

LLO 8200 Detailed Schedule (Subject to Change)

Date	Module	Assignments Due (Due the day prior to week's session unless otherwise specified)	Suggested Readings
Week 0	Optional R Bootcamp		R Setup Slide Deck .Rmd Bootcamp File Bootcamp knit lecture notes If you did not attend bootcamp, you should review the .Rmd file and the video recording and be sure everything runs smoothly.
Week 1 Jan 11-12	Module 1. Welcome to Data Science: Tools of the Trade		<ul style="list-style-type: none"> • Wickham: <ul style="list-style-type: none"> ○ Welcome: Introduction ○ Explore <ul style="list-style-type: none"> ▪ Introduction ▪ Workflow: basics ▪ Workflow: projects • Silver, Chapter 1
Week 2 Jan 18-19	Module 2. Getting Data: Flat Files and "Tidy" Data	Post on the LMS wall some potential areas of interest for the group project. <ul style="list-style-type: none"> ○ The project will consist of analyzing data to build a predictive model for a particular phenomenon. ○ Groups will consist of 3-5 people (no more, no less). ○ I encourage making connections based on substantive interests rather than friendships, but as long as you have a group, I won't push you on this 	<ul style="list-style-type: none"> • Wickham: <ul style="list-style-type: none"> ○ Wrangle <ul style="list-style-type: none"> ▪ Data import ▪ Tidy data • Silver, Chapter 2 • Additional Resource: http://www.cookbook-r.com/Data_input_and_output/
Week 3 Jan 25-26	Module 3. Getting Data: Web Sources	<ul style="list-style-type: none"> • Group project – <i>In-class</i> discussion of the project (including norms surrounding communication and expectations) and group breakouts (we will use this time to finalize groups – if someone doesn't have a group at this point, we will find that person a group). <p>I expect that every group (if not at the max number of 5 people) will be open to additional group members if needed</p>	<ul style="list-style-type: none"> • Silver, Chapter 3 • Additional Resource: http://www.cookbook-r.com/Data_input_and_output/

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Week 4 Feb 1-2	Module 4. Analyzing Data: Conditional Means (supplemental Ntiles code included in .Rmd but not in async videos)	<ul style="list-style-type: none"> Problem Set 1 due (LMS Modules 1, 2, & 3) 	<ul style="list-style-type: none"> Wickham: <ul style="list-style-type: none"> Explore: Data transformation Silver, Chapter 4
Week 5 Feb 8-9	Module 5. Presenting Data: Descriptive Plots	<ul style="list-style-type: none"> Group project – Progress Report 1 due 	<ul style="list-style-type: none"> Wickham: <ul style="list-style-type: none"> Explore <ul style="list-style-type: none"> Data visualization Data transformation Silver, Chapter 5 Additional Resources: <ul style="list-style-type: none"> http://www.cookbook-r.com/Graphs/Bar_and_line_graphs_(ggplot2)/ http://www.cookbook-r.com/Graphs/Plotting_distributions_(ggplot2)/
Week 6 Feb 15-16	Module 6. Analyzing Data: Linear Regression (we will split this unit across 1.5 weeks)	<ul style="list-style-type: none"> Problem Set 2 due (LMS Modules 4 & 5) 	<ul style="list-style-type: none"> Wickham: <ul style="list-style-type: none"> Model <ul style="list-style-type: none"> Introduction Model basics Model building Silver, Chapter 6 Additional Resource: http://www.cookbook-r.com/Statistical_analysis/
Week 7 Feb 22-23	Module 6. Analyzing Data: Linear Regression (remainder)		<ul style="list-style-type: none"> Wickham: <ul style="list-style-type: none"> Model <ul style="list-style-type: none"> Introduction Model basics Model building

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	Module 7. Presenting data: Scatterplots		<ul style="list-style-type: none"> ○ Explore <ul style="list-style-type: none"> ▪ Data visualization • Silver, Chapter 7 • Additional Resource: http://www.cookbook-r.com/Statistical_analysis/
Week 8 March 1-2	Module 8. Analyzing Data: Classification (part 1 – we are splitting this module across two weeks)	<ul style="list-style-type: none"> • Problem Set 3 due (LMS Modules 6 & 7) • Necessary Reading - Article: Althoff, T., Danescu-Niculescu-Mizil, C., & Jurafsky, D. (2014). How to ask for a favor: A case study on the success of altruistic requests. In ICWSM. Available at: http://www.aaai.org/ocs/index.php/ICWSM/ICWSM14/paper/download/8106/8101 	<ul style="list-style-type: none"> • Wickham <ul style="list-style-type: none"> ○ Model <ul style="list-style-type: none"> ▪ Introduction ▪ Model basics ▪ Model building • Silver, Chapter 8
Week 9 March 8-9	Group Project Work	<ul style="list-style-type: none"> • Group project – Progress Report 2 due 	
Spring Break			
Week 10 March 22-23	Book Discussion	<ul style="list-style-type: none"> • Problem Set 4 due (LMS Module 8) 	Silver Book
Week 11 March 29-30	Group Work + Suggested Async Module 14.1-14.5	<ul style="list-style-type: none"> • Final Project – in-class group work – we will be using breakout rooms to have group meetings this week. Come prepared to do group work and have a short check-in with Rafael. 	
Week 12 April 5-6	Module 10. Cross Validation (Look for details on course site)	<ul style="list-style-type: none"> • Group project – Progress Report 3 due 	<ul style="list-style-type: none"> • Wickham <ul style="list-style-type: none"> ○ Model <ul style="list-style-type: none"> ▪ Many Models
Week 13 April 12-13	Group Project Presentations		

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Week 14 April 19-20	Group Project Presentations		
Week 15 May 1	FINAL PRESENTATIONS AND FINAL REPORTS DUE: Monday, May 1st by Midnight Pacific Time		