|  |
| --- |
|  |
| **Course Submitted****(Subject/Number)** |  |
| **Submitted by** |  |

|  |  |
| --- | --- |
| **Ways of Thinking: Quantitative Reasoning** | **Core Requirement** |
|  |  |
| **Core component title** | Varies |
| **Minimum credit hours** | 3 |
| **Core-specific pre- and co-requisites / requirements** | Should be completed during a student’s first 45 credit hours at SLU |
| **Core component summary** | Courses that satisfy the Quantitative Reasoning requirement introduce students to the ubiquity of quantitative data, theories, and applications.  In these courses, students attain a breadth and depth of mathematical and/or statistical skill sets that allows them to assess quantitative information in order to develop rigorous arguments and communicate reasoned conclusions. |
| **Notes** | * A MATH designated course must be above the level of MATH 1200
* Quantitative Ways of Thinking courses must develop students’ skills in **at least one** of three broad areas:
1. The manipulation, understanding, and recognition of patterns of symbols and numbers, which can then be applied to advanced numerical problems and quantitative courses in any area/discipline
2. Statistical analysis and communication and interpretation of that analysis
3. The ability to recognize the ubiquitous nature of numerical evidence and our civic responsibility to evaluate and communicate about numerical evidence within societal, national, and/or global contexts
* Courses that meet the learning outcomes and essential criteria for this component may be submitted from any department or program
 |

**All courses approved to count for University Core requirements must include both course-level and Core-level student learning outcomes on their syllabi. Please follow this link for mandatory syllabus material to be incorporated into your syllabus:**

[**Mandatory Syllabus Material for University Core Courses/Experiences**](https://sites.google.com/slu.edu/university-core-pilot/instructor-resources/mandatory-core-syllabus-boilerplate?authuser=1)

|  |  |
| --- | --- |
| **Core Component Learning Outcomes** |  |
| **Below, you will find listed the 4 course-level student learning outcomes associated with this Core component area.** | ***In the space provided, please provide examples of readings, assignments, and/or activities that demonstrate how your course is designed to facilitate student achievement of these outcomes.*** |
| * + - 1. Students will be able to demonstrate a breadth and depth of mathematical and/or statistical skills needed to analyze and build quantitative models

[ ] Check here if submitting UUCC requested revisions |  |
| 1. Students will be able to recognize and understand patterns and arguments found in mathematics and/or statistics

[ ] Check here if submitting UUCC requested revisions |  |
| 1. Students will be able to recognize the pervasiveness and myriad forms of mathematics and/or statistics which have aided in human and humane progress

[ ] Check here if submitting UUCC requested revisions |  |
| 1. Students will be able to communicate effectively in mathematical and/or statistical ways by forming arguments and conveying results obtained through the application of quantitative tools

[ ] Check here if submitting UUCC requested revisions |  |

|  |  |
| --- | --- |
| **Course Essential Criteria** |  |
| **Below, you will find listed the 6 Essential Criteria for this Core component.** | ***In the fields below, please note these Essential Criteria (what all instructors must do/teach/assign/require to ensure the integrity of each section University-wide) and in the spaces provided, please provide examples of readings, assignments, and/or activities that demonstrate how your course will incorporate these Essential Criteria.*** |
| The primary focus of this course must be quantitative reasoning[ ] Check here if submitting UUCC requested revisions |  |
| * + - 1. Courses will require students to evaluate quantitative information and evidence, including its representation in forms such as charts, graphs, equations, and/or statistics obtained from data

[ ] Check here if submitting UUCC requested revisions |  |
| * + - 1. Courses will foster students’ development of a significantly broad and deep skill set used in quantitative reasoning (e.g.: basic statistical, probabilistic, and/or mathematical computations)

[ ] Check here if submitting UUCC requested revisions |  |
| * + - 1. Courses will teach students to accurately explain information presented in mathematical or statistical forms

[ ] Check here if submitting UUCC requested revisions |  |
| * + - 1. Courses will engage students in the construction, use, and application of mathematical or statistical modeling of numerically based information

[ ] Check here if submitting UUCC requested revisions |  |
| * + - 1. Courses will require an artifact that demonstrates student achievement of the component outcomes

[ ] Check here if submitting UUCC requested revisions |  |

|  |  |
| --- | --- |
| **Core SLO(s) (**[**Click here for more information on Core SLO’s**](https://drive.google.com/file/d/15qtYvj1085Y8OHJ8GRkxzRW2w-H_t6FU/view)**)** |  |
| **This course/experience is part of an integrated university-wide Core curriculum designed to facilitate student achievement of SLU’s nine University Core SLOs. Below, you will find listed the 3 University Core-level student learning outcomes associated with this Core component area.** | ***In the space provided, please provide examples of readings, assignments, and/or activities that demonstrate how your course is designed to facilitate student achievement of these 3 outcomes at the levels indicated.*** |
| **SLO 2: Students will be able to integrate knowledge from multiple disciplines to address complex questions (Introduce)**[ ] Check here if submitting UUCC requested revisions |  |
| **SLO 3: Students will be able to assess evidence and draw reasoned conclusions (Develop, Achieve)**[ ] Check here if submitting UUCC requested revisions |  |
| **SLO 4: Students will be able to communicate effectively in writing, speech, and visual media (Introduce)**[ ] Check here if submitting UUCC requested revisions |  |