

MBC638
Course Syllabus
Data Analysis and Decision Making

Textbook: *Discovering Statistics by Daniel T. Larose - 3rd edition*

Package with loose-leaf text & Achieve Access (ONE TERM Access)
ISBN-13: 978-1-319-42419-0

OR

Achieve Access (ONE TERM Access)
ISBN-13: 978-1-319-40387-4

*Choose either version....both contain the access code for the textbook's online resources including the full eBook. This is where you will find the **Achieve** homework assignments.*

Additional required reading: *Understanding Variation - The Key to Managing Chaos*, 2nd edition By Donald J. Wheeler; SPC Press (ISBN: 0945320531)

Learning Outcomes:

Course Description:

This course will familiarize students with the assumptions underlying various statistical techniques and assist in identifying their appropriateness in a variety of situations. The student should be able to perform statistical analysis and interpret results in a meaningful way. Students are expected to relate results of such analyses to become an information-based decision maker.

Learning Objectives:

- Help students understand the value of data collection and analysis in acquiring knowledge and making decisions in today's business environment.
- Students will be able to identify and apply the appropriate statistical technique for a given set of conditions in order to answer a particular question.

MBC638
Course Syllabus
Data Analysis and Decision Making

Participation:

This is a required part of your grade. Participation will consist of attending weekly live sessions (class). Each class will be worth 1 point for a maximum participation total of 10 points. You must be in class (online) for more than half of the live session (greater than 45 minutes) in order for your attendance to count as being “in class” that day. You will be allowed one (1) unexcused absence per 10 week semester without penalty. For example, attending 9 or 10 sessions = 10 points, 8 sessions = 9 points, 7 sessions = 8 points, etc.

Quizzes:

We will have two online quizzes. Once you begin the quiz you will need to complete it within the designated time period. You **cannot** “save” your quiz and come back to it later. Please read all instructions carefully, entering your answers as required in the appropriate form.

Posting Assignments:

All assignments related to the project and Excel homework assignments will be submitted electronically. Please be sure to type your name either in the header or the footer of the paper/document. Please submit assignments as a **single** attachment (file). If you use multiple software applications to complete an assignment please consolidate your work to **one** printable file.

Late Assignments:

Late assignments will be penalized with a 10% grade deduction for each day late. Deadlines will be defined as **midnight EST**. **An assignment will not be accepted after 4 days late.** If an assignment is submitted 5 days after the deadline you will not receive any credit for it. If you know you will be offline the day an assignment is due, please make sure to post it early. **Extra credit will not be available so please pay close attention to assignment due dates.**

Additional Information:

Syracuse University’s Academic Integrity Policy reflects the high value that we, as a university community, place on honesty in academic work. The policy defines our expectations for academic honesty and holds students accountable for the integrity of all work they submit. Students should understand that it is their responsibility to learn about course-specific expectations, as well as about university-wide academic integrity expectations. The policy governs appropriate citation and use of sources, the integrity of work submitted in exams and assignments, and the veracity of signatures on attendance sheets and other verification of participation in class activities. The policy also prohibits students from submitting the same work in more than one class without receiving written authorization in advance from both instructors. Under the policy, students found in violation are subject to grade sanctions determined by the course instructor and non-grade sanctions determined by the School or College where the course is offered as described in the Violation and Sanction Classification Rubric. SU students are required to read an online summary of the University’s academic integrity expectations and provide an electronic signature agreeing to abide by

MBC638
Course Syllabus
Data Analysis and Decision Making

them twice a year during pre-term check-in on MySlice. For more information about the policy, see <http://academicintegrity.syr.edu>.

The Violation and Sanction Classification Rubric establishes recommended guidelines for the determination of grade penalties by faculty and instructors, while also giving them discretion to select the grade penalty they believe most suitable, including course failure, regardless of violation level. Any established violation in this course may result in course failure regardless of violation level.

Disability-Related Accommodations

If you believe that you need accommodations for a disability, please contact the Office of Disability Services (ODS), <http://disabilityservices.syr.edu>, located in Room 309 of 804 University Avenue, or call (315) 443-4498, TDD: (315) 443-1371 for an appointment to discuss your needs and the process for requesting accommodations. ODS is responsible for coordinating disability-related accommodations and will issue students with documented Disabilities Accommodation Authorization Letters, as appropriate. Since accommodations may require early planning and generally are not provided retroactively, please contact ODS as soon as possible.

Religious Observances Policy

SU religious observances policy, found at http://supolicies.syr.edu/emp_ben/religious_observance.htm, recognizes the diversity of faiths represented among the campus community and protects the rights of students, faculty, and staff to observe religious holidays according to their tradition. Under the policy, students are provided an opportunity to make up any examination, study, or work requirements that may be missed due to religious observance provided they notify their instructors before the end of the second week of classes. For fall and spring semesters, an online notification process is available through

MySlice/StudentServices/Enrollment/MyReligiousObservances from the first day of class until the end of the second week of class.

Confidentiality and Proprietary Information:

You are encouraged to share your professional experiences as a way to learn by reflecting on the application of those experiences. However, to assure that we can have an open discussion in which you feel free to discuss your company and its processes as they apply to the course material, I expect each person to respect the confidentiality of what your classmates are willing to share. At the same time, I ask that each of you exercise good judgment in what you choose to share and avoid disclosing information that could be considered proprietary, confidential, company-sensitive, or a protected trade secret. Please check with your organization on boundaries for sharing information external to your company.

MBC638
Course Syllabus
Data Analysis and Decision Making

Grading

| Total Points | Final Grade |
|--------------|-------------|
| 95-100 | A |
| 90-94 | A- |
| 87-89 | B+ |
| 84-86 | B |
| 80-83 | B- |
| 76-79 | C+ |
| 72-75 | C |
| 66-71 | C- |
| <65 | F |

Note: Partial points will be rounded to the nearest full point; for example, 83.4=83 which results in a grade of B- and 83.5=84 results in a grade of B.

Point Values for Course Assignments

| ASSIGNMENTS | No. of | Total Points |
|---|--------|--------------|
| Class Participation | 10 | 10 |
| Quizzes | 2 | 20 |
| Homework Assignments | 6 | 20 |
| Problem Definition Worksheet | 1 | 10 |
| Process Improvement Project with Storyboard | 1 | 20 |
| Final Exam | 1 | 20 |
| Total Points | | 100 |

MBC638
Course Syllabus
 Data Analysis and Decision Making

| Class Assignments | Submit / Post Location | Due / Date |
|---|------------------------|-----------------------------|
| Week 1 (Reference :: textbook Ch.1, 2 & 3) | | |
| Problem Definition Worksheet | Assessments folder | 3 days after Live Session 1 |
| Week 2 | | |
| Quiz #1 | Assessments folder | 3 days after Live Session 2 |
| Week 3 (Reference :: textbook Ch.6 - skip sect. 6.3, Ch.7 - sect. 7.1 only) | | |
| Homework #1: <i>(worth 5 points)</i> <u>Achieve Assignments</u> <ul style="list-style-type: none"> Complete LearningCurve for Chapter 3. Complete StatTutor (3 topics): <ul style="list-style-type: none"> Chapter 6 – Normal Distributions <ul style="list-style-type: none"> - The Standard Normal Distribution - Using the Standard Normal Table | Achieve | 3 days after Live Session 3 |
| Week 4 (Reference :: textbook Ch.9 – skip sect.9.2 & 9.6, Ch.11 – sect. 11.2 only) | | |
| Homework #2: <i>(worth 3 points)</i> <u>Achieve Assignments</u> <ul style="list-style-type: none"> Chapter 9 Practice Quiz (unlimited attempts) Complete StatTutor: Chapter 11 – Expected counts in 2-way tables | Achieve | 3 days after Live Session 4 |
| Week 5 (Reference :: textbook Ch.8 – skip sect. 8.4) | | |
| Homework #3: <i>(worth 2 points)</i> <u>Achieve Assignments</u> <ul style="list-style-type: none"> Chapter 8 Practice Quiz (unlimited attempts) | Achieve | 3 days after Live Session 5 |
| Week 6 | | |
| Quiz #2 (covers Chapters 3,6,8,9,11.2) | Assessments folder | 3 days after Live Session 6 |

MBC638
Course Syllabus
 Data Analysis and Decision Making

| Class Assignments | Submit / Post Location | Due Date |
|---|------------------------|------------------------------|
| Week 7 (Reference :: textbook Ch.4, Ch.13 – sect. 13.3 only) | | |
| Homework #4: <i>(worth 5 points)</i> Complete LearningCurve for Chapter 4. | Achieve | 3 days after Live Session 7 |
| Week 8 (Required Reading :: <i>Understanding Variation</i> by Donald J. Wheeler) | | |
| Homework #5: <i>(worth 3 points)</i> Submit <u>one</u> Excel file containing this assignment: <ul style="list-style-type: none"> Complete Control Chart problems #1-10 on pgs 114 -116 from the <i>Understanding Variation</i> Book. | Assessments folder | 3 days after Live Session 8 |
| Week 9 | | |
| Homework #6: <i>(worth 2 points)</i> Submit <u>one</u> Excel file containing this assignment: <ul style="list-style-type: none"> Complete Time Series problems - <u>Excel data file</u> posted in the Assignments & Deliverables folder | Assessments folder | 3 days after Live Session 9 |
| Week 10 | | |
| Process Improvement Project (with Storyboard) | Assessments folder | 4 days after Live Session 10 |
| Final Exam | Live Session #11 | During Live Session #11 |