

Course map

Module	Objectives	Activities	Assessments	Interactions
Week 1	Syllabus & Course Overview Class Intros Types of data Modifying data in excel	Read Text Ch. 1 Ch.2 sections 2.1, 2.2, and 2.3, Lecture videos	Syllabus quiz Discussion, MindTab HW	Email, Discussion Virtual lecture session
Week 2	Creating distribution in Excel Measures of location Measures of Variability	Read text Ch. 2 sections 2.4, 2.5, and 2.6 Lecture videos	MindTab HW	Email, Virtual lecture session
Week 3	Analyzing distributions Measures of association Data cleaning	Read text Ch.2 sections 2.7, 2.8, and 2.9 Lecture videos	MindTab HW Discussion	Email Discussion Virtual lecture session
Week 4	Effective design techniques Designing tables Cross tabulation Creating Pivot tables in Excel	Read text Ch.3 section 3.1 and 3.2, Lecture videos	MindTab HW	Email, Discussion Virtual lecture session
Week 5	Using charts effectively Chart types Data dashboard Fundamentals of probability theory	Read text Ch.3 sections 3.3, 3.4, 3.5, 3.6 Ch.5 section 5.1 Lecture videos	MindTab HW Discussion GA ⁱ 1 Quiz 1	Email Discussion Virtual lecture session
Week 6	Basic relationships of probability Conditional probability Random variables Expected value and variance	Read text Ch. 5 sections 5.2, 5.3, and 5.3 Lecture videos	MindTab HW Discussion Exam 1 ⁱⁱ	Email Discussion Virtual lecture session
Week 7	Discrete random variables Bernoulli trial Discrete probability distributions	Read text Ch. 5 sections 5.4 and 5.5 Lecture videos	MindTab HW Discussion <u>GA 1 is due</u>	Email Discussion Virtual lecture session
Week 8	Continuous probability distribution	Read text Ch. 5 section 5.6 Lecture videos	MindTab HW Discussion GA 2 Quiz 2	Email Discussion Virtual lecture session
Week 9	Spring break			
Week 10	Sampling from a population Point estimation Sampling distribution	Read text Ch. 6 sections 6.1, 6.2, and 6.3 Lecture videos	MindTab HW Discussion <u>G2 1 is due</u>	Email Virtual lecture session
Week 11	Interval estimation Hypothesis testing	Read text Read text	MindTab HW Discussion	Email Discussion

		Ch. 6 sections 6.4 and 6.5 Lecture videos		Virtual lecture session
Week 12	Testing hypothesis about the population mean Testing hypothesis about the population proportion	Read text Ch. 6 section 6.5 Lecture videos	MindTab HW Discussion GA 3 Quiz 3	Email Discussion Virtual lecture session

Week 13	Simple linear regression model	Read text Ch.7 section 1	MindTab HW Discussion Exam 2 ⁱⁱⁱ	Email Discussion Virtual lecture session
Week 14	Least square method Using excel to compute the estimated parameters	Read text Ch. 7 section 7.2 Lecture videos	MindTab HW Discussion <u>GA 3 is due</u>	Email Discussion Virtual lecture session
Week 15	Assessing the fit of the SLR model Sums of squares Coefficient of determination Using excel to compute the coefficient of determination	Read text Ch. 7 section 7.3 Lecture videos	MindTab HW Discussion	Email Discussion Virtual lecture session
Week 16	Necessity conditions for valid inference in the Least Squares Regression model	Read text Ch. 7 section 7.5 Lecture videos	Discussion Quiz 4 Final Exam ^{iv}	Email Discussion Virtual lecture session

ⁱ GA stands for group assignment

ⁱⁱ Exam 1 is on Wednesday, February 24th

ⁱⁱⁱ Exam 2 is on Wednesday, April 14th

^{iv} Final Exam is on Wednesday, May 12th