2033 MATHEMATICAL THOUGHT

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Welcome to the conspiracy.

Mathematics is a powerful and beautiful system of thought with a remarkable ability to describe disparate phenomena in the world around us. We want to share this with you.

This course is designed for students who enjoy thinking about the mysteries of life and our place in the world. We'll be exploring some big paradoxes: infinity, the fourth dimension, what is the shape of the universe, and why this entire sentence is totally false.

If you like puzzles (and being puzzled, and getting yourself unpuzzled), if you're the sort that enjoys exploring on your own, for your own reasons, then you will enjoy this course. We will be telling you some things about how to succeed, but most of all this course is about your taking initiative, exploring on your own, and bringing ideas back to the class. ***This course is for self-starters, who like to think.***

If you prefer a course with more structure with clear updates on what your grade might be, well, this is the mathematics department, we have plenty of that sort of course, and they may be a better fit.

Grading: There are two components to your grade, Portfolio assignments and Your Project, each worth 50%. Three interviews, your meeting with us, and your attendance in class are required.

• Portfolio Assignments will be given each day. Typically, these will consist of a few routine problems related to the lecture and in-class activities, and a few more open ended questions. You do not always have to answer all the questions, but to succeed you need to answer some a little and a few a lot. The assignments will be graded in terms of stars, 0-F, 1-D, 2-C, 3-B and 4-A, however there is no limit to how much higher you can go for truly exceptional work. It is quite possible to get "More than an A". You should note, however, that failure to submit an assignment will score -1, so should listen in class and follow the assignments page on the wiki very closely:
  http://math2033.uark.edu/wiki/index.php/Portfolio_Assignments_Fall_2012

• Your Project is the hallmark of this course. You are required to take some aspect of mathematics and explore it in detail. You might make a film, design a mathematical quilt, build a mathematical sculpture, help organise the wiki, fly a kite (the right kind of kite of course) . . . Take a look on the wiki for some of the things previous students have done. We hope you can bring your skills into the course and be creative on the projects, but we will be there to suggest options and help you develop your ideas. In fact we require it! (There will be several required

checkpoints throughout the semester.) Although you will be assessed for your individual contribution and work, group work is encouraged—you can go a lot further with a good group. All grades for the projects are provisional until you have documented it on the wiki, given a presentation in class and come to the interviews.

What It Takes To Get an A: We know good work when we see it, and we're happy to tell you if you're on track: An excellent, imaginative, well-executed Project; consistent solid work on the Portfolio assignments, with many Further Questions; consistent and energetic participation in class. We want you all to aim this high.

The Interviews: There will be three mandatory interviews in the fourth, ninth and fifteenth weeks of class. In addition you are required to talk to us about your projects during the term. If you do not meet these requirements you will not pass the class. We will discuss the interviews in more detail when the time comes.

Attendance: You are required to be in class and pay attention. If you demonstrate a wish to read the paper, send text messages, surf the internet, etc you will be asked to leave. We do not want you in the room if you do not want to be here. No kidding. You will loose a letter grade for every 6 classes missed.

The Wiki (**math2033.uark.edu**) is the soul and the memory of the course. So much is in there, and you will be adding to it! It is a little chaotic (there is good work to do in tidying it up) you should take a look around as it has a lot of great material!

Clickers: We require clickers for this class, in fact they will be used to take attendance, so make sure you always bring yours.

Email Policy: Emails should have 2033 in the subject line. We guarantee to answer all such emails. We will try to answer other emails, but they can get lost in the large flow of email we receive.

Academic Honesty; As a core part of its mission, the University of Arkansas provides students with the opportunity to further their educational goals through programs of study and research in an environment that promotes freedom of inquiry and academic responsibility. Accomplishing this mission is only possible when intellectual honesty and individual integrity prevail. Each University of Arkansas student is required to be familiar with and abide by the University's 'Academic Integrity Policy' which may be found at http://provost.uark.edu. Students with questions about how these policies apply to a particular course or assignment should immediately contact their instructor.