

MATH 110 Math in the Media Mini 4 2017 Syllabus

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Class Times: TuTh 11:00AM-1:45PM

Class Location: Hirt 209

Office Hours: M 11AM-1PM, Tu 9-10AM and 3-4PM, W 1-3PM, F 11AM-12PM,
or e-mail to request an appointment

Course Webpages: math.mercyhurst.edu/~aberardine/classes/MATH110Media and
math.mercyhurst.edu/moodle

This syllabus is a contract. It is meant to tell you what you can expect of me, and what I will expect of you. It is a binding document you should read and understand thoroughly.

1 Course Description

Mathematics Applications invites students to experience mathematics in the context of its relationship to a single field of application, such as Art, Music, Sports, or Politics. The goal is to help students see the extent to which mathematics is bound to areas of their interest and therefore awaken in them a new interest in the subject. 3 credits.

Prerequisites: ALEKS placement score of 30 or higher.

Note: Students who do not meet the prerequisites for the course will be removed from the course at the end of the first week of class by the Office of Academic Affairs.

2 Required Resources

There is no textbook for this course.

3 Course Objectives

A student who successfully completes this course will be able to:

- examine statements with mathematical content found in the media and learn to better understand the mathematical ideas behind those statements;
- examine statements made in the media about mathematics in general and analyze representations (and misrepresentations!) of mathematics in American culture;
- identify these statements as they are encountered in “every day life,” to be able to think critically about them, and to convey those thoughts in speech and writing.

4 Grading

Final Grade Calculation:

	Percentage of Final Grade
Discussion and Participation	30%
Content Contributions (2)	10%
Papers (3)	60%

Letter Grade Scale:

If you have a weighted average of at least:	94%	90%	84%	78%	70%	65%	60%	0%
then you will earn a(n):	A	B+	B	C+	C	D+	D	F

5 Discussion and Participation

For each class day, you will receive a grade out of 5 points according to the following rubric:

- 0 points: absence
- 3.5 points: attended class but did not contribute at all to the class discussion
- 4/4.5/5 points: attended class and contributed to the class discussion (exact value will be determined by your level of involvement)
- Arriving late or leaving early may result in a 0.5 point deduction for that day.

Excused Absence Policy: In the event of an “excused absence,” you must make up the work that you missed in order to receive participation credit for that date. This will usually take the form of a 1-2 page assignment you must complete within 3 days of the excused absence (three days before or after). You must also provide official written documentation in order for your absence to be excused (medical, athletic, academic, etc.). Students will not be excused for more than 2 class meetings in a mini term (the equivalent of two full weeks of class in a typical semester).

6 What do I mean by “the media”?

For the purposes of this course, when I say “the media,” I mean:

- news articles (on the web, in local or national papers, in magazines),
- newscasts (local channels, national broadcasts, recorded web videos),
- pop culture (television programs, movies, celebrity statements),
- social media (especially posts by “authority figures”),
- advertising (print, TV, web).

“The media” does not include academic literature (textbooks, published academic articles, etc.). It does not include social media posts by your personal friends and family (unless they’re very famous celebrities or government officials).

7 What is “enough mathematical content?”

For your Content Contributions and Papers (see below), your submissions must contain mathematical content in order to receive a passing grade. This begs the question: “What is enough mathematical content?”

- For written media (news articles, blog posts, etc.), it must contain at least three sentences of actual mathematical content.
- For video/audio media (episodes of TV shows, movies, news broadcasts), it must contain at least 30 seconds of actual mathematical content. It does not need to be 30 continuous seconds (it could be 10 seconds in one scene, 8 seconds in another scene, and 12 seconds in a third scene).

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- For advertising, the object of the advertising does not need to be mathematical, but the advertising method/vehicle needs to be mathematical.

All examples shown in class will have “enough” mathematical content. You can use these as a model.

Arithmetic does not count as mathematical content.

8 Content Contributions

These are meant to be very quick assignments. You will submit a media source with mathematical content, along with a question you have about the mathematical content in that source. You do not have to find the answer to your question.

You must submit the assignment on Moodle. You cannot submit sources that we already discussed in class (or that are listed on this syllabus as sources that will be discussed).

You must submit two content contributions from two different sources before Thursday, April 27 at 5PM. Late submissions will not be accepted. I strongly encourage you to submit *early* in the term rather than right before the due date.

9 Papers

You will write three short papers for this class. There is no specific length requirement for the papers, although I expect most will be 2-3 pages.

The paper deadlines are as follows:

- Paper 1 due Tuesday, March 28 at 5PM
- Paper 2 due Thursday, April 20 at 5PM
- Paper 3 due Thursday, May 4 at 5PM

Specific information about the contents of your paper and a grading rubric for the paper are available on Moodle.

10 Course Policies

Attendance: Students are responsible for all information (notes, announcements, etc.) given in class, regardless of attendance.

E-mail: You can always e-mail me with course-related questions or to request an appointment outside of office hours. However, you should allow up to 2 days for a reply to your e-mail. Also, you should not e-mail me with questions about your grade; to discuss your grade please meet with me in person in my office. Sometimes, I will need to send out e-mail communications to the class. These communications will be sent to your Mercyhurst account. I will not send to any other e-mail account you may use, so be sure you have access to your Mercyhurst account and check it often enough to receive these important announcements in a timely manner.

Classroom Etiquette: Please be courteous to the instructor and your fellow students and silence your cell phone before class and do not send or receive calls or text messages during class time. Take off your headphones; do not read the newspaper or other books. Avoid disrupting the instructor and your classmates by arriving to class late or leaving class early unless absolutely necessary.

Academic Integrity: Cheating and plagiarism in any form are serious offenses and will be dealt with as such. University policy related to this issue may be found in the Student Handbook under Academic Affairs (page 6). The handbook may be found at: <http://handbook.mercyhurst.edu>.

Regarding Learning Differences: In keeping with college policy, any student with a disability who needs academic accommodations must call Learning Differences Program secretary at 824-3017, to arrange a confidential appointment with the director of the Learning Differences Program during the first week of classes.

Support of the Mercy Mission: This course supports the mission of Mercyhurst University by creating students who are intellectually creative. Students will foster this creativity by: applying critical thinking and qualitative reasoning techniques to new disciplines; developing, analyzing, and synthesizing scientific ideas; and engaging in innovative problem solving strategies.

11 Movies and TV Shows to be Covered in Class

Note: These are the sources that are not permitted as sources for your graded assignments in this course, as we will spend a significant amount of class time discussing them.

- Good Will Hunting (1997)
- The Man Who Knew Infinity (2015)
- Cube (1997) and Cube 2: Hypercube (2002)
- A Beautiful Mind (2001)
- Proof (2005)
- Mean Girls (2004)
- Futurama (Season 6 Episode 10)
- Star Trek: The Next Generation (Season 2 Episode 12)
- City Homocide (Season 3 Episode 11)

Final Note: This syllabus is subject to change if deemed necessary. Any syllabus changes or addendum will be communicated in class.