Discussion Syllabus V3.0
[Note change to PC point values]
[Note rubrics for final paper and presentation were added]
UCLA Ecology Winter 2019

TA:
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Office hours:
Tuesday and Thursday 2-3pm (after class)
Life Sciences 3206 (1 floor up from Bombshelter Entrance)

Point breakdown for section (400 total):
Discussion participation: 100 points (10 / week)
Discussion A3Q assignments: 100 points (10 / week)
Final project components (PC's): 100 points
Final paper: 75 points
Project presentation: 25 points

Final Paper Description
- 5 pages with 10 references from the peer-reviewed literature
- Double-spaced, not including references
- See rubric at end of this document for more info

Project parts, points and due dates

	Part	**Points**	**Due**	**Submission instructions**
PC1:	Project 2Qs	40	Week 4	One per group, printed and emailed
PC2:	Data set	30	Week 5	One per group, printed and emailed
PC3:	Script & figures	30	Week 8	One per group, printed and emailed
	Final Paper	75	Week 10	One per group, printed and via Turnitin
	Final Presentation	25	Week 10	One per group, 10 minutes max *Send slides to Ian before section begins

Weekly Schedule

Bot. gard. = The UCLA botanical garden

Class takes place in the UCLA botanical garden

DUE: Assignments are due at the beginning of class (unless otherwise stated)

A3Qs = Article 3 questions: Write down 3 questions the article made you think about, and then try your best answer them (1 page max)

UNIT 1: ASKING QUESTIONS				
WEEK	**DATE**	**READING**	**CLASS ACTIVITY**	**DUE**
1	Jan. 11	Schwartz 2008	Intro to class project	A3Qs
2	Jan. 18	Perez et al. 2018	Observations in bot. gard + project questions	A3Qs
UNIT 2: COLLECTING DATA				
3	Jan. 25	None	Data collection in bot. gard.	Nothing
4	Feb. 1	None	Data collection in bot. gard.	PC1: Project 2Qs
UNIT 3: ANALYZING DATA				
5	Feb. 8	Crawley 2012 Ch. 8 & 11	Introduction to R + start proj. analyses	A3Qs + PC2: Data set
6	Feb. 15	Crawley 2012 Ch. 10	Proj. data analysis in R	A3Qs
7	Feb. 22	None	Proj. data analysis in R	Nothing
UNIT 4: WRITING PAPERS AND PRESENTING RESULTS				
8	Mar. 1	Heard 2016 Ch. 7	Anatomy of writing + work on final paper	A3Qs + PC3: Script & figures
9	Mar. 8	Heard 2016 Ch. 17	Work on final paper	A3Qs
10	Mar. 15	None	Research symposium	Final paper + Final presentations *Send slides to Ian before section begins

References for weekly schedule

Unit 1: Asking questions

Schwartz, Martin A. "The importance of stupidity in scientific research." *Journal of Cell Science* 121.11 (2008): 1771-1771.

Perez, Timothy M., et al. "Botanic gardens are an untapped resource for studying the functional ecology of tropical plants." *Philosophical Transactions of the Royal Society B* 374.1763 (2018): 20170390.

Unit 2: Collecting data

None

Unit 3: Analyzing data

Crawley, Michael J. *The R Book*. John Wiley & Sons, 2012.

Unit 4: Writing papers and presenting results

Heard, Stephen B. *The scientist's guide to writing: How to write more easily and effectively throughout your scientific career*. Princeton University Press, 2016.

Group final paper rubric

Point Breakdown:
Story and flow: 10
Paragraphs: 10
Introduction: 10
Methods: 10
Results and Figure(s): 10
Discussion: 10
References: 10
Grammar and length: 5
Total: 75 points

Details:

Story and flow: The paper tells a single story that has a logical flow

Paragraphs: Paragraphs are for the most part unified, coherent and distinct

Introduction: What is the topic? Why is it important? What is your question? Should end with a brief description of the study system and how you used it to answer your question.

Methods: What you did to answer the question(s). Sufficient detail to allow a different scientist to replicate what you did. Should mention fieldwork, data collection and statistical analysis, including which programming language you used.

Results and Figure(s): What did you find? Be sure to mention your figures in results: (Fig. 1) etc.

Discussion: Should start with brief summary of main result(s). WHY do you think you got these result(s)? Is this result similar to other studies? Different? What is the implication of the results?

- Could include any caveats or factors that might bias or affect your results
- Could also end with an overall conclusions section which summarizes the main discussion points and concussions to be drawn from the study (neither are required).

References: 10 references from the primary literature in the bibliography, all in the same style (any style is fine), with in text citations (e.g. Smith et al. 2010) that match the bibliography

Grammar and length: Grammar is correct and the paper is around 5 pages in length without references

Group final presentation rubric

Point Breakdown:
5 *Introduction*: Background on the topic & state your question
5 *Methods*: What you did in the field & the stats you used to answer it
5 *Results and figure(s)*: What you found / the answer to your question
5 *Discussion*: What the results mean and what are the implications
5 *Overall presentation*: Slide clarity, talk clarity, told a single story
Total: 25 points