Re-Approval Form for MATHL Liberal Arts Perspective Course

(For current course)

**Date**:

**Instructor’s Name**:

Department and Course Number:

Course Title:

Catalog course description:

The criteria for MATHL courses are listed in Appendix A of the Faculty Handbook. These criteria are as follows:

Mathematical and Logical Reasoning (MATHL)

Courses in Mathematical and Logical Reasoning are intended to provide students with the opportunity to develop and acquire mathematical and logical habits of mind. These habits of mind include analytical reasoning, problem-solving, and communication.

GOALS

The goals of the Mathematics and Logical Reasoning area are:

1. to develop a conceptual understanding of mathematics, formal logic, or statistics;
2. to cultivate the ability for solving real-world problems in a mathematical, logical, or statistical context; and
3. to acquire the capacity for analytical reasoning through mathematical, logical, or statistical thought, reflection, explanation, and justification;

COURSE CRITERIA

Courses in this area will address:

1. the language, foundations, and historical context of one or more areas of mathematics, formal logic, or statistics;
2. the conceptual understanding of mathematical, logical, algorithmic, or statistical methods;
3. the formulation, representation, and solution of mathematical, logical, algorithmic, or statistical problems;
4. the methods of proving, justifying, or explaining mathematical, logical, or statistical conjectures and theorems; and
5. the applications of mathematical, logical, algorithmic, or statistical methods to other disciplines.

STUDENT LEARNING OUTCOMES

Students satisfying the Mathematical and Logical Reasoning requirement will:

1. communicate and represent mathematical. logical, or statistical problems in symbolic, graphical, or numerical forms;
2. formulate and solve problems using mathematical, logical, or statistical methods; and
3. provide proof or justification of mathematical, logical, or statistical results using deductive reasoning.
4. **Describe in detail how the course fulfills the specific criteria mentioned above**:

1. **How will information about course criteria and student learning outcomes be communicated to the students taking the course? (Examples include: stated on syllabus, verbally communicated in class, placed on Moodle site, etc.)**

1. **Please provide examples of assignments in the course that address the student learning outcomes mentioned in the criteria above. Please identify in parentheses the SLO met by the assignments you describe. (Descriptions are satisfactory, there is no need to provide the actual assignment)**

1. **How will you/your department communicate the expectations that this course meet the criteria, and that the student learning outcomes be assessed, to faculty teaching the course?**

**Submit this form to the Provost’s Office at the following email address:** [courseproposal@gustavus.edu](mailto:courseproposal@gustavus.edu)