

Course Map - Fall 2021

Module	Objectives	Activities	Assessments
Week 1	Syllabus & Course Overview Types of data Modifying data in excel	Read Text Ch. 1 Ch.2 sections 2.1, 2.2, and 2.3	Syllabus quiz MindTap HW IA* posted
Week 2	Creating distribution in Excel Measures of location Measures of Variability	Read text Ch. 2 sections 2.4, 2.5, and 2.6	MindTap HW
Week 3	Analyzing distributions Measures of association Data cleaning	Read text Ch. 2 sections 2.7, 2.8, and 2.9	MindTap HW
Week 4	Effective design techniques Designing tables Cross tabulation Creating Pivot tables in Excel	Read text Ch. 3 sections 3.1 and 3.2	MindTap HW
Week 5	Using charts effectively Chart types Data dashboard	Read text Ch. 3 sections 3.3, 3.4, 3.5, and 3.6	MindTap HW Quiz 1
Week 6	Fundamentals of probability theory Basic relationships of probability	Read text Ch. 5 sections 5.1 and 5.2	MindTap HW Exam 1 [†]
Week 7	Conditional probability Random variables	Read text Ch. 5 sections 5.3 and 5.4	MindTap HW
Week 8	Expected value and variance Discrete random variables Discrete probability distributions	Read text Ch. 5 section 5.5	MindTap HW
Week 9	Continuous probability distribution	Read text Ch. 5 section 5.6	MindTap HW Quiz 2
Week 10	Sampling from a population Point estimation Sampling distribution	Read text Ch. 6 sections 6.1, 6.2, and 6.3	MindTap HW
Week 11	Sampling distribution of \bar{p} Interval estimation	Read text Ch. 6 sections 6.3 and 6.4	MindTap HW

*IA stands for individual assignment.

[†]Exam 1 is on Monday, September 27th.

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Module	Objectives	Activities	Assessments
Week 12	Developing null and Alternative hypothesis Type I and Type II errors Hypothesis test of the population mean	Read text Ch. 6 section 6.5	MindTap HW Quiz 3
Week 13	Hypothesis test of the population proportion	Read text Ch. 6 section 6.5	MindTap HW Exam 2 [‡]
Week 14	Simple linear regression model Least square method Using excel to compute the estimated parameters Assessing the fit of the SLR model Sums of squares	Read text Ch. 7 sections 7.1, 7.2, and 7.3	MindTap HW
Week 15	The coefficient of determination (R^2) Using excel to compute R^2 Necessity conditions for valid inference Testing individual regression parameters	Read text Ch. 7 sections 7.3 and 7.5	MindTap HW Quiz 4 IA is due Final Exam [§]

[‡]Exam 2 is on Wednesday, November 17th.

[§]Final Exam is on Wednesday, December 8th from 7 am to 9:45 am.