



SMGT 524.01W – System Safety COURSE SYLLABUS: Summer II, 2014 (5 Weeks)

Instructor: David O. Anderson, PhD,
 CIH, CSP, QEP, CPEA – Assistant Professor
Office Location: Charles Austin Engineering Building (Ag/IT), 213B
Office Phone: 903-886-5471
Office Fax: 903-886-5960
Office Hours: No official hours due to summer schedule. All requests for appointments and contacts to be made via email
University Email Address: david.anderson@tamuc.edu
Courseware URL: <http://online.tamuc.org/>

General Course Information

Course Description:

A study of the specialized integration of safety skills and resources into all phases of a System's Life Cycle. Topics include system safety analyses, probability theory & statistics, PHA, sub-system & hazard analysis, operating & support analysis, energy trace & barrier analysis, FMEA, fault-hazard, fault-tree, MORT, HAZOP, and accident analysis & prevention.

Call number: 50208

Course Dates: July 7 – August 7, 2014

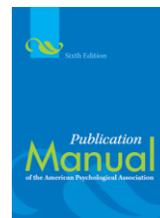
Course Purpose:

The goal of SMGT 524, System Safety is to provide graduate students with critical knowledge and understanding of the application of evaluation tools and techniques required for a Master of Science degree with a major in Technology Management (Safety Management track) or as an elective in programs where an understanding of systems and system analysis tools is valuable, such as, Business Administration, Management, Computer Science, or Management Information Systems.

Textbook (required): Stephens, Richard A. System Safety for the 21st Century (2004). ISBN 0-471-44554-5. John Wiley and Sons, Inc., Hoboken, NJ.

Suggested Reference Source(s):

Title:	Publication Manual of the American Psychological Association, 6 th edition	
Author:	American Psychological Association	
APA Item #:	4200066	
# Pages:	272 pages	
Format availability:		
Format	Item#	ISBN-13



[Hardcover:](#) 4200067 978-1-4338-0559-2
[Softcover:](#) 4200066 978-1-4338-0561-5
[E-book:](#) **\$4.99**
Publisher: American Psychological Association
Publication date: July 2009

IMPORTANT NOTICE!!! Grading policies and requirements identified in this syllabus are non-negotiable and will be followed in this course with all students held to an identical standard. If you do not agree with any requirement herein, believe any of them to be “unfair” or “unreasonable,” or believe that less should be expected of you than your classmates to earn a comparable grade, you should IMMEDIATELY DROP this course and re-evaluate your dedication to academic integrity and success!

Assessment of Program Goals

Student Learning Outcomes:

Upon successful completion of the course the student will be able to:

1. Explain key system safety concepts and their importance.
 2. Explain requirements of a system safety program as it applies in an occupational environment.
 3. Investigate and explain the connection of MIL-STD 882 including its creation and evolution on the system safety process.
 4. Select and apply appropriate system safety tools from among the following;
 - Preliminary Hazard Analysis (PHA), Job Hazard Analysis (JHA), Job Safety Analysis (JSA).
 - System Hazard Analysis (SHA), Subsystem System Hazard Analysis (SSHA).
 - Operating and Support Hazard Analysis (O&SHA) aka Operational Hazard Analysis (OHA).
 - Energy Trace and Barrier Analysis (ETBA).
 - Failure Mode and Effect Analysis (FMEA).
 - Fault (or functional) Hazard Analysis (FHA).
 - Fault Tree Analysis (FTA).
 - Project Evaluation Tree (PET)
 - Change Analysis (CA)
 - Management Oversight and Risk Tree (MORT).
 - Hazard and Operability Studies (HAZOP and What-If Analyses).
 5. Define and concisely present where and how system safety engineering could be utilized in a potentially dangerous work environment .
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Communications with Instructor

- The instructor is available via a variety of avenues. The best path depends on the nature of the content you wish to convey or ask. If you have a general question about the class content, the syllabus and course materials, you are provided access within the eCollege environment and that

may already provide the answer you seek. If you have a question or comment of the nature that would be presented in a traditional classroom environment, please do so in the Virtual Classroom so that others might benefit from and participate in the exchange. If it's not something of general interest to others in the course, my Virtual Office is a better choice. Personal content involving grades, progress, etc. should be addressed with me via private e-mail:

David.anderson@tamuc.edu

- Any emails sent to the instructor must be written in a formal business format, with complete sentences, correctly spelled words, correct punctuation, etc.
- All emails sent to the instructor **MUST** have the following in the email **SUBJECT LINE:**

SMGT 524.01W - *Your Last Name, Your First Name, Your CWID #, subject of correspondence*

- **Virtual Classroom & Virtual Office:** In the Virtual Classroom and Office you may post course questions and share comments with your classmates. The Virtual Classroom is often a good place to find answers to your questions before you contact your instructor.

Basic Technology Requirements

- For maximum efficiency, you will need a good computer connected to high-speed Internet.
- A recent edition of **Microsoft Office Word** is highly recommended.

Online Access & Navigation

- This online component of the course will be facilitated using **eCollege**, the *Learning Management System* used by **Texas A&M University-Commerce**.
- To begin the course go to: <https://online.tamuc.edu/>
- You will need your *Campus Wide Identification Number* (CWID) to log into the course.
- If you have questions and/or problems contact: **Technology Services** at 903-468-6000 or helpdesk@tamuc.edu.

eCollege Technical Support

Texas A&M University-Commerce provides students technical support in the use of eCollege. The student help desk may be reached by the following means 24 hours a day, seven days a week.

- Chat Support:** Click on '*Live Support*' on the tool bar within your course to chat with an eCollege Representative.
- Phone:** 1-866-656-5511 (Toll Free) to speak with eCollege Technical Support Representative.
- Email:** helpdesk@online.tamuc.org to initiate a support request with eCollege Technical Support Representative.
- Help:** Click on the '*Help*' button on the toolbar for information regarding working with eCollege (i.e. How to submit to dropbox, How to post to discussions etc...)

Course Policies

This syllabus constitutes the contractual document between faculty and students in the course. A student's continued enrollment in the course following the posting of the final, official syllabus at the beginning of the term signifies the student's understanding of and complete acceptance of this contract and the procedures, requirements, and evaluation criteria contained herein. Any student not accepting this contract is to immediately drop this course. The syllabus identifies credit-earning

activities for which you will be responsible to submit in the course. The need to vary from the original syllabus is rare; however, unforeseen circumstances and logistical issues could arise during the course of a semester that necessitates a minor modification in the originally planned activities or procedures. Changes to a syllabus are not made without sufficient justification and assurance that any changes implemented would not impact the students' ability to complete the course. Any variations that may be determined necessary during the course by the instructor will be appropriately announced in the courseware along with relevant information pertaining to the modification.

This graduate course will require you to read, conduct research and write at a level appropriate for a university graduate student. It is assumed that you can read and write at this level coming into the course.

- You will be expected to read and comprehend the course syllabus and course announcements.
- You will be expected to manage your time effectively and efficiently throughout the semester.
- You will be expected to meet all deadlines/due dates.
- You will be expected to participate fully in the course by checking announcements and responding to emails, etc.
- You will be expected to practice civility and formal business writing style/format in all of your correspondence (including emails) and in your verbal interactions with the professor, staff, and students.
- You will be expected to log into **eCollege** and this course at least twice per week.
- Work, vacation, sickness/accident/death outside your immediate family does **NOT** constitute an approved excuse for not completing assignments, projects, examinations and/or not meeting course deadlines/due dates. Late assignments, projects and examinations may receive a score of "0" points at the discretion of the professor, based on the facts and evidence presented by the student. Normally, late work is **NOT** accepted.
No extra credit, additional, or make-up work to improve a grade or the re-doing of an assignment, project, or examination will be permitted in this course.

Tips for Success

Be Proactive

If you have course related questions or do not understand an assignment, it is time for you to seek clarification via the Virtual Classroom or your instructor. Do not wait until your grade is in jeopardy to act; your instructor is there to guide you through the course. *However, your questions should be serious, well-written, positive and to the point.* It is not wise or effective to wait until the assignment, project or examination is due to begin-*your grade will suffer.* Time management, planning ahead and organization are "key" to success in any academic course.

Utilize Available Writing Assistance

Both on-site and online writing assistance is available through the University Writing Center. The Writing Center is dedicated to helping writers take advantage of all opportunities for learning inherent in the writing process; to that end, center tutors can assist writers at any stage of the writing process. By working with students one-on-one or in small groups, tutors can help writers analyze the rhetorical demands of the writing task, generate and focus ideas at the prewriting stage, ensure they are addressing the writing assignment directly and effectively, elaborate and rework a rough draft after hearing the writer read the draft aloud, discover their strengths and weaknesses in a particular rhetorical context, strengthen arguments, spot weak rhetorical choices and make more effective choices, and address formatting or other surface-level concerns. At no point do center tutors write these papers for the students. All writers working in the Writing Center maintain control of their work; tutors simply offer support and feedback and ask questions they may not have been asking themselves (or may not have even known to ask themselves).

For more information refer to the Writing Center's web pages at:

<http://web.tamuc.edu/academics/colleges/humanitiesSocialSciencesArts/departments/literatureLanguages/writingCenter/default.aspx>

Avoid Plagiarism

United States law states that words and ideas can be stolen. The expression of original ideas is considered intellectual property, and is protected by copyright laws, just like other inventions. Almost all forms of expression fall under copyright protection as long as they are recorded in some way (*such as a book or computer file*).

All of the following are considered plagiarism:

- Turning in someone else's work as your own.
- Turning in work you submitted in another course or during a previous attempt at the present course.
- Copying words and/or ideas from someone else without giving proper credit.
- Failing to put a quotation in quotation marks or block quote, as appropriate.
- Providing incorrect information about the source of a quotation or information source.
- Changing words, but copying the sentence structure of a source without giving proper credit.
- Copying so many words or ideas from a source that it makes up the majority of the work you have written, whether you give credit or not.

To avoid plagiarism, an individual must give credit whenever they:

- a) use another individual's idea, opinion, or theory;
- b) use facts, statistics, graphs, and drawings that are not common knowledge;
- c) use quotations of another individual's spoken or written words; or
- d) paraphrase another individual's spoken or written words.

Statement of Ethical and Professional Conduct:

Students enrolled in this course are expected to follow the highest level of ethical and professional behavior at all times. Each student will be expected to maintain legal, ethical and moral principles, practice professionalism and civility throughout this course of study.

Actionable Conduct:

The following actions on the part of the student will bring sanction against that student:

- **Dishonest Conduct:** Seeking to obtain unfair advantage by stealing, purchasing or receiving copies of course related assignments, projects, examinations.
 - Intentionally preventing others from completing their course related work.
 - The falsifying of records in order to gain admission or in order to complete an academic program of study.
 - The purchase of course related work from any outside or external source.
- **Cheating:** The unauthorized use or copying of another's work and reporting or representing it as your own.
- **Plagiarism:** Using or copying someone else's words, ideas and/or work without citations and the giving of proper credit (reference).
- **Collusion:** Acting with others to perpetrate any of the above actions regardless of your personal gain.

Sanctions:

Faculty, guided by a clearly delineated policy in the course syllabus, will be the arbiter for all in-class violations.

All violations will be reported to the Department Head of Engineering & Technology to assure equity and to provide appropriate counsel. In addition, the Department Head will maintain departmental records of violations by students. Sanctions beyond those imposed on the student by the course faculty member will be in the hands of the Department Head and the Dean. Potentially, for any repeated violations, a student could receive permanent expulsion from **Texas A&M University-Commerce**. Administrators, faculty and students are guided by the course syllabus, current undergraduate and/or graduate catalogs of the University, University Rules & Procedures, and **The Student's Guidebook**.

Students will always be afforded due process and review as appropriate under University policy.

As an official university student enrolled in this academic course, you will be held accountable for your actions in this course. This *Academic Honesty Policy* is in effect for the duration of this course of study and all enrolled students are expected to abide by the stated policy.

1. If you **cannot accept** this *Academic Honesty Policy* you must notify your Professor immediately by email and **also officially withdraw from this course of study.**
2. If you choose to remain in this course you are hereby accepting and agreeing to abide by this *Academic Honesty Policy*. **No further action on your part is required.**

Plagiarism represents disregard for academic standards and is against University policy. Plagiarized work will result in failure of the course and further administrative sanctions according to University policy. Guidelines for properly quoting and citing someone else's works can be found in a variety of handbooks and online resources.

Any works referenced should be properly cited in accordance with APA 6th edition style.

Web resources for additional reference regarding what constitutes plagiarism and how to avoid it include:

<http://www.plagiarism.org/>

<http://www.unc.edu/depts/wcweb/handouts/plagiarism.html>

<http://www.indiana.edu/~wts/pamphlets/plagiarism.shtml>

<https://owl.english.purdue.edu/owl/section/2/10/>

Turnitin, or other similar plagiarism services, may be utilized to verify the absence of plagiarism in any or all assignments submitted for comps or course credit. A specific similarity percentage is NOT identified as "allowable."

Also, be aware that the statute of limitations for penalties for plagiarism does not expire upon the completion of the course or even upon graduation. If an instance of plagiarism is found anytime after the completion of the course, the course grade is subject to change accordingly and any awarded degree utilizing the course is subject to revocation.

The College of Engineering, Science, and Agriculture (CoSEA) requires all students read and review the College's Plagiarism Policy statement. Students **must** acknowledge and accept this requirement via email within the first week of the course. The Policy can be found in the Doc Sharing folder.

Plagiarized assignments, projects, and examinations will earn an automatic grade of F (0 points).

Guide to Grading

In the workplace, you will be expected to produce documents that are clear, easy to read, error-free, and visually effective. Your written products must also satisfy general requirements of the organization, be appropriate for a specific purpose, and meet the needs of your audience. Final course letter grades are defined as follows:

A=Outstanding work: Demonstrates superior analysis of the assignment; provides excellent selection of content, organization, design, and style that addresses both the practical and rhetorical requirements of the particular situation; uses a style that is fluent and coherent; excellent choice and use of visuals, has no major mechanical errors; shows insight, perceptiveness, originality, and thought.

B=Good work: Above the level necessary to meet course requirements; has a thorough, well-organized analysis of the assignment; shows judgment and skill in the presentation of material appropriate for the intended audience and purpose; supports ideas well with concrete details; has an interesting, precise, and clear style; good use of visuals; strong, interesting work; and is free from major mechanical errors, although minor problems may be present.

C=Acceptable work: Meets all basic requirements of the course and assignment; provides a satisfactory analysis of the writing task, subject, and audience; accomplishes its purpose with adequate content, design, and detail; uses details, organization and expression appropriate for the rhetorical and practical context; adequate use of visuals; has acceptable mechanics; nothing remarkably good or bad about the work; equivalent work could be used in the professional world, but generally would be considered minimal.

D=Needs improvement: Minimally meets the assignment but is weak in one of the major areas (content appropriate for purpose, organization, style or mechanics) or offers a routine, inadequate treatment; document design and use of visuals is inadequate or inappropriate; shows generally substandard work with some redeeming features.

F=Unacceptable work: Does not meet the course requirements; fails to meet one or more of the core requirements of the course or assignment; may fail to cover essential points, or may digress to nonessential material; may lack adequate organization and show confusion or misunderstanding of genre or context; may use an inappropriate tone, poor word choice, excessive repetition, or awkward sentence structure; may be unclear; poor quality design and/or use of visuals; may contain an unacceptable level of errors.

Each document, presentation, or visual you prepare reflects your professional knowledge and establishes your professional image. In some cases, a document may be read by your professor and qualified professionals in the discipline. These professionals may be asked to comment on the content, presentation quality, and value of your work for evaluation purposes. It is critical that your work be done in a professional manner and written at the appropriate level for your intended audience.

Grade book

The instructor maintains the official grade book and calculates grades externally from the courseware.

The eCollege grade book is NOT the official grade book and is utilized only for the purpose of retrieving quiz/exam grades, when applicable, and as a convenient feedback utility to inform students of individual assignment grades, once available. The eCollege grade book may or may not display all credit assignments at any given time during the semester and therefore is NOT to be used as a

planning tool for identifying required activities or due dates. Grade totals and percentages in the eCollege grade book may not reflect actual course performance.

Subject Content of Course:

The course is expected to take a minimum of 90 hours or more to complete. During a five week semester, a minimum average of eighteen hours of effort will be required to complete the course work. The time that it takes to complete this course includes study of the textbook, internet and alternative reference research, eCollege activities and instruction, preparation of a quality research paper and completion of all exams and reports.

The course content follows the content of the textbook.

PART I: INTRODUCTION TO SYSTEM SAFETY.

PART II: SYSTEM SAFETY PROGRAM PLANNING ANALYSIS: TECHNIQUES AND METHODS.

PART III: ANALYTICAL AIDS

PART IV: SYSTEM SAFETY ANALYSIS TECHNIQUES

PART V: PROCESS SAFETY

PART VI: PROFESSIONALISM AND PROFESSIONAL DEVELOPMENT

COURSE REQUIREMENTS

Instruction / Methods / Activities / Assessments:

This course contains a series of assignments and assessments to assist in achieving the course learning objectives/outcomes. Each week there are various combinations of assignments, activities, discussions, readings, research, etc. A total of **1000 points** can be earned in this course.

1. Research Plan, Literature Review, References, and Abstract: 200 points

Students will develop a research plan, begin a literature review, prepare a list of references and submit a draft abstract. The draft abstract, which may appear differently in the final paper submittal, may be submitted for publication.

Assessment Method:

Part 1 Research Plan

- a) 1-page single spaced research plan showing what and how the researcher plans to undertake to complete the research paper. The plan should include such items as; topic/title of research, why this topic was chosen, where and how references will be found and reviewed. Key dates or milestones needed to accomplish the task on time.
- b) This document must contain the learner's name and CWID.
- c) The electronic submittal shall use the following file naming convention; LastName_Firstname_SMGT524_Plan.docx. Other approved file extensions are described in the syllabus.
- d) Part 2 (Draft Abstract) must be the second half-page of the submittal.
- e) The 1 ½ page document (parts 1 and 2) must be placed in the proper Dropbox in eCollege.
- f) The requirements and "scale for evaluating assignments" can be found in syllabus section titled GRANDING RUBRIC.

Part 2 Draft Abstract:

- a) The draft abstract must be original content.
- b) The draft abstract must meet all of the criteria described in the COURSE INFORMATION section of the syllabus.
- c) The abstract must be submitted by the due date.

The abstract must embrace an approved topic. Pre-approved topics are found in the syllabus section RESEARCH TOPICS and topics requiring instructor approval can be found in the section titled ALTERNATIVE RESEARCH TOPICS.

The requirements and scale for evaluating assignments can be found in syllabus section titled GRADING RUBRIC.

3. Final Research Paper: 300 points

Assessment Method:

- a) The research paper must be original content.
- b) The research paper must meet all of the criteria described within the syllabus, including length, style, topic selection and other pertinent items, and follow the Manuscript Guide found in the Doc Sharing folder. Turnitin will be used to assist in verifying originality.
- c) The research paper must be submitted by the due date.
- d) The research paper must embrace an approved topic. Pre-approved topics are found in the syllabus section RESEARCH TOPICS and topics requiring instructor approval can be found in the section titled ALTERNATIVE RESEARCH TOPICS.
- e) The requirements and scale for evaluating assignments can be found in syllabus section titled GRADING RUBRIC.

4. Final Examination: 400 points

Assessment Method:

- a) Answers that are cut and pasted will only be accepted if proper reference(s) are also provided. Use APA reference protocols.
- b) Responses should be in complete sentences with good grammar, punctuation, spelling, and in a professional format. APA formatting is not required except for references.
- c) Short answers that do not cover the breadth of the topic or question will earn fewer points. Likewise, verbosity or lack of clarity in the answers will earn fewer points. Use of lists is a method that allows for a professional appearing document and reduces the likelihood of “verbosity.”
- d) Professionally appearing questions with answers and related references will earn the most points.
- e) Written responses should be prepared for a knowledgeable reviewer to earn the greater number of points.
- f) Finals submitted without a name and CWID or submitted late will not be graded.
- g) Place the completed final examination in the proper Dropbox in eCollege.

5. Participation in Threaded Discussions with Instructor and Fellow Class Members: 100 points

Assessment Method: Greater points can be earned in this activity by:

- a) Responding regularly and frequently; as a minimum, 3 times per week.
- b) Offer quality input not just “conversational noise,”
- c) Willing to share information with other students and faculty concerning found resources, professional experiences with system safety, curiosity concerning aspects of system safety, collaboration, and other items and topics that might occur in a face-to-face working environment where professional colleagues are mutually trying to help each other succeed at learning and utilizing system safety tools and techniques,
- d) Discussion thread points may not be issued until the end of the course; however, partial point scores may be posted and updated periodically.

GRADING RUBRIC

A final grade will be based on performances related to timeliness, response accuracy, completeness of addressing the topic in the research paper, professional appearance of all submitted content, and concise non-textbook copied answers on the open-source final examination.

Course Grading & Evaluation Policy

The final course grade for each student will be based on the following:

- Research Plan for System Safety Research Paper including a 250 word maximum Abstract and Rationale for Topic 200 points
 - System Safety Research Paper 300 points
 - Comprehensive Final Examination. 400 points
 - Contribution to Online Threaded Discussions 100 points
- 1000 Total Possible Points**

Grading Scale: A = 900 - 1000 points
 B = 800 - 899 points
 C = 700 - 799 points
 D = 600 - 699points
 F = 000 - 599 points

NO EXTRA CREDIT, MAKE-UPS, OR RETAKES WILL BE ALLOWED!

Your instructor genuinely desires to see all students perform exceptionally and earn a passing grade in this course. Likewise, your instructor also firmly believes in a student's right to fail, and shall not deny you that right should you so chose to earn that grade by virtue of your performance, or lack thereof, in this course. **YOU** determine your grade in this course by your performance, **NOT** the instructor!

Course Assignments

All work in this course is to be completed individually, without collaboration from others.

- ➡ Each student in this course of study agrees to accept and abide by the
Academic Honesty Policy found in DOC SHARING.

RESEARCH TOPICS

A 3,000 to 5,000 word research paper is one of the completion requirements of this course. Topics can be selected from the following topic titles below. **Papers that contain publishable content will receive the highest points.**

1. Application of preliminary hazard analysis tools in an occupational safety situations. The analysis may include PHA, JHA, JSA, SHA / SSHA, CA, and / or O&SHA / OHA as sub-components. The

paper can use a student generated graphic similar to those used by the textbook author in Figures 7.1 and 7.2 in the required textbook.

2. Analysis of the use and application of a Failure Mode and Effect Analysis (FMEA) as an engineering tool in an occupational safety situation. The analysis may include comparison to other system safety analysis tools.
3. Analysis of the use and application of a Fault Tree Analysis (FTA) as an engineering tool in an occupational safety situation. The analysis may include Fault or Functional Hazard Analysis (FFHA) although the inclusion of a fault tree diagram with probability calculation examples will earn the most points.
4. Analysis of the use and application of a Management and Oversight and Risk Tree (MORT) as an engineering tool in an occupational safety situation. The analysis may include ETBA. The paper can use a student-generated graphic similar to those used by the textbook author in Figure 18-5.
5. Analysis of the use and application of a Hazard and Operability Study (HAZOP) or What-If-Analysis as engineering tools in an occupational safety situation.
6. Use of PSM and / or RMP applications in an occupational setting (e.g., chemical or refining operation).
7. Human factors and risk
8. Alternative research topics are encouraged if they meet the needs, request for publications, or other topics of potential interest to the membership of the System Safety Society. Refer to their website at <http://www.system-safety.org/> for potential research topics.

All alternative research topics must be approved by the instructor to be accepted as a partial completion requirement of this course. Research topics/titles chosen from the five listed above are preapproved by the instructor.

Computer Science and MIS majors can apply any of the system safety analysis tools to generate topics applicable to a computer system rather than in a human safety system context. Instructor approval of the research topic is required.

Business Administration, Management majors, military and military procurement personnel may wish to request a topic related to MIL-STD-882. Instructor approval of the research topic is required.

Before you Work on the Required Course Assignments Read the Following:

*As you conduct outside readings and research, familiarize yourself with the requirements of this course. As you read, take notes of points that you may wish to include in your assignment responses. After you have read and researched your source materials, review each assignment and begin to organize your thoughts as to the most effective, complete and concise response. Write a draft first, then read, **think**, and make necessary revisions. Repeat this process as many times as you need in order to produce **your best** response. Be careful of format, word usage, spelling, grammar and be sure to cite your sources, if applicable. Additionally, I will be looking for evidence that you have conducted outside readings and research and that you understood what you read. Write to your intended audience and at a level they can understand. Refer to the **MS-TMGT Manuscript/Assignment Guide** and **APA 6th ed. Style Manual**.*

University/College/Department Policies & Procedures

ADA Statement

The *Americans with Disabilities Act* (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, contact:

Office of Student Disability Resources and Services
Texas A&M University-Commerce
Gee Library 132
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148
StudentDisabilityServices@tamuc.edu
[Student Disability Resources & Services](#)

Student Conduct/Citizenship

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. (See *Code of Student Conduct from Student Guide Handbook*).

Students are expected, at all times, to recognize constituted authority, to conform to the ordinary rules of good conduct, to be truthful, to respect the rights of others, to protect private and public property, and to make the best use of their time and effort toward the educational process.

At no time is a student allowed to exchange dialog with, make requests of, or make implications to a member of faculty that could be construed as a request for, or expectation of, preferential or differential treatment among members of a class. A student may not place an instructor in a position in which there is an expectation by the student that (s)he will be evaluated, assessed, or given consideration in a manner inconsistent with that of the entire class. All students within a class will be held to an identical standard of expectation and assessment, within the law.

Research Studies/Human Subjects

Refer to the **Texas A&M University-Commerce** Rules & Procedures 15.00.01.R0.01-Human Subject Protection.

Surveys/Course Evaluations

Your feedback may be requested by Texas A&M University-Commerce during the semester/term regarding your course. *It is important that you take a serious and constructive approach to this activity.* The information gained from you will assist in course evaluation by the university/college/department to insure that effective learning is taking place within the existing course structure. If changes are indicated, this will help with course re-design and/or other revisions that will make the course more relevant for future students and the employers of graduates.

Scholarly Expectations

Work submitted, particularly at the graduate level, is expected to demonstrate higher-order thinking skills and represent the student's best possible effort on the assignment. A student should NEVER ask an instructor what they made on a particular assignment for the purpose of determining how much effort to put into the next assignment. Any effort, on any activity, that is less than the student's best is insufficient and will most likely be reflected in the grade.

Drops & Withdrawals (and understanding the difference)

Drop – Removal of the student from one or more courses while remaining actively enrolled in one or more remaining courses in a given semester. A drop must be initiated by the student, with reason, subject to instructor approval, or it may be initiated by the instructor in the case of excessive absences, at the discretion of the instructor. Drop requests **must** be submitted on or before the drop deadline. A student **may not** be dropped from a single course after the drop deadline is passed. Requests to drop a course are submitted via the student's myLEO account.

Withdraw – Elective removal of the student from **ALL** courses in which (s)he is enrolled in a given semester. A withdrawal request must be initiated by the student submitting the official [Withdrawal Form](#) to the Office of the Registrar on or before the last day to withdraw. Withdrawals cannot be initiated by instructors and do not require instructor approval.

During the open registration period at the beginning of the semester, students may add or drop courses without specific authorization (prerequisite requirements and permission-only courses excepted). Should the student determine it to be necessary to drop the course, or withdraw from the semester, it is the student's sole responsibility to submit the proper request **PRIOR** to the official deadlines to complete either of these actions. Drop/Withdrawal requests may **NOT** be submitted through your instructor and informing your instructor of your intent to take either action does not constitute your official request to do so. Instructor approval is required to drop the course after the end of the open-enrollment period and prior to the drop deadline. The student **cannot** be dropped after the drop deadline or withdraw after the withdrawal deadline. (This is university procedure, NOT an instructor decision.) The instructor is **required** to submit the actual grade earned by each student remaining on the official roster after the withdrawal deadline, regardless of the level of grade attainment.

The student is responsible for confirming official university dates/deadlines and meeting any and all necessary deadlines pertaining to drops & withdrawals. In the event of a discrepancy between a date provided in the course and a date on the official university calendar, the date on the official university calendar, or revised date officially announced by the registrar or other authorized university official, will take precedence.

Grade of "X" (Incomplete)

In accordance with the Academic Procedures stated in the TAMU-C Catalog, "students, who because of circumstances beyond their control, are unable to attend classes during finals week or the preceding three weeks will, upon approval of their instructor, receive a mark of 'X' (incomplete) in all courses in which they were maintaining passing grades." The mark of "X" is rarely applicable and will only be considered in strict compliance with University Policy upon submission of complete medical or other relevant documentation. Discovery of an impending failure of a course, although personally disappointing, DOES NOT constitute an emergency in academia and does not meet the criteria for the assignment of an incomplete.

Course Activity Calendar

<u>Date</u>	<u>Activity</u>
July 7, 2014	First class day
Weekly	Discussion Boards (4 total)
July 14, 2014	Research plan, draft abstract and reason for topic selection
July 21, 2014	Open source final available
July 28, 2014 or sooner	Research Paper due
Aug 4, 2014 or sooner	Final Exam response due to instructor
Aug 7, 2014	Last day of class

Point Value for Assignments and Final Examination:

- a) Research Plan for System Safety Research Paper including a 250 word maximum Abstract and Rationale for Topic 200 points
- b) System Safety Research Paper 300 points
- c) Comprehensive Final Examination. 400 points
- d) Contribution to Online Threaded Discussions 100 points
- e) Alternative work assignments maybe authorized at the discretion of the instructor this is normally used only in usual circumstances.
- f) Extra credit work is at the discretion of the instructor and is rarely employed.
- g) All student work will be graded utilizing the descriptive “scale for evaluating assignments” which can be found in the syllabus in the section entitled GRADING RUBRIC.

All exams and assignments have a deadline of 5:00 p.m. Commerce, Texas, time on the dates designated.

EXAMINATIONS

The purpose of examinations is to quantitatively measure your understanding of the objectives of this course.

Midterm Exam: There is NO mid-term examination.

Final Exam: The final exam is a comprehensive exam designed to comprehensively quantitatively assess your understanding of the objectives this course.

Exam questions will be based primarily upon the objectives of the course. Sample open-source questions may be similar to those presented below:

1. Explain key system safety concepts and their importance.
2. Explain requirements of a system safety program as it applies in an occupational environment.
3. Investigate and explain the connection of MIL-STD 882 including its creation and evolution on the system safety process.
4. Describe the use, limitations, and an example of each of the following system safety analysis tools:
 - Preliminary Hazard Analysis (PHA), Job Hazard Analysis (JHA), and Job Safety Analysis (JSA) as a group.

- System Hazard Analysis (SHA) and Subsystem System Hazard Analysis (SSHA).
 - Operating and Support Hazard Analysis (O&SHA) aka Operational Hazard Analysis (OHA).
 - Energy Trace and Barrier Analysis (ETBA).
 - Failure Mode and Effect Analysis (FMEA).
 - Fault (or functional) Hazard Analysis (FHA).
 - Fault Tree Analysis (FTA).
 - Management Oversight and Risk Tree (MORT).
 - Hazard and Operability Studies (HAZOP and What-If Analyses).
 - Cause and Affect Analysis (CA).
 - Project Evaluation Tree (PET)
 - Risk Management Planning (RMP)
 - Process Safety Management (PSM)
5. Define and concisely present where and how system safety engineering could be utilized in a potentially dangerous work environment.