

COURSE SYLLABUS

MA 111 - MATHEMATICAL REASONING FOR THE ARTS



*This information is to be completed by the instructor for the course.

I. *INSTRUCTOR INFORMATION

- A. Name:
- B. Office:
- C. Office Phone Number:
- D. E-mail Address:
- E. Office Hours:

II. COURSE INFORMATION

- A. Course name, number, and credit hours
Mathematical Reasoning for the Arts, MA 111, 3 Credit Hours
- B. *Semester, Section number
- C. *Class meeting time (days, time location):
- D. Prerequisites: none.
- E. Course Description:

This course will use the mathematical mode of inquiry to pose and answer questions relating to art, music, nature, and history. The course will progress chronologically from ancient Egypt and Greece to the Renaissance and move through the twentieth century advent of the computer. Topics include Euclidean and Non-Euclidean geometry; ratios; abstract mathematical thinking through sequences, series, recursion, and patterns; modular arithmetic; and relations. Although the material in this course is entirely mathematical, its topics, as well as many of the examples and some of the work the students do, will be drawn from the fields of art and music. Students will complete a significant project that applies mathematics to their field of interest.

F. Course Objectives:

1. To improve the student's ability to think logically and critically.
2. To improve the student's ability to recognize discrete mathematical patterns.
3. To introduce the student to different branches of mathematical study.

4. To develop the student's appreciation of mathematics as a problem-solving tool.
5. To broaden the student's understanding of the importance of mathematics in society, nature, and the arts.
6. To enable the student to connect mathematics to his/her field of study.

III. TEXTBOOK AND SOFTWARE

A. Textbook: *The Saga of Mathematics: A Brief History*, Lewinter M. and Widulski W., Prentice Hall, Inc., 0-13-034079.

B. Software: None.

C. Calculator Policy: A scientific calculator is required for this class. Sharing calculators during class or on tests will not be allowed. (A cell phone may not be used as a calculator.)

IV. ACCOMMODATIONS

In accordance with the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act of 1973, the University offers reasonable accommodations to students with eligible documented learning, physical and/or psychological disabilities. Under Title II of the Americans with Disabilities Act (ADA) of 1990, Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Amendment Act of 2008, a disability is defined as a physical or mental impairment that substantially limits one or more major life activities as compared to an average person in the population. **It is the responsibility of the student to contact Disability Support Services to initiate the process to develop an accommodation plan.** This accommodation plan will not be applied retroactively. Appropriate, reasonable accommodations will be made to allow each student to meet course requirements, but no fundamental or substantial alteration of academic standards will be made. Students needing assistance should contact Disability Support Services (256-765-4214).

V. ACADEMIC HONESTY POLICY

Students are expected to be honorable and observe standards of conduct appropriate to a community of scholars. Additionally, students are expected to behave in an ethical manner. Individuals who disregard the core values of truth and honesty bring disrespect to themselves and the University. A university community that allows academic dishonesty will suffer harm to the reputation of students, faculty, and graduates.

Incidents of possible student academic dishonesty will be addressed in accordance with the guidelines found at the following link:

<http://www.una.edu/student-conduct/student%20rights%20and%20responsibilities/academic-honesty.html>

VI. ATTENDANCE POLICY

Regular and punctual attendance is expected of all students. Whenever a student's cumulative absences for any reason -- excused or unexcused -- exceed the equivalent of **three** weeks of scheduled classes, no credit may be earned for the course. The student will either withdraw from the course or receive an F for the course grade. Any exceptions to this policy will be in accordance with University policy.

VII. FINAL EXAM

The final exam will be given on ****include date, time, and location****. It is a "departmental" final exam, is COMPREHENSIVE, and counts 25% of the final grade for the course.

VIII. GRADING SCALE

Grades will be assigned according to the following scale:

A	90% – 100%
B	80% – 89%
C	70% – 79%
D	60% – 69%
F	Below 60%

IX. *GRADING PLAN

[Include information on the number and type of evaluation methods (exams, quizzes, labs, homework, papers, etc.) with point or percentage values for each. Remember that the departmental final exam must count for 25% of the final grade.]

X. *GENERAL COMMENTS BY INSTRUCTOR

[Include information on student responsibilities (xxx), cell phones, required supplies, extra credit, dropping a class, etc.]

*Include the following:

Students who need additional help with homework or concepts covered in any math class may schedule a FREE individual consultation with a Mathematics Consultant through the Mathematics Learning Center (MLC).

<https://unamlc.mywconline.com/#Mathematics>