# Career Exploration in the Life Sciences

An Innovative Course to Increase Retention of Undergraduate Life Science Majors and Persistence in STEM Careers Rachel Kennison, PhD<sup>1</sup> | Casey Shapiro, PhD<sup>2</sup> | Jess Gregg, MEd<sup>1</sup> | Marc Levis-Fitzgerald, PhD<sup>2</sup> | Erin Sanders, PhD<sup>1</sup>

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## Background

- > The persistence and degree progress of STEM majors at UCLA is a major concern impacting STEM education for all campus units.
- > According to data from the Cooperative Institutional Research Program's (CIRP) Freshman Survey, **52% of UCLA's first-time, full-time** 2013 STEM cohort enter their academic careers at UCLA planning to major in pre-medicine
- > Other evidence suggests that many of these students will leave STEM fields entirely, in part because they do not know about or have not considered other careers in the sciences beyond medicine.

## Hypothesis

Participating in a career exploration course will contribute to greater persistence and retention of undergraduate STEM students.

## Course Goals

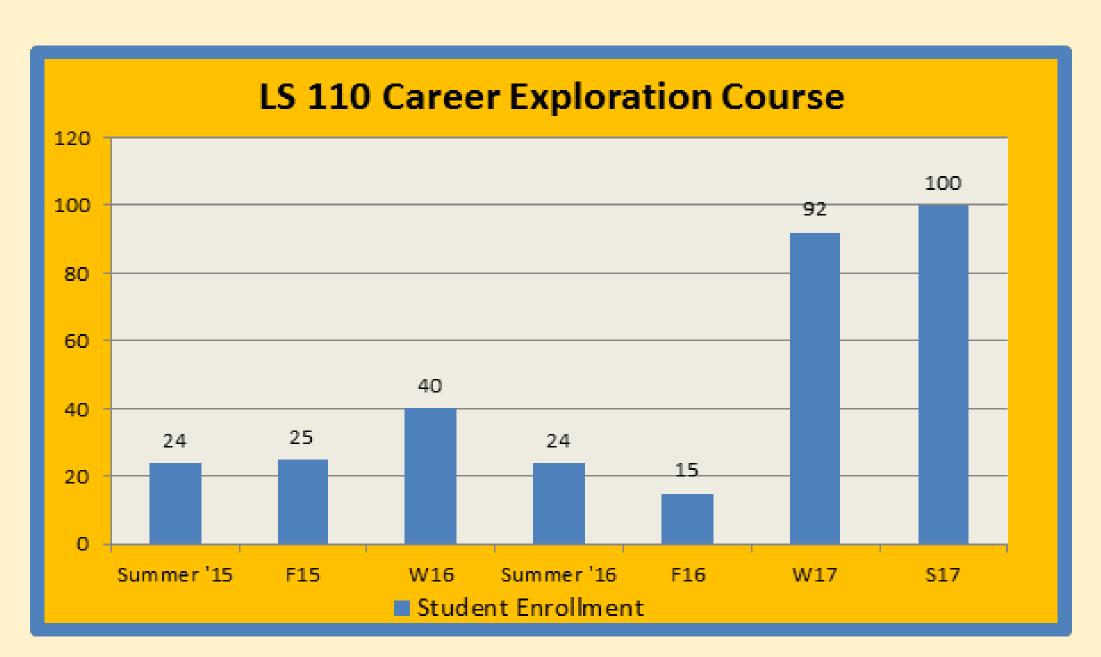
- > Develop skills to write resumes, cover letters, conduct informational interviews and practice networking
- > Initiate a career development process that will be part of life-long learning toward development as an emerging Life Science professional
- > Analyze career options in the Life Sciences and make career related decisions based on research and connected to interests, values, skills and personality

## Demographics

Demographics (Fall 16, Winter 17, Spring 17): N=215

Gender	URM	Admit type	Pell recipient
65% Female	27% URM	82% First Years	45% Pell
34% Male	61% Non-URM	17% Transfer	55% Non-Pell
1% Unknown	11% Unknown	1% Unknown	

## Enrollment



## Student interest doubled in one year!



CEILS

Vision

Bridge to Faculty

NSF grant

management

Center for

Educational

Assessment

Life Science CORE

Management support

Promotion

LS 110 administration

Partnership

UCLA

Alumni speakers

Collaborative Instruction

Career Center

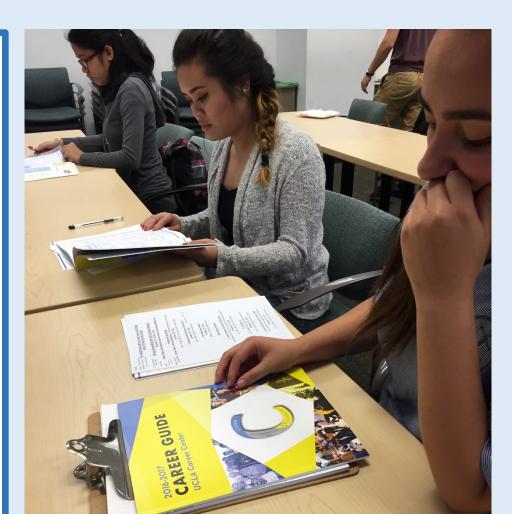
Counseling resources

Job/internship postings

Workshops

First Destination Survey

# UCLA LS110 Student Voices UCLA Student Voices



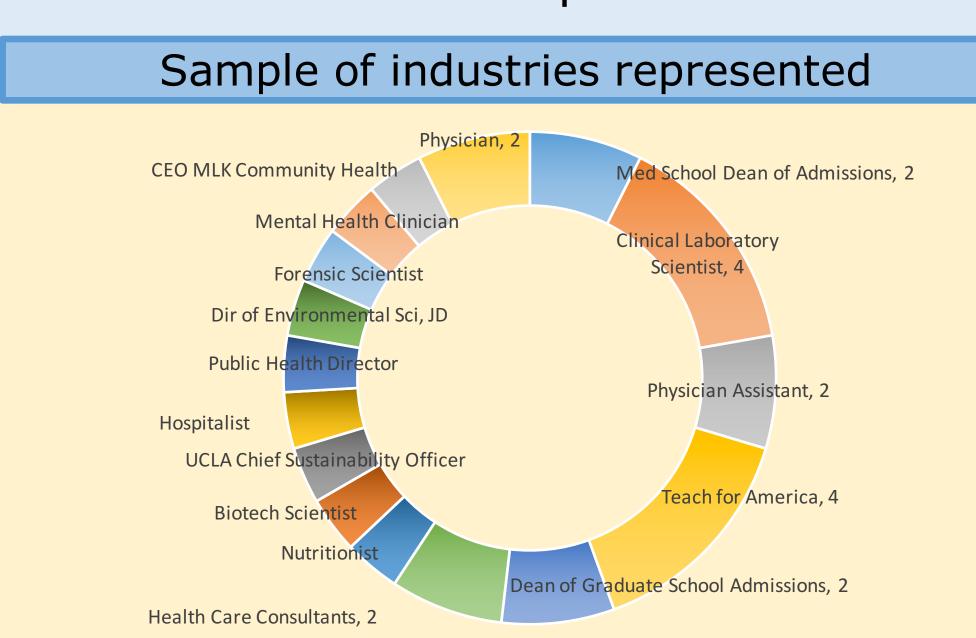
## Collaborative Partners **Engagement Summary**

Summer 2015 - December 2017

**330** Students

660 Informational Interviews

Alumni Guest Speakers





40.0%

20.0%

0.0%



graduate/professional school (N=170) 60.0% 40.0%

1 - Not at all

1 - Not at all

satisfied

17.5% 20.0% 0.0% - Somewhat 3 - Confident confident

Pre Post

Results

Satisfaction with Career Choice (N=166)

satisfied

- Somewhat 3 - Satisfied

Pre Post

Confidence in ability to obtain an internship,

research experience, or apply to

4 - Very

satisfied

21.8%

8.1%

4 - Very

confident

4 - Very

confident

## Confidence in Staying in Major (N=171) 70.0% 60.0% 27.5% 26.9% 30.0% 20.0% 10.0%

3 - Confident

2 - Somewhat

confident



Goal: Evaluate whether the LS110 course has a positive impact on retention in STEM majors (students complete a BS in a STEM field)

- Compared to students who do not take LS110, are students who take LS110 completing STEM degrees at significantly higher rates?
- Evaluate if this positive impact is seen for all students, regardless of background
- Determine whether the LS110 course has a positive impact on persistence post-BS completion into either graduate education in a STEM discipline or a career in a STEM field.

# Student Testimonials

"I gained a better sense of my goals. This class gave me anxiety because it challenged me to what I truly valued. I felt comforted in knowing that the path to individual success is not a linear path. I felt encouraged to stick to my goals and constantly self-assess. I valued the speakers who came into the class to inform us about their careers in a detail-oriented way."

"The last day of class, when we practiced interviewing skills, really helped me. I had an interview for the Nursing Volunteer Program and... I got the position!"

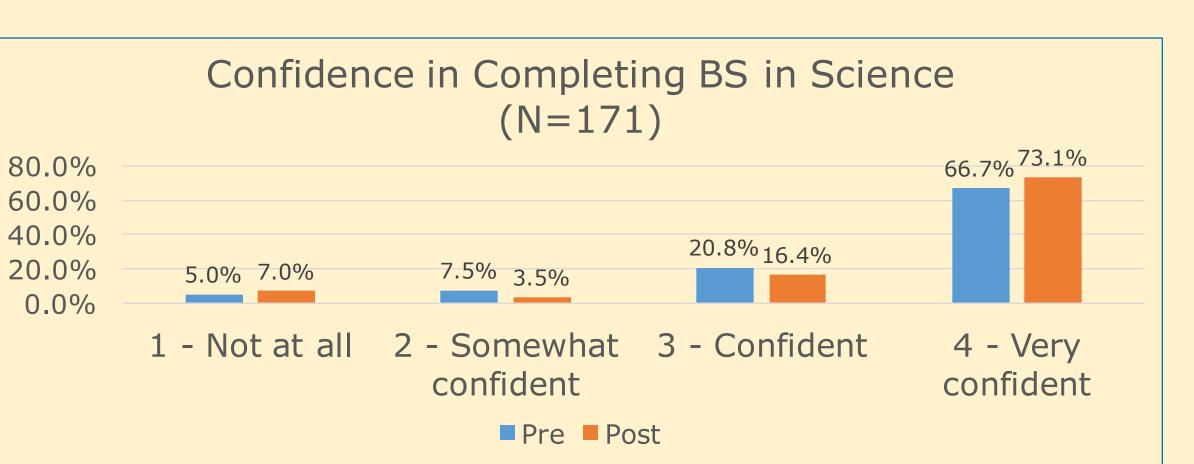
"I became interested in [Clinical Lab Scientist] after the speaker presented in class. After an informational interview, I decided that this was my first career choice. I am now looking into graduate programs."

"I enjoyed my time in LS110. I think the class helped open my eyes to the numerous career paths in the life sciences. This class reassured me that there is a career out there that is right for me."

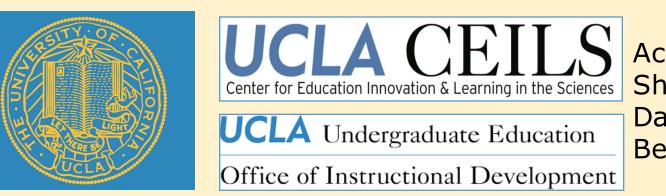
"I hope to share a lot of the lessons you've taught me and my peers throughout my life (which I already have done in a resume workshop for my sorority, I was able to add in more details I learned from class!). This was a very valuable course and I've been telling everyone how much I am glad I took it this quarter."

### Post-Survey Agreement Statements (N=171) 60.0% 50.0% 30.0% 20.0% 10.0% 1.2% 0.0% 4.1% 1.2% 0.6% career exploration in the Life Sciences successful in my career process in the next year search ■ 1- Strongly disagree ■ 2- Disagree ■ 3- Neither agree nor disagree ■ 5- Strongly agree 4- Agree

■ Pre ■ Post



## With Support From



Sheila Benko, Katrina Davy, and Jennifer Berdan Lozano



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