Math 105—Mathematics Applications, Appreciation & Skills

In this course we will explore some of the greatest ideas within the realm of mathematics—comparable to the works of Shakespeare, Plato, and Michelangelo. The goal is to gain an appreciation for mathematics and to discover the power of mathematical thinking in your everyday life.   3 credits

Gretchen Renfert	Availability	Course Meeting Times		
Office: Science **B152** **Phone:** 715-346–2919 * **email:** grenfert@uwsp.edu * *preferred method of contact*	M-R 11 – 11:50 AM M-R 1 – 1:40 PM M-R 3 – 3:50 PM *or by appointment*	Sec Time Room		
		5	4 PM MTR	SCI A210
		Tutor	4 PM W	SCI A210

Text (rental): *The Heart of Mathematics: An Invitation to Effective Thinking*, 3rd edition
by Edward Burger & Michael Starbird   (Published by Wiley) **ISBN:** 978-0-470-42476-6

Calculators: During an exam when a calculator is needed, computers, phones, iPads, SMART watches, and calculators with a "QWERTY" keyboard will not be allowed to be used.

Prerequisites: Math 90 or a suitable placement test. Minimal mathematical background will be assumed.

The Three Basic Goals of This Course:
1. To attain a better understanding of some significant mathematical ideas.
2. To sharpen our analytic skills for life issues that are beyond mathematics.
3. To develop a fresh perspective and outlook on your view of the world.

To succeed in this course it is essential to have an open mind, a piqued curiosity, and a willingness to explore and discover.

Quantitative Literacy Outcomes: (http://www.uwsp.edu/acadaff/Pages/generalEducation.aspx)

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

Evaluation: Final course grades will be determined by the following:

> 20 % **Homework**
> 20 % **Exam I**
> 20 % **Exam II**
> 20% **Exam III**
> 20% **Research Project**
> **100%**

Course Grades (%) at or above	93	90	87	83	80	77	73	70	67	60
will receive at least a grade of	A	A -	B +	B	B -	C +	C	C -	D +	D

* I reserve the right to exercise discretion in raising a student's grade if the final weighted average does not appear to reflect the quality of a student's work (for example, because of one low exam score early in the course). I will <u>not</u> use discretionary judgments to lower a student's final grade.

Homework (HW): All homework assignments and due dates will be posted on D2L. Textbook HW and assignments from outside resources will be assigned for some sections. Your success in learning the material presented requires that you complete each assignment and do not fall behind. 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 tutoring session will be a good time to get HW questions answered. Your textbook and classmates are also valuable resources. NO LATE HW WILL BE ACCEPTED unless you have an excused absence. Some HW will be collected and graded.

Attendance is expected at every class meeting. It is your responsibility to obtain notes and information from any missed class time. If an illness or other emergency require absence from class, I expect you to make every attempt to keep up with what is being taught by checking D2L, following in your book and making every attempt to do the homework., 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.

* **Exams** MAY **NOT** BE MADE UP unless arranged with me ahead of time, and then only for sufficient reason. If a dire emergency occurs, contact me as soon as possible to see if an exception is in order.

NOTE: Once an exam has been passed out, you may not leave the classroom until you've turned in your exam.

Incompletes: A grade of incomplete may be given when circumstances arise which are beyond the student's control and the student is unable to complete the course *IF* the student was passing when the circumstances arose.

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*Desire to Learn (D2L)   https://uwsp.courses.wisconsin.edu/d2l/home.

To access D2L, use your regular campus logon ID and password, and then click on our course:
          MATH 105 Math: Appls,Apprectn and Skills

Homework assignments, handouts, class work, grade information, and other class announcements can be found on the web in Desire to Learn (D2L).

In accordance with UW system policies, Math 105 is dedicated to a safe, supportive and non-discriminatory environment for all persons regardless of age, race, religion, gender, sexual orientation or disability.

You are expected to be fully aware of your rights and responsibilities as a UWSP student:

These are detailed in the UWSP Community Bill of Rights and Responsibilities:
          http://www.uwsp.edu/dos/Documents/CommunityRights.pdf

In particular, this includes the UWSP Student Academic Disciplinary Procedures:
          http://www.uwsp.edu/stuaffairs/Documents/RightsRespons/SRR-2010/rightsChap17.pdf

UWSP is committed to providing reasonable and appropriate accommodations to students with disabilities and temporary impairments.

Disability Accommodations: Information concerning accommodations made as per Section 504 of the Rehabilitation Act or the Americans with Disabilities Act can be found at
          http://www.uwsp.edu/disability/Pages/default.aspx
For more information about the Disability and Assistive Technology Center, 6th floor of Albertson Hall,
          Visit: ALB 609   or   **Call:** 715-346-3365   or   **email:** DATC@uwsp.edu

Food/Beverage: I would prefer that you not eat in class. I find food to be a distraction.

Cell Phones: I understand that occasionally you may want to take a picture of what is on the board. Other than that, cell phones should be silenced and put away once class begins.

For Academic Support:

1) Ask questions as they arise.

2) Come to see me before or after class, stop by during my office hours, or check to see if I am available at other times.

3) Tutoring services are available for this course. **The Math Help Room** in the Science Building offers free drop-in tutoring just off the Main Lobby of the older part of the building, room **SCI A113A**.

4) **The Tutoring Learning Center** (lower level of the **ALB**) offers support as well.

Tutoring

The Department of Mathematical Sciences and the Tutoring-Learning Center (**TLC**) offer free drop-in and group tutoring to support you in your math classes. In addition, the TLC offers the option for individual math tutoring sessions. The tutors are UWSP students who have done well in their classes and who are here to share their successful study habits and math content knowledge to help others succeed. Discussing mathematical concepts and practicing problems together clarifies and solidifies knowledge, and the tutors are eager to study with you.

If you have questions about the schedule or would like to make an appointment:
1. Visit: the **TLC** in room the basement of the Library, **ALB 018**
2. email: **tlctutor@uwsp.edu**
3. call: **(715) 346-3568**

Math Assistance --Fall 2018

Name	Schedule	Location	Cost
Drop-In Tutoring Center	https://www.uwsp.edu/tlc/Pages/dropInTutoring.aspx	**DUC 205**	**FREE**
Group Tutoring	https://www.uwsp.edu/tlc/Pages/schedules.aspx	See TLC Website	**FREE**
One-on-One Tutoring	https://www.uwsp.edu/tlc/Pages/CA-tutoring.aspx	Visit ALB 018 to make a request.	$9/session * fee may be waived
The Math Room	https://www.uwsp.edu/mathsci/Pages/tutoring.aspx	**SCI A113A**	**FREE**
The Math Pad (Math 90, 95 & 107 only)	https://www.uwsp.edu/mathsci/Pages/tutoring.aspx	**CCC 302**	**FREE**

We have a **Student Tutor:

SECTIONS TO BE COVERED:
* This is a tentative list *

We will cover only part of the text, as there is more than a semester's worth of material presented therein. Here are the sections that I intend to cover. There may be some adjustment based on time available and student interest. Additional outside material may also be assigned.

<u>Unit 1:</u>
>   <u>Chapter 1: Fun and Games</u>
>   1.1 - 1.4
>   <u>Chapter 2: Number Contemplation</u>
>   2.1 - 2.2
>   Introduction to Algorithms

<u>Unit 2:</u>
>   <u>Chapter 3: Infinity</u>
>   3.1 - 3.3
>   More Algorithms
>   Strange Geometry

<u>Unit 3:</u>
>   <u>Chapter 4: Geometric Gems</u>
>   4.1, 4.2, 4.5, 4.6
>   Math through history

Final Research Project:

This project is an opportunity to explore and discover a mathematical topic on one's own. Students will select a mathematical topic outside of those covered in our class, 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). Students may work individually or in a group of two (collaboration encouraged - it's fun!).

Each student *will submit an abstract of the intention for their project, write a final paper on their findings and present their project at the end of the semester* (during the last few class periods and the final exam period). Some interim reports on the progress of the project will be collected during the semester. Discussion and further details will be provided during class.

My Schedule This Semester:

	Monday	Tuesday	Wednesday	Thursday	Friday
Before 11 AM	*Off Campus*				
11:00-11:50	Office Hour	Office Hour	Office Hour	Office Hour	*Off Campus*
12:00-12:50	Math 109.1 Sci A208	Math 109.1 Sci A208	Math 109.1 Sci A208	Math 109.1 Sci A208	
1:00-1:50	Lunch	Lunch	Lunch	Lunch	
2:00-2:50	Math 109.2 CCC 111	Math 109.2 CCC 111	Math 109.2 CCC 111	Math 109.2 CCC 111	
3:00-3:50	*Available by appointment*				
4:00-4:50	Math 105.5 SCI A210	Math 105.5 SCI A210		Math 105.5 SCI A210	