



**GRADUATE COLLEGE OF ENGINEERING  
 MEM, MEMS, DEMS PROGRAMS**

**EME 7613 – Technology Management**

**100% Online Course  
 Spring Semester, 2010**

<b>COURSE TITLE</b>	EME 7613 – Technology Management (Online) Spring 2010 – CRN # 3834
<b>INSTRUCTOR</b>	Dr. Kamal Kakish Adjunct Professor, Graduate College of Engineering Adjunct Professor, Graduate College of Management Course Developer, Producer - LTU Online Lawrence Technological University  E-mail <a href="mailto:profkakish@gmail.com">profkakish@gmail.com</a> Web <a href="http://www.ltu.edu/ltuonline">www.ltu.edu/ltuonline</a> Work Phone 404-826-6195 SkypeID: KAMALDMIT ; GoogleTalk: profkakish Office Location Online Office Hours: Monday - Saturday 9am - 9pm;  Notes: Please contact me email first via e-mail. If you need to get a hold of me right away, then feel free to call at anytime.
<b>IMPORTANT DATES TO REMEMBER</b>	Semester start and end dates <b>Jan18, 2010 – April 30, 2010</b>  See <a href="http://www.ltu.edu/registrar/office/calendar_final_exam.index.asp">http://www.ltu.edu/registrar/office/calendar_final_exam.index.asp</a> for LTU academic calendar information.
<b>LEVEL / HOURS</b>	Doctoral & Masters / 3 semester credit hours
<b>PREREQUISITES</b>	1) Students must be enrolled in one of the following Majors: a) Manufacturing Systems b) Engineering Management 2) Students should have a basic understanding of business and technology principles and tools.
<b>REQUIRED TEXT</b> <i>The Lawrence Tech Bookstore may not stock this text, so we recommend that you purchase your text directly from the publisher by calling 1-800-262-4729 or from a reputable online retailer.</i>	1. Khalil, Tarek. (2005) Customized Management of Technology: The Key to Competitiveness and Wealth Creation. McGraw Hill Higher Education. ISBN-10: 0-07-322898-2 OR ISBN-13: 978-0-07-322898-3.  There are other required journal articles and additional readings which can be accessed in full-text form within the Blackboard site and the LTU Library. The additional reading material will be covered under each BB module.
<b>ADDITIONAL RESOURCES</b>	LTU Online student resources: <a href="http://www.ltu.edu/ltuonline/">http://www.ltu.edu/ltuonline/</a>

**TECHNICAL SUPPORT**

Technical support for using Blackboard is provided by the Helpdesk, 248.204.2330 or [helpdesk@ltu.edu](mailto:helpdesk@ltu.edu)

## Educational Goals

This course is designed to enable students to develop skills for anticipating, evaluating, and acting upon the potential for technologies to improve organizational competitiveness and wealth creation. Students examine the following key areas:

- The role of technology in creating wealth
- Critical factors in managing technology
- New paradigms for management of technology
- Technology life cycles
- Technological innovation
- Competitiveness
- Business strategy and technology strategy
- Technological planning, acquisition and exploitation of technology
- Technology transfer, and
- How technology is managed in the United States of America.

This course is designed to be cross-disciplinary, with examples and activities drawn from engineering management, manufacturing systems, information services, public administration, higher education and other areas. Various instructional methods are used to engage students and help identify similarities and differences between technology applications in various professional fields. Students identify current academic contributions by leading researchers, share those contributions with their colleagues, and link those contributions to the course content.

## Objectives

In this course, students will develop skills and techniques in the areas of product life cycle, technology life cycle, business planning, innovation, technology assessment, and strategic planning for the management of management of technology. At the conclusion of this course, students should successfully demonstrate the ability to:

1. Define and discuss technology's crucial role in creating wealth and achieving competitiveness.
2. Demonstrate a solid understanding of the main factors leading to the competitiveness of manufacturing and services enterprises in an increasingly global marketplace.
3. Emphasize the importance of considering both the speed and the scope of change in technological development and the consequential paradigm shift in the industrial and business enterprise system.
4. Emphasize the importance of integrating technology planning and business planning
5. Understand the process of technological innovation
6. Present the concept of technology and product life cycles.
7. Examine the challenges in managing the product life cycle from concept to market.
8. Understand the importance of research and development management, technology transfer, organizational structure, project management, and third-party influence in achieving and maintaining a competitive edge.
9. Explore human, social, and environmental concerns associated with technological change.
10. Link all concepts to the goal of industrial/business development for economic growth and the creation of wealth.

## Instructional Methods and Course Organization

A variety of instructional methodologies are used in this course:

- **Online Modules** – Each online module represents ONE week of online lecture notes, discussions, class activities, and student collaborations. Each module contains 2 folders: Theory and Practice. Please reference Module Zero: Online Tutorial for details.

- **Blackboard Learning Environment** – The Blackboard environment at <http://my.ltu.edu> contains the syllabus, reading materials, assignments, Web resources, and discussion forums. Please take time to familiarize yourself with the organization of the Blackboard course site. You will want to check the site frequently for announcements reminding you of new resources and upcoming assignments.
- **Required Readings** – Readings noted on the syllabus schedule should be completed according to the schedule. All readings should be completed within the first 3 days of each module.
- **Chapter Commentary** – Each student will prepare a high-level commentary of one chapter from the required textbook, prepare a counter-argument for an idea put forth in the chapter, and lead a Blackboard discussion.
- **Literature Review** – Each student will select and study one academic journal article on a topic related to the course content, and will present a brief review of their article online via a BB discussion board thread.
- **Small Group Project** – Groups of two or three students will develop a semester project based on technology enabled innovation.
- **Final Exam** – A written final exam provides students with the opportunity to demonstrate understanding of course concepts and principles

## Class Policies and Expectations

The professor plans to offer you a valuable learning experience, and expects to work together to achieve this goal. Here are some general expectations regarding this course:

- Each student has a Lawrence Tech e-mail account. If you wish to use another e-mail address for Blackboard communications, you must change your e-mail address in the “Personal Information” area of Blackboard.
- Reading and written assignments must be completed prior to the start of each module (Monday mornings).
- It is essential that all students actively contribute to the course objectives through their experiences and working knowledge of business and information technology.
- All assignments must be submitted on time via Blackboard, using Microsoft Office 2003-compatible software. If you need to submit an assignment via e-mail, contact the instructor in advance. Late work will be reduced in value. Any exceptions will be dealt with on an individual basis.
- All assignments must be completed at graduate standards to obtain a passing grade. Specific guidelines for each assignment are detailed in this syllabus and will be reviewed online.
- You are expected to participate online on timely basis (complete your discussions for each module during the week allotted). Please clear absences for scheduled business travel or illness in advance with the instructor.
- Be prepared to log on to Blackboard at least 5 times per week. Please focus most of your correspondence within the Blackboard discussion forums so that your colleagues can learn from you.
- At the midterm and end of the course, you will be invited to participate in a University evaluation of this course. Your feedback is important to the University, to the College of Engineering, and to me as an instructor, and I encourage you to participate in the evaluation process.

It is important for you as students to know what to expect from me as your instructor:

- I will be available to you via e-mail, phone, and Skype/GoogleTalk, and will promptly reply to your messages.
- I will be available to you for conference call appointments based on mutually available times.
- I will maintain the Blackboard web site with current materials, and will resolve any content-related problems promptly as soon as they are reported to me.
- I will return all assignments to you promptly, and will include individualized comments and suggestions with each assignment.
- I will hold our written or verbal communications in confidence unless requested or approved by you. I will not post your assignments without notifying everyone in advance of my plans to post them.
- I will treat all members of the class fairly, and will do my best to accommodate individual learning styles and special needs.

If any of these points need clarification, or when special circumstances arise that require my assistance, please contact me so that we can discuss the matter personally.

## Schedule and Deliverables

Module Date	Readings In Advance / Bb and In-Class Activities	Assignments Due
<b>“Module 0”</b> <b>Orientation</b> Prior to Semester Start and Jan 18 – Jan 20	Chapter 1 – Introduction Course Overview – Syllabus Review Additional reading material (found within Theory folder)	Student Data Sheet Online Introductions (Bio)
<b>Module 1</b> Week of Jan 18 – Jan 24	Chapter 2 – The Role of Technology in the Creation of Wealth Chapter 3 – Critical Factors in Managing Technology	Commentaries Propose chapter commentaries and literature reviews
<b>Module 2</b> Week of Jan 25 – Jan 31	Chapter 4 – Management of Technology: The New Paradigms.	Commentaries on Reading 4.1
<b>Module 3</b> Week of Feb 1 – Feb 7	Chapter 5 – Technology Life Cycles	Propose group projects
<b>Module 4</b> Week of Feb 8 – Feb 14	Chapter 6 – The Process of Technological Innovation Case Studies	Commentaries on Reading 6.1, 6.2, 6.3, 6.4, or 6.5 Your Own Case Study Selection & Evaluation
<b>Module 5</b> Week of Feb 15 – Feb 21	Chapter 7 – Competitiveness Case Studies	Commentaries on Reading 7.1 or 7.2 Your Own Case Study Selection & Evaluation
<b>Module 6</b> Week of Feb 22 – Feb 28	Chapter 8 – Business Strategy and Technology Strategy Case Studies	Commentaries on Reading 8.1 or 8.2 Your Own Case Study Selection & Evaluation
<b>Module 7</b> Week of Mar 1 – Mar 7	Chapter 9 – Technology Planning Case Studies	Commentaries on Reading 9.1
<b>Mid-semester Break – No Classes</b>		
<b>Module 8</b> Week of Mar 15 – Mar 21	Chapter 10 – The Acquisition and Exploitation of Technology	Commentaries on Reading 10.1 or 10.2
<b>Module 9</b> Week of Mar 22 – Mar 28	Chapter 11 – Technology Transfer Case Studies	Commentaries on Reading 11.1, 11.2 or 11.3 Your Own Case Study Selection & Evaluation
<b>Module 10</b> Week of Mar 29 – Apr 4	Chapter 12 – Operating Principles of World-Class Manufacturing Organizations	Commentaries on Reading 12.1 – Wal-Mart
<b>Mid-semester Break – No Classes (MET program has second break)</b>		
<b>Module 11</b> Week of Apr 12 – Apr 18	Chapter 13 – The Design of Organizations	Progress Report on Your Project
<b>Module 12</b> Week of Apr 19 – Apr 25	Chapter 14 – The Changing Game of Management	Summarize lessons from PFL Case
<b>Module 13</b> Week of Apr 26 – Apr 30	Final Exam Course Project & Course Wrap-Up	Final Exam Group Projects Course Evaluation

## Student Evaluation

The course has five assignments totaling 1000 points (left column below). See the Blackboard site for details about each assignment and associated grading criteria. Course letter grades will be awarded based on the total number of points achieved (right column below).

<b>Class Points (1000 points total)</b>	
<b>Assignment</b>	<b>Points<sup>1</sup></b>
<b>Group Project and Online Presentation</b>	<b>200</b>
<b>Case Studies Selection and Evaluation Reports</b>	<b>200</b>
<b>Final Exam</b>	<b>200</b>
<b>Chapter Commentary and Discussion Leader</b>	<b>200</b>
<b>Online Participation and Discussions</b>	<b>150</b>

<b>Grading Scale</b>	
<b>Class Points</b>	<b>Letter Grade</b>
<b>95.1 and above</b>	<b>A</b>
<b>91 – 95</b>	<b>A-</b>
<b>88 – 90</b>	<b>B+</b>
<b>84 – 87</b>	<b>B</b>
<b>81 – 83</b>	<b>B-</b>
<b>78 – 80</b>	<b>C+</b>
<b>74 – 77</b>	<b>C</b>
<b>71 – 73</b>	<b>C-</b>
<b>61 – 70</b>	<b>D</b>
<b>60 and below</b>	<b>F</b>

## Guidelines for Class Load Expectations

A three-credit graduate course generally requires **at least nine hours per week** of outside time commitment. Here are some practical guidelines to help schedule your EME 7613 time commitments:

- Because EME 7613 uses a set of asynchronous on-line sessions, you will spend approximately 12 hours per week in structured on-line sessions.
- In addition to these formal online hours, you should plan to reserve enough hours of outside effort during the semester as follows:
  - You should reserve approximately **8 hours per week to:**
    - **Read** the required textbook chapters and resources
    - **Participate** in on-line discussions with your colleagues
    - **Review** online presentation materials, and
    - **Complete** the final exam.
  - You should organize your remaining hours to correspond with the point value of each assignment (excluding final exam and class participation). This means planning to spend approximately:
    - 2 to 3 hours preparing each case study review;
    - 4 to 6 hours working on researching and preparing your selected case study assessment and presentation

These guidelines are offered for your consideration, and **may not reflect the actual amount of outside time** that you – as a unique individual with your own learning style – will need to complete the course requirements. The number of outside hours per week will vary based on the due dates for assignments and the final exam, so please plan ahead to insure that you schedule your academic, work, and personal time effectively.

<sup>1</sup> Please note that the total discussion board points will reflect a 20% of your course grade, regardless of how much they add up to.



## Assignments

Course assignments and evaluation criteria are detailed below. See Academic Resources / Assessment Criteria for information about assessment of written and online oral presentations.

### **Group Project and Presentation (200 points)**

**Overview** – Teams of two or three students will prepare a proposal for using Technology to improve competitiveness and create wealth in a combination of several ways:

- Support bringing creativity and innovation to market
- Support creation of a new product or service within an existing business (intrapreneurship) and the evolution of that product technology **OR** establish a new startup business offering a technology-enabled product or service (entrepreneurship)
- Support the evolution of production technology **and** provide a commercialization plan. Validate the feasibility of your plan.
- Support the organizational ability to manage change in business processes **and** technology implementation and maintenance.
- Support significant process improvement resulting in cost savings and/or enhanced revenues.
- Demonstrate the S-CURVE of technological progress
- Demonstrate the product life cycle and market growth
- Describe the critical factors needed to support your management of technology
- Describe your business environment and organizational structure
- Demonstrate the effectiveness of your processes of technological innovation
- Show how your technological management impacts global competitiveness, if any.

The Group Project will be evaluated up to a maximum of 200 points based on:

1. A minimum fifteen page / 5,000 word document summarizing your proposal, rationale, implementation plan, and budget;
2. A two-page online handout for class members summarizing your proposal; and
3. A 20 minute PowerPoint slideshow and **at least one other productivity or analysis tool**; and
4. Answering online questions from your colleagues about your project proposal

**Proposal** – One member of your team will use the Blackboard discussion forum to propose your group members and proposed scenario to the instructor. All proposals must be approved by the instructor before work proceeds.

**Deliverables and Evaluation** – One member of your team will submit your project deliverables via Blackboard as separate attachments. Provide an online student handout for your classmates by creating a thread in the BB Discussion Board. Your work will be evaluated to a maximum of 200 points based on:

- 1) Your project deliverables (minimum fifteen page / 5,000 word proposal **(100 points)**:
  - a) 50 points; quality of proposal specifics
  - b) 15 points; quality of budget presentation
  - c) 15 points; organization and overall writing quality
  - d) 10 points; valuable citations included in APA format
  - e) 10 points; assignment submitted on time
- 2) Your PowerPoint presentation and online handout **( 40 points)**
  - a) 20 points; PowerPoint presentation organization and layout
  - b) 10 points; two page class summary
  - c) 10 points; use of second productivity/analysis tool as part of your project
- 3) Your 20 minute on-line presentation **(60 points)**
  - a) 15 points; nominal 20 minute presentation
  - b) 15 points; participation by all group members
  - c) 15 points; organization and clarity
  - d) 15 points; overall quality of answers to follow-up questions.

**FOUR Case Studies Selection and Evaluation Reports (4\*50=200 points)**

**Overview** – Each student will identify, review, select, critique, and evaluate 4 real-world CASE STUDIES found in a professional business environment relating to the effective use and management of technology to support business competitiveness and create wealth, and which could be included as part of the literature review phase of a dissertation research project. These case studies will correspond to the topics contained in Modules 4, 5, 6, and 9 respectively:

- 1) Case #1 should focus on The Process of Technological Innovation
- 2) Case #2 should focus on Competitiveness
- 3) Case #3 should focus on Business Strategy and Technology Strategy
- 4) Case #4 should focus on Technology Transfer

Each Case Study Selection and Evaluation will be evaluated up to a maximum of 50 points based on:

- A minimum five page / 1,000 word document summarizing your selected real-world case;
- A two-page online handout for class members summarizing your selected case; and
- A 15-slide PowerPoint presentation only (just submit the slides – no live or recorded presentation)
- A BB Discussion Board thread to facilitate question/answer collaboration to the class about your case.

**IMPORTANT:** All of the above deliverables should be placed INSIDE your BB Discussion Thread.

**Proposal** – Use the Blackboard discussion forum to propose your case on a “first come first served” basis. In your proposal, include the citation for your case (if any), the rationale for selecting the case, and how it applies to the topic of the module/chapter it addresses.

**Deliverables and Evaluation** – Submit your project deliverables via Blackboard as separate attachments under the THREAD you create for each case in the Discussion Board. Print enough copies of the student handout for distribution to the class. Your work will be evaluated to a maximum of **50 points** based on:

- 1) Your literature review (minimum five page / 1,000 word document with formal APA citation)
  - a) 5 points; summary of the case, your evaluation methodology, and key findings
  - b) 5 points; relationship to potential areas of Technology Management dissertation research
  - c) 5 points; organization and overall writing quality
  - d) 5 points; assignment submitted on time
- 2) Your online handout (two page class summary with formal APA citation)
  - a) 5 points; inclusion of key points
  - b) 5 points; organization and overall writing quality
- 3) Your 15-slide PowerPoint presentation only and response to questions
  - a) 5 points; Creation of BB Discussion Board Thread for your case
  - b) 5 points; 15-slide PowerPoint presentation
  - c) 5 points; organization and clarity
  - d) 5 points; overall quality of answers to questions posted inside your thread.

**Final Exam (200 points)**

**Overview** – A written final examination requires you to apply your course learning to "real life" Technology Management situations. The format of the exam will be a series of structured written essay using "open notes." Students will select two cases from a larger set of cases (each case is worth up to 100 points). Each case outlines a problem and poses several specific questions that require your thoughtful analysis and/or recommended actions. Carefully analyze the case based on the concepts and principles from the background readings, required text, class presentations and projects, literature reviews, and other sources related to class content that you have researched independently. Your analysis and citations will be incorporated into the exam template provided to you.

**Deliverables** – Submit your exam template via Blackboard. Each case will be evaluated to a maximum of 10 points based on:

- Responses to the case questions that comprise a nominal 1000 word critical analysis. You must minimally address the questions included in the case, but you may address other related issues as you

see fit. Your response will be evaluated on its overall organization and writing quality, analysis of the problem, and recommended solutions consistent with course materials = 70 points per case;

- Including at least four appropriate and useful citations that specifically reference course materials or additional readings consulted for the exam. Citations should be placed at the end of each case using appropriate APA format. Citations will be evaluated on their applicability to your response, variety of sources cited, and use of the APA style = 30 points per case.

#### **FOUR Chapter Commentary and Discussion Leader (4\*50=200 Points)**

**Overview** – There are TEN Chapter Commentaries to choose from. Each student will summarize and comment on any **FOUR chapter readings** from the textbook (such that all ten chapters are covered), and lead a brief discussion of the chapter online in the discussion board. **This is a “first-come, first-served” process, so please select the 4 chapters you’d like to facilitate ASAP.** The commentary and online discussions is worth up to 50 points and consists of:

- A nominal two-page online handout summarizing:
  - Three to five key points learned from the chapter
  - At least one counter-argument related to a major point from the chapter; and
  - Your personal impressions and conclusions regarding the chapter
- A facilitated online discussion of your findings in the BB discussion board:
  - An online discussion (within a Blackboard discussion forum) for chapters scheduled during module week.

**Proposal** – Use the Blackboard discussion forum to propose your textbook chapters on a “first come first served” basis (only one student may choose a particular chapter). Chapter commentaries will be scheduled to correspond with the chapter sequence noted in the schedule, providing you with a choice of due date.

**Deliverables and Evaluation** – Submit your Chapter Commentary summary document via the Blackboard Assignments area, and post the Chapter Commentary to the appropriate Blackboard discussion forum. Your work will be evaluated to a maximum of 50 points based on:

- 1) Your **commentary summary**
  - a) 5 points; two-page handout with chapter title, student name, and chapter outline
  - b) 10 points; summary of key learning points from the chapter
  - c) 5 points; your counter-argument
  - d) 5 points; your personal impressions and conclusions
  - e) 5 points; organization and overall writing quality
- 2) Your **online discussion and response to questions**
  - a) 5 points; assignment completed on time
  - b) 5 points; overall quality of content and clarity of delivery
  - c) 10 points; responses to questions from class members

#### **Online Participation (200 points)**

Each student is expected to actively participate in the asynchronous and synchronous online classroom sessions and discussions. Class participation is evaluated to a maximum of 15 points based on:

- Up to 150 points – Actively participating in Blackboard discussion forums throughout the duration of the class, responding to questions posted by the instructor, interacting with other students as appropriate, and completing assigned surveys and evaluations. Please reference the “Online Participation Guidelines” document for a specific rubric for online participation quality, frequency, and quantity.
- Up to 50 points – Attend all “live classroom” sessions and student presentations.

## **Academic Resources**

### **Academic and Professional Integrity**

Academic honesty is an important character trait for all students. While students often feel pressure to earn high grades while in school, few employers dwell on a student's grades after graduation. One's honesty, however, is always important to employers, family and others that students eventually come in contact with. Students benefit themselves in the long run when they work honestly, accepting their grades and avoiding the temptation to cheat.



**Components** - In all Graduate College of Engineering courses, students are expected to:

- Submit original work done by the student, specifically for the course. This means that it is wrong to submit work done by someone else, or to utilize work that a student has done in a prior course.
- Cite (that is, reference) all sources from which the student received help. This means that one's papers must indicate from where quoted or paraphrased material has come.
- Work without assistance from peers or books (unless permitted by the instructor) during examinations. This means that it is unacceptable to copy work from a peer during an exam or to consult material that the instructor has not authorized.

**Homework** – In completing homework assignments, instructors expect that students will attempt to solve assigned problems by themselves, or, only if permitted by the instructor, by a group of students. Normally, instructors allow for general discussion between students about how to solve a problem. In no case, however, is it acceptable for one student to copy a solution from a peer.

**Technical Assignments** – Technical assignments (such as computer programs) are to be developed by a student's (or team of students, if permitted by the instructor) independent effort. As with homework, general discussion between students on how to approach a problem may be acceptable. It is unacceptable, however, to copy a peer's program and submit it as one's own work.

**Term Papers** – Students will be assigned term papers in their Lawrence Tech coursework. In grading such papers it is important for instructors to know which ideas are the student's own thoughts and which are either copied or paraphrased from another source. Hence, students must cite their sources using the publication manual of the American Psychological Association (APA).

**Sanctions** – Academic dishonesty includes plagiarism, cheating, forgery, or other acts that deceive or defraud in regard to a student's own academic work or that of others. Questions of academic dishonesty are reviewed by the Dean of the College of Management. When necessary, cases of academic dishonesty may be referred to the Student Discipline Committee. The usual penalty for academic dishonesty is failure in the course on the first offense and expulsion from the University on the second offense.

**LTU Academic Honor Code** – Complete information regarding Lawrence Tech's new academic honor code may be found at [http://www.ltu.edu/currentstudents/honor\\_code.asp](http://www.ltu.edu/currentstudents/honor_code.asp)

#### **Notice of Services For Students With Disabilities**

Any student with a disability is requested to inform the instructor as soon as possible of any special needs to ensure that those needs are met in a timely manner. The Office of Student Affairs and the Academic Achievement Center coordinate Lawrence Tech's compliance with Sections 503 and 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act to ensure that students with disabilities are not excluded from programs because of their disabilities. Some accommodations that are available include books on tape, note-takers, extended time for tests, quiet testing environment, priority registration, adaptive equipment, and referral to area resources. Books on tape need to be requested a minimum of four weeks prior to the start of each semester.

Eligibility for accommodations at Lawrence Tech is determined on an individual basis. In order to be eligible, the student must provide the AAC/Disability Services Coordinator with current documentation from a qualified individual that indicates the presence of a disability. The AAC/Disability Services Coordinator will review all documentation. Additional information may be requested if the information presented is not sufficient for determining needed accommodations. Letters explaining needed accommodations to faculty will be written with students at the start of each new semester.

#### **Lawrence Tech Library**

The library provides access to a large set of reference materials and numerous full-text academic journals. See the Library web site at [www.ltu.edu/library](http://www.ltu.edu/library) for available services. Doctoral and Masters students are expected to make significant use of the Lawrence Tech Library during their course and dissertation work.

### **Assessment Criteria**

Each assignment above includes specific assessment criteria. For listings of general criteria used to evaluate written work and presentations, please see <http://www.ltu.edu/ltuonline/currentstudents/>

Note that APA style is required for all student papers. For information on APA style and on the RefWorks product see [http://www.ltu.edu/library/research\\_assistance\\_basic\\_citations.asp](http://www.ltu.edu/library/research_assistance_basic_citations.asp)

### **Confidentiality and Intellectual Property Protection**

Students registered for College of Engineering classes engage in a free discourse of concepts and practice of information technology in the classroom, as well as while conducting research to meet class requirements. In the spirit of academic integrity, information discussed or disclosed concerning business and industry practices in this context is regarded as confidential, and should not be shared, used or disclosed for any purpose other than academic.

Students should conform to the copyright laws subscribed to by the university. This means that copyright protected printed materials and software may be copied without permission. In the case of software provided to students under educational agreements between the university and software vendors students may not use any of the software products for non-academic purposes.

### **Use of Electronic Materials and Photographs**

Course activities and student presentations are often photographed or videotaped to provide a record of the academic experience. Student reports and presentations may be referenced as examples to future students, or may be posted on the College of Management web site for review by academic colleagues and/or the general public. Students retain the right to exclude their images or work from these publications. Students should clearly identify within their assignments any trade secrets or personal quotations that they do not wish to be published. The attached form should be completed to insure that your privacy is protected while protecting the University from liability.