

COURSE TITLE	MCS 2113 - 01 – Statistics 1 (Online)	
BLACKBOARD SITE	Spring 2009 – <u>http://my.ltu.edu</u> and select CRN 3841	
INSTRUCTOR	Dr. Kussiy K. Alyass Department of Math and Computer Science Lawrence Technological University S110 Science Building (248) 204-3560 <u>alyass@ltu.edu</u> Office hours in Wimba Live Classroom: Friday 6:00 pm – 7:00 pm	
SCHEDULE	Starting and ending dates (College of Arts and Science schedule): January 12, 2009 – May 9, 2009 See <u>http://www.ltu.edu/registrars_office/calendar_final_exam.index.asp</u> for LTU academic calendar information.	
LEVEL/ HOURS PREREQUISITE	Levels: Graduate, Undergraduate Online Campus 100% of course online Schedule Type 3.000 Credit Hours Prerequisites: MCS 1224 (Introduction to Mathematical Analysis 2), or MCS 2313 (Technical Calculus), or AP Calculus AB 04, or MCS 1414 Calculus 2.	
REQUIRED TEXT (See Blackboard for additional resources)	Modern Elementary Statistics, 12/E   John E. Freund   Benjamin M. Perles   ISBN-10: 013187439X   ISBN-13: 9780131874398   Publisher: Prentice Hall   Copyright: 2007   Available for online purchase through LTU Bookstore at:   http://lawrence-tech1.bkstore.com/bkstore/TextbookSelection.do?st=489	
ADDITIONAL	LTU Online student resources: <u>http://www.ltu.edu/ltuonline/currentonline.asp</u>	
TEOUNICAL OUDDODT	Technical current for using Disaltheord is any ideal by MTDO, 040,004,0750	
	or <u>vitrc@ltu.edu</u> , or LTU Online, 248.204.2380 or <u>ltuonline@ltu.edu</u>	



# COURSE SCHEDULE

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

Week/Date	Module	Theory	Practice	
Week 1	Module 0	Narrated Lecture	APM0	
Jan 12–Jan 18		Wimba Basics	DBM0	
		Submitting your Assignments	WPM0	
Week 2	Module 1	Chapter 1 – Introduction	PA1	
Jan 19–Jan 25		Narrated Lecture	DB1	
			HW1	
			Q1	
Week 3	Module 2	Chapter 2 – Summarizing Data – Frequency Distributions	DB2	
Jan 26-Feb 1		Narrated Lecture		
			QZ	
Week 4	Module 3	Chapter 3 – Summarizing Data: Measures of Location	PA2	
Feb 2–Feb 8		(sec. 3.1 – sec. 3.4)	PA3	
		Narrated Lecture	DB3	
Week 5	Module 3	Chapter 3 – Summarizing Data: Measures of Location	PA4	
Feb 9-Feb 15		(sec. 3.5 – sec. 3.8)	HW3	
Wook 6	Modulo 4	Chapter 4 Summarizing Data: Measures of Variation		
Feb 16_Feb 22	Module 4	Chapter 4 – Summanzing Data. Measures of Variation (sec. $4.1 - sec. 4.2$ )Narrated Lecture	PA5 DB4	
1001010022			004	
Week 7	Module 4	Chapter 4 – Summarizing Data: Measures of Variation	PA6	
Feb 23–Mar 1		(sec. 4.3 – sec. 4.5)	HW4	
			Q4	
			Test1	
Week 8	Module 5	Chapter 5 – Possibilities and Probabilities	DB5	
Mar 2–Mar 8		Narrated Lecture	HVV5	
Q5				
Week 10	Module 6	Chapter 6 – Some Rules of Probabilities	PA7	
Mar 16–Mar 22		(sec. 6.1 – sec. 6.3)Narrated Lecture	DB6	
Week 11	Module 6	Chapter 6 – Some Rules of Probabilities	DV8	
Mar 23–Mar 29		(sec 64 - sec 67)	HW6	
			Q6	
Week 12	Module 7	Chapter 7 - Expectations and Decisions	PA9	
Mar 30–Apr 5		Narrated Lecture	DB7	
			HW7	
		Note: Heavy Week!	Q7	
			Test2	
VVeek 13	Module 8	Chapter 8 – Probability Distributions	DB8	
		(Sec. 6.1 – Sec. 6.4)Narraled Lecture		
Week 14	Module 8	Chapter 8 – Probability Distributions	PA10	
Apr 13–Apr 19		(sec. 8.5 – sec. 8.8)	HW8	
			Q8	
Week 15	Module 9	Chapter 9 – The Normal Probability Distribution (section	DB9	
Apr 20–Apr 26		9.1)		
		Narrated Lecture		





Week/Date	Module	Theory	Practice
Week 16 Apr 27–May 3	Module 9	Chapter 9 – The Normal Probability Distribution(section 9.2)	HW9 Q9
Week 17 May 4–May 9	Finals Week	Course Summary End of Course Evaluation	Test3

## STUDENT EVALUATION

The course has 43 assignments totaling 1360 points. Letter grades are awarded based on the total number of points achieved. Points are deducted for late assignments.

Assignments	Points
Chapter 1-9 Quizzes	450
Homework Assignments (1 – 9)	90
Practice Assignments (1 – 10)	100
Discussion Board Threads (1 – 9)	90
Module 0 Assignments	30
Exams 1, 2, and 3	600
Total Points	1360

Point Percentage	Letter Grade
96 and above	А
90 – 95	A-
87 – 89	B+
83 - 86	В
80 - 82	B-
77 – 79	C+
73 – 76	С
70 – 72	C-
61 – 69	D
60 and below	E

# EDUCATIONAL GOALS

To introduce students to basic topics in statistics, including Frequency distributions, descriptive measures of populations and samples (mean, variance, the standard deviation, the coefficient of variation, etc.), probability, discrete and continuous probability distributions, Bayes' theorem. Applications to business and management will be explored.

### STUDENT LEARNING OBJECTIVES / OUTCOMES

To study the descriptive measures of samples and populations, counting techniques, probability theory, Discrete Distributions and continuous Probability Density Functions, f(x), Chebyshev's theorem, Bayes' theorem, and Application to Decision Making. These objectives will be evaluated via Theory, Practice, and Assessment - assignments, quizzes, examinations, discussion boards, and field work throughout the course.

### PREREQUISITE SKILLS

Since this course is 100% online, the student is expected to know how to use Blackboard, the internet, file posting and transfers. In addition, the student should know Windows operations and at least how to use MSWord, Excel, PowerPoint, ACROBAT, or pdf files.

Lawrence Technological University



Spring 2009

# INSTRUCTIONAL METHODS AND COURSE ORGANIZATION

This course is organized into 10 modules (Modules 0 - 9). Each module has a "Theory" and a "Practice" section. The "Theory" section includes textbook readings, narrated PowerPoint lectures, and other activities designed to give you knowledge you will need to be successful in this course. You can think of the "Theory" section as "input." The "Practice" section includes homework assignments, field work, discussion board forums, and practice activities designed to help you process the knowledge you gained from the "Theory" section.

Chapter quizzes and three exams combine to form the "output" of your learning. They are designed to measure how well you have retained the information you gained in the "Theory" section and processed in the "Practice" section.

We will cover chapters one through nine in the textbook. Some modules cover an entire chapter, others chapters are divided into two modules. <u>Please don't confuse modules and chapters – they are not the same</u>!

## The Blackboard Learning Environment

Blackboard at <u>my.ltu.edu</u> contains the syllabus, all assignments, reading materials, narrated PowerPoint lectures, written lecture notes, chapter quizzes, 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, discussion board postings, and Wimba Live Classroom office hours.

#### Quizzes

There are nine quizzes, corresponding to the nine textbook chapters.

#### Required Reading

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

#### Assignments

There will be 10 practice assignments, nine homework assignments, nine discussion board assignments, nine quizzes, three Module 0 assignments, and three exams.

#### CLASS POLICIES AND 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:

Each student has a LTU email account. If you wish to use a different email address for this course, please **change your email address in Blackboard under** "**Blackboard Tools**", then "Personal **Information**" and send an email to me so I can store your address in my email directory.

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 clear the dates with me in advance.

It is essential that all students actively contribute to the course objectives through their experiences and working knowledge.



All assignments must be submitted on schedule, via Blackboard, and using Microsoft Office compatible software. If you need to submit an assignment via email, contact the instructor in advance. Late work will be reduced in value.

Assignments must be completed to an adequate standard to obtain a passing grade. Requirements for each assignment are detailed in this syllabus.

Be prepared to log into Blackboard at least once each day. Please focus your online correspondence within the appropriate Blackboard discussion forums so that your colleagues can learn from you.

At midterm and 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.

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

I will be available to you via e-mail, Wimba Live Classroom, and phone, and will promptly reply to your messages.

I will be available to you for face-to-face appointments as requested.

I will maintain the Blackboard web site with current materials, and will resolve any content-related problems promptly as they are reported to me.

I will send out a weekly e-mail update to all class members to guide upcoming work and remind you of assignment due dates.

I will return all assignments to you promptly, and will include individualized comments and suggestions with each assignment.

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.

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.

# PRACTICAL GUIDELINES FOR CLASS LOAD EXPECTATIONS

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

A 15-week semester (the Summer semester is compressed into 10 weeks) would require at least 135 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.

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.

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" or "SafeAssign" function. Some assignments are also posted to the Blackboard Discussion Forum for student comments.

Module 0 Assignments (30 Points)

**Overview** – Three assignments may be found under the Practice Section of Module 0. These are designed to insure you understand how to interact within the Blackboard environment. Assignment Practice 0 (AP0) – 10 points – Practice uploading an assignment. Wimba Practice 0 (WP0) – 10 points – Practice using Wimba for Office Hours. Discussion Board Practice 0 – 10 points – Practice using the discussion board.

Homework Assignments (90 Points)

**Overview** – There are nine homework assignments, one for each chapter of the text. Each homework assignment is worth 10 points. Label your work as "hwx\_lastname-firstname", where *x* stands for the homework number.

Discussion Board Forums (90 points)

**Overview** – There are nine discussion board forum assignments, one for each chapter of the text. Each forum assignment is worth 10 points.

Practice Assignments (100 points)

**Overview** – There are ten practice assignments. These are "field" exercises, and are designed to give you practical experience with the subject matter. Each assignment is worth 10 points.

Quizzes (450 points)

**Overview** – There are nine quizzes, one for each chapter of the text. Each quiz is worth 50 points.



### Exams (600 points)

**Overview** – There are three exams spread throughout the semester. Each exam is worth 200 points.

## SYLLABUS ADDENDA

Please see the LTU Online "Current Students" web site <u>http://www.ltu.edu/ltuonline/currentonline.asp</u> for comprehensive information about Lawrence Tech's academic services, library services, student services, and academic integrity standards. The content 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 SafeAssign 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 SafeAssign product.