General Studies Gold Request Form

Consult the General Studies Request FAQ for more information and quick answers.

New permanent numbered courses must be submitted to the workflow in Kuali CM before a General Studies request is submitted here. The General Studies Council will not review requests ahead of a new course proposal being sent to the Senate.

Submission Information

College/School

The College of Liberal Arts and Sciences (CLA)

Department/School

School of International Letters and Cultures (CLANLIT)

Submission Type

New Request

New Request: A request for a new designation, a change in designation, or to reinstate a designation that has been lost.

Mandatory Review: Only select if this course (or topic on a *permanent* course) is undergoing mandatory review in the current academic year. Not for omnibus topic use.

Modification: A request to modify the expected learning outcomes of the course, but not change any other aspect of the originally approved proposal.

Requested Effective Date

Spring 2026

ASU Request

Is this request for a permanent course or a topic?

Topic

Subject Code	Course Number	Units/Credit Hours
SLC	294	3

Topic Information
If your request is approved:
1. Topics on **omnibus courses** carry a designation for **one** semester (including summer). Please ensure you have requested the term you plan to offer/schedule the topic. Once expired, a new request must be submitted.
2. Topics on **permanent courses** require mandatory review every five years.

Topic Title	List all other undergraduate courses where this topic exists and the sections will be combined in the schedule.
Humans vs. AI: Who Analyzes Text Faster & Smarter?	

Topic Description

In this interactive course, you'll use digital tools and statistics to analyze large datasets, uncover patterns, and visualize meaningful insights. From detecting emotions in text to identifying key names and locations, you'll explore how data can reveal hidden information in text about text author and other things. You'll also
learn to evaluate arguments, build data-driven hypotheses, and communicate your findings in compelling ways. By the end, you'll master digital tools to create powerful visualizations and connect data to real-world decisions. The course wraps up with a fun prize-giving ceremony, celebrating top achievements in digital text analysis!

Has this topic been scheduled with a GS Gold designation? If so, list which semester(s), including past, current, and future terms.

No.

Omnibus topics cannot hold a GS Gold designation for more than three semesters total.

If this topic has already been offered twice with a GS Gold designation, you must attach examples of student work in the next field confirming the measurement of all category learning outcomes. The proposal will not be reviewed without these files.

If this topic has been offered three times with a GS Gold designation, you must request a new permanent course, then request the General Studies designation under the permanent course number.

Student Work Examples

No Response

If you are requesting to change the existing GS Gold (not Maroon) designation, please check this box.

General Studies Gold Designation Request

General Studies Designation

Quantitative Reasoning (QTRS)

Attach a representative syllabus for the course, including course learning outcomes and descriptions of assignments and assessments.

Quantitative Reasoning (QTRS)

Quantitative and computational reasoning is essential for success in 21st-century careers, for critically evaluating information in the age of "big data," for assessing the quality of arguments conveyed through digital media, for informed participation in community and social life, and for contributing to the formulation of effective solutions for achieving a sustainable and just future. Quantitative reasoning enables students to apply relevant mathematical, statistical, computational, and visualization methods in academic, social and personal settings.

In a quantitative reasoning course, students learn about data, data management, data summaries, data visualization, and the use of computational tools with data. Data can take many forms, including numerical data, textual data, images, and others. Students also learn about how quantitative reasoning can be used to make arguments clear, precise and verifiable. Finally, they learn to build quantitative models, make predictions, and communicate their findings based on available data. This may include some combination of mathematical, statistical, computational or network models, or visualizations.

Most of the course content should align with the Gold category learning outcomes.

Instructions: In the fields below, state the assignment, project, or assessment that will measure each learning outcome, and provide a description. The description should provide enough detail to show how it measures the learning outcome. If needed, more than one can be identified.

The proposal does not need to include all course assessments that measure a given learning outcome. The provided assessment should include sufficient detail to allow the subcommittee to make their evaluation. When appropriate, the same assessment can be listed for more than one learning outcome (e.g., a culminating project).

You may provide links to a document (Google Drive or Dropbox) that includes the relevant details for the assessment. **Do not provide links to Canvas shells.**

QTRS Learning Outcome 1: Understand variables, measurement and data, including how they can be used to pose and answer questions about society and nature, and to manipulate, organize, classify and visualize quantitative data.

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1) Assignment 1 — Text Tools Exploration (Voyant/AI)
What students do: Load two datasets (literary + multilingual transcript) into Voyant or a chatbot; generate frequency tables, word clouds, Trends, and Contexts; justify 3+ themes with quantitative evidence; include labeled visuals.
How it measures LO1:

1. **Variables/measurement:** token counts, vocabulary, document length, term trends.
2. **Manipulate/organize/classify:** select keywords, compare distributions across texts.
3. **Visualize:** word clouds, trend plots with captions.
4. **Evidence collected:** screenshots/exports + 500–700-word write-up; rubric rows: *Data Preparation, Topic Exploration, Analysis of Themes, Trend & Context, Presentation*.
5. **For further details, see Assignment sheet + rubric (Appendix Assignment 1).**

2) Assignment 3 — Dataset Exploration (Pandas)
What students do: Load CSV/JSON; report df.head(), df.info(), df.shape; access rows/columns; compute missing-value counts; list uniques in categorical fields; short reflection.
How it measures LO1:

1. **Variables/measurement:** identifies data types and units; distinguishes categorical vs. numeric.
2. **Manipulate/organize:** index, slice, and select columns/rows; summarize structure.
3. **Visualize (light):** tabular summaries (info/describe) as quantitative displays.
4. **Evidence collected:** annotated notebook; rubric rows: *Dataset Structure, Column/Row Access, Basic Exploration*.
5. **For further details:** Assignment sheet + rubric (Appendix A-3).

3) Assignment 4 — Data Management with Pandas
What students do: Filter, sort, merge (inner/left), group, aggregate (e.g., mean length by rating), clean (missing, duplicates, standardized names); explain choices.
How it measures LO1:

1. **Manipulate/organize/classify:** end-to-end data wrangling to produce tidy tables ready for analysis.
2. **Measurement:** computes grouped statistics as quantitative summaries.
3. **Visualize (optional):** simple tables or bar charts of grouped results.
4. **Evidence collected:** annotated notebook; rubric rows: *Filtering & Sorting, Merging & Joining, Grouping & Aggregation, Data Cleaning*.
5. **For further details:** Assignment sheet + rubric (Appendix A-4).

4) Assignment 6 — Sentiment Analysis with VADER
What students do: Apply VADER; create **predicted labels** from compound scores; build a **gold label** column; compute **accuracy** (and optional precision/recall) and a **confusion matrix**; brief error analysis.
How it measures LO1:

1. **Variables/measurement:** defines target variable (sentiment), derives numeric scores 'class labels.
2. **Organize/classify:** compares predicted vs. gold classes; tabulates outcomes.
3. **Visualize:** confusion matrix (quantitative visualization of classification).
4. **Evidence collected:** notebook with metrics table/CM; rubric rows: *Gold Setup, VADER Classification, Evaluation Metrics*.
5. **For further details:** Assignment sheet + rubric (Appendix A-6).

5) Assignment 7 — Mini Statistical Analysis (Descriptive/Inferential)
What students do: Engineer review_length; compute descriptive stats; plot histogram + bar chart by rating/band; (optional) t-test/Chi-Square; 5–7 sentence interpretation.
How it measures LO1:

1. **Variables/measurement:** constructs quantitative features; summarizes distribution and group differences.
2. **Manipulate/organize:** groupby operations; tidy summaries for comparison.
3. **Visualize:** labeled histograms/bar charts; link visuals to claims.

4. **Evidence collected:** annotated notebook + plots; rubric rows: *Descriptive Statistics, Visualizations, Interpretation, Reproducibility*.
5. **For further details:** Assignment sheet + rubric (Appendix A-7).

QTRS Learning Outcome 2: Evaluate arguments from everyday life or academic fields of study that are represented mathematically, statistically, computationally, or in visualizations.

Assignment 7 — Mini Statistical Analysis (Descriptive/Inferential)

What students do: Engineer review_length, compute descriptive stats, plot histogram + bar chart by rating/band, optionally run a t-test/Chi-Square, and write a 5–7 sentence interpretation about group differences.

How it measures LO2:

1. **Mathematical/Statistical:** evaluates claims like "5-star reviews are longer" using means, distributions, and (optional) significance tests.
2. **Computational:** reproduces groupby calculations; checks whether computed summaries actually support the stated narrative.
3. **Visualization critique:** judges whether plots (scales, bins, labels) accurately back the argument.

Evidence collected: annotated notebook + plots; rubric rows: **Descriptive Statistics**, **Visualizations**, **Interpretation**, **Reproducibility**.
Where details live: Assignment sheet + rubric (**Appendix A-7**).

QTRS Learning Outcome 3: Formulate hypotheses, mathematical models or narratives that are consistent with quantitative data.

Assignment 6 — Sentiment with VADER (Performance Hypothesis & Evaluation)

What students do: Declare a **performance hypothesis** (e.g., "VADER ≥70% overall; neutral hardest"), create a **gold** label set, compute **accuracy**, analyze errors.

How it measures LO3:

1. **Hypothesis formulation:** specifies expected accuracy/class behavior.
2. **Test/model:** evaluates predictions with quantitative metrics; optional threshold/model adjustment.
3. **Decision rule:** confirms/refutes expectations using accuracy evidence.

Evidence collected: notebook with metrics + error analysis + reflection; rubric rows: **Gold Setup**, **Classification**, **Evaluation Metrics**, **Error Analysis**.
Assignment sheet + rubric (**Appendix A-6**).

QTRS Learning Outcome 4: Communicate how quantitative data, interpretations, or models are connected to outcomes, predictions, decisions, explanations, or future states.

Assignment 8 — Sentiment Analysis Competition
How it measures LO4: Teams present results (accuracy) and a **methods summary** that connects evidence to a **recommendation** (e.g., use features vs. chatbot) for sentiment analysis. Assignment sheet + rubric (**Appendix A-8**).

QTRS Learning Outcome 5: Effectively employ one or more digital tools to demonstrate quantitative reasoning, interpretations of calculations, or the creation and evaluation of visualizations.

A) Python Notebook Submissions (Assignments 1–8)

What students do: Build and run annotated notebooks that load data, apply text-processing methods (e.g., tokenization, NER, sentiment), compute metrics, and generate simple visuals; include brief interpretations and a methods note for reproducibility.

How it measures LO5:

1. **Tool use:** selects and uses Pandas/spaCy/VADER correctly to demonstrate quantitative reasoning.
2. **Interpretation:** explains outputs (tables/plots/metrics) in plain language.
3. **Reproducibility:** documents versions, parameters, and steps so results can be replicated.

Evidence collected: .ipynb + PDF export with code, outputs, captions, and a short Methods section; rubric rows: **Code Functionality**, **Annotation & Documentation**, **Analysis & Insights**, **Presentation**.

Assignment sheet + rubric (**Appendix A-1-8**).

List all course-specific learning outcomes. Where appropriate, identify the associated QTRS learning outcome(s) in brackets (see below for example). Note: It is expected that a majority of course-specific learning outcomes will be associated with a QTRS learning outcome.

Work with text data basics – open, clean, and organize text datasets (like reviews or short stories). *Students will be able to collect and organize quantitative data for analysis in a digital humanities setting.* **[QTRS LO1]**
Compare humans and tools – check how well AI or other digital tools do on simple text tasks, and explain their strengths/weaknesses. *Students will be able to evaluate computational outputs against human reasoning to assess accuracy and validity.* **[QTRS LO2]**
Think about ethics – spot possible risks (privacy, bias, terms of service), suggest fixes, and reflect in short Ethics & DH notes. *Students will be able to identify ethical concerns in data use and propose appropriate mitigations.* **[QTRS LO5]**
Keep work reproducible – save your steps (data source, tool used, settings, prompts) so classmates can follow and repeat your process. *Students will be able to document methods and maintain reproducible workflows for quantitative analysis.* **[QTRS LO5]**

Use starter text processing methods – tokenize, lemmatize, identify names/places, build word lists, run sentiment checks. *Students will be able to apply computational methods to prepare and analyze textual data.* **[QTRS LO1]**

Ask small research questions – e.g., "Do 1-star reviews use more negative words than 5-star ones?" *Students will be able to formulate testable hypotheses from quantitative data.* **[QTRS LO3]**

Do statistical checks – averages, percentages, beginner tests with templates. *Students will be able to apply descriptive and inferential statistics to test hypotheses.* **[QTRS LO3]**

Evaluate machine vs. human results – see where tools make mistakes compared to humans. *Students will be able to interpret results critically and compare alternative quantitative approaches.* **[QTRS LO2]**

Show findings visually – bar charts, word clouds, simple tables. *Students will be able to create clear visualizations to communicate quantitative results.* **[QTRS LO4]**

Communicate clearly – short reports/presentations linking data to real-world issues. *Students will be able to connect quantitative findings to decisions, explanations, and real-world applications.* **[QTRS LO4]**

Gain confidence with digital tools – practice with Voyant, Sheets, Colab templates, spaCy, Pandas. *Students will be able to effectively use digital tools to conduct and present quantitative analysis.* **[QTRS LO5]**

Form Submission - Proposer

Submitted for Approval | Proposer

Olga Kellert - September 16, 2025 at 4:27 PM (America/Phoenix)

Department Approval

Approved

Sara Beaudrie - September 17, 2025 at 11:17 AM (America/Phoenix)

Mike Tueller

GSC Coordinator Review

Approved

Kimberly Singleton - September 17, 2025 at 6:08 PM (America/Phoenix)

April Randall

Assistant Vice Provost Review

Sent Back

Tamiko Azuma - September 17, 2025 at 9:45 PM (America/Phoenix)

Thank you for submitting your proposal for consideration for a General Studies Gold designation. Further information is required before the proposal can be submitted for General Studies Council review.

For the assessments listed for each Learning Outcome, please provide more details about the assignments (e.g., the instructions and requirements of the assignments, how the assignments will be graded, etc.). Examples would also be helpful.

The General Studies Council needs this information to evaluate whether the assessment appropriately measures the specific learning outcome.

If you have any questions, please email me (Tamiko Azuma) at azuma@asu.edu.

Form Submission - Proposer

Submitted for Approval | Proposer

Olga Kellert - September 18, 2025 at 1:29 AM (America/Phoenix)

Department Approval

Approved

Sara Beaudrie - September 18, 2025 at 6:02 AM (America/Phoenix)

Mike Tueller

GSC Coordinator Review

Approved

Kimberly Singleton - September 18, 2025 at 7:25 AM (America/Phoenix)

April Randall

Assistant Vice Provost Review

Approved

Tamiko Azuma - September 18, 2025 at 10:20 AM (America/Phoenix)

All required components confirmed.

Pre-GSC Meeting

Approved

Kimberly Singleton

April Randall - September 18, 2025 at 11:07 AM (America/Phoenix)

Quantitative Reasoning (QTRS) Subcommittee

Acknowledge Cancelled

Samantha Anderson

Jason Nichols

Terri Kurz - September 26, 2025 at 4:19 PM (America/Phoenix)

Approve

Elizabeth Kizer

General Studies Council Meeting

Sent Back

Kimberly Singleton

April Randall - September 30, 2025 at 2:26 PM (America/Phoenix)

Sending back so new recommendation from subcommittee can be left on the form.

Pre-GSC Meeting

Approved

Kimberly Singleton

April Randall - September 30, 2025 at 2:26 PM (America/Phoenix)

Quantitative Reasoning (QTRS) Subcommittee

Acknowledgement Requested

Samantha Anderson

Jason Nichols

Terri Kurz - October 1, 2025 at 12:10 PM (America/Phoenix)

> Revise and Resubmit: The applicant needs to focus more clearly on alignment with QTRS LOs. In addition, some of the quantitative reasoning components of the assignments are optional, which reduce the rigor and integration of quantitative reasoning. LO2 says optional for the inferential assessment in the syllabus, assessment submitted cannot be optional; LO3 assessment in Kuali and syllabus do not match, LO3 & LO4 requires a narrative description. Remember that all assignments used to satisfy a LO must remain in the course, so the assignments for each LO must be clear, and also distinctly, explained. Optional assignments/components cannot be used to satisfy QTRS designation.

Elizabeth Kizer

General Studies Council Meeting

Waiting for Approval

Kimberly Singleton

April Randall

Registrar Notification

Notification

Courses Implementation

Implementation

Approval

Kelli Eberhart

Rebecca Flores

Lauren Bates

Alisha Von Kampen

Proposer Notification

Notification

Olga Kellert

College Notification

Notification

Amanda Smith

Jenny Smith

EdPlus Notification

Notification

Sarah Shipp