Revised 4/22/2008

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RECORDS

UNDERGRADUATE CURRICULUM PROPOSAL COVER SHEET

Title of Proposal – Must begin with Department Abbreviation:

Engineering Technology Management Program Changes

Check One: [✓] Full Proposal or [ ] Information Item

Effective Date for Curricular Offering: Fall 2011

FROM: Neslihan Alp, Engineering Management & Technology, EMCS 445D, 425-4032, Neslihan-Alp@utc.edu
(proposal originator: include spokesperson's name, department, office number, telephone, e-mail)

Does this require new resources from the originating department or other department? No
Please include an explanation if yes.

Faculty of the originating department approved this proposal on October 28, 2011 (date), by a vote of 5 aye votes; 0 nay votes; 0 abstentions; 0 eligible voting members absent.

The following have examined this proposal:

	Printed name	Signature/date	Approve	Neutral	Disapprove*
Dept Head/Director:	Neslihan Alp	N. Alp 11/15/11	✓		

College Curriculum Committee Date: 11-28-11 Vote: 6-0-2 Signature of Chair: Cecile M. Ozan

Spokespersons for Affected Departments:

Printed Name, Department	Signature, Date	Approve	Neutral	Disapprove*
[illegible] [illegible]	DANA MOODY	X		
[illegible]	LAWRENCE P. ETTKIN	✓		
Beverly Buchanan (MGT)	Beverly Buchanan (ETN)	✓		
Habte [illegible]	Physics, Geology & [illegible]			
Cecile M. Ozan	Cecile M. Ozan	X		

	Printed name	Signature, date	Approve	Neutral	Disapprove*
Dean/Director:	W.H. Sutton	W.H. Sutton	X		
University Registrar:	Linda Orth	Linda Orth 11/29/11	Comments		
Provost/Representative:	J. Sanders	J. Sanders 11/30/11	✓		

Lab/studio fee requested: [ ]

	Printed name	Signature, date	Approve	Disapprove*
Provost:	Phil Oldham			

*Those who disapprove may attach an explanation

ACTIONS on this proposal:	***Curriculum Committee***	***Faculty Senate***
Date the proposal was considered		
Vote of the body:		
Accepted as information item (*indicate date*)		
Approved as submitted (*indicate date*)		
Approved with amendments (amendments indicated and transmitted to all signatories above, date):		
Signature of Chair:		

12.059 UG

MEMORANDUM

To: UTC Undergraduate Curriculum Committee
From: Neslihan Alp, Ph.D., P.E., Professor and Assistant Dean
Date: October 28, 2011
Subject: B.S. Engineering Technology Management Curriculum Proposal

- Changing ETCM 3010 "Construction Safety and Risk Management" as ETCM 2010
- Adding Interior Design courses
    - INTD 1100 Architectural Drafting for ETCM and ETEM majors
    - INTD 3050 Computer-Aided Design I for ETCM and ETEM majors
    - INTD 3150 Computer-Aided Design II for ETCM Majors
    - INTD 3240 Codes and Specifications for ETEM majors
    - Technology Students will be able to earn the new "Design Foundation" minor with 3 additional INTD courses
- Changing College of Business courses
    - Dropping MGT 3300 Concepts in Organizational Behavior and MGT 3320 Human Resource Management from ETEM and ETCM majors
    - Adding MGT 1000 for ETEM and ETCM majors
    - Adding FIN 3020 Essentials of Managerial Finance for ETEM majors
    - ETEM Students will be able to earn a minor in Business Administration without any additional courses
- Changing Natural Sciences requirements
    - PHYS 1030/1030L (Lab Course) for both ETEM and ETCM majors
    - GEOL 1160 - Current Geological Perspectives of Earth (Non-Lab Course) or CHEM 1110/1110L for ETCM majors
- Changing Humanities requirements
    - PHIL 2210 Introduction to Ethics or CPSC 3610 Ethical and Social Issues in Computing for ETCM and ETEM majors
- Changing prerequisites
    - ETCM 4010 Prerequisites: ETEM 3500 or ENIE 3500 and ENGR 3520 with a grade of C or better, or department head approval.
    - ETCM 4020 Prerequisites: ETEM 1340, ETCM 2640, INTD 3050, and ENGR 3520 with a grade of C or better, or department head approval.
    - ETCM 4030 Prerequisites: ACC 2020 and ENGR 3520 with a minimum grade of C, or department head approval.
    - ETCM 4500 Prerequisites: ETCM 2010 and 2640; ETCM 4010 and 4020 with a minimum grade of C, or department head approval.
    - ETEM 4500 Prerequisites: ETEM 3500 or ENIE 3500 and ENGR 3520 with a grade of C or better, or department head approval.
    - ETCM 4960 Prerequisite: ETCM 2640, INTD 3050, ETEM 3500 or ENIE 3500, ENGR 3520, ETCM 4010 and 4030 with a minimum grade of C, or department head approval. (It will be listed as 4 hrs. not 2-4 hrs.)
    - ETEM 4960 Prerequisite: ETEM 3500 or ENIE 3500 and ENGR 3520 with a minimum grade of C, or department head approval. (It will be listed as 4 hrs. not 2-4 hrs.)

- Adding New Courses
    - ETEM 1340 Fundamentals of Building Construction for both ETEM and ETCM Majors
    - ETCM 1740 Surveying for ETCM Majors
    - ETCM 2640 Construction Documents Technology for ETCM Majors
    - ETEM 3870 Introduction to Logistics Management for ETEM Majors
    - ETCM 4600 Green Building Rating Systems for ETCM Majors
- Lowering Technical Elective Hours
    - From 36-37 hrs. to 18 hrs. for ETCM Majors
    - From 36-37 hrs. to 25 hrs. for ETEM Majors

Rationale:

The B.S. Engineering Technology Management (ETM) program has been totally revised in Fall 2008 and the new Construction Management concentration has been added. Since then, the enrollment of the program has grown from 10 to more than 100 students in less than 4 years. We do have a large number of transfer students in this program as well as students who switched their majors at UTC. The purpose of this proposal is to minimize the differences among transfer and freshman students, and create a more balanced educational preparation for all ETM undergraduate students. This proposal has been put together after discussing all of these changes with our Advisory Boards as well as Chattanooga State due to our 2+2 agreement, and the Interior Design Department at UTC, in order to get their feedback and approvals. We'll be seeking for the accreditation through the Accreditation Board for Engineering and Technology (ABET)-Technology Accreditation Commission (TAC) in the 2012-13 academic year. Therefore; this proposal is important to help us during the accreditation process.

Financial Impact:

Four of these new courses (ETEM 1340, ETCM 2640, ETEM 3870, and ETCM 4600) that are listed in this curriculum proposal have already been taught by existing and adjunct faculty in our Department. The other one will be taught by adjunct faculty for now, since the position of the Construction Management Lecturer, which was vacated at the end of July 2011, has not been filled yet. Until the full time Construction lecturer position is filled, we'll be working with adjunct faculty and Chattanooga State to assist us teaching some of these courses that are crucial during the accreditation process.

Impact to Other Departments:

We have already discussed this proposal with the Interior Design Department since they'll be helping us to teach several courses for our Technology students, and we do have their full support and approval. Interior Design Department is currently teaching AutoCAD and Revit to their students and they have licenses for these programs. Half of our students are transferred with AutoCAD, but the remaining of our students need to know this program which is a requirement by the Construction industry. Therefore; we'll be collaborating with the Interior Design Department to teach these courses to our students as well, and they are willing to add our students into their existing courses or create another section for them, if needed.

We have also discussed the changes related to the College of Business, and got their approvals too. MGT 1000 is a required course for many other Business courses, so this change will help us that all of our students take MGT 1000 prior to taking other Business courses.

Current Engineering Technology Management: Construction Management, B.S.

General Education

(see General Education Requirements for list of approved courses)

Rhetoric and Composition: (6 hours)

Two approved courses in rhetoric and composition

Mathematics: (4 hours)

MATH 1910 - Calculus I * and
MATH 1911 - Calculus I Laboratory *

Statistics: (3 hours)

ENGR 2220 - Probability and Statistics for Engineering * or
MGT 2110 - Statistical Methods for Business I *

Natural Sciences: (7-8 hours)

Two approved natural science courses, at least one including a laboratory component

Humanities and Fine Arts: (6 hours)

One approved fine arts course and one approved humanities course

Cultures and Civilizations: (3 hours)

One approved Non-Western Cultures and Civilizations course

Behavioral and Social Sciences: (6 hours)

ECON 1010 - Principles of Economics: Macroeconomics *
ECON 1020 - Principles of Economics: Microeconomics *

Program Requirements

ACC 2010 - Principles of Accounting I
ACC 2020 - Principles of Accounting II
BUS 3350 - Legal Environment of Business

ECON 1010 - Principles of Economics: Macroeconomics #
ECON 1020 - Principles of Economics: Microeconomics #

ENGL 2810 - Technical Writing or
ENGL 2820 - Scientific Writing or
ENGL 2880 - Professional Writing

ENGR 2220 - Probability and Statistics for Engineering # or
MGT 2110 - Statistical Methods for Business I #

MGT 2120 - Statistical Methods for Business II
MGT 3150 - Management Concepts, Theory, and Practice
MGT 3300 - Concepts in Organizational Behavior

MATH 1910 - Calculus I # and
MATH 1911 - Calculus I Laboratory #

Engineering Fundamentals:

ENGR 3520 - Engineering Economy

Engineering Management Fundamentals:

ETEM 3500 - Introduction to Project Management
ETEM 3540 - Work Measurement and Design
ETEM 4530 - Value Engineering
ETEM 4580 - Facilities Planning

Specialty and Related Courses

Construction Management Fundamentals:

ETCM 3010 - Construction Safety and Risk Management
ETCM 4010 - Construction Scheduling
ETCM 4020 - Construction Cost Estimating
ETCM 4030 - Construction Cost Accounting
ETCM 4500 - Construction Management Design
ETCM 4960r - Construction Management Internship

Technical Electives (36-37 hours):

May come from engineering, science, technology, business or other related areas. Advisement should be sought from program director as early as possible.

Additional Information and Notes

127 total hours required.

Minimum 39 hours at the 3000-4000 level.

2.0 average in all engineering, accounting, and management courses.

See Degree and Graduation Requirements for additional requirements.

Note: A maximum of 30 hours may be earned in the College of Business and credited toward the degree.

Current Showcase/Suggested Plan of Study

Please see the Courses section of this catalog for complete course descriptions.

Freshman Year

Fall Semester:	**Hrs**	*Spring Semester:*	**Hrs**
MATH 1910	3	ECON 1020	3
MATH 1911	1	Technical Elective*	3
ECON 1010	3	ENGL 1020	3
ENGL 1010	3	Fine Arts	3
Natural Sciences	3	Natural Sciences	3
Natural Sciences Lab	1	Technical Elective (MGT 1000)	3
Cultures and Civilizations	3		
	17		18

Sophomore Year

Fall Semester:	**Hrs**	*Spring Semester:*	**Hrs**
ACC 2010	3	MGT 2120	3
MGT 2110 or ENGR 2220	3	ENGL 2881 or 2882 or 2880	3
Technical Elective*	3	Humanities	3
Technical Elective*	3	ACC 2020	3
Technical Elective*	3	Technical Elective*	3
	15		15

Junior Year

Fall Semester:	**Hrs**	*Spring Semester:*	**Hrs**
ETEM 3010	3	ETEM 3500	3
ENGR 3520	3	ETEM 3540	3
MGT 3150	3	ETCM 4020	3
BUS 3350	3	MGT 3300	3
Technical Elective*	3	Technical Elective*	3
	15		15

Senior Year			
Fall Semester:	**Hrs**	*Spring Semester:*	**Hrs**
ETCM 4010	3	ETEM 4530	3
ETEM 4580	3	ETCM 4030	3
ETCM 4500	3	ETCM 4960	4
Technical Elective*	3	Technical Elective*	3
Technical Elective*	4	Technical Elective*	3
	16		16

***Technical Electives (36-37 hours):** May come from engineering, science, technology, business or other related areas. A maximum of 30 hours may be earned in the College of Business and credited toward the degree.

Proposed Engineering Technology Management: Construction Management, B.S.

General Education

(see General Education Requirements for list of approved courses)

Rhetoric and Composition: (6 hours)

- Two approved courses in rhetoric and composition

Mathematics: (4 hours)

- **MATH 1910 - Calculus I** * and
- **MATH 1911 - Calculus I Laboratory** *

Statistics: (3 hours)

- **ENGR 2220 - Probability and Statistics for Engineering** * or
- **MGT 2110 - Statistical Methods for Business I** *

Natural Sciences: (7 hours)

- **PHYS 1030/1030L - General Physics/Laboratory**
- **GEOL 1160 - Current Geological Perspectives of Earth** or **CHEM 1110/1110L – General Chemistry/Laboratory**

Humanities and Fine Arts: (6 hours)

- **PHIL 2210 or CPSC 3610**
- One approved fine arts course

Cultures and Civilizations: (3 hours)

- One approved Non-Western Cultures and Civilizations course

Behavioral and Social Sciences: (6 hours)

- **ECON 1010 - Principles of Economics: Macroeconomics** *
- **ECON 1020 - Principles of Economics: Microeconomics** *

Program Requirements

- **ACC 2010 - Principles of Accounting I**
- **ACC 2020 - Principles of Accounting II**
- **BUS 3350 - Legal Environment of Business**

- **ECON 1010 - Principles of Economics: Macroeconomics** #
- **ECON 1020 - Principles of Economics: Microeconomics** #

- **ENGL 2810 - Technical Writing** or
- **ENGL 2820 - Scientific Writing** or
- **ENGL 2880 - Professional Writing**

- **ENGR 2220 - Probability and Statistics for Engineering** # or
- **MGT 2110 - Statistical Methods for Business I** #

- **MGT 1000 – Computers in Business**
- **MGT 2120 - Statistical Methods for Business II**

- **MATH 1910 - Calculus I** # and
- **MATH 1911 - Calculus I Laboratory** #

Engineering Fundamentals:

- **ENGR 3520 - Engineering Economy**

Engineering Management Fundamentals:

- **ETEM 1340 – Fundamentals of Building Construction**
- **ETEM 3500 - Introduction to Project Management**
- **ETEM 3540 - Work Measurement and Design**
- **ETEM 4530 - Value Engineering**
- **ETEM 4580 - Facilities Planning**

Specialty and Related Courses

Construction Management Fundamentals:

- **ETCM 1740 - Surveying**
- **ETCM 2010 - Construction Safety and Risk Management**
- **ETCM 2640 – Construction Documents Technology**
- **ETCM 4010 - Construction Scheduling**
- **ETCM 4020 - Construction Cost Estimating**
- **ETCM 4030 - Construction Cost Accounting**
- **ETCM 4500 - Construction Management Design**
- **ETCM 4600 – Green Building Rating Systems**
- **ETCM 4960r - Construction Management Internship**

Interior Design Fundamentals:

- **INTD 1100 - Architectural Drafting**
- **INTD 3050 - Computer Aided Design I**
- **INTH 3150 – Computer Aided Design II**

Technical Electives (15 hours):

- May come from engineering, science, technology, business, or other related areas. Advisement should be sought from program advisor as early as possible.

Additional Information and Notes

127 total hours required.

Minimum 39 hours at the 3000-4000 level.

2.0 average in all engineering, accounting, and management courses.

See **Degree and Graduation Requirements** for additional requirements.

Note: A maximum of 30 hours may be earned in the College of Business and credited toward the degree.

Proposed Showcase/Suggested Plan of Study

Please see the **Courses** section of this catalog for complete course descriptions.

Freshman Year

Fall Semester:	**Hrs**	*Spring Semester:*	**Hrs**
MATH 1910	**3**	ETCM 1740	4
MATH 1911	**1**	MGT 1000	**3**
ECON 1010	3	ECON 1020	3
ENGL 1010	**3**	**ENGL 1020**	**3**
GEOL 1610	3	PHYS 1030	3
Technical Elective* (INTD 1100)	3	PHYS 1030L	1
	16		17

Sophomore Year

Fall Semester:	**Hrs**	*Spring Semester:*	**Hrs**
ACC 2010	**3**	ACC 2020	3
MGT 2110 or ENGR 2220	**3**	**MGT 2120**	**3**
ETCM 2010	3	PHIL 2210 or COMP 3610	3
ETCM 2640	3	ENGL 2881 or 2882 or 2880	3
ETEM 1340	3	Fine Arts	3
Cultures and Civilizations	3		
	18		15

Junior Year

Fall Semester:	**Hrs**	*Spring Semester:*	**Hrs**
ETEM 3500	**3**	**ETCM 4010**	**3**
ENGR 3520	**3**	**ETCM 4030**	**3**
Technical Elective*	3	**ETEM 3540**	**3**
Technical Elective*	3	Technical Elective*	3
INTD 3050	3	INTD 3150	3
	15		15

Senior Year

Fall Semester:	**Hrs**	*Spring Semester:*	**Hrs**
ETCM 4020	**3**	**ETCM 4500**	**3**
ETCM 4600	3	**ETEM 4530**	**3**
ETCM 4960	**4**	Technical Elective*	3
ETEM 4580	3	Technical Elective*	3
MGT 3150	3	BUS 3350	3
	16		15

***Technical Electives (18 hours):** May come from engineering, science, technology, business, or other related areas. Advisement should be sought from program advisor as early as possible.

Additional Information and Notes

127 total hours required.

Minimum 39 hours at the 3000-4000 level.

A "C" OR BETTER IS REQUIRED FOR COURSES IN BOLD.

See **Degree and Graduation Requirements** for additional requirements.

Note: A maximum of 30 hours may be earned in the College of Business and credited toward the degree.

Current Engineering Technology Management: Engineering Management, B.S.

General Education

(see General Education Requirements for list of approved courses)

Rhetoric and Composition: (6 hours)

Two approved courses in rhetoric and composition

Mathematics: (4 hours)

MATH 1910 - Calculus I * and
MATH 1911 - Calculus I Laboratory *

Statistics: (3 hours)

ENGR 2220 - Probability and Statistics for Engineering * or
MGT 2110 - Statistical Methods for Business I *

Natural Sciences: (7-8 hours)

Two approved natural science courses, at least one including a laboratory component

Humanities and Fine Arts: (6 hours)

One approved fine arts course and one approved humanities course

Cultures and Civilizations: (3 hours)

One approved Non-Western Cultures and Civilizations course

Behavioral and Social Sciences: (6 hours)

ECON 1010 - Principles of Economics: Macroeconomics *
ECON 1020 - Principles of Economics: Microeconomics *

Program Requirements

ACC 2010 - Principles of Accounting I
ACC 2020 - Principles of Accounting II
BUS 3350 - Legal Environment of Business

ECON 1010 - Principles of Economics: Macroeconomics #
ECON 1020 - Principles of Economics: Microeconomics #

ENGL 2810 - Technical Writing or
ENGL 2820 - Scientific Writing or
ENGL 2880 - Professional Writing

ENGR 2220 - Probability and Statistics for Engineering # or
MGT 2110 - Statistical Methods for Business I #

MGT 2120 - Statistical Methods for Business II
MGT 3150 - Management Concepts, Theory, and Practice
MGT 3300 - Concepts in Organizational Behavior

MATH 1910 - Calculus I # and
MATH 1911 - Calculus I Laboratory #

Engineering Fundamentals:

ENGR 3520 - Engineering Economy

Specialty and Related Courses

Engineering Management Fundamentals:

ETEM 3500 - Introduction to Project Management
ETEM 3540 - Work Measurement and Design
ETEM 4500 - Engineering Management Design
ETEM 4530 - Value Engineering
ETEM 4570 - Quality Control and System Reliability
ETEM 4580 - Facilities Planning
ETEM 4960r - Engineering Management Internship

Management Fundamentals:

MGT 3320 - Human Resource Management

Marketing Fundamentals:

MKT 3130 - Principles of Marketing

Psychology Fundamentals:

PSY 4060 - Industrial/Organizational Psychology

Technical Electives (36-37 hours):

May come from engineering, science, technology, business or other related areas. Advisement should be sought from program director as early as possible.

Additional Information and Notes

127 total hours required.
Minimum 39 hours at the 3000-4000 level.
2.0 average in all engineering, accounting, and management courses.
See **Degree and Graduation Requirements** for additional requirements.
Note: A maximum of 30 hours may be earned in the College of Business and credited toward the degree.

Current Showcase/Suggested Plan of Study

Freshman Year

Fall Semester:	**Hrs**	*Spring Semester:*	**Hrs**
MATH 1910	3	ECON 1020	3
MATH 1911	1	Technical Elective*	3
ECON 1010	3	ENGL 1020	3
ENGL 1010	3	Fine Arts	3
Natural Sciences	3	Natural Sciences	3
Natural Sciences Lab	1	Technical Elective (MGT 1000)	3
Cultures and Civilizations	3		
	17		18

Sophomore Year

Fall Semester:	**Hrs**	*Spring Semester:*	**Hrs**
ACC 2010	3	MGT 2120	3
MGT 2110 or ENGR 2220	3	ENGL 2881 or 2882 or 2880	3
Technical Elective*	3	Humanities	3
Technical Elective*	3	ACC 2020	3
Technical Elective*	3	Technical Elective*	3
	15		15

Junior Year

Fall Semester:	**Hrs**	*Spring Semester:*	**Hrs**
MKT 3130	3	ETEM 3500	3
ENGR 3520	3	ETEM 3540	3
MGT 3150	3	MGT 3320	3
BUS 3350	3	MGT 3300	3
Technical Elective*	3	Technical Elective*	3
	15		15

Senior Year

Fall Semester:	**Hrs**	*Spring Semester:*	**Hrs**
ETEM 4570	3	ETEM 4530	3
ETEM 4580	3	PSY 4060	4
ETEM 4500	3	ETEM 4960	3
Technical Elective*	3	Technical Elective*	3
Technical Elective*	4	Technical Elective*	3
	16		16

***Technical Electives (36-37 hours):** May come from engineering, science, technology, business or other related areas. A maximum of 30 hours may be earned in the College of Business and credited toward the degree.

Proposed Engineering Technology Management: Engineering Management, B.S.

General Education

(see General Education Requirements for list of approved courses)

Rhetoric and Composition: (6 hours)

- Two approved courses in rhetoric and composition

Mathematics: (4 hours)

- **MATH 1910 - Calculus I** * and
- **MATH 1911 - Calculus I Laboratory** *

Statistics: (3 hours)

- **ENGR 2220 - Probability and Statistics for Engineering** * or
- **MGT 2110 - Statistical Methods for Business I** *

Natural Sciences: (7 hours)

- **PHYS 1030 - General Physics - Mechanics and Heat** and
- **PHYS 1030L - General Physics Laboratory - Mechanics and Heat**

- One approved non-lab course

Humanities and Fine Arts: (6 hours)

- **PHIL 2210 or CPSC 3610**
- One approved fine arts course

Cultures and Civilizations: (3 hours)

- One approved Non-Western Cultures and Civilizations course

Behavioral and Social Sciences: (6 hours)

- **ECON 1010 - Principles of Economics: Macroeconomics** *
- **ECON 1020 - Principles of Economics: Microeconomics** *

Program Requirements

- **ACC 2010 - Principles of Accounting I**
- **ACC 2020 - Principles of Accounting II**
- **BUS 3350 - Legal Environment of Business**

- **ECON 1010 - Principles of Economics: Macroeconomics** #
- **ECON 1020 - Principles of Economics: Microeconomics** #

- **ENGL 2810 - Technical Writing** or
- **ENGL 2820 - Scientific Writing** or
- **ENGL 2880 - Professional Writing**

- **ENGR 2220 - Probability and Statistics for Engineering** # or
- **MGT 2110 - Statistical Methods for Business I** #

- **MGT 2120 - Statistical Methods for Business II**
- **MGT 3150 - Management Concepts, Theory, and Practice**

- **MATH 1910 - Calculus I** # and
- **MATH 1911 - Calculus I Laboratory** #

Engineering Fundamentals:

- **ENGR 3520 - Engineering Economy**

Specialty and Related Courses

Engineering Management Fundamentals:

- **ETEM 1340 – Fundamentals of Building Construction**
- **ETEM 3500 - Introduction to Project Management**
- **ETEM 3540 - Work Measurement and Design**
- **ETEM 3870 – Introduction to Logistics Management**
- **ETEM 4500 - Engineering Management Design**
- **ETEM 4530 - Value Engineering**
- **ETEM 4570 - Quality Control and System Reliability**
- **ETEM 4580 - Facilities Planning**
- **ETEM 4960r - Engineering Management Internship**

Interior Design Fundamentals:

- **INTD 1100 - Architectural Drafting**
- **INTD 3050 - Computer Aided Design I**
- **INTD 3240 - Codes and Specifications**

Business Fundamentals:

- **MGT 1000 - Computers in Business**
- **FIN 3020 - Essentials of Managerial Finance**
- **MKT 3130 - Principles of Marketing**

Psychology Fundamentals:

- **PSY 4060 - Industrial/Organizational Psychology**

Technical Electives (25 hours):

- May come from engineering, science, technology, business, or other related areas. Advisement should be sought from program advisor as early as possible.

Additional Information and Notes

127 total hours required.
Minimum 39 hours at the 3000-4000 level.
2.0 average in all engineering, accounting, and management courses.
See **Degree and Graduation Requirements** for additional requirements.
Note: A maximum of 30 hours may be earned in the College of Business and credited toward the degree.

Proposed Showcase/Suggested Plan of Study

Please see the **Courses** section of this catalog for complete course descriptions.

Freshman Year

Fall Semester:	Hrs	*Spring Semester:*	Hrs
MATH 1910	**3**	MGT 1000	**3**
MATH 1911	**1**	Fine Arts	3
ECON 1010	3	ECON 1020	3
ENGL 1010	**3**	**ENGL 1020**	**3**
Natural Sciences (non-lab)	3	PHYS 1030	3
Cultures and Civilizations	3	PHYS 1030L	1
	16		16

Sophomore Year

Fall Semester:	Hrs	*Spring Semester:*	Hrs
ETEM 1340	**3**	ENGL 2881 or 2882 or 2880	3
ACC 2010	**3**	ACC 2020	3
MGT 2110 or ENGR 2220	3	**MGT 2120**	**3**
Technical Elective* (INTD 1100)	3	PHIL 2120 or CPSC 3610	3
Technical Elective*	3	Technical Elective*	3
	15		15

Junior Year

Fall Semester:	Hrs	*Spring Semester:*	Hrs
ETEM 3500	**3**	**ETEM 3540**	**3**
ENGR 3520	**3**	ETEM 3870	3
MGT 3150	3	MKT 3130	3
INTD 3050	3	INTD 3240	3
Technical Elective*	3	Technical Elective*	3
BUS 3350	3		
	18		15

Senior Year

Fall Semester:	Hrs	*Spring Semester:*	Hrs
ETEM 4570	3	**ETEM 4500**	**3**
ETEM 4580	3	ETEM 4530	3
ETEM 4960	**4**	PSY 4060	3
FIN 3020	3	Technical Elective*	3
Technical Elective*	3	Technical Elective*	4
	16		16

***Technical Electives (25 hours):** May come from engineering, science, technology, business, or other related areas. Advisement should be sought from program advisor as early as possible.

Additional Information and Notes

127 total hours required.

Minimum 39 hours at the 3000-4000 level.

A "C" OR BETTER IS REQUIRED FOR COURSES IN BOLD.

See **Degree and Graduation Requirements** for additional requirements.

Note: A maximum of 30 hours may be earned in the College of Business and credited toward the degree.

Course Number Change:

Current ETCM 3010 - Construction Safety and Risk Management

(3) Credit Hours

Introduction of occupational safety hazards associated with the construction industry. Emphasis placed on recognition, evaluation and control of safety hazards, particularly as they relate to the Occupational Safety and Health Administration (OSHA) guidelines. Introduction to risk management strategies by identifying potential risks and assigning mitigation control measures. Lecture 3 hours. Supplementary course fee assessed.

Proposed ETCM 2010 - Construction Safety and Risk Management

(3) Credit Hours

Introduction of occupational safety hazards associated with the construction industry. Emphasis placed on recognition, evaluation and control of safety hazards, particularly as they relate to the Occupational Safety and Health Administration (OSHA) guidelines. Introduction to risk management strategies by identifying potential risks and assigning mitigation control measures. Lecture 3 hours. Supplementary course fee assessed.

Prerequisite Changes:

Current ETCM 4010 - Construction Scheduling

(3) Credit Hours

Development of the project schedule and its relationship to the estimate and contractual scheduling requirements examined. The application of the Critical Path Method (CPM) and Program Evaluation Review Technique (PERT) to construction planning, scheduled vs. actual job expenditures, cost forecasting, should be reinforced. Lecture 3 hours. Prerequisite: ETEM 3500 or ENIE 3500 or department head approval. Supplementary course fee assessed.

Proposed ETCM 4010 - Construction Scheduling

(3) Credit Hours

Development of the project schedule and its relationship to the estimate and contractual scheduling requirements examined. The application of the Critical Path Method (CPM) and Program Evaluation Review Technique (PERT) to construction planning, scheduled vs. actual job expenditures, cost forecasting, should be reinforced. Lecture 3 hours. Prerequisites: ETEM 3500 or ENIE 3500 and ENGR 3520 with a grade of C or better, or department head approval. Supplementary course fee assessed.

Current ETCM 4020 - Construction Cost Estimating

(3) Credit Hours

Principles and practices of estimating providing application and drill in surveying quantities of labor and materials for general construction projects: excavation, concrete and formwork, carpentry, masonry, structural steel, lath and plaster, interior finishes. Topics include proposal solicitation and preparation, bidding strategy, estimate types and content, quantity survey, ethics, and an introduction to computer use in estimating. Lecture 3 hours. Supplementary course fee assessed.

Proposed ETCM 4020 - Construction Cost Estimating

(3) Credit Hours

Principles and practices of estimating providing application and drill in surveying quantities of labor and materials for general construction projects: excavation, concrete and formwork, carpentry, masonry, structural steel, lath and plaster, interior finishes. Topics include proposal solicitation and preparation, bidding strategy, estimate types and content, quantity survey, ethics, and an introduction to computer use in estimating. Lecture 3 hours. Prerequisites: ETEM 1340, ETCM 2640, INTD 3050, and ENGR 3520 with a grade of C or better, or department head approval. Supplementary course fee assessed.

Current ETCM 4030 - Construction Cost Accounting

(3) Credit Hours

This course reviews the fundamentals of accounting and examines construction cost accounting principles as they apply to construction management, reading financial statements, cash management, cash flow analysis, depreciation and taxes, and impact on profitability. Examines the principles of activity based costing and net present value analysis, and introduces the framework for construction performance measurement, cost performance indices, and earned value analysis. Lecture 3 hours. Prerequisite: ENGR 3520, junior standing, and approval of the department head. Supplementary course fee assessed.

Proposed ETCM 4030 - Construction Cost Accounting

(3) Credit Hours

This course reviews the fundamentals of accounting and examines construction cost accounting principles as they apply to construction management, reading financial statements, cash management, cash flow analysis, depreciation and taxes, and impact on profitability. Examines the principles of activity based costing and net present value analysis, and introduces the framework for construction performance measurement, cost performance indices, and earned value analysis. Lecture 3 hours.
Prerequisites: ACC 2020 and ENGR 3520 with a minimum grade of C, or department head approval.
Supplementary course fee assessed.

Current ETCM 4500 - Construction Management Design

(3) Credit Hours

Propose, design and implement a construction project that will analyze, integrate and synthesize concepts and knowledge from previous Construction Management course work. Independent research will be performed to develop projects in preparation for a formal final report and presentation. Lecture 1 hour, project 2 hours. Prerequisite: ETCM 3010, 4010 and 4020 or department head approval. Supplementary course fee assessed.

Proposed ETCM 4500 - Construction Management Design

(3) Credit Hours

Propose, design and implement a construction project that will analyze, integrate and synthesize concepts and knowledge from previous Construction Management course work. Independent research will be performed to develop projects in preparation for a formal final report and presentation. Lecture 1 hour, project 2 hours. Prerequisites: ETCM 2010 and 2640; ETCM 4010 and 4020 with a minimum grade of C, or department head approval. Supplementary course fee assessed.

Current ETEM 4500 - Engineering Management Design

(3) Credit Hours

Propose, design and implement an engineering management project that will analyze, integrate and synthesize concepts and knowledge from previous Engineering Management course work. Independent research will be performed to develop projects in preparation for a formal final report and presentation. Lecture 1 hour, project 2 hours. Prerequisites: ENGR 3520, junior standing, and approval of the department head. Supplementary course fee assessed.

Proposed ETEM 4500 - Engineering Management Design

(3) Credit Hours

Propose, design, and implement an engineering management project that will analyze, integrate, and synthesize concepts and knowledge from previous Engineering Management course work. Independent research will be performed to develop projects in preparation for a formal final report and presentation. Lecture 1 hour, project 2 hours. Prerequisites: ETEM 3500 or ENIE 3500 and ENGR 3520 with a grade of C or better, or department head approval. Supplementary course fee assessed.

Current ETCM 4960r - Construction Management Internship

(2-4) Credit Hours

Supervised work experience in construction management. Evaluation and reports required. Internships should be coordinated with the prior consent of an advisor by aligning with a local business. Lecture 1 hour, laboratory 3 hours. Prerequisite or Corequisite: ETCM 4500 or department head approval. Supplementary course fee assessed.

Proposed ETCM 4960r - Construction Management Internship

(4) Credit Hours

Supervised work experience in construction management. Evaluation and reports required. Internships should be coordinated with the prior consent of an advisor by aligning with a local business. Lecture 1 hour, laboratory 3 hours. Prerequisites: ETCM 2640, INTD 3050, ETEM 3500 or ENIE 3500, ENGR 3520, ETCM 4010 and 4030 with a minimum grade of C, or department head approval. Supplementary course fee assessed.

Current ETEM 4960r - Engineering Management Internship

(2-4) Credit Hours

Supervised work experience in management. Evaluation and reports required. Internships should be coordinated with the prior consent of an advisor by aligning with a local business. Lecture 1 hour, laboratory 3 hours. Prerequisite or Corequisite: ETEM 4500 or department head approval. Supplementary course fee assessed.

Proposed ETEM 4960r - Engineering Management Internship

(4) Credit Hours

Supervised work experience in engineering management. Evaluation and reports required. Internships should be coordinated with the prior consent of an advisor by aligning with a local business. Lecture 1 hour, laboratory 3 hours. Prerequisites: ETEM 3500 or ENIE 3500 and ENGR 3520 with a minimum grade of C, or department head approval. Supplementary course fee assessed.

New Courses

ETEM 1340 – Fundamentals of Building Construction (3 hrs.)

Design and estimate building construction materials and methods for commercial and residential projects to get effective process, efficient and sustainable building methods, including how estimate building construction cost. Fall semester. Lecture 2 hours and lab 2 hours. Pre- or Co-requisites: MATH 1910.

ETCM 1740 – Surveying (4 hrs.)

Fundamental concepts and practices of surveying. Theory of measurements and field notes; methods of obtaining horizontal and vertical distances, angles and directions; use of levels, transits, theodolites, and total stations; construction surveying, curves and volumes. Spring semester. Lecture 2 hours and lab 4 hours. Pre- or Co-requisites: MATH 1910.

ETCM 2640 – Construction Documents Technology (3 hrs.)

Examination of the importance of construction documents and best practices integral to various aspects of the construction process. Provides fundamental knowledge for the documentation, administration, and successful delivery of construction projects. Serves as a useful study aid for those wishing to obtain the Construction Documents Technologist (CDT) certificate. Fall semester. Lecture 3 hrs. Prerequisites: ETCM 1740 and INTD 1100.

ETEM 3870 – Introduction to Logistics Management (3 hrs.)

This course is an introduction to logistics in transportation and distribution channels. It offers a description of logistics operations in transportation, concepts of facilities and methods used in supply chain. Third party logistics, fleet management, physical distribution and a number of other concepts are introduced. The course includes highlights on transportation and distribution business in a local and global scenario. Spring semester. Lecture 3 hours. Prerequisites: ETEM or ENIE 3500 and ENGR 3520 with a grade of C or better, or department head approval.

ETCM 4600 – Green Building Rating Systems (3 hrs.)

The purpose of this course is to provide an introduction to the concepts associated with Sustainability and the impact the built environment has on it. The main focus is on the different Green Building Rating Systems as they apply to both Commercial and Residential Projects. The Rating Systems are LEED, Zofnass, Energy Star, Cradle to Cradle, Earthcraft House, Better Built Chattanooga, and Green Globes. By the end of this course, the student should be prepared to take the LEED Green Associate Exam. Fall semester. Lecture 3 hours. Prerequisites: ETEM 1340, ETCM 1740, INTD 3050, and ETCM 4010 with a grade of C or better, or department head approval.

ETEM 1340 – Fundamentals of Building Construction

CREDIT: 3 hrs.
TERM: Fall semester
FACULTY: David Bowers
PRE- or CO-REQUISITES: MATH 1910

COURSE DESCRIPTION: Design and estimate building construction materials and methods for commercial and residential projects to get effective process, efficient and sustainable building methods, including how estimate building construction cost.

ATTENDANCE POLICY: Attendance is required. The instructor needs to be notified in advance if the student will miss the class.

MAKE-UP POLICY: Students should have a reasonable excuse to request make-up test and need to notify the instructor prior to the test.

EVALUATION:

Quizzes	20%
Lab Assignments	30%
Tests	40%
Attendance and Participation	10%
	100%

LETTER GRADES:

90-100	A
80-89	B
70-79	C
60-69	D
Below 60	F

TEXTBOOK: Fundamentals of Building Construction: Materials and Methods, Wiley, John & Sons, Incorporated , 5th Edition

ADA STATEMENT: If you are a student with a disability (e.g. physical, learning, psychiatric, vision, hearing, etc.) and think that you might need special assistance or a special accommodation in this class or any other class, call the Office for Students with Disabilities at 425-4006, come by the office - 102 Frist Hall or see **http://www.utc.edu/OSD/**

If you find that personal problems, career indecision, study and time management difficulties, etc. are adversely affecting your successful progress at UTC, please contact the Counseling and Career Planning Center at 425-4438 or **http://www.utc.edu/Administration/CounselingAndCareerPlanning/**.

ETCM 1740 – Surveying

CREDIT: 4 hrs.
TERM: Spring semester
FACULTY: Heather Adcox
PRE- or CO-REQUISITES: MATH 1910

COURSE DESCRIPTION: Fundamental concepts and practices of surveying. Theory of measurements and field notes; methods of obtaining horizontal and vertical distances, angles and directions; use of levels, transits, theodolites, and total stations; construction surveying, curves and volumes. Lecture 2 hours and lab 4 hours.

ATTENDANCE POLICY: Attendance is required. The instructor needs to be notified in advance if the student will miss the class.

MAKE-UP POLICY: Students should have a reasonable excuse to request make-up test and need to notify the instructor prior to the test.

EVALUATION:

Assignments	20%
Tests	40%
Attendance and Participation	10%
Final Project and Presentation	30%
	100%

LETTER GRADES:

90-100	A
80-89	B
70-79	C
60-69	D
Below 60	F

TEXTBOOK: Surveying with Construction Applications by Barry Kavanagh, Prentice Hall, 7th Edition

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If you find that personal problems, career indecision, study and time management difficulties, etc. are adversely affecting your successful progress at UTC, please contact the Counseling and Career Planning Center at 425-4438 or **http://www.utc.edu/Administration/CounselingAndCareerPlanning/**.

ETCM 2640 - Construction Documents Technology (CDT) (3 hrs.)

Fall 2012

FACULTY:

Paul Baggett

Business Phone: 423-648-8235

Phone: 423-718-9554

E-Mail: **pbaggett2@hotmail.com**

ADA STATEMENT: Attention: If you are a student with a disability (e.g. physical, learning, psychiatric, vision, hearing, etc.) and think that you might need special assistance or a special accommodation in this class or any other class, call the Office for Students with Disabilities at 425-4006, come by the office - 102 Frist Hall or see **http://www.utc.edu/OSD/**

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I. TEXT:

Project Delivery Practice Guide by Ross Spiegel, FCSI, CCS, CCCA, FAIA, LEED AP BD+C (Chairman Practice Guides Task Team) and Walter R. Scarborough, CSI, CCS, CCCA, AIA, SCIP (Project Delivery Practice Guide Author)

Published by John Wiley & Sons, Inc. ISBN: 978-0-470-63519-3

II. COURSE OVERVIEW:

A. Course Description:

Examination of the importance of construction documents and best practices integral to various aspects of the construction process. Provides fundamental knowledge for the documentation, administration, and successful delivery of construction projects. Serves as a useful study aid for those wishing to obtain the Construction Documents Technologist (CDT) certificate. Fall semester. Lecture 3 hrs. Prerequisites: ETCM 1740 and INTD 1100.

Topics covered are requirements set forth by Construction Specifications Institute (CSI) in creating standards and formats for construction documents and project delivery. This course focuses on key principles in detail for the documentation, administration, and delivery viewed from a real-world construction project management perspective. Principles in contracts, legal issues, project planning, project delivery, document design, product selection, construction documents, procurement documents, Building Codes and Standards, A/E design professional roles, and construction management roles will be studied.

B. Assignment Instructions:

For each assignment your primary source should be the text readings, but you are encouraged to find, utilize, and reference other sources that provide insight into these issues. You are, of course, free to agree or disagree with the author on any of the issues we study. You are encouraged to fully explore, analyze various positions, and search for the truth. (All assignments **must** be typewritten.)

C. Exams & Quizzes: Quizzes will be given periodically at the discretion of the instructor. There will be a Mid-Term Exam and a Final Exam.

D. Course Assignments Outline / Study Guide

Session #1: Fundamentals

Assignment #1:

Reading: Chapters 1, 2, 3

Topic: Introduction to CSI; Stakeholders and Participants; Facility Life Cycle

Task: Read "Student Notes" and submit answers to questions by e-mail for Session #1

Session #2: Planning and Pre-Design

Assignment #2:

Reading: Chapters 4, 5, 6

Topic: Codes, Regulation, and Standards; Contracts and Legal Issues; Project Planning

Task: Read "Student Notes" and submit answers to questions by e-mail for Session #2

Session #3: Design

Assignment #3:

Reading: Chapters 7, 8, 9

Topic: Project Delivery; Design; Design Documents

Task: Read "Student Notes" and submit answers to questions by e-mail for Session #3

Session #4: Construction Documents Part 1

Assignment #4:

Reading: Chapters 10, 11.1, 11.2

Topic: Product Selection and Evaluation; Construction Documents

Task: Read "Student Notes" and submit answers to questions by e-mail for Session #4

Session #5: Construction Documents Part 2

Assignment #5:

Reading: Chapter 11.3

Topic: Construction Documents

Task: Read "Student Notes" and submit answers to questions by e-mail for Session #5

Session #6: Construction Documents Part 3

Assignment #6:

Reading: Chapter 11.4 – 11.5

Topic: Construction Documents

Task: Read "Student Notes" and submit answers to questions by e-mail for Session #6

Exam: **Mid-Term Exam**

Session #7: Procurement

Assignment #7:

Reading: Chapter 12

Topic: Procurement

Task: Read "Student Notes" and submit answers to questions by e-mail for Session #7

Session #8: Construction - Part 1

Assignment #8:

Reading: Chapter 13.1 – 13.6

Topic: Construction

Task: Read "Student Notes" and submit answers to questions by e-mail for Session #8

Session #9: Construction - Part 2

Assignment #9:

Reading: Chapter 13.7 – 13.13

Topic: Construction

Task: Read "Student Notes" and submit answers to questions by e-mail for Session #9

Session #10: Post Construction

Assignment #10:

Reading: Chapter 14

Topic: Facility Management

Task: Read "Student Notes" and submit answers to questions by e-mail for Session #10

Session #11: AIA Document A201 General Conditions

Assignment 11:

Reading: AIA Document A201 General Conditions

Session #12:

Simulation for CDT Exam

Due dates will be given ahead of time based on progress and at the discretion of the instructor.

CDT Exam (Construction Document Technologist Certificate) is offered two times per year (Spring and Fall) through Construction Specifications Institute (CSI). CDT Exam is administered in computer-based format at Prometric test centers. The Prometric test center in Chattanooga, TN is located at 4295 Cromwell Road Suite 309 423- 894-6249. The exam fee for full-time university students is $105.00. Contact Construction Specifications Institute at www.csinet.org **or 800-689-2900.**

III. LEARNING OUTCOMES:

Course Objectives:

1. To provide the student with an understanding of contract documents.
2. To provide the student an overview of project delivery issues.
3. To provide the student an in-depth study of types of contracts.
4. To provide the student with an in-depth coverage of procurement documents, Building Codes and Standards, project planning, and construction administration it relates to project management on construction projects.
5. To provide the student with an understanding of the elements of contract documentation, change orders, contract claims.
6. To provide the student with knowledge of the role construction management plays in team functions in construction design, administration, and project delivery.
7. To provide the student with an understanding of the role the owner, A/E design professional, contractor, and subcontractor play as stakeholders in the construction project.

IV. ASSESSMENTS:

Learning outcomes will be assessed through the following methods:

Each assignment will be evaluated in terms of the intended learning outcomes related to the assignment.

Assessment will be based on the following criteria:

- Completeness – does the answer include a majority of the salient points, facts, topics, etc.
- Clarity – is the answer logical, concise, and well written.
- Understanding – does the answer indicate a grasp of the facts and theories and are conclusions included (where appropriate).
- Honesty – are the answers in the student's own words.
- Instructions – was the assignment on time and were the instructions followed correctly.

V. EVALUATION AND GRADING PROCEDURES:

Course Evaluation:

The grade for this course will be determined by work submitted in the form of:

Assignments and quizzes	50%
Exams	35%
Class participation/attendance	15%

All assignments are worth 100 points each. Any assignment more than 3 days late will be penalized 5 points per day it is late following the 3-day grace period. The grade will be determined according to the following grade scale

Grade Scale:	90 - 100	A
	80 - 89	B
	70 - 79	C
	60 - 69	D
	Below 60	F

VI. ATTENDANCE POLICY:

Course Attendance:

Attendance is expected at ALL lectures and class times. It is the STUDENT'S responsibility to keep up with the coursework and assignments. Lectures CANNOT be repeated to accommodate individual students who have missed class. It is strongly recommended that students make every attempt to attend lectures.

It is the STUDENT'S responsibility to keep up with the coursework and assignments.

Make-up exams are to be scheduled with instructor's written approval. Make-up of missing assignments is to be coordinated with instructor's written approval of a deadline.

VII. WITHDRAWAL INFORMATION:

Withdrawal Deadline:

Refer to Academic Calendar.

VIII. ACADEMIC INTEGRITY:

UTC students are required, as a condition of good standing and continued enrollment, to conduct themselves properly in class. Such proper behavior includes academic honesty, civility and respect for others and private property. Please refer to the Student Handbook portion of the catalog for further information.

IX. OTHER:

General Information:

Instructor Accessibility:

Before or after each class, e-mail, or by phone.

Children are not permitted in the lecture classes due to the basic classroom accommodations and consideration of other students in the class.

If there is inclement weather, listen to the local radio or TV stations. If UTC is officially closed on regular class meeting day, the student will be given opportunity to make up the work during the next class meeting.

ETEM 3870 – INTRODUCTION TO LOGISTICS MANAGEMENT

Spring 2013

INSTRUCTOR:

Dr. Aldo McLean

Assistant Professor

Engineering Management Department

Office: EMCS 445F

E-mail: **aldo-mclean@utc.edu**

Office phone: (423) 425-5328 (weekdays)

Office fax: (423) 425-5229

Office Hours: Monday: 1:00 – 2:30 pm

Tuesday: 3:15 – 4:15 pm

Wednesday: 8:00 – 12:00 & 1:00 – 4:30

By appointment

COURSE DESCRIPTION:

This course is an introduction to logistics in transportation and distribution channels. It offers a description of logistics operations in transportation, concepts of facilities and methods used in supply chain. Third party logistics, fleet management, physical distribution and a number of other concepts are introduced. The course includes highlights on transportation and distribution business in a local and global scenario. Spring semester. Lecture 3 hours. Prerequisites: ETEM or ENIE 3500 and ENGR 3520 with a grade of C or better, or department head approval.

COURSE OBJECTIVES:

- Explore basic techniques and methods in logistics, transportation and distribution.
- Develop analytics skill in transportation and freight management.
- Review the different options and inventory for transportation and location of facilities for distribution.
- Improve decision-making skills for distribution and transportation planning.

TEXTBOOKS

Supply Chain Logistics Management by Donald J. Bowersox, David J. Closs, M. Bixby Cooper, McGraw Hill, 3rd Edition

CLASS SCHEDULE

Week	Dates	Subject	Chapters from Textbook
1	Jan 18 – 20	*Introduction* *Overview of Transportation* *Transportation Modes*	
2	Jan 25 – 27	*Transportation Modes* – *Rolling stock* – *Truck and rail*	
3	Feb 1 – 3	*Transportation Regulation* – *Carrier characteristics and Regulations*	
4	Feb 8 – 10	*Transportation Management* – *Rate (pricing) considerations* – *Freight and consolidating shipments*	
5	Feb 15 - 17	*Construction Logistics*	
6	Feb 22 - 24	***Review*** ***First Exam***	
7	Mar 1 – 3	*Transportation Management* – *Fleet Management* – *Vehicle and operation cost*	
8	Mar 8 – 10	*Decision Strategy in Transportation* – *Productivity issues* – *Freight brokerage*	
9	Mar 15 - 17	*Spring Break*	
10	Mar 22 - 24	*Distribution* – *Type of facilities* – *Facility Locations*	
11	Mar 29 - 31	*Distribution Techniques* – *Routes* – *Distribution channels*	
12	Apr 5 – 7	*Review* ***Second Exam***	
13	Apr 12 - 14	*Distribution Techniques* – *Security and safety*	

14	Apr 19 - 21	*Analyzing Distribution Networks* - *International Transportation*	
15	Apr 26 - 28	*Review for final exam* ***Final Presentations***	
	May 3	***Final Exam***	

CLASS POLICIES

We are scheduled to 15 weeks of class. The student is responsible to sign the sign-in sheet during class and to notify the instructor if missing a class period. Arriving to class 20 minutes upon start could be considered an absence.

The use of computers is acceptable only for directed class activities, taking notes, and following along with the instructor on a required software media (PowerPoint, Acrobat reader or assigned software).

Late assignments and/or projects will be penalized 15 to 25% unless an official excuse is provided. Students are advised to keep a copy of their work until the end of the semester. Quizzes are administered at the end of most chapters and can't be taken at a later time. Exams can be taken within 2 days before designated test date or 1 week after exam if reason is applicable (exception is the final exam).

Any policy that is not discussed in this Syllabus the University of Tennessee - Chattanooga's Policy will apply.

PROPOSED COURSE GRADING SCHEMA

The course is composed of 2exams, 2 assignment, quizzes (5), a final project and oral presentation. The following list shows the values in percent of the final grade. Students should choose between the following alternatives:

Quizzes (5/7)	10%
Final Project	15%
Assignments each (2)	10%
Exam 1	20%
Exam 2	20%
Final Exam	25%

GRADING SCALE

The grading scale is the standard scale used in other courses in the school of Engineering Management:

A	90-100%
B	80-89.9%
C	70-79.9%
D	60-69.9%
F	< 59.99

ADA STATEMENT:

If you are a student with a disability (e.g. physical, learning, psychiatric, vision, hearing, etc.) and think that you might need special assistance or a special accommodation in this class, call the Office for Students with Disabilities at 425-4006 or come by the office, 102 Frist Hall.

102 Frist Hall

Dept. 2953

615 McCallie Avenue

Chattanooga, TN 37403

E-mail: **osd@utc.edu**

Telephone/TTY: (423) 425-4006

Fax: (423) 425-2288

http://www.utc.edu/Administration/OfficeForStudentsWithDisabilities/

ACADEMIC INTEGRITY:

The Honor System is designed to foster a campus-wide climate of honesty and integrity in order to insure that students derive the maximum possible benefit from their work at the University of Tennessee at Chattanooga. The student becomes subject to rules and regulations of the Honor Code upon registration. Each student is obligated to exert every effort to insure that the Honor Code is upheld by himself/herself and others.

Please, review the Student Handbook (page 4-6) for detailed information on the Honor Code or visit: **http://www.utc.edu/Administration/StudentDevelopment/studenthandbook.php**

COUNSELING STATEMENT:

If you find that personal problems, career indecision, study and time management difficulties, etc. are adversely affecting your successful progress at UTC, please contact the Counseling and Career Planning Center at 425-4438 or **http://www.utc.edu/Administration/CounselingAndCareerPlanning/**

ETCM 4600 - Green Building Rating Systems

TERM: Fall 2012

CLASS SCHEDULE: 3:25pm – 4:40pm, Monday and Wednesday, EMCS 231

CREDIT: 3 credit hours

FACULTY: Heather Adcox, AIA, LEED AP (heather.adcox@gmail.com)

COURSE DESCRIPTION: The purpose of this course is to provide an introduction to the concepts associated with Sustainability and the impact the built environment has on it. The main focus is on the different Green Building Rating Systems as they apply to both Commercial and Residential Projects. The Rating Systems are LEED, Zofnass, Energy Star, Cradle to Cradle, Earthcraft House, Better Built Chattanooga, and Green Globes. By the end of this course, the student should be prepared to take the LEED Green Associate Exam. Fall semester. Lecture 3 hours. Prerequisites: ETEM 1340, ETCM 1740, INTD 3050, and ETCM 4010 with a grade of C or better, or department head approval.

REQUIRED TEXT: LEED-NC Manual from USGBC (**www.usgbc.org**),

SUGGESTED TEXT:
Cradle to Cradle / Remaking the Way we Make Things by William McDonough & Michael Braungart

GRADING:

Quizzes	20%
Assignments	20%
Tests	30%
Participation	5%
Final Presentation	25%
	100%

LETTER GRADES:

90-100	A
80-89	B
70-79	C
60-69	D
Below 60	F

ADA STATEMENT: Attention: If you are a student with a disability (e.g. physical, learning, psychiatric, vision, hearing, etc.) and think that you might need special assistance or a special accommodation in this class or any other class, call the Office for Students with Disabilities at 425-4006, come by the office - 102 Frist Hall or see **http://www.utc.edu/OSD/**

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