

Writing Across the Curriculum: Mathematics

Writing encourages students to reflect on the learning process and gives the instructor insight into the level of understanding of the students. The primary purpose of writing in any discipline, however, is to develop the skill of communicating. Communication in mathematics should be accurate, clear, and concise.

Accurate communication includes correctly stated facts, appropriate citing of source material, and correct use of logic.

Clear communication includes a proper thesis statement, effectively organized paragraphs, persuasive logic, and proper grammar.

Concise communication includes relevant material, steady focus, and effective wording.

Mat 305, The History of Mathematics, is designated as a writing enrichment course. The writing requirement in this course reflects the recommendations in *Undergraduate Programs and Courses in the Mathematical Sciences: CUPM Curriculum Guide 2004* and in *CUPM Guidelines for Assessment of Student Learning*. Both documents are found on the website of the Mathematical Association of America (www.maa.org). In Mat 305 assessment is based on a variety of short papers. These papers include assignments such as summarizing the concepts the student considers most important to a particular topic or time period, comparing or contrasting two approaches to a topic, comparing or contrasting the work or philosophy of two mathematicians, analyzing a problem, explaining a concept, relating difficulties posed by a problem, or analyzing a quotation from a famous mathematician.

The course requires at least 15 pages of typed, double-spaced expository prose.

Writing in the course determines 15% of the final grade.

The following rubric is used to assess writing assignments.

Student _____	Assignment # _____	Score _____
Accuracy 24 Points	Excellent	Good
Facts		Poor
Correctly stated facts	8	Few factual errors
Citations		7 6 Many errors
Appropriate and correct citations	8	Few citations missing or incorrectly done
Understanding		7 6 Citations missing or incorrect
Evidence of Insight	8	Correct facts, but little insight
		7 6 Lack of understanding
Clarity 32 Points		
Thesis and Conclusion		
Purpose established, Conclusions stated	8	Poorly stated, too broad, or inappropriate
Paragraph Structure		7 6 No thesis or conclusions stated
Logical divisions, Effective transitions	8	Run on or choppy paragraphs
Logic		7 6 No transitions
Smooth flow, valid arguments	8	Occasionally difficult to follow
Grammar		7 6 Invalid logic, no development
No dirty dozen errors	8	Few errors
		7 6 Many errors
Conciseness 24 Points		
Relevance		
All material related to topic	8	Few extraneous details
Focus		7 6 Rambling
Thesis addressed throughout	8	Occasional tie-ins missing
Wording		7 6 Disconnected
Words thoughtfully chosen, convey intent	8	Few awkward or ambiguous sentences
		7 6 Many awkward or ambiguous sentences
Mechanics 20 points		
Guidelines		
Margins, page count, font as required	6	Minor irregularities
Deadline		5 4 Too short, too much white space
Submitted on time	8	Slightly late
Neatness		7 6 Very late
No hand-made corrections	6	Few hand-made corrections
		5 4 Many hand-made corrections
		3 2 Rumpled paper
Totals _____		_____

