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**MTH 112A Precalculus**  
MWF 8:10-9:05, Franz 010

**INSTRUCTOR INFORMATION**

Name: Stephanie Molnar Salomone, Ph.D. Office: BC 281  
(please call me Stephanie)  
Telephone: 503-943-7799 Office Hours: M 11:30-12:30, TR 9:30-11, W 11-12  
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**TEXT AND READINGS**

Precalculus, 6th Ed., by Larson and Hostetler. (Houghton Mifflin)

**TECHNOLOGY**

The course requires the use of a graphing calculator. The TI-83 or TI-84 series are highly recommended.

**COURSE/BULLETIN DESCRIPTION**

Topics covered include a review of exponential and logarithmic functions and their graphs, trigonometric and inverse trigonometric functions.

**COURSE PURPOSE AND GOALS** This is a one-semester course designed to provide a solid foundation for success in MTH 201 Calculus 1 or its equivalent.

**COURSE OUTLINE**

- Ch. 1 Functions and Their Graphs
- Ch. 2 Polynomial and Rational Functions
- Ch. 3 Exponential and Logarithmic Functions
- Ch. 4 Trigonometry
- Ch. 5 Analytic Trigonometry
- Ch. 6 Additional Topics in Trigonometry
- Ch. 7 Systems of Equations and Inequalities
- Ch. 10 Topics in Analytic Geometry

**COURSE PERFORMANCE OBJECTIVES** Upon completion of the course we expect students should be able to do the following:

- solve elementary problems involving polynomial, trigonometric, exponential, and logarithmic functions
- develop mathematical models using the above mentioned functions

This course also addresses two University Core Embedded Elements: analytical and logical reasoning and technology literacy.

Students in Analytical and Logical Reasoning enhanced courses will develop the ability to

- recognize and follow logical arguments and presentations
- construct valid arguments
- use specific disciplinary frameworks to solve problems.

Students in Technology Literacy enhanced courses will develop the ability to

- understand the use of technological tools in a disciplinary field

- identify and select the appropriate technological tools to facilitate learning, computing, and creating
- use technological tools effectively and responsibly.

## METHODS OF ASSESSMENT

Course performance objectives are assessed by traditional means: graded homework assignments, quizzes, examinations, and other graded work that may include written and oral presentations. The development of analytical and logical reasoning skills are inherent in the nature of mathematics and are assessed in conjunction with the course performance objectives. Computational technology use is required for successful completion of assignments and examinations.

Meeting the course objectives will be done through lectures and other activities introducing new material, question and answer sessions, homework assignments, quizzes, and exams.

**Attendance:** You are expected to attend each class session. You are responsible for noting any information or changes announced in class.

**Homework:** Homework will be assigned daily. I strongly suggest you do your homework regularly; it's best done following class, every day. The material will be fresh in your mind, and you will spend less time on each assignment. Do not expect that we will cover each assignment in class. Homework will be due at the *beginning* of class according to the following schedule:

Day Assigned	Day Due
<i>M</i>	<i>W</i>
<i>W</i>	<i>F</i>
<i>F</i>	<i>M</i>

**No late assignments will be accepted**, except those approved by the instructor due to an excused absence. Arithmetic and analytical work may be given partial credit when you have shown some aptitude. However, **no** credit will be given on problems for which an answer is given with insufficient work displaying the steps and reasoning needed for a solution. Where appropriate, answers must be written using complete sentences.

Homework assignments, as with anything which is turned in to the instructor, must be done neatly. Please write up the problems in numerical order. If you use more than one sheet of paper, the pages **must** be stapled at the upper left corner. Paper clips or "paper stapling" are not sufficient. Do not turn in pages which have been torn from a notebook without first removing the "fringe" on the side of the page. You may, if you wish, work in groups on homework assignments. Please indicate the names of the students with whom you worked on the back of the last page of your assignment.

Your two lowest homework scores will be dropped when calculating your final grade.

**Quizzes/Class Activities:** Short quizzes will be given regularly and will be based on the homework due that day. There will be no make-up opportunities for quizzes or other in-class activities, unless excused by the instructor. Your lowest quiz score will be dropped when calculating your final grade.

**Weekly Journals:** Weekly email journals will be due every **Friday** (except during fall break) by 6 pm. During Thanksgiving week, the journal will be due on Wednesday by 6 pm. Journals are mandatory and count the same amount as one homework assignment. Your email can be short. My goal is primarily to keep the dialog open between you and me. Generally, you should comment on your attitudes concerning the course. Air your complaints. Raise questions. Tell me when you gain insights or make a breakthrough. If I am doing something well, I'd like to hear about it. If I am doing something poorly, I *need* to hear about it. In particular, in your journal I would like you to nominate the "muddiest" point of the week, and if you have any suggestions for how I can clear up the matter, please let me know. In some rare cases I will assign a specific question for you to answer.

I will send a generic response to the entire class and address private issues privately.

**Calculator use:** Students will be allowed to use graphing calculators (including calculators with computer algebra systems like DERIVE) on at least 50% of major exams, on average. Further, they will be able to use graphing calculators for at least 50% of the final exam.

Calculators may not be shared during quizzes and exams. You should bring your calculator to each class.

**Tentative Course Schedule** Below is a *tentative* schedule for this course.

Week of	M	W	F
Aug. 29	1.1	1.2	1.3, 1.4
Sept. 5	1.4, 1.5	1.6	1.7, 1.8
Sept. 12	1.9, PS	2.1, 2.2	2.2, Q & A
Sept. 19	E	2.3	2.4, 2.5
Sept 26	2.6	2.7, PS	3.1
Oct. 3	3.2	3.3, 3.4	3.5, PS
Oct. 10	PS	Q & A	E
Oct. 17	FB	FB	FB
Oct. 24	4.1, 4.2	4.2, 4.3	4.4
Oct. 31	4.5	4.6	4.7
Nov. 7	4.8, PS	5.1	5.2
Nov. 14	Q & A	E	5.3
Nov. 21	5.4, 5.5	PS, 6.1	TG
Nov. 28	6.2	6.3	7.1
Dec. 5	7.2	Q & A	Q & A

There will be a final exam on Tuesday, December 13th, from 8:00 - 10:00. The final exam will be cumulative.

As I have given you the schedule above, know that I expect that you will have read the relevant section(s) *prior* to the day I go over it in class. You will find this to be extremely helpful.

In the schedule above, you will notice some abbreviations. Question and answer sessions are indicated by Q & A. During these sessions you will have the opportunity to ask any questions you have relating to the course. We can go over old exams or homework problems, go over topics, and will occasionally work on group projects during this time. These sessions are *not* optional. Problem Solving sessions are indicated by PS. Hourly exams are indicated by the letter E, Fall break is indicated by FB, and Thanksgiving break is indicated by TG.

**Academic Dishonesty:** Academic dishonesty will not be tolerated. Although students may study in groups and may discuss assignments with each other, all work turned in must be done by each student, individually.

**Exams:** There will be three in-class exams and a final exam. **No early examinations will be given, except as noted below.**

**Policy on Make-up Exams:** I do not give make-up exams. There are two, and only two, exceptions. These are an absence due to extreme hardship or a University sponsored event. In the latter case, you must inform me at least one week in advance, and within the first week of the semester if you must miss the final exam. You may be asked to take the exam early. In case of extreme hardship (e.g. illness or death of a family member), please notify me in advance if at all possible. I reserve the right to deny make-up work and penalize absences that are not verified (health practitioner's note, police report, etc.)

**Course grade based on:**

Homework/Quizzes/Class Activities/Journals	15%
Exam 1 (Sept. 19)	15%
Exam 2 (Oct. 14)	15%
Exam 3 (Nov. 16)	15%
Final Exam	40%

**Grading Breakdown:** % of total possible

A	90	–	100%
B	80	–	89%
C	65	–	79%
D	55	–	64%
F	0	–	54%

**Getting Help:** Do *not* wait until the last minute to get help. Mathematics is a cumulative subject, and in particular, in this course material builds on prior knowledge. I have office hours in place during which you can stop by to get help on any problems. If you cannot make my office hours, make an appointment to see me for help. If you email me with a question (which is fine), please be specific about the problem – this text is heavy, and I may not have it at home with me, so emailing me that you need help with problem 42 won't get you very far. You also have the Learning Resource Center at your disposal. It is located in Franz 119, and will be staffed with math tutors who can help you. The department has also subscribed to hotmath.com, which you can use for homework help. Please do not abuse this resource.

**Withdrawal Procedures:** It is the student's responsibility to drop the course if he or she is no longer planning on attending the course or filling the other course requirements. In order to drop, the student must use and Add/Drop form available at the Registration Office. If a student does not properly withdraw from a course, he or she may receive an **F** for the course. A properly withdrawn student will receive a **W**.

**Incompletes:** An incomplete (**I**) may be given when the quality of a student's work is satisfactory (C or better), but for some essential reason the course has not been completed by the student. An (I) is reserved for emergency situations only. To request an incomplete, the student needs a typed, signed and dated letter stating the reason(s) why an incomplete is appropriate. The letter should also contain the conditions for the completion of work. Acceptance of the request shall be at the instructor's discretion.

### **Accommodation for Disability**

If you have a disability and require an accommodation to fully participate in this class, contact the Office for Students with Disabilities (OSWD), located in the University Health Center (503-943-7134), as soon as possible.

### **University of Portland's Code of Academic Integrity**

Academic integrity is openness and honesty in all scholarly endeavors. The University of Portland is a scholarly community dedicated to the discovery, investigation, and dissemination of truth, and to the development of the whole person. Membership in this community is a privilege, requiring each person to practice academic integrity at its highest level, while expecting and promoting the same in others. Breaches of academic integrity will not be tolerated and will be addressed by the community with all due gravity (*taken from the University of Portland's Code of Academic Integrity*) *The complete Code may be found in the 2005-06 University of Portland Student Handbook, as well as the Guidelines for Implementation. It is the student's responsibility to inform him or herself of the Code and Guidelines.*