

**LAGUARDIA COMMUNITY COLLEGE
CITY UNIVERSITY OF NEW YORK**

DEPARTMENT OF MATHEMATICS, ENGINEERING, AND COMPUTER SCIENCE

MAT 120 – ELEMENTARY STATISTICS I – Additional Information for Hybrid Courses

This is a 3 credit course with 2 “face-to-face” classroom/lab hours.

The course adheres to the “traditional” course syllabus for MAT 120.

Hybrid Courses blend face-to-face (f2f) interaction with computer and web-based educational technologies to facilitate self-scheduled learning for some course material to enhance overall student achievement. The course activities are designed to be completed in the same number of weeks as the traditional non-Hybrid course sections. The two components of the hybrid teaching model are:

- Traditional student and teacher meetings during class / lab time
- Self-scheduled learning that takes place during non-class hours. Students are assigned readings and tasks that are to be completed with the help of computer-based technology and online platforms, (see details below). These activities usually involve reading summaries, watching videos, completing writing exercises and reflections, practicing problems, and/or completing quizzes. The amount of time spent on these self-scheduled activities and on homework assignments depends on the needs of the student; it is estimated to be at least 6 hours a week.

Important concepts are presented and practiced during f2f meetings; students are expected to spend time outside of class to master the key ideas and solution techniques at their own pace, while adhering to course schedule. One of the major benefits of a hybrid course is that students have some control over time, place, path, and pace of their learning.

Technical Requirements:

- Access to a computer with text-editing, spreadsheet capabilities, and an internet connection.
- Access to a software package with Statistical functions and features, e.g., SPSS or Excel.
- Access to a scientific calculator for in-class work, quizzes, exams, and homework.

Online Learning Management Systems for Hybrid Instruction:

- We will use *Piazza* as our class management system (<http://www.piazza.com>). It is free and provides an efficient means to get help from your instructor and from your classmates. You are encouraged to post questions and comments on Piazza, (either privately to the instructor or publicly to the class.)
- The instructor will provide you with the link to the class website and an Access Code so you can sign up. The class website contains course information, discussion boards, and a time-line for the completions your self-scheduled activities.
- All announcements will be available in Piazza's Announcements section.

Hybrid Course Schedule: (Instructor may modify the proposed time-line)

TOPIC	SECTIONS	# Weeks
Data Collection (Chapter 1) <ul style="list-style-type: none"> • Introduction to Practice of Statistics • Sampling Methods • Sources of Bias 	1.1 1.3, 1.4 1.5	1
Tables and Graphs (Chapter 2) <ul style="list-style-type: none"> • Organizing Qualitative Data • Organizing Quantitative Data • Graphical Misrepresentation of Data 	2.1 2.2 2.4	1
Summarizing Data (Chapter 3) <ul style="list-style-type: none"> • Measures of Central Tendency (<i>raw data</i>) • Measures of Dispersion (<i>raw data</i>) • Measures of Central Tendency and Dispersion (<i>grouped data</i>) • Measures of Position and Outliers • The Five-Number Summary and Boxplots Assessment #1	3.1 3.2 3.3 3.4 3.5	2
Describing the Relationship between Two Variables (Chapter 4) <ul style="list-style-type: none"> • Scatter Diagram and Correlation • Regression Line /Equation • Contingency Tables and Association 	4.1 4.2 4.4	1
Probability and Probability Distributions (Chapter 5) <ul style="list-style-type: none"> • Probability Rules • Addition Rule & the Complements • Independence and the Multiplication Rule • Conditional Probability and the General Multiplication Rule Discrete Probability Distributions (Chapter 6) <ul style="list-style-type: none"> • Discrete Random Variables • Binomial Probability Distributions Assessment #2	5.1 5.2 5.3 5.4 6.1 6.2	2
The Normal Probability Distributions (Chapter 7) <ul style="list-style-type: none"> • Properties of the Normal Distribution • Applications of the Normal Distributions Sampling Distributions (Chapter 8) <ul style="list-style-type: none"> • Distribution of the Sample Mean Assessment #3	7.1 7.2 8.1	3
Estimating the Value of a Parameter (Chapter 9) <ul style="list-style-type: none"> • Confidence Interval Estimates • Estimating a Population Mean (σ Unknown) Hypothesis Test Regarding a Parameter (Chapter 10) <ul style="list-style-type: none"> • The Language of Hypothesis Testing • Hypothesis Tests for a Population Mean 	9.1 9.2 10.1 10.3	2
FINAL EXAM		

