense meeting with the committee members and then collect each member's signature on the Request to Proceed with Final Defense Form. The student must submit the signed form to the College of Graduate Studies prior to the defense meeting. It is recommended that the form be in the Dean's Office at least a week prior to the defense date. A copy of the title page of the thesis must be attached to the Report of Final Defense form, and the completed thesis submitted within 6 months. The entire committee must participate in the thesis defense.

5.7 Thesis Defense

The defense consists of 20-30 minutes of presentation with professional scholarly slides. After the candidate's presentation, the major professor will facilitate questioning of the candidate by the committee. The committee will then deliberate in a private session to determine the outcome of the defense. Upon completion of the deliberation, the candidate will meet with their committee in a private session to learn the committee's decisions on further research or edits needed. If the defense is not acceptable to the majority of the committee, a new defense must be scheduled after the changes are made. Thesis defenses are open to the public.

It is imperative that students follow the guidelines and instructions set forth for Thesis Defense. Please review the following prior to beginning the thesis to ensure compliance with all requirements.

- ✓ Deadlines to submit Thesis, Dissertations and Non-Thesis Report Forms
- ✓ Tips for Starting (And Finishing!) Your Thesis or Dissertation
- ✓ Master's Thesis Proposal Instructions
- ✓ Handbook for Writing Thesis & Dissertations

Further information on university and general regulations, including required forms and Graduate Handbook for Theses and Dissertations, is available from the University of Idaho, College of Graduate Studies and the Registrar.

Thesis defenses are open to the public including other faculty and students.

5.7 Submission of Final Thesis

Complete instructions for formatting and submission are found in the Graduate Handbook for Theses and Dissertations. It is important to follow the instructions to the letter.

Further information on university and general regulations may be found, including the Graduate Handbook for Theses and Dissertations and forms, from the University of Idaho College Of Graduate Studies or the Registrar.

6.0 GRADUATE COURSE OFFERINGS

6.1 Core Courses

All students, both thesis and non-thesis options take the following 15 credits in core courses.

3 cr	TM 510	Engineering and Technology Management Fundamentals
3 cr	ACCT 582	Enterprise Accounting
3 cr	BUS 513	Leadership and Organizational Behavior
3 cr	XXX XXX	Project or Process Management course*
3 cr	XXX XXX	Statistics course**

*Bus 446, BUS 456, BUS 495, BUS 531, CE 482, EM 486, EM 596, TM 582 or similar
**STAT 422, STAT 431, STAT 507, STAT 514, STAT 519, STAT 550 or similar

6.2 Focus Areas

The TM degree offers students the flexibility of selecting courses in a focus area that fits their career and academic goals. Students must have at least 9 credits in the focus area. At least one course must have a significant writing experience.

Focus areas that fit well within TM are listed below with suggested courses within each. Students, in agreement with the Major Professor, can select other focus areas and other courses within these focus areas.

EMERGENCY MANAGEMENT

- PTTE 454 National Incident Mgmt
- PTTE 525 Emergency Mgt and Planning
- PTTE 526 Community Emergency Planning
- PTTE 486 Homeland Security
- PTTE 533 Chemical Hazards
- PTTE 534 Biological Hazards

HUMAN PERFORMANCE

- CS 576 Data Mining Techniques
- ME 583/CE 541 Reliability of Engineering Systems
- PSYC 446 Engineering Psychology
- PSYC 550 Training and Performance Support
- PSYC 561 Human-Computer Interaction
- TM 550 Ergonomics

NUCLEAR CRITICALITY SAFETY

- TM 512 Fundamentals of Nuclear Science
- TM 513 Nuclear Criticality Safety I
- TM 516 Nuclear Rules and Regulations
- TM 514 Nuclear Safety
- TM 535 Radiation Detection and Measurement

INDUSTRIAL SAFETY

- ENVS 579 Intro to Environmental Regulations
- TM 523 Industrial Safety Applications
- TM 513 Nuclear Criticality Safety
- TM 514 Nuclear Safety
- TM 527 Occupational Health Hazards
- TM 528 Accident Investigation
- TM 529 Risk Assessment
- TM 533 Chemical Hazards
- TM 534 Biological Hazards
- TM 552 Ergonomics

PROJECT AND PROCESS MANAGEMENT

- AOLL 577 Organizational Development
- BUS/STAT 456 Quality Management
- BUS 552 Management of Scientific Innovation
- EM 486 Software Assisted Project Management
- EM 582 Advanced Topics in Project Management
- INDT 457 Lean to Green Sustainable Technology
- ME 552 Tech Ventures – High Technology Entrepreneurship

INNOVATION

- BUS 552 Management of Scientific Innovation
- BUS/STAT 456 Quality Management
- ME 552Tech Ventures – High Technology Entrepreneurship

6.3 *Other Required Courses*

Non-thesis students take 6 additional credits in coursework related to the major. These courses do not need to be within the same focus area. A 1 credit TM 596 Capstone course is required to complete the degree.

Thesis students take 6 TM 500 Masters Research and Thesis credits.

6.4 *Academic Certificates*

Where possible, students are encouraged to consider taking the coursework for the focus area that also is the coursework required for an academic certificate. For more information, consult your Major Professor.

Appendix A
Technology Management Program - Core Graduate Faculty

Boise Faculty

Lawrence Leach, M.B.A.
Engineering Management
208-345-1136, lleach@uidaho.edu
Specializations: Lean project management

Idaho Falls Faculty

Roger Scott, Ph.D.
Technology Management Program Lead, Industrial Technology, Engineering Management
208-282-7713, rscott@uidaho.edu
Specializations: Project management, human performance, industrial safety, process management, human factors

Raghunath Kanakala, Ph.D.
Industrial Technology, Materials Science
208-282-7828, kanakala@uidaho.edu
Specializations: Radiation detection and measurement, physics, materials, quality assurance, industrial safety

Dennis Keiser, Ph.D.
Engineering Management
208-282-7756, dennisk@uidaho.edu
Specializations: Project management, innovation

Lee Ostrom, Ph.D.
Industrial Technology Program Coordinator, Engineering Management, Psychology
208-282-7903, ostrom@uidaho.edu
Specializations: Project management, nuclear criticality safety, emergency management and planning, ergonomics, industrial safety, human factors

Cheryl Wilhelmsen, Ed.S.Ed.
Industrial Technology
208-282-7992, cherylw@uidaho.edu
Specializations: Project management, emergency management and planning, ergonomics, industrial safety

Moscow Faculty

Scott Metlen, Ph.D.
Business
208-885-5480, metlen@uidaho.edu
Specializations: Management of quality, organizational structure, process management, product management

Jason Porter, Ph.D.
Accounting
208-885-7153, jporter@uidaho.edu
Specializations: Financial accounting, managerial accounting

Christopher Williams, Ph.D.
Statistics Chair
208-885-2802, chrisw@uidaho.edu
Specializations: statistical methods applied to issues in natural resources, biostatistics, statistical genetics

Barry Willis, Ph.D.
Associate Dean for Outreach
208-885-6373, bwillis@uidaho.edu
Specializations: Leadership and organizational behavior

Appendix B

Forms, Handbooks & Links

College of Graduate Studies (COGs)	www.uidaho.edu/cogs/
General Catalog	www.uidaho.edu/registrar/classes/catalogs
Graduate Admission	www.uidaho.edu/graduateadmissions
Graduate Forms, Guides & Handbooks	www.uidaho.edu/cogs
International Programs Office	www.uidaho.edu/international
Office of the Registrar	www.uidaho.edu/registrar
Student Code of Conduct	www.uidaho.edu/DOS/judicialaffairs/studentcodeofconduct
TOEFL	www.ets.org/toefl
Vandal Accounts	www.vandalsetup.uidaho.edu
Vandal Web	www.vandalweb.uidaho.edu/