GENERAL EDUCATION COMMITTEE

REPORT TO

THE ACADEMIC SENATE

GE-021-256

New GE course proposal:

Liberal Studies 4100 – Critical Data Studies
New GE Area 4C (Upper Division Social and Behavioral Sciences)

General Education Committee	Date: 2/11/2026
Executive Committee Received and Forwarded	Date: 2/18/2026
Academic Senate	Date: 2/25/2026 First Reading
	3/18/2026 Second Reading

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 and Applications
      i. Data and evidence collection
      ii. Data and evidence analysis
      iii. Data and evidence visualization
   c. Information literacy
      i. Dominant narratives and counternarratives

IV. Praxis
   a. Interdisciplinary research
   b. Workshop case study practice problems
   c. Creation of a community-based data project utilizing interdisciplinary research

Selected Readings and Resources

Garcia, N. M., Lopez, N., & Velez, V. N. (2018). QuantCrit: Rectifying quantitative methods through critical race theory. 149-157. (Link)

Castillo, W., & Strunk, K.K. (2024). How to QuantCrit: Applying Critical Race Theory to Quantitative Data in Education (1st ed.). Routledge. https://doi.org/10.4324/9781003429968

López, N., Erwin, C., Binder, M., & Chavez, M. J. (2018). Making the invisible visible: Advancing quantitative methods in higher education using critical race theory and intersectionality. Race Ethnicity and Education, 21(2), 180-207. (Link)

Mazhar, S.A., Anjum, R., Anwar, A.I., & Kha, A.A., (2021). Methods of Data Collection: A Fundamental Tool of Research. Found at: https://medicaljournalshouse.com/index.php/ADR-CommunityHealth/article/view/631

Pangrazio, L. & Selwyn, N. (2023). Critical Data Literacies: Rethinking Data and Everyday Life. Cambridge, The MIT Press.

Chapter 13. Velez, V.N., & Solorzano, D.G., (2018) Critical Race Cartographies: Exploring Map-Making as Anti Racist Praxis

Chan, A. S. (2025). Predatory Data: Eugenics in Big Tech and Our Fight for an Independent Future (1st ed.). University of California Press. http://www.jstor.org/stable/jj.2082941

O'Neil, C. (2017). Weapons of math destruction. Penguin Books.

Noble, S. U. (2018). Algorithms of oppression: How search engines reinforce racism. New York University Press.

Data Justice //Green Ben Data Science as Political Action Grounding Data Science in a Politics of Justice https://arxiv.org/abs/1811.03435

Hall, P.A., Facial, P. (2022). Critical Visualization: Rethinking the Representation of Data. Bloomsbury Academic

Clark, W.E., (2023). Evaluating Data Through a Critical and Ethical Lens. Found at: https://fsulib.com/evaluating-data-through-a-critical-and-ethical-lens/

Data Smart Schools. (2021). What is Critical Data Studies?. Found at: https://data-smart-schools.net/2021/05/21/what-is-critical-data-studies/

Lliads, A., & Russo, F. Critical data studies: An introduction. Found at: https://www.andrewiliadis.com/files/9215/6520/1942/2053951716674238.pdf

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).

Gillborn, D., Warmington, P., & Demack, S. (2018). QuantCrit: education, policy,'Big Data'and principles for a critical race theory of statistics. Race Ethnicity and Education, 21(2), 158-179. (Link)
DeCuir-Gunby, J.T., Chapman, T.K., & Schutz, P.A. (Eds.). (2018). Understanding Critical Race Research Methods and Methodologies: Lessons from the Field (1st ed.). Routledge. https://doi.org/10.4324/9781315100944
Dixson, 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. https://doi.org/10.1080/13613324.2017.1377412
Harper, S.R., (2015). Success in These Schools? Visual Counternarratives of Young Men of Color and Urban High Schools They Attend
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.
Harper, S. R. (2015). *Success in These Schools? Visual Counternarratives of Young Men of Color and Urban High Schools They Attend.*

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).

Resources Consulted

LS provided both an ECO and example syllabus for the course, uploaded to Curriculog.

On November 26, 2025, General Education Committee sent out a solicitation email to the following constituencies:

- Department chairs
- Deans and associate deans

We asked to provide input via online survey to ensure that new GE course proposals aligned with the existing GE policy, including learning outcomes and concerns surrounding expertise. Responses were collected through mid-December. GE Committee received **no responses** about this course.

Discussion

GE Committee received this referral on November 13, 2025. This course is being evaluated to ensure compliance with CPP's General Education Policy (GE-001-245), passed by the Senate in 2024.

This course is applying for **GE Area 4C: Upper Division Social and Behavioral Sciences**. In addition to

meeting the core subject matter requirements for this area, new courses must include the learning outcomes **Critical Thinking** and **Information Literacy**, along with meaningful assessment of those outcomes in both the ECO and the syllabus. For this upper-division GE, departments must also include either **Intercultural Engagement** or **Civic Literacy**, and one of the following: **Written Communication**, **Oral Communication**, or **Quantitative Literacy**.

This course meets the requirements of Area 4C by centering the social and behavioral study of data as a site of power, inequality, and historical development across diverse cultural contexts. Through critical examination of research methods, ethical frameworks, and applied community-based inquiry, students deepen their understanding of how social scientific knowledge is produced and how it shapes contemporary social problems, without emphasizing professional training.

The ECO meets the requisite elements of the subject matter in this area. The Committee felt that this was a strong proposal that also adequately addressed learning outcomes. As an upper-division course, throughout the ECO, the Committee would like the department to articulate and expand on related disciplines and the interrelationship amongst them. The attached syllabus also needs to better reflect the content of the ECO, including explicitly naming the GE SLOs. Finally, GE Committee recommends the department include the identified GE SLOs in the sample syllabus, in addition to the full text of the GE Meaning and Purpose Statement (GEMPS).

Recommendation

On February 11, 2026, the GE Committee voted 11-0-0-0 (Conditional Accept – Revise and Resubmit – Reject – Abstain) to **conditionally accept** this proposal. Two members were absent.

The department was given brief notes to revise their proposal in a conditional acceptance. On March 2, 2026, the department submitted revisions and included Critical Thinking, Information Literacy, Intercultural Engagement, and Quantitative Literacy for its chosen GE learning outcomes in the ECO and syllabus. In addition, they have also included the copy of the GE Meaning and Purpose Statement. This course is consistent with CPP GE policy and should be accepted.