Prof. Jan Minton

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Office Hours: By appointment: Monday & Wednesday 3:00-4:30 and Tuesday & Thursday 1:00-2:30
       Make appointments online at **jminton.youcanbook.me**

Focus of Inquiry: *How can Mathematics deepen our understanding of Art? How Can Art illuminate Mathematical concepts?* These twin questions launch an investigation of the interplay of two subjects typically considered to be disjoint. The first question leads to an exploration of pattern, symmetry, and dimension.   The companion question seeks an alternative to the use of standard mathematical symbols and notation as the means of engaging mathematics. Use of color opens the door to more visual representations of mathematics, facilitating "Aha!" moments to a broader audience.

Intended Learning Outcomes for HNRS 241: By the end of this course, successful students will be able to …

1.   Describe and apply methodologies of mathematics appropriate for the course's topic
2.   Write about course topics clearly and effectively
3.   Interpret quantitative information related to the course topic.
4.   Connect course content to their lives and to communities beyond the classroom.

Materials: Coloring implements (pencils, markers, whatever … your choice)
    Tracing paper
    Materials as needed for individual art project

Books: *Proof* a play by David Auburn
    Picasso at the Lapin Agile a play by Steve Martin
    Flatland: A Romance in Many Dimensions by Edwin A. Abbott
    ONE of the following: *A Writer's Reference*, Diana Hacker RC Custom Edition
        OR *Easy Writer*, 6e by Lunsford

Other Readings:

    Mathematics and Art – So Many Connections an essay by Doris Schattschneider
    A Mathematician's Lament an essay by Paul Lockhart
    Fractals and an Art for the Sake of Science an essay by Benoit B. Mandelbrot
  The Regular Division of the Plane transcript of lecture by M.C. Escher

Documentary Video:

The Proof - Andrew Wiles' journey to the proof of Fermat's Last Theorem

Exams: There will be a midterm exam and the final exam. Each will be a mixture of short answer, short essay, and math "problems". The mid-term is scheduled for March 1 and the final exam time is Wednesday, April 25 2:00-5:00. Make up exams will be given only in *very extenuating* circumstances.

Paper: The one major paper (5 page minimum) will be due on March 15. Fill in the blank with your choice of verb to title your paper either "How does Math _____ Art?" or "How does Art _____Math? The paper must address the question using at least two academic sources as well as your own thoughts and reflection. Expect to meet with Prof. Minton to discuss your topic, source, and paper outline approximately one month before the final due date. A full draft of your paper must be brought to class for peer review approximately two weeks before the final due date.

Art Work: The class as a whole will create a cohesive mathematical art installation for a stairwell in Trexler Hall. Planning for the project will take place in class. Students will work on the project outside of class in groups once the overall plan is in place. Students will give tours of the installation during the last week of class. Each student must participate in at least one tour.

Other Graded Work:

Short writing assignments will accompany each reading and video. Mathematical assignments will be given frequently as well as small art assignments. There will be no make-ups of "other graded work" except in the case of a college related absence. One item of "other graded work" will be dropped. Grades from discussion make-up papers or alternate assignments (see below) are not droppable.

Honors e-Portfolio:

Don't forget to post your work in this course to your Honors e-Portfolio.

Attendance: Class attendance is critical. Mathematical content will come from class notes rather than a mathematics textbook. Students are expected to contribute to in-class discussions. Any student who is absent on a discussion day must submit a 2 page make-up paper on the discussion topic or else a grade of 0 will be added in the "Other" category.

Attendance as a mathematics facilitator for an Olin Hall or MCSP Conversation Series workshop is required. The date and time of that event is yet to be determined. Students who are unable to participate at that time must arrange a suitable alternate assignment with Prof. Minton prior to the event or else a grade of 0 will be added in the "Other" category.

Overall Workload:

> In addition to the 3 hours of class time, you are expected to work outside of class for a minimum of 9 hours per week.

Inquire Policy

All assignments along with details will be posted on Inquire. Students are expected to be knowledgeable of all postings on Inquire. It is each student's responsibility to consistently (at least daily) monitor Inquire for course information. Any assignment that requires an Inquire upload will not be accepted in any other form. Also, to receive credit for uploads, the file must be immediately readable on the instructor's college computer. It is the student's responsibility to make successful submissions. It is the student's responsibility to resolve technology problems through the college's IT department.

All grades will be posted to the Inquire Gradebook. However, Inquire will be used for individual grade communication and storage only – not for averaging. Any averages that may appear on Inquire for this course should not be trusted.

Course Grades:

Major Paper	20%
Major Art Work	20%
Other Graded Work	20%
Mid-Term Exam	20%
Final Exam	20%

Final course averages guarantee as a minimum the following course letter grades:

A 93-100	B- 80-82	D+ 67-69
A- 90-92	C+ 77-79	D 63-66
B+ 87-89	C 73-76	D- 60-62
B 83-86	C- 70-72	F below 60