



**ACADEMIC SENATE
Executive Committee
REFERRAL FORM**

CALIFORNIA STATE POLYTECHNIC UNIVERSITY, POMONA

Date:	11/12/2025
To:	General Education Committee
From:	Academic Senate Executive Committee
Subject:	Academic Senate Referral
Classification	GE-021-256
Title of Referral:	<u>LS 4100 - Critical Data Literacy (New GE Area 4C)</u>
Background:	See attached referral request form. Additional background provided by the Executive Committee: New course proposed for GE Area 4C.
Recommended resources:	See attached referral request form and supporting documentation. Additional resources recommended by the Executive Committee: None. For the Committee's Report on this referral, please list in separate sections, the resources recommended, and resources actually consulted. If a resource was not consulted, briefly state why.
Review and recommend:	Review and recommend as appropriate.
Date required for presenting committee report to the Executive Committee:	3/2/2026

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Keywords: LS. 4100, Critical, Data, Literacy, New, GE, Area, 4C

Background:

Examination of the following questions: What is Data? How do we collect and use data? Who decides the stories that data tells? What are the impacts and effects of data? Lectures, discussion, and hands-on activities to practice interdisciplinary research skills and examine the structures of power and oppression through critical data literacy. Engage in data analysis and critique to expand their understanding of data in social and historical contexts.

1. Develop an understanding of what data is (Quantitative Data, Qualitative Data).
2. Identify theoretical frameworks for understanding how power and oppression can emerge in data and data analysis.
3. Apply frameworks like QuantCrit and Critical Quantitative Literacy to datasets to reveal issues of power and oppression—such as racism, the neutrality of numbers, and the non-inherent nature of categories—highlighting that data cannot speak for itself.
4. Examining dominant narratives and their counternarratives, how frameworks apply to consider how quantitative data has been used to perpetuate inequity across various spaces, and how the history of quantitative data has been rooted in oppression.
5. Engage in a community-based data project where they apply their critical data literacy skills to practice.

Required Assignment:

Community-Based Data Project-The course requires a project where:

- Students select a community (can be geographic, cultural, conceptual, etc.)
- Students use the tenets of QuantCrit to develop or re-imagine an existing data set
- Students run one analysis with their data [\[TL1\]](#) . An analysis entails a mathematical/computational process with a data set. For example, a correlation or regression analysis. This analysis would allow students to make inferences about population their data was sampled from.
- Students develop three visual representations of their data.
- Students examine dominant narratives and counter narratives about that community.

Required Content: Course Outline

- I. **Philosophical Framing**
 - a. What is Critical Race Theory?
 - i. Race is a social construction
 - ii. Racism is structural
 - iii. Intersectionality
 - b. What is QuantCrit?
 - i. The centrality of racism
 - ii. Numbers are not neutral
 - iii. Categories are neither “natural” nor “inherent”
- II. **Quantitative Data Applications and Histories**
 - a. Scientific racism
 - b. Eugenics
 - c. Standardized testing

- d. Artificial intelligence
 - e. Surveillance capitalism
- III. **Critical Data Literacy**
- a. What are data and evidence? How are data developed? How have data been used to oppress? How can data be used for social justice?
 - b. Quantitative Data Methods & Applications
 - i. Data and evidence collection
 - ii. Data and evidence analysis
 - iii. Data and evidence visualization
 - c. Information literacy
 - i. Dominant narratives and counter narratives
- IV. **Praxis**
- a. Interdisciplinary research
 - b. Workshop various case study practice problems
 - c. Creation of a community-based data project utilizing interdisciplinary research

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Chapter 11. Crawford, C.E., Demack, S., Gillborn, D., & Warmington, P., (2018). Quants and Crits: Using Numbers For Social Justice (Or, How Not to be Lied to with Statistics).

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Dixon, A.D., James, A., & Friesom, B.L., (2018). *Taking it to the streets: Critical Race Theory, Participatory Research and Social Justice* .

Covarrubias, A., Nava, P. E., Lara, A., Burciaga, R., Vélez, V. N., & Solorzano, D. G. (2017). Critical race quantitative intersections: a testimonio analysis. *Race Ethnicity and Education*, 21(2), 253–273.

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Aligned to GE Outcomes

This course will support Liberal Studies students as an upper-division general elective course. The core content of this course, relating to quantitative data literacy, can strengthen the general skillset that we hope all LS major students develop throughout their time in our program. Specifically, this course will support students as they transition into their senior capstone where they will be going through a research cycle and collecting-analyzing their own sets of data.

1. **Critical Thinking:** Students will engage in the logical process of inquiry to analyze information from multiple perspectives to develop reasoned arguments.
 1. In class discussion as well as the capstone project, students will consider multiple perspectives on a topic or community. Additionally, students will utilize various frameworks for developing and evaluating arguments [\[TL1\]](#) . For example, students can use the *Purpose-Process-Knowledge-Impact* framework for evaluating a knowledge claim. This framework asks students to consider the purpose of a specific knowledge claim, also to understand the process that led to the knowledge claim, and the impact of that knowledge claim. Additionally, students can use a Claim-Evidence-Reasoning (CER) framework to develop an evidence-based claim on a given topic.
2. **Information Literacy:** Students will responsibly identify, locate, and critically evaluate the array of information sources and voices necessary to engage in sound inquiry.
 1. In class discussion as well as in the capstone project students examine dominant narratives and counter narratives through the collection and analysis of differing sources of information and data. In this process students learn how to evaluate sources of information.
3. **Quantitative Literacy:** Students will use quantitative information to draw inferences and communicate informed arguments.
 1. Students' capstone projects include quantitative data collection, analysis, interpretation, and visualization.
4. **Intercultural Engagement:** Students will integrate knowledge and relationships reflective of the diversity of human experience and forms of expression.
 1. In class discussions students consider how different worldviews may influence the data collection, analysis, and interpretation process of a research cycle. This will be accomplished via regular in-class exercises (e.g. class writing, discussion posts, or community circle discussions).

This course explores the creation and generation of data through a critical approach. Using an interdisciplinary social and behavioral sciences lens that incorporates critical race theory and quantitative data literacy (Quantitative Critical Theory or QuantCrit), students examine the role of data in social phenomena (e.g., scientific racism, eugenics, standardized testing, artificial intelligence, and surveillance capitalism). Course assignments draw on contemporary and historical case studies in a variety of cultural contexts within the US and develop student capacities to evaluate the principles, methodologies, value systems, and ethics employed in the production and dissemination of quantitative data. Lectures, discussion, and activities are used to practice interdisciplinary research skills and examine structures of power and oppression through critical data literacy (GE SLO Critical Thinking). Students collect and analyze various information sources to evaluate them using the QuantCrit framework (Information Literacy).

Students practice engaging with data, analyzing data, critiquing data, and re-imagining quantitative data (GE SLO Quantitative Literacy).

Students engage with data analysis and critiques of data that frame dominant narratives to re-imagine quantitative data through counternarratives that illuminate cross- and intercultural perspectives (GE SLO Intercultural Engagement).

The course culminates in an inquiry project that demonstrates students' abilities to engage in praxis (theory to action).