BUSN 5000 Weekly Schedule

Chris Cornwell Fall 2023 (updated 22 Sep 23)

Class Room: Amos B010 Class Hours: TR, 935a and 1110a Recitation Room: Ivester 007 Recitation Hours: R, 545p-645p

Deadlines

The **deadline** for submitting all homework and project assignments is **1159p** on the due date. Late submissions will not be accepted.

Week 1:: Data Fundamentals

Reading: Bekes and Kedzi, ch 1; Bueno de Mesquita and Fowler, ch 1; Healy, ch 2

IRL: "The Data Coach", Against the Rules, Season 2 Episode 5.

Due: Homework 0 – Fri, Aug 25

Week 2:: Beginning to Learn

Reading: Bekes and Kedzi, chs 2-3

IRL: "What Can Uber Teach Us About the Gender Pay Gap?", Freakonomics Radio, Episode 317.

Due: Homework 1 – Mon, Aug 28

Week 3 :: Models for Exploration

Reading: Bekes and Kedzi, ch 4; Bueno de Mesquita and Fowler, ch 2,4

IRL: "No-Code' Brings the Power of A.I. to the Masses", New York Times, 15 Mar 22.

Due: Homework 2 – Mon, Sep 4

Week 4 :: Making Inferences

Reading: Bekes and Kedzi, chs 5-6; Bueno de Mesquita and Fowler, ch 6

IRL: "Building a Culture of Experimentation", Harvard Business Review, March-April 2021.

Due: Homework 3 – Mon, Sep 11

Week 5:: Measurement Error and Sample Selection

Reading: Bueno de Mesquita and Fowler, ch 16

IRL: "How Bad Data Traps People in the US Justice System", Ted Talks, April 2022.

Due: Homework 4 – Mon, Sep 18

Week 6:: Confounding and the Bayesian Approach to Learning from Data

Reading: Bueno de Mesquita and Fowler, ch 15

IRL: "Do We Live in a Simulation? Chances are about 50-50", Scientific American, 13 Oct 20.

Due: Homework 5 – Mon, Sep 25

Week 7:: Data Ethics and Part I Exam

Due: Project I - Mon, Oct 2

PART I EXAM: Thu, Oct 5 (in class)

Weeks 8-9 :: Regression fundamentals

Reading: Bekes and Kedzi, chs 7-10; Bueno de Mesquita and Fowler, ch 5; Angrist & Pischke, ch 2

IRL: "Causal Modeling and Sequence Data", Super Data Science, Episode 617.

Due: Homework 6 – Mon, Oct 24

Week 10: Potential outcomes and causal inference

Reading: Bekes and Kedzi, chs 19-20; Bueno de Mesquita and Fowler, chs 3, 9-11; Angrist & Pischke, ch 1

IRL: "Edward Miguel on Collecting Economic Data by Canoe and Correlating Conflict with Rainfall", *People I Mostly Admire*, Episode 50.

Due: Homework 7 – Mon, Oct 31

Week 11 :: Regression discontinuity

Reading: Bueno de Mesquita and Fowler, ch 12; Angrist & Pischke, ch 4

IRL: "Does Advertising Actually Work? Part I", Freakonomics Radio, Episode 440.

Due: Homework 8 – Mon, Nov 6

Week 12 :: Difference in differences

Reading: Bekes and Kedzi, ch 22; Bueno de Mesquita and Fowler, ch 13; Angrist & Pischke, ch 5

IRL: "Does Advertising Actually Work? Part II", Freakonomics Radio, Episode 441.

Due: Homework 9 – Mon, Nov 13

Weeks 13-15:: Introduction to machine learning

Reading: Bekes and Kedzi, chs 13-14; "Machine Learning: An Applied Econometric Approach", Journal of Economic Perspectives, Spring 2017.

IRL: "Prediction Machines: The Simple Economics of AI", Talks at Google, 25 May 2018.

Due: Homework 10 – Fri, Dec 1

THANKSGIVING BREAK, NOV 22-24

Weeks 16-17 :: Project II and Part II Exam

Due: Project II – Mon, Dec 4

PART I EXAM (1110 section): Thu, Dec 7 (in class) **PART I EXAM (935 section)**: Tue, Dec 12 (in class)