Curriculum Proposal Cover Sheet - University-Wide Undergraduate Curriculum Committee

Contact Person(s)	Email Address
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Proposing Department/Unit	**Phone**
Liberal Studies	357-5715, 357-2612, 357-3210

Check all appropriate lines and complete information as requested. Use a separate cover sheet for each course proposal and for each program proposal.

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1. Course Proposals (check all that apply)

_____ New Course   _____ Course Prefix Change   _____ Course Deletion

_____ Course Revision   _____ Course Number and/or Title Change   _____ Catalog Description Change

Current **Course prefix, number and full title**	*Proposed* **course prefix, number and full title, if changing**

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2. Additional Course Designations: check if appropriate

_____ This course is also proposed as a Liberal Studies Course.   _____ Other: (e.g., Women's Studies,

_____ This course is also proposed as an Honors College Course.   Pan-African)

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3. Program Proposals

_____ New Degree Program

_____ New Minor Program

_____ Catalog Description Change   _____ Program Revision

_____ Program Title Change   __X__ Other

_____ New Track

Liberal Studies Criteria for Mathematics/Fine Arts/ Philosophy & Religious Studies/ Natural Science

Current program name	Liberal Studies Criteria for Mathematics
	Proposed program name, if changing

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4. Approvals

		Date
Department Curriculum Committee Chair(s)	N/A	
Liberal Studies Department Chair(s)	David H. Pistole	11/11/09
College Curriculum Committee Chair	N/A	
College Dean	David H. Pistole	
Director of Liberal Studies *	David H. Pistole	11/11/09
Director of Honors College *		
Provost *	Gerald Intemann	11/30/09
Additional signatures as appropriate: (include title)		
UWUCC Co-Chairs	Gail S Sechrist	12/8/09

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Liberal Studies

Mathematics

Students are required to complete at least one mathematics course to fulfill the Liberal Studies Mathematics requirement. Additional mathematics requirements may be specified by the student's major or college.

In addition to the required Liberal Studies Mathematics courses, students must complete one additional Quantitative Reasoning Competency-Across-the-Curriculum (CAC) course.

Mathematics Expected Undergraduate Student Learning Outcomes

Syllabi for courses designed to fulfill the Liberal Studies Mathematics requirement must provide course content that enables students to achieve the Expected Undergraduate Student Learning Outcomes identified below. Course proposals may identify additional objectives from the list of Expected Undergraduate Student Learning Outcomes as appropriate to the course content.

As *Informed Learners* students will demonstrate knowledge and understanding of:
- the ways of modeling the natural, social and or technical worlds

As *Empowered Learners* students will demonstrate:
- problem solving skills using a variety of methods and tools
- critical thinking skills including analysis, application and evaluation

Mathematics Required Course Content

Proposals for courses designed to fulfill the Liberal Studies Mathematics requirement must include opportunities for students to:
- develop and apply deductive reasoning skills
- apply multiple problem solving techniques as appropriate to the course
- promote understanding and use of mathematical formulas
- enable the interpretation, analysis and use of numerical and graphical data
- develop mathematical models to solve problems

Additionally, individuals proposing courses designed to fulfill the Liberal Studies Mathematics requirement are encouraged to include opportunities for students to:
- increase confidence and ability in using mathematics
- introduce historical context of mathematical problems and their solutions
- introduce the appropriate use of technology as a tool in problem solving
- include applications and problems from a variety of disciplines

Mathematics Common Learning Objectives

All courses meeting the Liberal Studies Mathematics requirement will establish common course objectives stating:

At the conclusion of the course the student should be able to:
- understand deductive reasoning and apply it in the problem solving process
- apply appropriate techniques to solve a variety of problems
- interpret, understand and apply mathematical formulas appropriate to the course
- interpret, analyze and use numerical data and graphs
- develop simple mathematical models to solve problems

Letters from affected departments

SUBJECT: College of Natural Sciences and Mathematics Response to Liberal Studies Criteria
TO: Dr. B. Gail Wilson, Liberal Studies Committee
FROM: Dr. Mary Lou Zanich, Interim Dean, Natural Sciences and Mathematics
DATE: Oct. 9, 2009

It is likely that you will receive individual and departmental responses to your request for comment on the proposed Liberal Studies criteria draft. Because of the significant impact of the Liberal Studies program in our college, we formed a college-wide committee to address college-wide concerns about the proposed criteria. This committee had representatives from the departments of Biology (Sandy Newell), Chemistry (John Woolcock), Computer Science (Sanwar Ali), Geoscience (Michael Poage), Mathematics (Dan Burkett), Physics (Stan Sobolewski), and Psychology (Dave LaPorte).

MATHEMATICS

The Mathematics Department finds the criteria acceptable; the college-wide committee had no additional comments to make.