**Teaching Notes**

By Erin Larson

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**Course Information**

Course: SC 33000 - Ecology

Department: Marine and Environmental Science

Level: **Upper Undergraduate**

Course type: **Both Lecture and Lab**

Students: **Majors**

Number of Students: 10

**Information**

Original Module Name: Demography from “virtual cemeteries”

Link to Original: [https://qubeshub.org/qubesresources/publications/399](https://qubeshub.org/qubesresources/publications/399/1)

Modified Module Name: Demography from “virtual cemeteries”

Files associated:

* Student handout and discussion questions
* Faculty notes
* Student life table Excel template

Modification Learning Goals:

Students will be able to:

* Design a research question and collect data to answer it
* Calculate life table columns and build a survivorship curve in Excel
* Work collaboratively to design a short oral presentation about the results of their research

**Teaching Notes**

*(Think about what you would like to read about this activity if you came back to it in 2 years)*

Suggestions for this section (not all required, and extras always welcome):

* What did you change and why?
	+ I made this activity fit into one 3 hour lab period, rather than taking up multiple class periods to better fit with our short semester schedule (12 weeks)
	+ I also moved data collection and presentation preparation to occur during lab, rather than on the students’ own time, as many of our students work full time in addition to attending school
	+ I created a life table and survivorship curve template to provide more guidance for students who may be uncomfortable using Excel
* How did the activity go?
	+ What went well and why?
		- Students were engaged and worked well together – the pacing and timing felt like it gave them the right amount of pressure to work hard for the entire class period without feeling overwhelmed.
	+ What went wrong and why?
		- Students were more uncomfortable with Excel functions than anticipated, so I had to do some on-the-fly demonstrations of Excel functions for the class. In the future, I would work those explicitly into an earlier lab in the course.
* What was the prep like?
	+ How much time went into prep?
		- Roughly 1-3 hours to review materials and make necessary edits/modifications for my course
	+ Did you have to do any prep (i.e. grow cultures, grow seeds, order supplies) ahead of implementation?
		- No prep needed ahead of implementation
* Would you do this activity again? – Yes!
	+ What would you change in the future?
		- I would have a brief pre-lab activity to get students exploring the virtual cemetery site and thinking about possible contrasts to come to lab a little more prepared to be thinking about what types of questions they want to ask using the data
		- I also want to make an Excel tip-sheet to give to students at the beginning of the semester, which would also be useful for this lab. For example, data filtering, sorting, and using equations were new concepts for many of my students
* What do you wish you’d known before you ran the activity?
* Is there anything else you would like to make note of?
	+ I had lectured on life tables in a previous lecture portion of class, so we didn’t need to spend lab time covering that material
* How does this activity fit in your overall course curriculum?
	+ We did this activity while we were discussing populations (growth, regulation, dynamics), so it was a complement to that portion of our Ecology class