

Course Syllabus
Math 1100: The Nature of Mathematics
Louisiana State University—Baton Rouge
Time and Location: Mon. & Wed., 8:10-9:30, Campbell Auditorium
A service-learning course, Fall 2006

Instructor: Robert Perlis

Lockett Hall 212

Tel: (225) 578-1673

Email: perlis@math.lsu.edu

Office Hours: Daily 11:30AM—12:30PM or by appointment.

The University Registrar asks that **NO FOOD NOR DRINK** be brought into Campbell auditorium.

Course Description: This course is to introduce you to some historically important concepts in mathematics. There will be very few formulas to learn, and almost no “plugging in” to produce numerical answers. The emphasis will be on learning to use these concepts effectively to guide everyday thinking. Clear thinking is intimately connected to clear oral and written expression, and issues of spoken and written expression will be addressed in this course as mathematical issues.

Some of you may already have heard of **service-learning**, which is a fancy way of saying “learning by doing, and thinking about what you have done”. It is a partnership: using ideas from the course to help others in the community, and reflecting on that experience to gain a deeper appreciation and understanding of the course material. This semester there is an opportunity for 100 of you to earn extra credit by tutoring math in grades 1-5 in one of three local elementary schools (Dufrocq, Melrose, and Twin Oaks). Students who choose to participate in this opportunity must commit to tutoring six times (once a week for six weeks) between October 2 and December 1. You will receive training and you will have fun, but once you join you are not allowed to drop out and disappoint a schoolchild. You can earn 100 extra points for full participation. The points are not a reward for your service, but are for your structured reflection on that service and how it relates to the goals of the course.

Goals: The course material should broaden your viewpoint of what mathematics is, and why it is useful. This should be useful as you formulate ideas to help your tutoring efforts. Your tutoring experience should be fun, help engage your sense of civic engagement and social responsibility, and be a real service to the community. In addition, this experience should broaden your understanding of you yourself learn mathematics.

In an effort to save you money, I have ordered **no text** for this course. I have written course notes, which you can obtain for free.

This course will be managed on-line through the popular computer system called BLACKBOARD. To access BLACKBOARD, first logon to PAWS. Then look under Instructional Support and click on BLACKBOARD, and then select MA 1100. Under Course Documents you will find this syllabus, a course calendar, lecture notes, and HW problems, which you take on-line and which are instantly graded on-line.

Grading: There will be three **homework assignments** each week. You cannot work ahead. After the appropriate lecture has been given, you have that day and the next to finish the homework for that lecture. So after the lecture on Monday you have Monday and Tuesday to complete that homework. On Wednesday you should begin the new homework right away; it must be completed by Thursday. On Friday there is no lecture but there will be a review homework that must be completed by Sunday. Even if you are away from LSU you can complete your assignment with a borrowed laptop and an internet connection available in most hotels and coffee houses.

There will be 40 homework assignments each worth 5 points.

There will be **daily quizzes** in class, starting September 7. These are worth 10 points each. There will be 25 quizzes, but only the top 20 quiz grades will be kept. There are NO MAKEUPS on missed quizzes for any reason. Even if you miss a quiz for a legitimate reason, it still counts as one of the five you can drop.

There will be four **tests**, each worth 100 points. The lowest test score will be dropped. This does NOT include the **Final Exam**, which is worth 200 points. To pass the course you MUST take the Final Exam. **All tests are cumulative.** That means that all tests cover material starting from day 1 and not just the material learned since the last test

There will be a Test 0, but the score will not count. It is a test of grade school math. Everyone MUST take Test 0, to get used to the testing lab and taking tests on-line.

The testing days are:

Test 0: September 11-12-13; Test 1: Sept. 18-19-20; Test 2: October 16-17-18; Test 3: November 6-7-8; Test 4: November 29-30 and December 1; Final Exam: December 11-12-13-14-15

Service-Learning Program: To participate in the service-learning tutoring program, you must pass the competency exam (Test 0), pass the required background check (a service provided to us by Volunteers in Public Schools), and commit to six one-hour tutoring sessions during the months of October and November, 2006. There is a training session, which every tutor must attend. There will be an opportunity to have an on-line discussion with other tutors from our class. At the end of October you will submit a written reflection (at least 400 words) on your experience, what you did, what you plan to do, and how your experience relates to your understanding of mathematics. Reflecting on your tutoring experience and how it relates to some aspect of your own learning math in Math 1100. I expect some thought to go into this, and I expect the essay to have correct

spelling, proper grammar, and to actually say something meaningful. This is not intended to be a bore and a chore; it is intended to help you reflect on your tutoring experience. I am not looking for meaningless gushing of the sort “This was a great meaningful experience and I am a better person for it.” At the end of November, you submit a second essay.

Service-Learning Points: You can earn up to 33 points for the October essay, another 33 points for the November essay, and 34 points for the classroom teacher’s evaluation of your tutoring. The teacher’s evaluation will be based on your regular attendance, punctuality, professional appearance and attitude, enthusiasm, encouraging manner, and skill level. The service-learning points are bonus points.

Grading Scale: There are a total of 900 points available, not counting bonus points (200 HW points, 200 quiz points, 300 test points (we drop one test grade), 200 Final Exam points). Grades are assigned as follows:

- A: 810---900
- B: 720---809
- C: 630---719
- D: 540---629
- F: 000---539

I look forward to an exciting semester with you.