

# MATH 117 Introduction to Statistics – ONLINE

Framingham State University – SUMMER 2012

Dr. Sarah L. Mabrouk

This document provides general information about the course. Please carefully read this document as well as the information and documents posted on the course web site, [http://www.framingham.edu/~smabrouk/online\\_stats](http://www.framingham.edu/~smabrouk/online_stats).

## How to reach me:

- **Office:** My office is room **304B** on the third floor in **Hemenway Hall**.
- **Office Hours:** My regular office hours are Mondays 11:30 AM – 1 PM, Wednesdays 11:30 AM – 1 PM, and by appointment. For your convenience, I post my regular schedule on the *Course Schedule* page of my web site, <http://www.framingham.edu/~smabrouk>. You are welcome to arrange to meet with me at my office on the Framingham State University campus, by phone, or online. Other than during office hours, drop-in visits are not possible: office appointments must be arranged *in advance*. During office hours, I can be available by phone, in the Blackboard Virtual Classroom or Virtual Chat, via *Blackboard Collaborate* or by IM (Instant Messenger) but you *must* make prior arrangements for such meetings so that I will know that you plan to meet in a manner other than in-person; my AIM screen name is *slmabrouk*. Those who use office hours and those who attend online sessions (Blackboard Virtual Classroom or *Blackboard Collaborate*) in addition to those who have demonstrated an interest in learning the course material may schedule group or individual appointments at times other than the regular office hours. Appointments may be *in person*, *by the phone*, or *online*; please let me know how you would like to meet (in-person, a by-phone, or an online) when you arrange an appointment.
- **By Telephone:** (508)626–4785 I have voice mail for messages; please leave a voice message *only* if your phone call is/was expected – for an online course, communication is via email. If you leave voice mail, please speak slowly and clearly as you leave your *name*, *phone number*, and *message*, and state that you are a student in my *online statistics* class.
- **Email:** My email address is [smabrouk@framingham.edu](mailto:smabrouk@framingham.edu). During my office hours, I will check my email frequently. Outside of office hours, I usually check my email at the beginning of and by the end of the day.

## Expectations:

- **Technology:** You are expected to have regular access a computer, email, the Internet, AIM (AOL Instant Messenger), MS Office (MS Word, MS Excel), MS Internet Explorer 6.0 or higher and/or Firefox 2.0 or higher, a scanner (available on campus, if needed), and a calculator (a simple scientific calculator will suffice or, if you prefer, a TI-83 or TI-84). If you do not have an AIM screen name then you should create an AIM personality so that you will be able to communicate using AIM; you may prefer to use [AIM Pro](#). If you do not know how already, you are expected to learn, among other things, how to use your calculator, Blackboard, MS Word, MS Excel, to access email, to send email with attachments, to access information on the Internet, to download files from the Internet, to use IM to initiate and to reply to IM messages and chats, and to download/purchase and install any software that you need for the course. MS WordPad, MS Notepad and MS Works are *NOT* acceptable substitutes for MS Word. When a MS Word document (a file with an extension of doc for MS Word 2003 or earlier or docx for MS Word 2007 or later) is requested for an assignment, a rich text format document (a file with an extension rtf) or a text document (a file with an extension txt) will *NOT* be accepted for credit; you will earn a grade of zero (0) on such an assignment. You are expected to own/have access to and use the software specified above.
- **Course (summary):** You are expected to complete all assigned readings (text, PowerPoint slides, online), view the MyMathLab video lectures, do all practice exercises, complete all graded assignments, participate in online discussions, read all contributions to online discussions made by students and the instructor as well as to respond to these discussion offerings by posting additional questions or advancing the dialogue, take/submit all quizzes, and take all examinations; all examinations will be administered on the Framingham State University *campus*. You are responsible for doing the *practice exercises* (those listed in the readings and practice exercises document posted on the course web site, <http://www.framingham.edu/~smabrouk>): online discussions will be related to the practice exercises, and examination problems, quiz problems, and graded assignments will be similar to the assigned practice exercises. You are expected to contribute to all *online discussions*. Online discussion contributions will be graded for, among other things, accuracy, content, appropriate use of terminology, and value/appropriateness in all discussion contributions and responses. You are responsible for the materials presented and discussed in all online discussions. *Graded assignments* must be submitted as directed, using the

method and the format stated in the assignment, and by the stated date and time. Late assignments will NOT be accepted, and the grade for missing or late assignments will be recorded as zero (0). Assignments turned in using a method other than the manner specified in the assignment information will earn a grade of zero (0). Assignments turned in using a format other than the specified format will earn a grade of zero (0); keep in mind that this includes but is not limited to turning in a fax copy of an assignment rather than an email, sending an email with an attachment rather than turning in the assignment file using the Blackboard assignment facility, and turning in a rich text (rtf extension) or text (txt extension) file rather than a MS Word (doc or docx extension) file. *Online quizzes* will be available for a limited time period – the start-date/time and the end-date/time will be specified for each quiz. Quizzes, those taken online and those submitted via USPS mail or email, cannot be made up. If you miss a quiz, your grade will be recorded as a zero (0). As stated, all *examinations* will be administered on the Framingham State University campus on the dates specified in this document and on main page of the course web site. No make up examinations will be administered.

- **Proctor Policy:** If you cannot be at Framingham State University on the date(s)/time(s) specified for examinations then you must, *in advance*, make arrangements with and get approval from me for an acceptable proctor who will agree to administer, monitor, and return the examination to me for grading (using next-day delivery) at your (the student's) expense. The *approved* proctor will administer the examination on the exam date specified in this document and on the main page of the course web site and send the completed examination to me by USPS Express Mail or other *overnight/one-day mail/package service on the same day*. If you miss an examination then your grade will be recorded as a zero (0); if an approved proctor does not administer the examination on the date listed in this document and on the main page of the course web site and/or does not send the examination so that it is received within twenty-four (24) hours of this date then your grade for the examination will be recorded as a zero (0). Friends, co-workers, and relatives will NOT be approved as proctors. Examples of locations with *potentially* acceptable proctors include distance learning centers and testing centers at colleges/universities and libraries that offer formal exam proctoring services: all proctors and locations must be approved in advance of the examination and the examination must be taken on the date specified in this document and on the main page of the course web site.
- **Proper Online Behavior:** You are *expected and required* to be *respectful* of the members of the class – all students and the instructor. Flaming – posting messages, sending emails or IM's that are insulting, offensive, or hostile – will *NOT* be tolerated: you are expected to be respectful of all members of the class at all times. All disrespectful and/or offensive/hostile communication (this includes email, IM, Blackboard communication using the Virtual Classroom, the Virtual Chat, and *Blackboard Collaborate*, and discussion postings) of any kind directed to another student or to the instructor will be reported to the Dean of the Division of Graduate and Continuing Education (DGCE). All associated information regarding and/or evidence of disrespectful and/or offensive/hostile communication including emails and/or online postings/transcripts/recordings will be forwarded to the Dean of DGCE.

**Course Objectives and Topics:** This course is an introduction to the discipline of Statistics. The course topics include organizing, exploring, and presenting data using tabular and graphical forms, sampling, design of experiments, probability distributions, sampling distributions, confidence intervals, hypothesis testing, and correlation and regression. Throughout the course, statistical thinking and its application to analyzing real world data, some of which you will find for yourselves, will be emphasized. You will be expected to explain your analysis using ordinary, clear, non-technical language so that anyone can understand your investigation even if (s)he has no knowledge of Statistics.

By the end of the semester, you should have

- ♣ Experience in using technology to perform statistical analysis of data;
- ♦ the confidence and the skills necessary to organize and to present data using tabular and graphical forms as well as to explore and to analyze data;
- ♥ the ability to discuss, both verbally and in writing, your analyses with others;
- ♣ the ability to use and to translate among verbal/written, numerical, tabular, graphical, and symbolic representations of statistical information,
- ♣ familiarity with a variety of statistical ideas and methods; and
- ♦ an understanding and appreciation for Statistics, and its application to analyzing real data and situations.

You should be able to argue for your explanations, analyses, and interpretations of data in the same way in which you might argue for your interpretation of history or a poem: the emphasis is on the careful analysis of data in context. Any “correct answer” is simply a by-product of a well-crafted argument and need not be a numerical value, a variable expression or an equation; an “answer” includes all representations of data, both tabular and graphical, analysis, calculations, if any, and explanation (expressed using grammatically correct *complete* sentences of more than one word) necessary for answering the actual question being examined. It is my hope that by the end of the course you will understand and be able to discuss and to apply Statistics in a variety of situations as well as be able to communicate your analysis of data using clear, comprehensible language that anyone can understand.

♣ **Module 1: An Introduction to Statistics**

What is Statistics? What are statistics? How are statistics used in various disciplines?

♥ **Module 2: Design of Experiments, Sampling, and Data Collection**

How does one gather or collect data? What makes a data set representative of the target subjects? Can data be “bad”?

♦ **Module 3: Summarizing Data Graphically**

How can we present data in a manner so that it can be easily understood? What types of representations can be used or cannot be used with different types of data? Can a graphical representation for data be misleading?

♣ **Module 4: Summarizing Data Numerically**

How can we represent data numerically using as few numbers as possible to convey the information associated with the data? How can data be summarized numerically? When is it impossible to summarize data numerically?

♦ **Module 5: Probability**

What is probability? How does probability affect what we expect to have happen? What does it mean for a die or a game to be “fair”? How can probability be used to determine one’s expected winnings for a game of chance, a raffle, or the lottery?

♥ **Module 6: The Normal Distribution**

What is the Normal Distribution? How do we determine if a distribution is normal? What are the characteristics of the standard normal distribution? How is the standard normal distribution related to any normal distribution? How do we use the standard normal distribution to determine information about any normal distribution even if we do not have the data set available?

♣ **Module 7: Confidence Intervals and Hypothesis Testing**

What is a confidence interval? What information can be determined using a confidence interval? How does one formulate a hypothesis? How does one determine if a hypothesis is valid?

♣ **Module 8: Analyzing and Representing the Relationship Between Two Variables**

How do we determine if there is a relationship between two variables? What types of relationships can there be between two variables? How can we discuss a relationship between two variables? How can we represent the relationship between two variables? How do we determine the strength of the relationship between two variables?

**Requirements and Grading Policy:**

- Every member of the class is expected to read the assigned sections/chapters from the textbook, to view the video lectures on [MyMathLab](#), to read the PowerPoint class notes (available on the course web site), to read the PowerPoint slides on [MyMathLab](#), and to complete any additional readings assigned *before* participating in online discussion forums ( that is, *prior* to posting on the Blackboard discussion board).
- “Participating” in an online discussion is not posting your opinion in response to a discussion question. “Participating” in an online discussion includes but is not limited to
  - having completed the readings (text, PowerPoint, online), having viewed the video lectures, and having completed the practice exercises so that you can understand, analyze, and respond to the discussion questions;
  - being able to perform and write about, using appropriate, meaningful terminology, the analyses for the discussion questions;
  - posting full explanations and solutions for selected practice exercises;
  - posting analysis of data including data tables and graphs;

- ⊙ making an appropriate, clear, respectful posting for the discussion questions;
  - ⊙ reading the discussion postings of the students and the instructor; and
  - ⊙ contributing meaningful, respectful responses to the discussion postings made by the other students in the course as well as by the instructor.
- You are expected to work on the text exercises after you perform the readings – all of the exercises that accompany each section of the text are *assigned* as practice exercises and some of these may become part of graded assignments and/or online discussions. The **practice exercises** selected for each section (these are listed in the readings and practice exercises document accessible on the main page of the course web site) are important for your being able to apply the material that you learn: you should use the examples in the associated section to guide you as you work on the practice exercises. You should make a habit of working the assigned practice exercises: working these exercises will help you to understand concepts and enable you to analyze, discuss, and interpret data as well as to be able to apply what you have learned in other disciplines and in the future. Accessing the exercises available on [MyMathLab](#) through the study plan, will allow you to get hints and to view similar *worked* exercises. Some practice exercises in the textbook will be used in online discussions and other exercises available through the [MyMathLab](#) study plan will become part of [MyMathLab](#) graded assignments. Problems on quizzes and examinations will be similar to the examples discussed online and those presented in the PowerPoint Class Notes as well as to those presented in the textbook, the discussion questions, the assigned practice exercises, and the graded assignments.
- It is *your* responsibility to make sure that your assignments are received *on time*, in the *format* specified, and sent in the *manner* specified: **late assignments will not be accepted**. All assignments must be received by the *stated* due date/time: the [Blackboard](#) server, the [MyMathLab](#) server, and the Framingham State University email server record the date/time at which a message/file is received. *Except* when the contrary is stated, you are welcome to turn in assignments early. Assignments turned in *after the deadline*, in the wrong *format*, and/or sent in any *manner* other than that specified will NOT be graded and will earn zero (0) points. Any assignments and/or quizzes that you are directed to submit via USPS mail must have a clear postmark: assignments/quizzes with illegible or missing postmarks, those having a meter mark (a meter mark is not proof of mailing) rather than a postmark, and those submitted after the postmark deadline will earn zero (0) points.
- Every member of the class is expected to participate in **online discussions and to contribute on the Blackboard discussion board**. You will post selected worked/explained exercises on the Blackboard Discussion Board. Each week, there will be several discussion questions/exercises posted on the Blackboard Discussion Board; these are referred to as discussion forums. For each discussion question, you are expected to post a response, and for each discussion exercise, you are expected to post a full solution with explanation: a response to a discussion question and/or solution for a discussion exercise will be referred to as a **discussion (board) posting or original/main posting**. For these discussion (board) postings, you will be expected to interact, posting questions and replies related to the forum questions/exercises. For each discussion forum, you will be expected to post at least one question, suggestion/comment, and/or alternate solution related to another's original/main (discussion board) posting; this response to an original/main (discussion board) posting will be referred to as a **first response**. For each first response, the author of the original/main (discussion board) posting will post a reply that may consist of an answer to the question posted by the author of the first response, a suggestion/comment, and/or another alternate solution and with this response (s)he may post an additional question as well; this will be considered a **second response**. If a question is posted as part of a second response then the author of the first response *must* post a reply; questions on the discussion board must be answered. Through the sequence of discussion board postings (original/main posting, first responses, and second responses) as well as additional postings as desired/necessary, we will interact online, continuing and broadening our examination of statistics. **No credit will be awarded for meaningless postings such as “yeah”, “I agree”, “I did it like that too”, “that’s good” or other frivolous, pointless responses**. All postings must be made using grammatically correct complete sentences of more than one word that use correct statistics terminology. No credit will be awarded for responses that
  - ♣ do not use proper terminology,
  - ♣ do not use statistics terminology *correctly*,
  - ♦ do not include explanations made using complete, grammatically correct sentences of more than one word,
  - ♥ are not clear,
  - ♣ are not concise and accurate, and/or
  - ♣ do not contribute to or advance the discussion.

All postings, all responses, and all questions posted on the discussion board as well as all email communication and all IM communication must be **RESPECTFUL** of the students in the class and the instructor: demonstrations of disrespect for other students and/or for the instructor will result in a zero (0) grade for that week's discussion contributions as well as your being required to post an apology and rewrite the posting/response/question; such postings will be reported/forwarded to the Dean of DGCE as well. All postings will be graded for clarity, communication (including grammar and spelling), use of terminology, accuracy, the value of the contribution, and respect for others. All postings/responses/questions will be graded, for the most part, on an all or nothing basis; partial credit will be earned based on the completeness, appropriateness, value, clarity, and correctness. So, thoughtful, respectful postings/responses/questions are more likely to earn credit since they are less likely to be partially incorrect, unclear, include incorrect use of terminology, poor grammar, and misspellings.

- Every member of the class is expected to contribute to topic discussions and to the analysis of examples through online discussions using the Blackboard discussion board. Your participation in this online class includes contributions to online discussions, first responses and second responses to the discussion postings of other students, contributions to online problem solving, and questions that you direct to other students as part of the online discussions. Please remember that questions are a very important part of learning and a valuable contribution to our discussion of course material. ***There is no such thing as a stupid question.***
- Every member of the class is expected to participate in working on the discussion exercises that will be posted online. While you may work on these individually, in pairs, or in groups, discussion forums require individual posting with each student posting the explanation and solution for a different/unique exercise; questions/exercises used in discussion forums will be claimed on a first-come basis and each discussion exercise can only be used/presented once. You are expected to share your analysis of these exercises with the class. Please remember that there are a variety of ways in which to approach and to analyze the exercises to be examined/discussed. If you use a different approach than another class member and you would like to share your approach/analysis with the class then you are welcome and encouraged to do so; this can count as a first/second response.
- Every member of the class is expected to be respectful his/her classmate's *time*. Making a posting to the discussion board immediately prior to the submission deadline does not allow others (including you) to make the required first and/or second responses.
- You will be expected to approach online discussions as you would if you were attending a class: come prepared. Being prepared for online discussions and meetings/sessions/appointments includes but not be limited to having your textbook (MyMathLab), notes, and calculator on-hand. You are expected to do the assigned readings and practice exercises in preparation for online discussions.
- Please remember that by not doing the readings (text, PowerPoint, online) and/or completing assignments in a timely manner, you jeopardize your grade. You cannot expect to learn, understand, or be able to apply the course concepts and methods by skimming the readings (text, PowerPoint, online), not doing the assigned practice exercises, doing frantic searches for information for graded assignments and quizzes, or by cramming for on-campus examinations. Your participation in online discussions and contributions to the Blackboard discussion board must be thoughtful and accurate: this requires knowledge of the course material.
- Attendance for all on-campus **examinations** is mandatory. **Neither make-up quizzes nor make-up examinations** will be given: the grade for a missed quiz/exam will be recorded as a zero (0). If you miss two (2) of the on-campus examinations then you are encouraged to drop the course. **NOTE:** The last day to drop an online class *without* a W-grade is Wednesday, May 23, 2012, and the last day to drop an online/hybrid course with a W-grade is Wednesday, June 20, 2012.
- Your course **grade** will be determined by your contributions to online discussions, the seven (7) quizzes, assignments (which will submitted online and via USPS mail), three (3) *on-campus* examinations, and the *on-campus comprehensive/cumulative* final examination. These components of your course grade will be weighted as follows:

<b>Course Participation/Online Discussions</b>	. . . . .	<b>15 %</b>
<b>Quizzes/Assignments</b>	. . . . .	<b>20 %</b>
<b>3 Examinations (15% each)</b>	. . . . .	<b>45 %</b>
<b>Final Examination</b>	. . . . .	<b>20 %</b>

The weights for the graded components of the course may be adjusted, if necessary, to reflect any changes in the workload during the semester.

- As stated above, there will be seven (7) quizzes. Five (5) of these quizzes will be taken/submitted on Blackboard and two (2) quizzes will be hand-written and submitted via USPS mail. For quizzes to be submitted by USPS mail, you must address your quiz-envelope as directed and send the quiz by USPS mail so that it is postmarked by the stated *postmark* deadline. Quiz envelopes which do not have a postmark, those having an illegible postmark, those having a meter mark rather than a *postmark*, and those for which the postmark is *after* the postmark deadline will earn zero (0) points. A meter mark produced by postal meter is **NOT** the same as a postmark: meter marks are **NOT** evidence of mailing and will not be accepted in place of postmarks as evidence of submitting a quiz by the stated postmark deadline. If you cannot mail your quiz so that it is postmarked by the postmark deadline then you should have someone deliver your quiz to the Post Office so that it can be appropriately postmarked. Quizzes to be taken on Blackboard may not be opened, examined, closed and then reopened at a later time: Blackboard quizzes must be taken/completed/submitted once they are opened. Each Blackboard quiz has a time limit, and Blackboard will consider the quiz to be completed/submitted once the quiz window has been closed. Make sure that you have a stable, strong Internet connection as well as an adequate power supply when you take an online quiz: quizzes will not be reset for you if you lose your Internet connection and/or if your laptop shuts down once you have discharged your battery. Information about and directions for taking the seven (7) quizzes will be available on the *Assignment Turn-In* page on Blackboard *during* the dates listed below; information for *Blackboard* quizzes will be accessible on the *Assignment Turn-In* page on Blackboard from 12 AM on the first day until 11:59 PM on the second day, and information for *mail-in* quizzes will be available on the *Assignment Turn-In* page on Blackboard from 12 AM on the first day until 6 PM on the second day.

<b>Quiz #1 (Chapters 1 and 2)</b>	. . .	<b>Tuesday, May 29, 2012 and Wednesday, May 30, 2012</b>
		♦ This is a Blackboard quiz.
<b>Quiz #2 (Chapter 3)</b>	. . .	<b>Monday, June 4, 2012 and Tuesday, June 5, 2012</b>
		♣ This is a Blackboard quiz.
<b>Quiz #3 (Chapter 5)</b>	. . .	<b>Monday, June 11, 2012 and Tuesday, June 12, 2012</b>
		♥ This is a Blackboard quiz.
<b>Quiz #4 (Chapters 6, 7)</b>	. . .	<b>Monday, June 18, 2012 and Tuesday, June 19, 2012</b>
		♠ This is a Blackboard quiz.
<b>Quiz #5 (Chapters 8, 9)</b>	. . .	<b>Thursday, June 28, 2012 and Friday, June 29, 2012</b>
		-This is a mail-in quiz: the envelope must be <i>postmarked</i> Friday, June 29, 2012.-
<b>Quiz #6 (Chapter 10)</b>	. . .	<b>Thursday, July 5, 2012 and Friday, July 6, 2012</b>
		-This is a mail-in quiz: the envelope must be <i>postmarked</i> Friday, July 6, 2012.-
<b>Quiz #7 (Chapters 4, 3)</b>	. . .	<b>Thursday, July 12, 2012 and Friday, July 13, 2012</b>
		♦ This is a Blackboard quiz.

- As previously stated, there will be three (3) *on-campus* examinations and one (1) *on-campus comprehensive/cumulative* final examination. The three (3) *on-campus* exams and the *on-campus* final examination are mandatory. The dates for the three (3) course examinations and the *comprehensive/cumulative* final examination are as listed below; although the dates for the three (3) course examinations may be altered, if necessary, the date for the cumulative final examination, set by the University, cannot be changed. The time(s) at which the course examinations will be administered will be determined once the schedule for each class member has been received and examined; in general, the evening time for these examinations will be 6:30 PM – 7:30 PM for the class examinations and 6:30 PM – 9:30 PM for the final examination.

<b>Exam I (Chapters 1, 2, and 3)</b>	. . .	<b>Wednesday, June 6, 2012</b>
<b>Exam II (Chapters 5, 6, and 7)</b>	. . .	<b>Wednesday, June 20, 2012</b>
<b>Exam III (Chapters 8, 9, and 10)</b>	. . .	<b>Monday, July 9, 2012</b>
<b>Final Examination (Chapters 1 – 10)</b>	. . .	<b>Monday, July 16, 2012, 6:30 PM – 9:30 PM</b>

- In order to help you to do well on the various components of the course such as homework, quizzes, and examinations, I am available for extra help. In addition to regular office hours, I like to conduct online review/problem sessions before examinations. During these sessions, you are welcome to ask questions and we can work on exercises/problems together in the Blackboard Virtual Classroom or using *Blackboard Collaborate*; these exercises can be problems/questions examined in the weekly discussion forums, those available in the textbook, or those in the file of practice problems that I will provide for you before each examination. As with office hours, your attendance of online review/problem sessions is optional: such sessions are offered in an effort to help you to improve your understanding of the course material and to facilitate your learning the course topics.

- Once student schedule information has been received during Week 1, dates and times for *Blackboard Collaborate* sessions will be determined. During such sessions, we will discuss course topics, methods, and practice exercises related to the week's current material. Please purchase a headset with microphone so that you will be able to contribute to verbal discussions; using your computer's built-in microphone without a headset creates feedback, echoing, and sound distortion.
- For quizzes and *on-campus* examinations, you will need a scientific calculator; minimally, any scientific calculator having built-in combination, permutation, and factorial functions will suffice but you may prefer to use a TI-83 or TI-84 calculator. **You will NOT be permitted to share a calculator and you are expected to know how to use your calculator; calculator instruction will not be provided during quizzes or examinations.** If you come to an exam without your calculator, you will have to take the examination without having access to a calculator – additional calculators will NOT be available for you to borrow during examinations. **You will NOT be permitted to use a computer, the calculator on your iPad, the calculator on your cell phone, the calculator on your PDA, or the calculator on any other electronic device that you may have during examinations. All electronic devices, including but not limited to cell phones, PDA's, iPods, iPads, and computers must be turned off during the on-campus examinations.**
- The on-campus examinations will be closed-book examinations: you will not be permitted to use your textbook, course notes, course PowerPoint slides or other materials. However, you may prepare, in advance of the examination, one (1) 8.5-inch by 5.5-inch *normal* half-sheet of paper on which you may write any notes, formulas, and/or examples that you may want or need for the exam. This exam note half-sheet may not have any fold-out sections and may be hand-written or typed using as small a font as desired, but you must be able to read it by normal means (no jeweler's loupes, microscopes, or magnifying glasses will be allowed). You must turn in the exam note half-sheet with each examination and your name clearly written in the top left-hand corner of each exam note half-sheet.
- You are expected to come prepared to take your on-campus examinations: being prepared to take an on-campus examination includes but is not limited to having at least one (1) pencil with an eraser, your calculator, your 8.5-inch by 5.5-inch exam note half-sheet, and your (picture) license, Framingham State University (picture) ID or your passport with up to date picture. It is YOUR responsibility to come prepared for the on-campus exams: additional pencils, erasers, and calculators will not be available for use, and you will not be given additional time during which to create an exam note half-sheet if you have not prepared one in advance of the exam. *You will not be permitted to take an on-campus examination if you do not provide proof of your identity in the form of your FSU ID/license/passport with a picture that resembles you.* You may NOT use any scrap paper during examinations: all work must be done on the copy of the examination that you are given; you may use the back of each page of the examination if you need additional space in which to write your response for an exam problem (additional work must be appropriately labeled with the problem number on the back of the examination page and a note regarding the continuation of the work for the problem *and* the location of this continued work must be provided with the original problem for the work to be graded.).

**NOTE:** As stated on [Student Resources and Information](#) page on the DGCE website, "In order to ensure that students enroll in courses that match their individual skill and preparation levels, the Massachusetts Board of Higher Education has mandated that all new undergraduate students take placement tests in reading, writing and mathematics." Please visit [Placement Testing](#) in the First-Year Programs section of the Framingham State University website if you would like more information about placement testing in mathematics. If you have any questions about placement testing, please call 508-626-4905 or e-mail [placement@framingham.edu](mailto:placement@framingham.edu). Even if you are not an undergraduate, it is recommended that you take the placement exam in mathematics since you must have sufficient proficiency in mathematics in order to succeed in this course. This course will not include remedial study of functions, equations, graphing, calculation/arithmetic, or order of operations for use of a calculator or software: you are expected to have these skills.

### **Communication:**

- Please sign all email correspondence using your full name and set up your email to display your full name as the sender; please do NOT put your name to the subject line. Both of these will help me to be able to find your email messages when I am doing an email search. Since I receive a great deal of email daily, using a subject line that starts with "**MATH 117 ONLINE Statistics:**" followed by a meaningful – not blank – reason for the communication (quotation marks are *not* used in subject lines for email messages) will help me to find course emails quickly; this

will enable me to filter course emails out of the multitude of daily FSU-mail, math and professional email, and spam. Since a lot of email not removed by spam filters contains distasteful messages (and images), I do not read suspect emails: having your full name (using your student.framingham.edu address or equivalent email address consisting of first initial and full last name is acceptable) displayed as the sender rather than a general email address such as [spiderman123@aol.com](mailto:spiderman123@aol.com) or [sweetiepie28@hotmail.com](mailto:sweetiepie28@hotmail.com) in addition to using a subject line starting with "MATH 117 ONLINE Statistics:", as mentioned above, will help me to identify your email as valuable and not spam, enable me to find your email messages quickly, and make it possible for me to reply rapidly. Please note that a subject line such as *MATH 117 ONLINE Statistics: Hi Prof – It's me* is *NOT* meaningful.

- Replies will **NOT** be sent to messages that do not display the sender's name, those that are not signed or to those which do not have the appropriate subject line; suspect emails (general email addresses with no sender name displayed and those with questionable subject lines) will be deleted without being read.
- Please do not leave notes **under/on** my **office door**. Notes on doors can be removed by others or fall off and notes slipped under doors can be discarded by building maintainers as garbage. Your communication is important to me and I do not want it to be lost or discarded.
- If you call by **phone**, please identify yourself using your full name and state the course that you are taking at the *beginning* of the conversation or at the *beginning* of the **voice mail message**. For example, "Hello, my name is ..., and I am a student in your MATH 117 ONLINE Statistics course." If you leave a **voice mail message**, please speak slowly and clearly so that your name, course information, contact information (including phone number), and message can be understood. It is your responsibility to help me to be able to return your phone call – it is difficult to return your call if I do not know who you are, what course you are taking, what your phone number is, and about what you called.
- For an online course, email is the *main* and *preferred* method of communication.

#### **Appointments:**

- If you would like to arrange an **on-campus/in-person appointment**, a **phone appointment**, or an **online appointment**, please make arrangements for the appointment (especially for the type – on-campus/in-person, by phone, or online) *in advance*. Except with prior arrangements, *drop-in* on-campus visits are not possible; scheduling appointments, in advance, helps us to coordinate our schedules and to avoid course, meeting, and personal time conflicts. For pre-scheduled on-campus appointments as well as phone appointments and IM appointments, please be on time, be prepared, and immediately identify yourself. Being prepared for your appointment (on-campus, by-phone, or online) includes but is not limited to having your course textbook (MyMathLab), if necessary, notebook and note paper, calculator, laptop, if appropriate, and writing instrument(s) with you and being ready to ask your question(s).
- For phone appointments, we must coordinate who will call whom and at what phone number; this will help us to avoid a round or more of telephone-tag.
- For online appointments, we must determine the venue that we will use for communication – email, IM, Blackboard's Virtual Chat or Virtual Classroom, or *Blackboard Collaborate*.
- Appointments must be set up by email, [smabrouk@framingham.edu](mailto:smabrouk@framingham.edu).

#### **Required Textbook:**

*Fundamentals of Statistics, Third Edition*, Michael Sullivan III, Pearson Education, Inc., © 2011.

- The readings and practice exercises for the course are in the text *Fundamentals of Statistics, Third Edition* by Michael Sullivan III, and you **MUST** purchase MyMathLab access (either with the text or separately) in order to complete the MyMathLab assignments. MyMathLab resources include additional worked examples, video lecture podcasts, supplementary practice exercises, practice quizzes/tests, and the student solutions manual to accompany the textbook.
- You may purchase the electronic version of this text, which is part of MyMathLab, directly from the publisher, Pearson Education, Inc., at <http://pearsonmylabandmastering.com>. The course ID that you need is available on Blackboard in the MyMathLab section of the *Course Web Sites* page and in the MyMathLab announcement on the

*Announcements* page. In MyMathLab, the electronic textbook (for readings and practice exercises) is accessible on the *Text & Resources* page and the MyMathLab assignments are accessible the *Online Homework* page.

- If you choose to purchase MyMathLab access (which includes the electronic version of the textbook) alone, please go to <http://pearsonmylabandmastering.com>, left-click the Register button labeled for students, and follow the directions. If you have used a similar Pearson product in the past, you may use your Pearson login/password. If you have not used a similar Pearson product in the past then you will set up your Pearson login/password as you purchase MyMathLab access.
- You may purchase a printed copy of the textbook packaged with a MyMathLab access code or a MyMathLab access code alone from the Framingham State University Bookstore. If you would like to purchase either of these from another source, the ISBN numbers are provided below.
  - ♣ For the printed copy of the text alone (*WITHOUT* a MyMathLab access code), the ISBN numbers are ISBN-10: 0321641876 and ISBN-13: 9780321641878.
  - ♥ For the printed copy of the text packaged *with* a MyMathLab access code, the ISBN numbers are ISBN-10: 0321744411 and ISBN-13: 9780321744418.

### **Practice Exercises and Worked Examples:**

- You are expected to do the assigned practice exercises. You cannot learn mathematics/statistics by skimming a page of information, searching for highlighted text or equation boxes, or by skimming worked examples as you would a novel. You can only learn and understand how to apply mathematics/statistics by participating in the problem solving process. For an online course, **you** must do the work, do the readings (text, PowerPoint, online), view the video lectures, and do the practice exercises.
- You must carefully read and take notes on the material presented in the text, making careful notes on the how-to's, when-applicable's, and the what-makes-sense's for all topics in addition to when various techniques/methods can be applied. Then, you must apply these to the practice exercises.
- The **PowerPoint** slides available on the course web site and on the [MyMathLab](#) provide additional information, discussion, examples, equations/formulas, and hints: you are *expected* to use these PowerPoint slides posted on the course site, <http://www.framingham.edu/~smabrouk>, and on [MyMathLab](#), and you are responsible to learn all information provided.
- Do not *look* at worked examples but rather work *through* these examples, filling in any missing information and taking note of any questions that you may have. Worked examples can only be understood when you examine them *for yourself*. Think of worked examples as the information that you copy from the whiteboard/chalkboard after an instructor has completed the discussion of an example in class. If you were late, not paying attention, or not listening to this discussion then you missed all the valuable information that makes the work on the whiteboard/chalkboard fully make sense. Since you have missed this valuable discussion, *you must now fill in all the appropriate information for yourself*. So, *work through the text's examples step-by-step*, filling in the missing information as needed, and then use these examples to help you as you examine new exercises on your own. The more exercises you evaluate and examine, the more your understanding of the course material will grow, enabling you to apply what you have learned to new exercises and to new situations.
- Use online examples and worked examples from the text to guide you as you work on practice exercises on your own. You should use these examples to guide you through the exercises on which you work. Take note of differences and similarities in these exercises since these will help you to be able to work on additional exercises. Parallel the textbook and online examples with the practice exercises on which you work; examine and compare these examples to the exercises provided in handouts and in the PowerPoint class notes, to those on which you are working, and with those on which you work with others. Use the hint and similar exercises facilities available on [MyMathLab](#) as you work on the practice exercises; these are available for the graded [MyMathLab](#) assignments as well.

### **Study Groups:**

- Consider forming study groups for working on practice exercises. Discussing the practice exercises with others as you work on them will help you to gain a better understanding of how to apply the mathematics/statistics that you are learning and will help you to become more comfortable with the problem solving process.

- Discussing practice exercises with others will help you to be able to write explanations/discussions/comparisons of statistical concepts and techniques for graded assignments, online discussions, quizzes, and examinations.
- Be careful not to work with anyone even members of your study group or your study-buddy when you are taking quizzes or working on assignments that you have been instructed to work **on your own**. Giving/receiving help on quizzes or assignments on which you are expected to work *on your own* is an example of academic dishonesty. If you receive or give help for any quiz or assignment that you have been instructed to work *on your own* then you and anyone to/from whom help was given/received will earn a grade of F on the quiz or assignment and the procedures regarding academic dishonesty outlined in the [Framingham State University catalog](#) will be followed.

### **Disability Services:**

"Framingham State University offers equal opportunities to all qualified students, including those with disabilities and impairments. The University is committed to making reasonable accommodations as are necessary to ensure that its programs and activities do not discriminate, or have the effect of discriminating, on the basis of disability. Academic Support serves students with learning and psychiatric disabilities as well as students with visual, mobility and hearing impairments.

Academic Support works to provide reasonable accommodations to qualified students. The purpose of accommodations, modification, and/or auxiliary aids is to reduce or eliminate any disadvantages that may exist because of a disability."<sup>1</sup>

For further information, please visit the Disability Services page, <http://www.framingham.edu/center-for-academic-support-and-advising/disability-services/>, on the Center for Academic Support and Advising (CASA) section of the Framingham State University web site or contact LaDonna Bridges, Director of Academic Support, at 508-626-4906 or [lbridges@framingham.edu](mailto:lbridges@framingham.edu).

### **Academic Dishonesty:**

You are expected to carefully read the sections of the Framingham State University [Undergraduate Catalog](#) and the Framingham State University Division of Graduate and Continuing Education (DGCE) [Graduate Catalog](#) that describe academic dishonesty and the procedures that will be followed as well as the sanctions/punishments that can be imposed for incidents of academic dishonesty.

- Giving and/or receiving help on quizzes, examinations, or any assignments on which you are expected to do your own work, changing your work on graded assignments, quizzes, or examinations in an attempt to obtain additional credit/points, not being truthful in regard to turning in course assignments, taking a quiz or an exam *for someone else*, doing an assignment *for someone else*, or giving/receiving help during a quiz, an examination or problem set, having someone else do or help with the work/writing for an assignment or a paper, or having someone take a quiz or an exam *for you* are all *examples* of academic dishonesty. Plagiarism, looking at another student's quiz/examination paper or online quiz, allowing another student to look at *your* quiz/examination paper or online quiz, not being truthful regarding why you did not take a quiz/examination, and not being truthful regarding why you did not turn in an assignment are additional examples of academic dishonesty.
- All incidents of academic dishonesty will be reported to the Dean of the Division of Graduate and Continuing Education and the appropriate University procedures will be followed.
- Please read the sections on "Standards for oral and written performance", and the University's policy regarding academic honesty in the undergraduate catalog *and* the DGCE graduate catalog accessible/available at <http://www.framingham.edu/registrar/resources/catalogs-undergraduate-and-graduate.html> and "Ethical Aspects of Information Research" at <http://www.framingham.edu/henry-whittemore-library/how-do-i-tutorials/ethical-research.html>.

### **Online Materials:**

The majority of the course materials will be posted on <http://www.framingham.edu/~smabrouk> (the course web site). PowerPoint class notes, handouts, technology demos, examples, and other resources are posted on my course site. Some materials and assignments may be posted on the Blackboard site, <http://framingham.blackboard.com/>, or sent

<sup>1</sup> <http://www.framingham.edu/center-for-academic-support-and-advising/disability-services/>

to you via email. **Blackboard is *not* the course web site.** You are expected to check the course web site and the Blackboard site on a regular basis as well as check your email on a *daily* basis. [MyMathLab](#) has many resources available including PowerPoint slides, STATLETS, practice quizzes/tests, and data files for the text exercises as well as video lectures and hint and similar example facilities for practice exercises. You are responsible for the use of *all* of the available resources.

★ You are welcome to speak with me if you have any questions or concerns about the course requirements or expectations. Please remember that I am here to help you to learn and that I want to help you.