

MATH 105 Fall 2016

Mathematics Applications, Appreciation & Skills

Section 3 M W R 1:00 – 1:50 SCI D228

Required Tutoring Session: T 1:00 – 1:50 SCI D228

Instructor: Maggie Milkovich **Office:** SCI D260
Phone: 346-4124 **Email:** mmilkovi@uwsp.edu
Office Hours: 11:00-11:50 M, W 2:00-2:50 MTWR
After the first 8 weeks: 12:00-12:50 MTR, 2:00-2:50 MTWR

Text: The Heart of Mathematics: An Invitation to Effective Thinking, 3rd-edition by Edward Burger & Michael Starbird.

Prerequisite: Math 90 or a suitable placement score. **Final Exam:** 12/21, 12:30-2:30pm

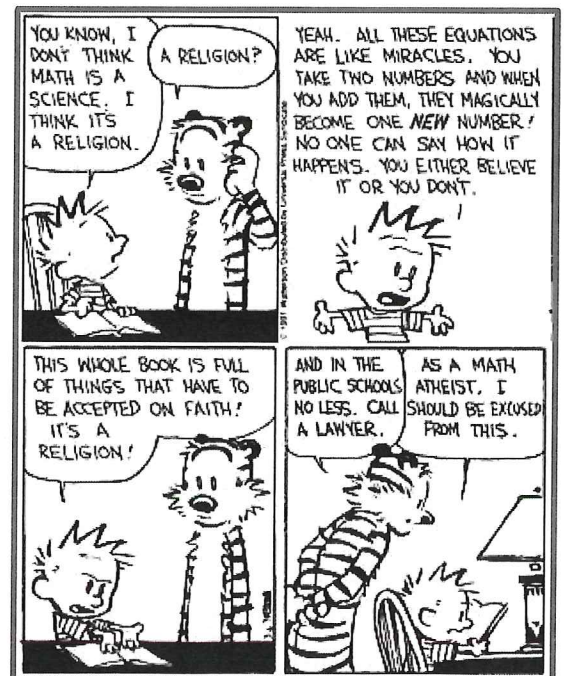
Attendance Policy:

Attendance is **required** at each class period. It is your responsibility to obtain notes and information from any missed class time. All arrangements for make-up quizzes and exams must be made before the scheduled exam time, and then will be given only for sufficient reason. Late tests will not be given for unexcused absences. Absences for serious illness, family emergencies, military duty or University sponsored activities may be excused provided you adequately notify me by email prior to the absence and provide appropriate documentation. Homework assignment due dates may be adjusted for excused absences. *More than 4 unexcused absences will lower your grade.*

Course Outline:

In this course, we will explore some of the greatest ideas within the realm of mathematics - comparable to the works of Shakespeare and Plato. We may also cover some practical topics such as probability, statistics and financial mathematics.

We will cover only part of the text (as there is more than a semester's worth of material presented therein), and some topics will be covered using supplemental materials provided by the instructor. The "bottom line," so to speak, is to gain an appreciation for mathematics and to discover the power of mathematical thinking in your everyday life. It is essential in this course to have an open mind, a piqued curiosity, and a willingness to explore and discover. Minimal mathematical background will be assumed.



This course satisfies the Quantitative Literacy Requirement. In particular, it addresses the following:

Quantitative Literacy Learning Outcomes

- Select, analyze, and interpret appropriate numerical data used in everyday life in numerical and graphical format.
- Identify and apply appropriate strategies of quantitative problem solving in theoretical and practical applications.
- Construct a conclusion using quantitative justification.

For more information see: <http://www.uwsp.edu/acadaff/Pages/generalEducation.aspx>

Evaluation:

Homework: required but not graded

Textbook HW will be assigned for some sections, and there may be worksheets to complete for some topics as well. We will use class time to go over some of your questions regarding the assignments. We will not, however, have enough class time to answer all questions that arise. The Tuesday tutoring session will be a good time to get HW and worksheet questions answered. Your textbook and classmates are also valuable resources. Most of the exam questions will be similar to the homework and worksheet questions. These assignments will not be collected or graded. However, be aware that your success in learning the material presented requires that you complete each assignment and do not fall behind.

Attendance and Class Participation: 5%

Attendance will be taken, and your enthusiasm and participation, especially in group discussions and activities will be noted. The percentage you earn will depend on your attendance record and your contribution to the class.

Paper: 10%

You will be writing one paper by yourself; it may be on a mathematical topic of particular interest to you, or it could be a short report on the life of a mathematician. Suggestions for your paper will be given to you by the end of September, and the paper will be due before Thanksgiving break. More details (such as the required minimum length etc. and my grading rubric) to come!

Journal: 10%

About once a week I will give you a several questions to choose from to respond to in a journal. I may do a spot check (random and unannounced) from time to time to see that you are keeping up with writing in your journals, so bring them with you to class every day. I plan to collect and read them mid-way through the semester and again at the end of the semester. This should be a good way to earn credit toward your overall course grade! We may also discuss your responses to some of the journal questions in class from time to time.

Exams: 60%

There will be THREE exams, each worth 20% of your grade. I do not yet have dates scheduled for the exams – you will have at least 3-4 day's advance notice of exams. They will probably be given on a Wednesday or a Thursday. Again, make-up exams will be available only in very special cases and will be handled on an individual basis. Notification and arrangements in such cases must be made prior to the examination. *NOTE: Once an exam has been passed out, you may not leave the classroom until you've turned in your exam.*

Final Research Project: 15%

This project is an opportunity to explore and discover a mathematical topic that we have not covered in class. Students will select a mathematical topic, learn any necessary background information and then investigate the topic. This may be a topic that is related to your discipline, for instance, or you may choose to depict a mathematical idea in a creative way (via a song or poem, for example). Collaboration is encouraged – you may work individually or in a group of two (it's fun!). Each student (or pair) will submit an abstract of the intention for their project, write a final paper on their findings and present a poster display at the end of the semester (during the last week of class and the final exam time). Some interim reports on the progress of the project will be collected during the semester. Discussion and further details will be provided during class.

Grading Scale:	A: $\geq 92\%$	A - : $\geq 90\%$ but $< 92\%$
B + : $\geq 88\%$ but $< 90\%$	B : $\geq 82\%$ but $< 88\%$	B - : $\geq 80\%$ but $< 82\%$
C + : $\geq 78\%$ but $< 80\%$	C : $\geq 72\%$ but $< 78\%$	C - : $\geq 70\%$ but $< 72\%$
D + : $\geq 68\%$ but $< 70\%$	D : $\geq 60\%$ but $< 68\%$	F : $< 60\%$

I may use discretion to raise a student's grade if her/his final grade does not reflect the quality of her/his work in the course (for example, from a low exam score early in the course). I will not, however, use such discretion to lower a student's final grade.

General Course Policies

- 1) Pagers and cell phones should be turned off during class.
- 2) Special consideration may be made for students with disabilities. Information regarding Section 504 of the Rehabilitation Act or the Americans with Disabilities Act can be found at the UWSP Disability and Assistive Technology Center <http://www.uwsp.edu/disability/Pages/default.aspx> . To request any accommodations relevant to this class, you should first discuss the matter first with the staff at the Center. Details regarding the documentation necessary to qualify for accommodation can be found at <http://www.uwsp.edu/disability/Pages/toQualifyForDisabilityServices.aspx> .
- 3) You should be fully aware of your rights and responsibilities as a UWSP student. Refer to <http://www.uwsp.edu/dos/Pages/Student-Conduct.aspx> for more information regarding the UWSP Community Bill of Rights and Responsibilities, the UWSP Student Academic Disciplinary Procedures, and the Non-Academic Standards and Disciplinary Procedures.

My Instructor's Information:

Maggie Milkovich

office: SCI D260

715-346-4124

mmilkovi@uwsp.edu

FALL SEMESTER 2016 Maggie Milkovich					
	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	
10:00:00 AM					
11:00:00 AM	office	Math 119-1 A 225	office	Math 119-1 A 225	
12:00:00 PM	Math 119-2 D 228	Math 119-2 D 228	Math 119-2 D 228	Math 119-2 D 228	<i>(119-2 meets for first 8 wks)</i>
1:00:00 PM	Math 105-3 D 228	Math 105 - Tutor	Math 105-3 D 228	Math 105-3 D 228	
2:00:00 PM	office	office	office	office	
3:00:00 PM	Math 355-10 A202	Math 355-10 A202	Math 355-10 A202	Math 355-10 A202	
4:00:00 PM	Math 355-11 A202	Math 355-11 A202	Math 355-11 A202	Math 355-11 A202	
5:00:00 PM	will often be in office until about 6pm...				

SECOND 8 WEEKS:					
	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	
10:00:00 AM					
11:00:00 AM		Math 119-1 A 225		Math 119-1 A 225	
12:00:00 PM	office	office		office	
1:00:00 PM	Math 105-3 D 228		Math 105-3 D 228	Math 105-3 D 228	
2:00:00 PM	office	office	office	office	
3:00:00 PM	Math 355-10 A202	Math 355-10 A202	Math 355-10 A202	Math 355-10 A202	
4:00:00 PM	Math 355-11 A202	Math 355-11 A202	Math 355-11 A202	Math 355-11 A202	
5:00:00 PM	will often be in office until about 6pm...				

SECTIONS TO BE COVERED:

* This is a tentative list *

Here are the sections that I intend to cover. There may be some adjustment based on time available and student interest.

CH 1:

1.1 - 1.4

CH 2:

2.1 - 2.3, 2.6, 2.7

CH 3:

3.1-3.3

CH 4:

4.1, 4.3 - 4.5

CH 5:

5.2

CH 6:

6.1, 6.2, other sections possibly, based on time

CH 7:

7.1, 7.2

