MATH 102X-01
Syllabus
Fall, 2007

Instructor:	Dr. Colin Starr	**Office Hours:**	MTWF 10:10 - 11:20
Office:	Collins 308		MH 1:50 - 2:30
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There is no required text. I recommend PUTNAM MATH COMPETITION 1938-1964, PUTNAM MATH COMPETITION 1965-1984, and/or PUTNAM MATH COMPETITION 1985-2000, or the three-volume set. All are available from the MAA, www.maa.org. Note that the problems and solutions are available elsewhere, so it is not necessary to purchase any of these unless you want your own reference.

There are problems and solutions for various competitions, including the Putnam Exam, at http://www.kalva.demon.co.uk.

Goals: This is a course in mathematical problem-solving. You will learn strategies for approaching problems from out of context (that is, not at "the end of the section") and in diverse settings (number theory, complex analysis, calculus, graph theory, probability, geometry, ...).

Class expectations: I will provide a problem each class period. We will spend some time thinking about it individually, and then come together to brainstorm a solution. I will select a student to be at the board for the brainstorming. Once we think we have a solution, we will draft a formal write-up. I will assign two students to finish that in LaTeX for the next class period, and they will present their formal solutions to the class and hand out copies of their write-up at the next class meeting.

I will give a brief (10 minutes or so) lecture on the subject matter behind the solution. For example, if a solution is based on the Euclidean algorithm for polynomials, I will discuss that. Then I will also assign a related problem for the class to think about for the next meeting, when we will use it as a "warm-up" for the day.

Participation is very important in this seminar, which means that attendance is also. I will assess your participation daily on a two-point scale. A zero means you were absent or slept through class, a one means that you participated somewhat but not as much as you could have, and a two means that your participation was satisfactory. Participation is worth 30% of your grade (see below) and we have 15 weeks in the term, so each day is worth 2% of your grade.

Assessment: Your grade will be computed as follows:

Write-ups:	25%
Presentations:	25%
Participation:	30%
Board work:	20%

Note that there are no exams.

If you have special needs (e.g., for a documented disability), it is your responsibility to approach me at least a day in advance of the need for accommodation. To receive accommodation, you must be registered with Disability Services; this office is located in Bishop Health Center in Baxter Hall. (Phone: (503) 370-6471.)

My door is usually open. The office hours above are the times I will definitely be in my office (or nearby), but you are welcome to come by at other times as well. Make sure you come see me whenever you have a question.