



INT 3803 Database Design & Implementation (Online) – CRN 1154 – Fall 2007

<p>COURSE TITLE BLACKBOARD SITE</p>	<p>Course Number and Name Fall 2007 – http://my.ltu.edu and select CRN</p>
<p>INSTRUCTOR</p>	<p>Dr. Pamela Smith Online Faculty College of Management E-mail address: psmith@ltu.edu; responses usually within 24 hours Business phone: 609-737-6536 Office hours by appointment</p>
<p>SCHEDULE</p>	<p>On-line module schedule Start Date: September 5, 2007 End Date: December 15, 2007 See http://www.ltu.edu/registrars_office/calendar_final_exam.index.asp for LTU academic calendar information.</p>
<p>LEVEL / HOURS PREREQUISITE</p>	<p>This is an undergraduate course that is worth 3 semester credit hours Prerequisite requirements: INT3023</p>
<p>REQUIRED TEXT (See Blackboard for additional resources)</p>	<p>Connolly & Begg. (2005). Database Systems: A Practical Approach to Design, Implementation, and Management. Pearson Education. 4th Edition. ISBN:0321210255 Software: Microsoft Access version 98 and higher. Most recent version of Microsoft Access is preferred (2003). (If you do not have the entire Microsoft Office Suite which includes Access, it may be purchased at a discount through http://www.journeyed.com or a 30 day free trial version of Access 2003 can be downloaded at http://www.microsoft.com. Also, many Access tutorial books include a trial version on CD. Available for online purchase through LTU Bookstore at: http://lawrence-tech1.bkstore.com/bkstore/TextbookSelection.do?st=489</p>

ADDENDA	LTU Online student resources http://www.ltu.edu/ltuonline/currentonline.asp Course-specific information is provided in the “Course Information” area
TECHNICAL SUPPORT	Technical support for using Blackboard is provided by the LTU Help Desk, 248-204-2330 or vitr@ltu.edu

Educational Goals

This course covers the design and development of relational database management systems (RDBMS). It will place special attention on the organizational and management issues related to the design and implementation of a RDBMS, data definitions, data manipulation and normalization. Students will develop the logical design of the database and then convert their design into the physical model. Additionally, this course will explore implementation issues, Internet technologies, security concerns, testing and installation. Database management systems have become an integral part of day-to-day life. This is an introductory course. Previous experience or prior knowledge of database systems is not required as a prerequisite.

Objectives

At the end of the course the student will be able to:

Organize and carry out a database approach to information systems development

Present a detailed analysis of supertype/subtype hierarchy and entity relationship models.

Configure a database based on the needs of the enterprise.

Build a database information system that meets the specification developed for the problem domain.

Understand database systems at the organizational level, at the user support level, and at the functional level.

Application of database information systems within an Internet environment framework.

Prerequisite Skills

Previous experience or prior knowledge of database systems is not required as a prerequisite. MGMT course prerequisite: INT3023.

Instructional Methods and Course Organization

A variety of instructional methodologies are used in this course. The methods are listed below.

Blackboard learning environment: Blackboard at my.ltu.edu contains the syllabus, all assignments, reading materials, written lecture notes, links to Web resources, and discussion forums. You will submit all assignments via Blackboard, and are expected to participate regularly in discussion topics. Please take time to familiarize yourself with the organization of the Blackboard site. You will want to check the site frequently for announcements reminding you of new resources and upcoming assignments.

Student/Instructor Conversations: Students keep in touch with the instructor via e-mail messages and telephone conference calls.

Required readings: Textbook chapters should be read according to the schedule outlined in the syllabus. Chapters will be discussed online.

Assignments: We will be applying theoretical concepts discussed through the chapter notes to practice each week. Each student will be responsible to INDEPENDENTLY complete all discussion questions, case analysis, the mid-term exam and the final exam. Unless otherwise indicated, assignments are due no later than 11:59 pm EST of the last day of the week for which they are assigned. Full details and instructions, including how to submit these assignments are given in the weekly Assignment area for the week in which they occur.

Class Policies and Expectations

Classroom Conduct: When participating in this course, it is essential that we maintain a professional demeanor that is consistent with what is expected in the corporate workplace. Disagreeing with another's opinion is fine – it's okay to "agree to disagree" - however, the professionalism of the tone and manner in which the posts are written need to be upheld. When responding to a post, each student needs to be courteous and respectful of one another's opinions and insights. For instance, "You are wrong, I am right" is not an acceptable response. A more appropriate answer may be "I respect your opinion, however, my experience has been.....". Responses that do not adhere to these guidelines will not be given full credit. Keep in mind that appropriate class and workplace conduct can result in a "win-win" situation for everyone involved. It is my objective that you not only learn the principles presented in the class, but you learn from each other.

Netiquette: It is very easy for comments to be misinterpreted in the electronic environment since we can't see each other's faces for visual cues. It has been estimated that 80% of interpersonal communication is non-verbal and conveyed through facial expressions and body language. Since we don't have the luxury of the non-verbal cues, we must be especially careful in the words we choose.

Plagiarism: Each student is expected to present his or her own work. All papers, examinations, and other assignments must be original or explicit acknowledgment must be given for the use of other person's ideas or language. Students must cite their sources using the publication manual of the American Psychological Association (APA) for information that is not their original thought. Examples of plagiarism as it might occur in term papers, research projects, laboratory reports, and other written assignments are listed below.

Failure to use quotation marks: All work which is quoted directly from a source should be enclosed in quotation marks and followed by a proper reference giving the exact page or pages from which the quote is taken.

Failure to use the quotation marks, even if a footnote is provided, is plagiarism.

Failure to document ideas: When a student uses one or more ideas from and/or paraphrases a source, he or she must give the exact page or pages from which the ideas or paraphrasing were taken.

Failure to provide an exact reference is plagiarism. False documentation: Falsifying or inventing sources or page references is plagiarism.

Late Assignments: All assignments must be submitted on schedule, via Blackboard, and using Microsoft Office-compatible software. If you need to submit an assignment via e-mail, contact the

instructor in advance. Assignments that are not received on the due date and without an approved extension, will receive a reduction of 10% each day for three days. After three days they will no longer be accepted for credit. Students should use proper time management to ensure assignments are submitted on the specified due date.

Online Expectations: I plan to offer you a valuable learning experience, and expect us to work together to achieve this goal. Here are some general expectations regarding this course:

- 1) Each student has a LTU e-mail account. If you wish to use a different e-mail address for this course, please **change your e-mail address in Blackboard under “Student Tools”**. Passwords for Blackboard Course Info should be reset as soon as possible. Currently your password is your student number (example 99323 - student number portion only) passwords should be changed as soon as possible. Passwords can also be changed under Student Tools.
- 2) Readings, discussion forum participation, and written assignments must be completed according to the class schedule. If business travel will take you away from regular participation, please let me know about these dates in advance.
- 3) It is essential that all students actively contribute to the course objectives through their experiences and working knowledge of business.
- 4) Assignments must be completed to an adequate standard to obtain a passing grade. Requirements for each assignment are detailed in this syllabus and on the LTU Online web site.
- 5) Be prepared to log into Blackboard at least once each day. Please focus your on-line correspondence within the appropriate Blackboard discussion forums so that your colleagues can learn from you. At the end of the course, you will be invited to participate in a University evaluation of this course. Your feedback is important to the University, to LTU Online, and to me as an instructor, and I encourage you to participate in the evaluation process.

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

- 1) I will be available to you via e-mail and phone, and will promptly reply to your messages – usually within 48 hours or sooner.
- 2) I will be available to you for teleconference appointments as requested.
- 3) I will maintain the Blackboard web site with current materials, and will resolve any content-related problems promptly as they are reported to me.
- 4) I will send out a weekly e-mail update to all class members to guide upcoming work and remind you of assignment due dates.
- 5) I will return all assignments to you promptly (usually within a week of the due date), and will include individualized comments and suggestions with each assignment.
- 6) I will hold our personal written or verbal communications in confidence. I will not post any of your assignments for viewing by the class without requesting your approval in advance.

7) I will treat all members of the class fairly, and will do my best to accommodate individual learning styles and special needs.

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

Course Schedule

This fully online course begins with a one-week online course orientation period to familiarize yourself with the online learning environment and to meet online or via phone with your instructor. Each week starts on a Monday and ends on a Sunday.

Dates	Modules	Topics / Readings	Assignments Due
<p>Prior to Start of Semester and Week of Sept 5-9</p>	<p>Module 0</p>	<p>Pre-Course Work:</p> <ul style="list-style-type: none"> - Introductions - Course Syllabus Overview - Change email address on Blackboard - Review Database tutorials 	<p><u>Module 0 Assignments: Due Prior to: Sept 9; 11:59 p.m. E.T.</u></p> <p>Please note that even though points will not be awarded for our Module 0 work, each student is to take this assignment seriously. These assignments are to help get us ready for the online material and requirements. <u>Failure to complete the assigned tasks in a quality manner will result in an award of negative points!</u></p> <ol style="list-style-type: none"> 1. Please read the syllabus thoroughly. If you have any questions, please contact the instructor immediately. In addition, you will find a section in the Discussion area of Blackboard devoted to syllabus questions. 2. Please ensure that your email address in Blackboard is correct. This is the address that the Instructor will use to communicate with students. It is the responsibility of the student to receive the emails from the Instructor. Please ensure that you are working with a quality ISP. <u>Failure on the part of a student to receive an email does not excuse the student from the assigned material and due dates!</u> 3. Post your introductory post describing a bit about who you are in the Discussion Thread for Module 0. 4. Review Database tutorials. 5. Complete the remainder of the blackboard posting requirements as outlined under the Module 0 thread. <u>Please note you are required to respond to all five (5) instructor posts for this week. You may choose to respond to posts from your peers but for this Module, it is optional.</u>
<p>Week of Sept</p>	<p>Module</p>		

Dates	Modules	Topics / Readings	Assignments Due
Week of Sept 10 – Sept 16	1	Ch. 1: Introduction to Databases Ch. 2: Database Environment	Module 1 Assignments: Due Prior to Sept 16; 11:59 p.m. E.T. 1. Take Ch. 1&2 Weekly Quiz (20 Points) 2. Respond to the discussion board for this week; three instructor posts and reply to five other student postings. 3. Submit Chapter 1 Review Questions P.32. 4. Submit Chapter 2 Review Questions P. 65.
Week of Sept 17 – Sept 23	Module 2	Ch. 3: The Relational Model Ch. 4: Relational Algebra and Relational Calculus	Module 2 Assignments: Due Prior to Sept 23; 11:59 p.m. E.T. 1. Take Ch. 3&4 Weekly Quiz (20 Points) 2. Respond to the discussion board for this week; three instructor posts and reply to five other student postings. 3. Submit Chapter 3 Review Questions P. 87. 4. Submit Chapter 4 Review Questions P110.
Week of Sept 24 – Sept 30	Module 3	Ch. 5: SQL: Data Manipulation Ch. 6 SQL: Data Definition	Module 3 Assignments: Due Prior to Sept 30; 11:59 p.m. E.T. 1. Take Ch. 5 & 6 Weekly Quiz (20 Points) 2. Respond to the discussion board for this week; three instructor posts and reply to five other student postings. 3. Submit Chapter 5 Review Questions on P. 155. 4. Submit Chapter 6 Review Questions on P.195.
Week of Oct 1 – Oct 7	Module 4	Ch. 7: Query-by-example Ch. 8: Commercial RDBMS's:	Module 4 Assignments: Due Prior to Oct 7; 11:59 p.m. E.T. 1. Take Ch. 7 & 8 Weekly Quiz

Dates	Modules	Topics / Readings	Assignments Due
		Office Access and Oracle	(20 Points) 2. Respond to the discussion board for this week; three instructor posts and reply to five other student postings. 3. Submit Chapter 7 Exercises 7.1, 7.2 and 7.4 on P. 224. 4. Submit Chapter 8 Review Questions on P. 277.
Week of Oct 8 – Oct 14	Module 5	Ch. 9: Database Planning, Design and Administration Ch. 10: Fact-Finding Techniques	Module 5 Assignments: Due Prior to Oct 14; 11:59 p.m. E.T. 1. Take Ch. 9 & 10 Weekly Quiz (20 Points) 2. Respond to the discussion board for this week; three instructor posts and reply to five other student postings. 3. Submit Chapter 9 Review Questions P.313. 4. Submit Chapter 10 Review Questions on P.341.
Week of Oct 15 – Oct 21	Module 6	Ch. 11: Entity-Relationship Modeling Ch 12: Enhanced Entity-Relationship Modeling	Module 6 Assignments: Due Prior to Oct 21; 11:59 p.m. E.T. 1. Take Ch. 11 & 12 Weekly Quiz (20 Points) 2. Respond to the discussion board for this week; three instructor posts and reply to five other student postings. 3. Submit Chapter 11 Review Questions on P. 369. 4. Submit Chapter 12 Review Questions on P. 386.
Week of Oct 22 – Oct 28	Module 7	Ch. 13: Normalization Ch. 14: Advanced Normalization	Module 7 Assignments: Due Prior to Oct 28; 11:59 p.m. E.T. 1. Take Ch. 13 & 14 Weekly Quiz (20 Points) 2. Respond to the discussion board for this week; three instructor posts and reply to

Dates	Modules	Topics / Readings	Assignments Due
			five other student postings. 3. Submit Chapter 13 Review Questions on P.413. 4. Submit Chapter 14 Review Questions on P. 433.
Week of Oct 29 – Nov 4	Module 8	Ch. 15: Methodology – Conceptual Database Design Ch. 16 Methodology – Logical Database Design	Module 8 Assignments: Due Prior to Nov 4; 11:59 p.m. E.T. 1. Take Ch. 15 & 16 Weekly Quiz (20 Points) 2. Respond to the discussion board for this week; three instructor posts and reply to five other student postings. 3. Submit Chapter 15 Review Questions P. 459. 4. Submit Chapter 16 Review Questions P.491.
Week of Nov 5 – Nov 11	Module 9	Ch. 17: Methodology – Physical Database Design for Relational DBMS's Ch. 18: Methodology – Monitoring and Tuning the Operational Systems	Module 9 Assignments: Due Prior to Nov 11; 11:59 p.m. E.T. 1. Take Ch. 17 & 18 Weekly Quiz (20 Points) 2. Respond to the discussion board for this week; three instructor posts and reply to five other student postings. 3. Submit Chapter 17 Review Questions on P. 517. 4. Submit Chapter 18 Review Questions on P. 537.
Week of Nov 12 – Nov 18	Module10	Ch. 19: Security	Module 10 Assignments: Due Prior to Nov 18; 11:59 p.m. E.T. 1. Take Ch. 19 Weekly Quiz (20 Points) 2. Respond to the discussion board for this week; three instructor posts and reply to five other student postings. 3. Submit Chapter 19 Review Questions P. 571.

Dates	Modules	Topics / Readings	Assignments Due
Week of Nov 19 – 25	Module 11	Ch. 20: Transaction Management	<p>Module 11 Assignments: Due Prior to Nov 25; 11:59 p.m. E.T.</p> <ol style="list-style-type: none"> 1. Take Ch. 20 Weekly Quiz (20 Points) 2. Respond to the discussion board for this week; three instructor posts and reply to five other student postings. 3. Submit Chapter 20 Review Questions on P.627.
Week of Nov 26 – Dec 2	Module 12	Ch. 29: Web Technology and DBMS's	<p>Module 12 Assignments: Due Prior to Dec 2; 11:59 p.m. E.T.</p> <ol style="list-style-type: none"> 1. Take Ch. 29 Weekly Quiz (20 Points) 2. Respond to the discussion board for this week; three instructor posts and reply to five other student postings. 3. Submit Chapter 29 Review Questions P. 1063.. 4. Final DB Project paper is due before Dec 2, 11:59 p.m. E.T. Please refer to the submission instructions contained in our virtual classroom (Blackboard).
Week of Dec 3 – Dec 9	Module 13	Ch. 30: Semi-Structured Data and XML	<p>Module 13 Assignments: Due Prior to Dec 9; 11:59 p.m. E.T.</p> <ol style="list-style-type: none"> 1. Take Ch. 30 Weekly Quiz (20 Points) 2. Respond to the discussion board for this week; three instructor posts and reply to five other student postings. 3. Submit Chapter 30 Review Questions P.1144.
Week of Dec 10 – Dec 16	Module 14	Course Summary End of Course	Bb Forums Course Evaluation

Student Evaluation

The instructor uses several items to measure student performance. Grades are kept in the Blackboard grading system. Each student will be able to view their up-to-date grades for all completed assignments. Students should notify the instructors promptly if they have any questions regarding their grade.

Course grades will be based on participation and completion of the assignments listed in the Individual Assignments table below. For a passing grade, students must obtain 64% or higher. There are 1000 total points, divided up as follows:

The course has five assignments totaling 100 points (left column). Letter grades are awarded based on the total number of points achieved (right column). Points are deducted for late assignments.

Assignments	Points
Weekly Quizzes (13* total @ 20 points each quiz possible) *Note: 12 weeks: Module 2 – Module 13.	260
End of the Chapter Questions (22 selected chapters *10 pts)	220
Blackboard participation (*13 weeks @ 30 points each week). *Note: 12 weeks: Module 2 – Module 14.	390
Final Portfolio DB Project Paper	130
Total Points	1000

Class Points	Letter Grade
96 and above	A
90 – 95	A-
87 – 89	B+
83 – 86	B
80 – 82	B-
77 – 79	C+
73 – 76	C
70 – 72	C-
61 – 70	D
60 and below	E

Practical Guidelines for Class Load Expectations

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

A 14-week semester (the Summer “E” semester is compressed into 11 weeks) would require at least 126 hours of time commitment to successfully complete all readings, activities, assignments, and texts as described in this syllabus.

You should reserve at least 6 hours per week to read the required textbook chapters and resources, participate in online discussions, review presentation materials, and work through online quizzes. This effort will total at least 84 hours over the course of the semester.

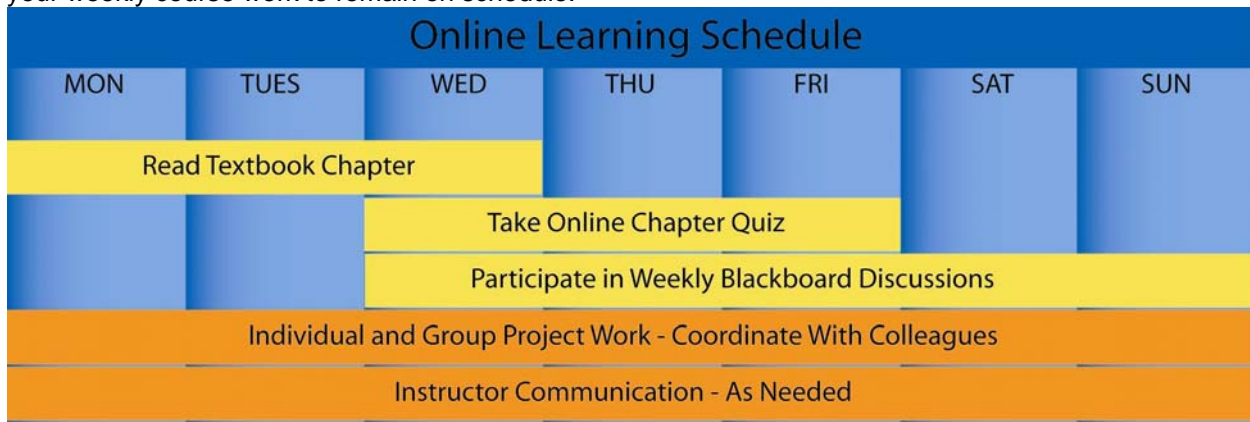
You should organize your remaining time to roughly correspond with the point value of each major assignment. This means that you should plan to spend at least:

8-9 hours preparing your case study review;

24-40 hours working with your group on the three parts of your semester-long project; and

8-9 hours working on the various components of your reflective consolidation (final exam).

These guidelines may not reflect the actual amount of outside time that you – as a unique individual with your own learning style – will need to complete the course requirements. The number of hours each week will vary based on assignment due dates, so please plan ahead to insure that you schedule your academic, work, and personal time effectively. The following graphic can be used to guide you in planning your weekly course work to remain on schedule:



Assignment Details

Course assignments and evaluation criteria are detailed below. Please review these requirements carefully. See the section Academic Resources / Assessment Guidelines for information about assessment of written and oral presentations.

Details for all assignments are shown below. Please note that you should **not** submit any assignments to the Blackboard “Digital Drop Box.” All assignments are submitted using the Blackboard “Assignments” function. Some assignments are also posted to the Blackboard Discussion Forum for student comments.

Online Discussion:

The exchange of ideas between colleagues engaged in scholarly inquiry is a key aspect of graduate-level learning, and is a requisite activity in this course.

Requirements: Students are expected to participate at least three days a week by posting materials and contributions to the Discussion Board. Discussion topics are provided in the "Assignments" section under each weekly button. In addition, students are expected to comment on materials posted by fellow students. To count as participation, your postings need to be thoughtful; that is, they refer to the week's readings, relevant issues in the news, information obtained from other sources, or ideas expressed in the postings of other class members. Where appropriate, use references to support your position. Your postings must demonstrate that you reflected on the assigned readings and synthesized the material with your previous knowledge and experience. Adhere to the weekly timeframe to allow others time to comment on your work.

Database Portfolio Project - Final Paper guidelines

Each student will produce a final paper due the week prior to the last week of the term, on a topic pre-approved by the end of Module 2. In general, the paper will contain a real world case study scenario in which a new database system will need to be created using Microsoft Access.

Each student will be responsible for planning, designing, building and implementing a relational database utilizing Microsoft Access. The portfolio must include the following:

1. Purpose - Students must state the purpose for the database and give a rationale for creating the database to solve the problem.
2. Conceptual Design - Students must present a model of the design utilizing Microsoft Word Drawing Tool bar. Students must show the tables and the relationship between the various tables, primary key and foreign key.
3. Database - Students must build the database with a minimum of 4 tables, with one of those tables having a minimum of 20 records. The database must have a minimum of 2 forms, 2 reports and 5 queries.
4. Implementation - Students must provide an explanation of how the database will be implemented into the organization.
5. Lesson Learned - Provide a brief explanation on what lessons you learned while completing this database project.
6. Graphics – Students should submit all graphical tables, ER models and charts can be submitted in Adobe (.PDF) format. Refer to the Hints and Tips section of the Discussion Forum for more detailed instructions.

A superior paper demonstrates breadth and depth of knowledge, and critical thinking appropriate for college level scholarship. The paper must follow APA Writing Style Guide guidelines and be free of typographical, spelling, and grammatical errors. The paper should also be double-spaced. I expect a minimum of 20 pages of text that includes database Entity Relationship diagrams, database tables, figures, title page, abstract, citations and references.

You must submit the final paper to the instructor via the dropbox no later than the due date indicated in the Course Schedule area by 11:59 pm EST, for full credit. See the section below, "Preferred Methods for Delivering Assignments" for details.

Microsoft Access Database Lesson Tutorials – It is recommended that each student complete the 3 tutorials located in the Assignments area for Module 0, if they are unfamiliar with using databases. This is a Database installation tutorial simulation that will help you install Microsoft Access database on your laptop. We will be using the Microsoft Access database primarily this semester.

Problem Set Answers – Each student will submit answers to assigned questions, located at the end of each chapter of the class textbook. Refer to the weekly Module Assignment areas as well as included in this document under Weekly Course Schedule for more details. Students are required to submit the problem set answers to the drop box prior to posting their answers to the class discussion forum. No credit will be given for responses posted beyond one week after the problem set assignment is due.

Lecture Materials - The lecture materials for this course are in MS PowerPoint format. If you do not have MS PowerPoint software you can download a free viewer from the Microsoft website.

The link is:

<http://office.microsoft.com/downloads/default.aspx?Product=PowerPoint&Version=95|97|98|2000|2002&Type=Converter|Viewer>

If you click on the link to one of the PowerPoint Presentations but it won't play then "RIGHT-CLICK" on the link and save the file to your hard drive. Once you save the file you will be able to open it with MS PowerPoint office software or the viewer. If you have any difficulty please contact your instructor.

Syllabus Addenda

Please see the LTU Online "Current Students" web site <http://www.ltu.edu/ltuonline/currentonline.asp> for comprehensive information about Lawrence Tech's academic services, library services, student services, and academic integrity standards. The contents of this web site is explicitly included as syllabus requirements.

The LTU Online "Current Students" web site also includes grading rubrics used by your instructor to evaluate written assignments, discussion forum participation, and group assignments. Please note that the SafeAssignment anti-plagiarism product will be used for written assignments submitted for this course. Please see the instructions included on the LTU Online web site regarding the use of the SafeAssignment product.