

Day	Item	Detail	Duration (hours)	Start Time	End Time	Presenter
1	Introductions		0.25	8:30	8:45	ALL
1	Getting Started	<ul style="list-style-type: none"> Advanced Environment, RStudio setup Basics review and more Saving and sourcing scripts Installing and using packages 	0.75	8:45	9:30	Dan
1	Data Structures	<ul style="list-style-type: none"> Data structures Vectors, lists Working with data frames 	0.75	9:30	10:15	Adam
1	Break		0.25	10:15	10:30	N/A
1	Data Import/Export	<ul style="list-style-type: none"> Reading/writing data Reading to/from CSV, hadley's readr and readxl packages Reading to/from sqlite with RODBC or DBI 	0.75	10:30	11:15	Dan
1	Visualization	<ul style="list-style-type: none"> Histograms/kernel density plots Basic visualization 	0.75	11:15	12:00	Adam
1	Lunch		1.00	12:00	13:00	N/A
1	Data Analysis	<ul style="list-style-type: none"> Basic data analysis in R Linear regression Fit a distribution 	0.75	13:00	13:45	Brian
1	Advanced Visualization	<ul style="list-style-type: none"> Advanced visualization with ggplot2 	0.75	13:45	14:30	Brian
1	Break		0.25	14:30	14:45	N/A
1	Distributions and Simulation	<p>p, q, d, r functions</p> <p>What packages give which distributions (stats, actuar, MASS, etc.)</p> <p>Simulation overview</p>	0.75	14:45	15:30	Dan
1	Capstone Intro, Q&A, Review if needed	<p>Start with brief introductions as a group</p> <p>Split into groups by capstone topic for further discussion, Q&A and specific instruction</p>	1.25	15:30	16:45	ALL
1	Online Resources	<ul style="list-style-type: none"> Overview of online resources: StackOverflow, r-bloggers 	0.25	16:45	17:00	Adam

1 Visualizatic •Histogram 0.75

Day	Item	Detail	Duration (hours)	Start Time	End Time	Presenter
2	Day 1 Review (Lecture)		0.75	8:30	9:15	Adam
2	Day 1 Review (Practical)		0.75	9:15	10:00	Adam
2	Break		0.25	10:00	10:15	N/A
2	ChainLadder package		0.75	10:15	11:00	Dan
2	dplyr	<ul style="list-style-type: none"> dplyr to select, summarize and transform data 	1.00	11:00	12:00	Brian
2	Rmarkdown	<ul style="list-style-type: none"> Augment R scripts with Rmarkdown knitr Roxygen Good documentation 	0.75	12:00	12:45	Adam
2	Lunch		1.00	12:45	13:45	N/A
2	Capstone Work	Breakout session for capstone groups to meet together and receive specific instruction related to their topic. Time will include lecture and one-on-one components	1.50	13:45	15:15	ALL
2	Break		0.25	15:15	15:30	N/A
2	Capstone Work	Breakout session for capstone groups to meet together and receive specific instruction related to their topic. Time will include lecture and one-on-one components	1.50	15:30	17:00	ALL

Day	Item	Detail	Duration (hours)	Start Time	End Time	Presenter
3	Review (Lecture)		0.75	8:30	9:15	Dan
3	Review (Practical)		0.75	9:15	10:00	Dan
3	Break		0.25	10:00	10:15	N/A
3	GLMs		1.00	10:15	11:15	Brian
3	Decision Trees and Other Predictive Models		1.00	11:15	12:15	Adam
3	Lunch		1.00	12:15	13:15	N/A

3	Capstone Work	Breakout session for capstone groups to meet together and receive specific instruction related to their topic. Time will include lecture and one-on-one components	1.50	13:15	14:45	ALL
3	Break		0.25	14:45	15:00	N/A
3	Capstone Work	Breakout session for capstone groups to meet together and receive specific instruction related to their topic. Time will include lecture and one-on-one components	2.00	15:00	17:00	ALL

Day	Item	Detail	Duration (hours)	Start Time	End Time	Presenter
4	Review (Lecture)		0.75	8:30	9:15	Brian
4	Review (Practical)		0.75	9:15	10:00	Brian
4	Break		0.25	10:00	10:15	N/A
4	Capstone Work	<ul style="list-style-type: none"> •Complete capstone •Generate actuarial report document in Word or PDF (or HTML) 	2.00	10:15	12:15	ALL
4	Lunch		1.00	12:15	13:15	N/A
4	Presentations	<ul style="list-style-type: none"> •Complete actuarial report •Present to larger group 	1.50	13:15	14:45	ALL
4	Break		0.25	14:45	15:00	N/A
4	Presentations	<ul style="list-style-type: none"> •Present to larger group •(if time) Sample presentations from other R groups around the country 	2.00	15:00	17:00	ALL