



Non-Passing Grades in the Liberal Studies Curriculum

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DATA FELLOWS FOR STUDENT SUCCESS



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Research Questions

Understanding and identifying high-risk courses and associated student populations within the Liberal Studies Curriculum at CSULB.

- Which courses in the Liberal Studies mathematics & science curriculum do the Liberal Studies student population have the most difficulty in passing with a "C" or better?
- Are there notable grade gaps identified for specific student populations, including URM/NURM?
- In what ways can the Department of Liberal Studies better support students in these high(er)-risk courses?

Introduction

The Liberal Studies program follows strict curriculum for both major *and* general education requirements, in alignment with CTC (California Commission for Teacher Credentialing) standards for Elementary Subject Matter Competency. As result, students have limited options in selection of classes to meet specific area requirements of the program. For some requirements, students are given options between courses specifically catered/offered for Liberal Studies majors and courses that are open to all majors across campus.

The Department wants to understand (a) which of these courses in the curriculum are proving to be most difficult for our student populations based on final grades earned, (b) if there is a difference in success for courses (major-specific vs open to all majors), and (c) how the Department can assist in improving student success in these identified courses to further improve four year graduation rates (GI 2025 Initiative).

Methods

Data Sources Utilized

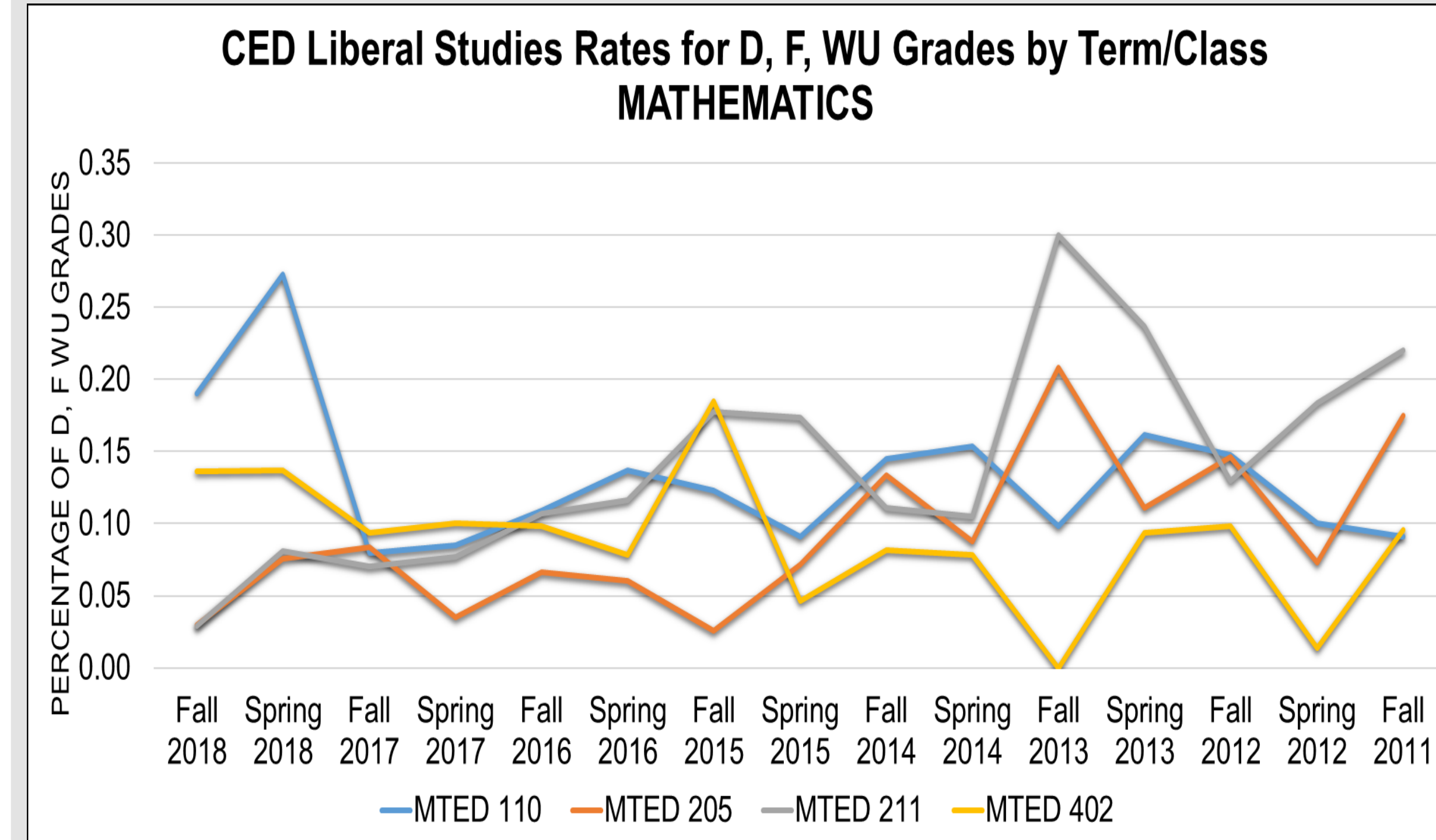
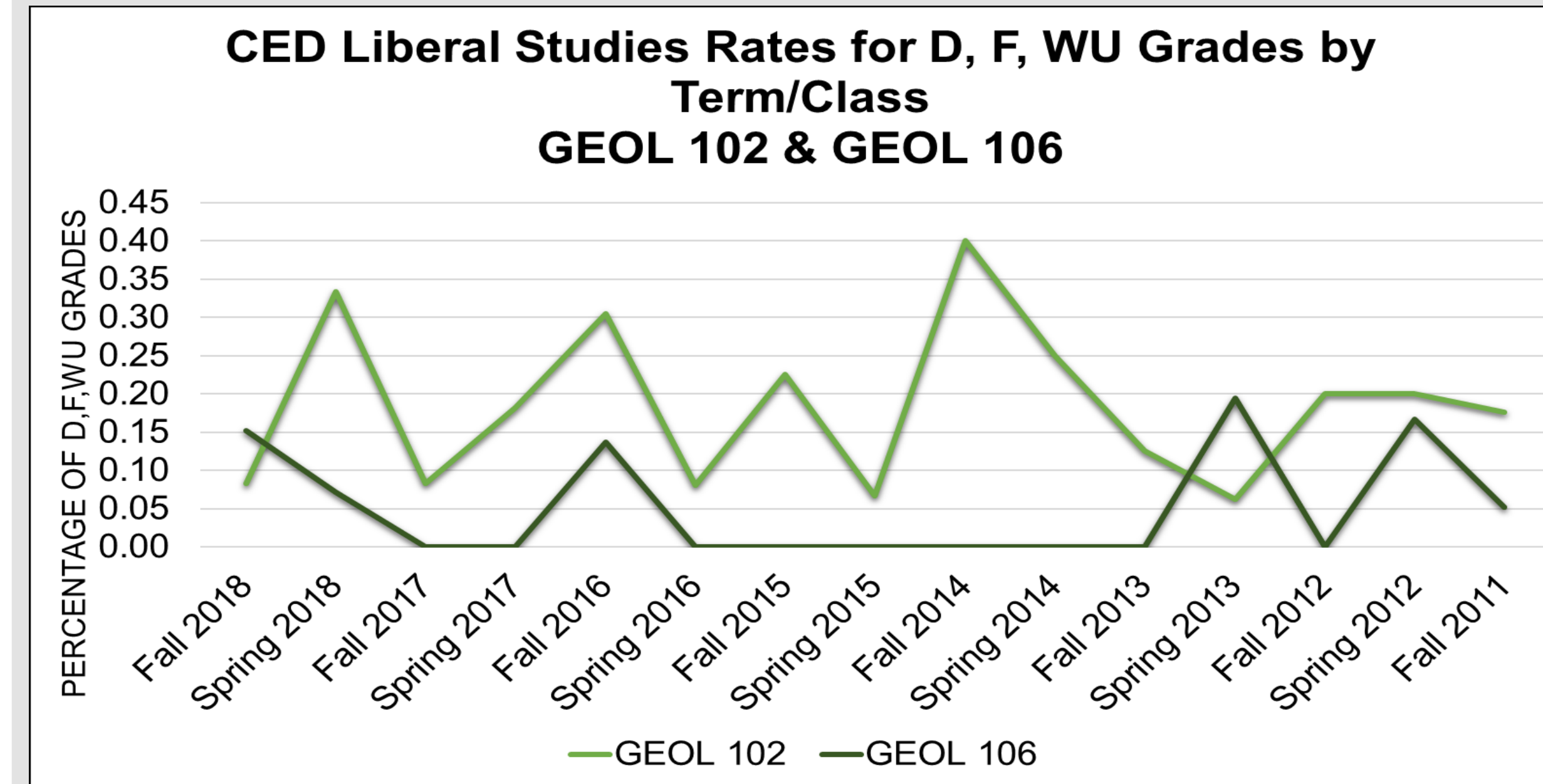
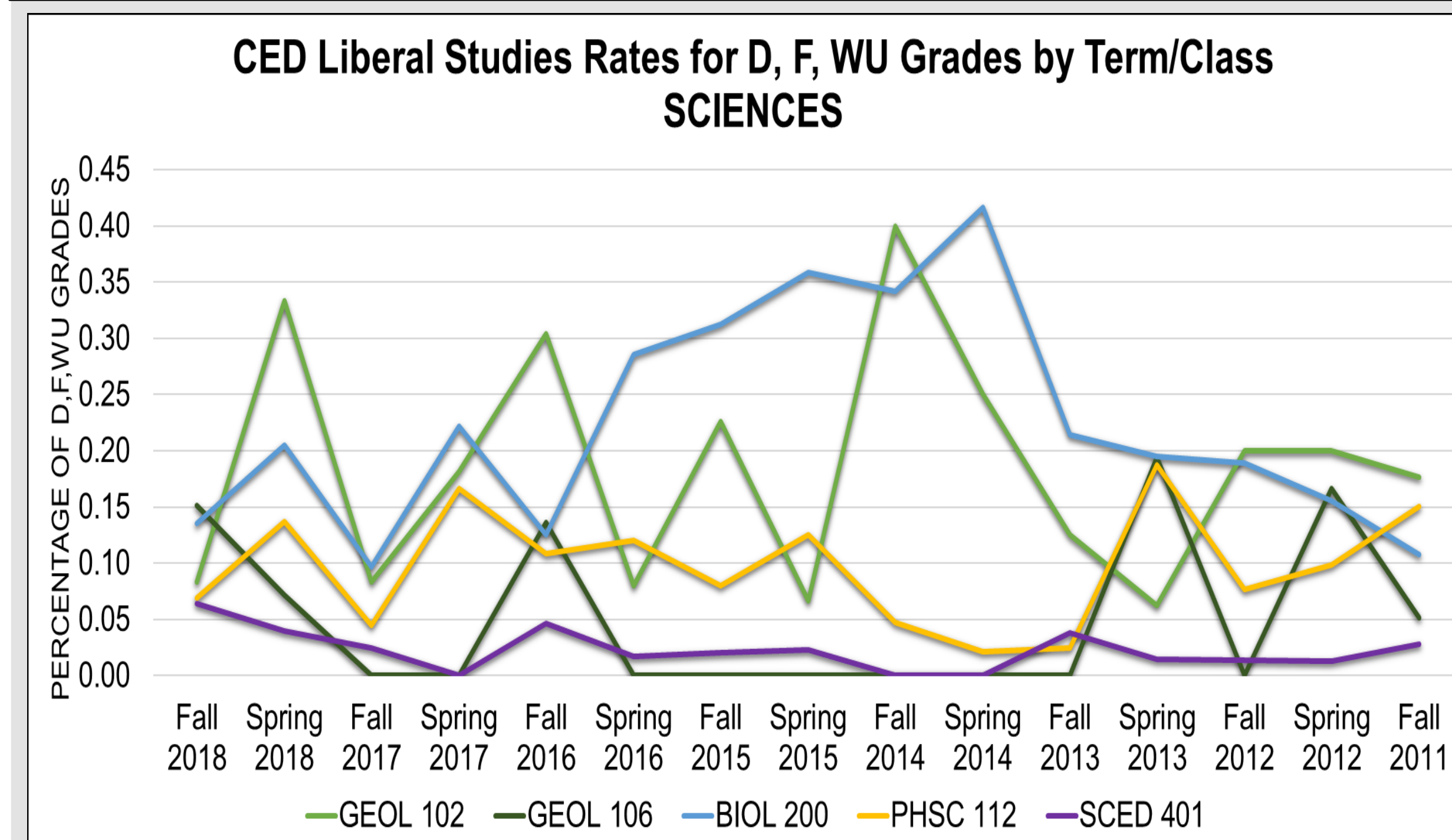
Quantitative Analysis of Final Grades in Specified Courses between Fall 2011 to Fall 2018 (7 year time frame)

- CSULB Beach Data – Class Level (D, F, W, WU, & NC) Grades, by Class

Procedure

- Identified Specific Courses to Analyze
- Collected Beach Data, Fall 2011 to Fall 2018 (Fall/Spring) for Specified Course(s)
- Organized Beach Data via Excel Spreadsheets, Separation by Class & Term(s)
- Filtered by Student Academic Plan – Liberal Studies BA or ITEP, Pre-Liberal Studies
- Filtered by URM / NURM for Liberal Studies majors

Results



	Fall 2018		Spring 2018		Fall 2017		Spring 2017		Fall 2016		Spring 2016		Fall 2015		Spring 2015		Fall 2014		Spring 2014		Fall 2013	
	URM	NURM	URM	NURM	URM	NURM	URM	NURM	URM	NURM	URM	NURM	URM	NURM	URM	NURM	URM	NURM	URM	NURM	URM	NURM
MTED 110	24%	15%	35%	22%	14%	3%	14%	4%	14%	8%	17%	11%	16%	9%	17%	4%	19%	12%	22%	12%	3%	15%
MTED 205	7%	0%	12%	4%	6%	10%	3%	4%	5%	8%	0%	11%	6%	0%	10%	5%	15%	12%	17%	3%	28%	17%
MTED 211	6%	0%	6%	11%	16%	3%	16%	0%	13%	9%	11%	12%	24%	14%	20%	16%	15%	8%	15%	6%	47%	14%
MTED 402	21%	8%	22%	7%	6%	13%	17%	5%	8%	11%	5%	9%	19%	18%	7%	3%	14%	4%	10%	6%	0%	0%

Table 1

Shows the percentage of D, F, WU grades, among Liberal Studies majors, in the various science courses that are required in the Liberal Studies curriculum. It is differentiated by term/year, ranging from Fall 2011 to Fall 2018. GEOL 102 & 106 are options for the Earth Science requirement – 102 is a general, open to all majors Geology course meanwhile 106 is open to only L/ST majors. GEOL 102 shows higher rates of non-passing grades in comparison to GEOL 106. BIOL 200 depicts the largest spikes historically in non-passing grades, reaching up to over 40%, but has since declined to 15%-22% since Fall 2016. PHSC 112 shows a steady rate between 8%-15% historically, and SCED 401 shows a very low non-passing rate of less than 6% overall.

*GEOL 102/106: Earth Science; BIOL 200: Life Science; PHSC 112: Physical Science; SCED 401: Capstone

Table 2

Shows the percentage of D, F, WU grades, among Liberal Studies majors, in the two GEOL courses that students may choose between for the Area III, Group 1 Earth Science requirement. It is differentiated by term/year, ranging from Fall 2011 to Fall 2018. GEOL 102 is an Earth Science course that is open to all majors, meeting the Physical Science General Education requirement outside of the Liberal Studies program, meanwhile GEOL 106 is solely for L/ST majors. GEOL 102 depicts generally higher rates and greater sudden spikes in non-passing grades (up to 30%-40%) then GEOL 106, with a 0%-15% rate on average.

Table 3

Shows the percentage of D, F, WU grades, among Liberal Studies majors, in the various MTED courses that are required in the Liberal Studies curriculum. It is differentiated by term/year, ranging from Fall 2011 to Fall 2018. MTED 110, first in course sequencing, generally has had less than a 15% non-passing rate, with a more recent spike in the last academic year. MTED 205 (changing to 305 starting Fall 2019) had earlier spikes with 15%-20% non-passing rates, but has steadily fallen to less than 10% since Spring 2015. MTED 211 had some of the largest spikes, but has significantly decreased to 10% or lower since Fall 2016. And MTED 402, last in course sequencing, has generally been holding between 10%-15% non-passing rates

*MTED 110: Real Numbers, MTED 205: Statistics, MTED 211: Geometry, MTED 402: Capstone

Table 4

Shows non-passing grade rates for MTED courses, by term/year, differentiated between URM/NURM. Numbers in 'red' represent the higher non-passing rate, between URM & NURM students in a specified class, by term. Historically, URM/L/ST students tend to have slightly higher non-passing rates in MTED coursework.

*URM - Underrepresented Minorities; NURM - Non-Underrepresented Minorities

Conclusion / Discussion

SCIENCES

In the sciences, it appears that the Earth Science and Life Science requirements for the major prove to be most difficult, for rates of non-passing grades for Liberal Studies students. The Earth Science requirement has two options, GEOL 102 being for all majors and GEOL 106 for L/ST majors only, and data reflects that students tend to have higher passing grades in the education-focused course GEOL 106. Whereas for the Life Science requirement, BIOL 200 is the only course students may select from – and BIOL has seen some of the highest rates of non-passing grades historically, though lessening to between 15%-20% in the last few years.

MATHEMATICS

In mathematics, non-passing rates in all MTED courses has taken a decrease over the last 7 years generally, with the exception of a sudden increase in Fall 2018 with MTED 110. MTED 402 has seen slight increase since Spring 2016, but overall Liberal Studies students are improving. However, URM students historically show a higher non-passing rates in comparison to NURM students in all MTED courses, especially MTED 110.

Implications for Action

The Department of Liberal Studies will be collaborating further with both the mathematics and various science departments to review and discuss data findings. These findings will inform on usage and/or effectiveness of provided tutoring or additional resources for students, to ensure higher passing rates in final grades. Advising strategies on timing of courses being taken in graduation planning and usage of Peer Mentors for possible workshops or study sessions will also be explored accordingly, so as to identify various types of support and provide options to students.

Next Steps / Future Directions

Aside from further collaboration with Departments, Liberal Studies plans to delve further into analysis of more higher non-passing rated courses within the Liberal Studies program. An initial analysis of the Language Acquisition and World History / Geography course options have begun, and will evolve into also analyzing mode of instruction as well (in-person, hybrid, online).