

MAT 122, Stony Brook University, Fall 2014

Times and places:

Lectures: TuTh 10:00-11:20 Engineering 145, Prof. C. Bishop

Recitation 1: Tu 4:00-4:53 SocBehav Sci S228, Xingjia Tang

Recitation 2: M 10:00-10:53 Library N4006, Tsung-Yin Lin

Recitation 3: W 10:00-10:53 Physics P116, Christopher Ianzano

Recitation 4: Tu 8:30-9:23 Chemistry 128, Xingjia Tang

Text: *Applied Calculus*, Hughes-Hallet et. al., 4th edition, Wiley.

Class Webpage: <http://www.math.sunysb.edu/~bishop/classes/math122.F14>

Tentative Schedule: The table lists the sections we will cover in each lecture. Revisions may be made during the semester.

WEEK	STARTING	TUESDAY	THURSDAY
1	Aug 25	FIRST CLASS	1.1, 1.2
2	Sept 1	NO CLASS	1.3, 1.5
3	Sept 8	1.6, 1.7	1.8, 1.9
4	Sept 15	review	CHAP 1 Exam (1.1-1.7)
5	Sept 22	2.1, 2.2	2.3, 2.4
6	Sept 29	3.1	3.2
7	Oct 6	review	CHAP 2 Exam (1.8-2.4)
8	Oct 13	3.3	3.4
9	Oct 20	4.1, 4.2	4.3
10	Oct 27	review	CHAP 3 Exam (3.1-3.4)
12	Nov 3	5.1, 5.2	5.3, 5.5
13	Nov 10	review	CHAP 4 exam (4.1-4.3)
14	Nov 17	review	CHAP 5 exam (5.1-5.3,5.5)
15	Nov 24	7.1, 7.2 (5.1-5.5)	NO CLASS
16	Dec 1	7.4, 7.5	LAST CLASS, review

Important Dates:

August 26: first day of class

Aug 31: last day to drop or withdraw without tuition penalty

Sept 1, 2 : Labor Day, no class

Sept 9: last day to drop without a W

Oct 3: last day to drop-down or move-up MAT classes

Oct 24: last day: for section changes, to P/NC, to withdraw from a course with a W

Nov 26-30: Thanksgiving break, no class

Dec 6: last class

Dec 10: MAT 122 Final Exam, 11:15am-1:45pm

Grades: There will be five chapter exams. Chapter exams will be taken in lecture, but returned and discussed in recitation. We will drop the lowest chapter exam grade when computing the class grade. This is intended to cover absences for any reason and we will not give make-up exams except in extraordinary circumstances. Chapter exams will count for 50% of the grade. Homework and final exam will each count for 25%. The final will cover the whole course, including Chapter 7 (there is not a separate Chapter 7 exam).

Homework: There will be problems assigned from each section. Homework will be handed in at Thursday lectures for the sections covered in lecture on the previous Tuesday and Thursday. This homework will be graded by the TAs and returned and discussed in recitation the following week. Students receive full credit for each correct, legible, on-time solution. Some exam problems will be based on exercises and review problems from the text, so you may want to look at problems besides just those that have been assigned.

Section	Topic	Problems	Due
1.1	Functions	6,12,16	Sept 4
1.2	Linear Functions	8,10,12,20,22	Sept 4
1.3	Average rate of change	10,12,16,22,38	Sept 11
1.5	Exponentials	4,8,16,22,30	Sept 11
1.6	Logarithms	6,14,28,32,38	Sept 11
1.7	Exponential growth/decay	2,4,12,22,38	Sept 11
1.8	New functions from old	2,16,20,30,38	Sept 25
1.9	Power functions	6,10,16,22,30	Sept 25
2.1	Instantaneous rate of change	2,4,6,8,18	Sept 25
2.2	Derivatives	2,4,14,16,26	Sept 25
2.3	Interpretations	6,8,12,14,26,	Oct 2
2.4	Second derivatives	2,6,10,12,16	Oct 2
3.1	Polynomials	14,16,28,46,50	Oct 2
3.2	Exponentials and logs	8,16,26,32,44	Oct 16
3.3	Chain rule	4,10,24,44,48	Oct 16
3.4	Product and quotient rules	6,16,24,30,44	Oct 23
4.1	Local mins and maxs	2,16,18,22,34	Oct 23
4.2	Inflection points	2,6,12,18,24	Oct 23
4.3	Global mins and maxs	4,14,24,32,44	Nov 6
5.1	Accumulated change	4,6,12,14,16	Nov 6
5.2	Definite integral	2,4,8,16,18	Nov 6
5.3	Area	4,10,12,18,32	Nov 13
5.5	Fundamental theorem	2,10,12	Nov 13
7.1	Antiderivatives	4,12,40,50,64	Dec 4
7.2	Substitution	2,10,18,24,32	Dec 4
7.3	Using the Fundamental theorem	6,10,16,30,42	Dec 4
7.4	Integration by parts	4,8,12,20,24	Dec 4

Contact information and office hours:

Prof. Bishop: Math 4-112, Tu 9-10,11:30-12:30,Th 11:30-12:30, bishop@math.sunysb.edu

Xing Tang: MLC, Mon 1-3, Wed 11:30-12:30, xing.tang@stonybrook.edu

Tsung-Yin Lin: Math 2-114 Tu 1pm-2pm, MLC Tu 2pm-4pm, tslin@math.sunysb.edu

Christopher Ianzano: MLC Mon 1-2, MLC Wed 12-2, christopher.ianzano@stonybrook.edu

DSS notice: If you have a physical, psychological, medical, or learning disability that may impact your course work, please contact Disability Support Services at (631) 632-6748 or <http://studentaffairs.stonybrook.edu/dss/>. They will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential. Students who require assistance during emergency evacuation are encouraged to discuss their needs with their professors and Disability Support Services. For procedures and information go to the following website: <http://www.sunysb.edu/>

Academic Integrity: Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty are required to report any suspected instances of academic dishonesty to the Academic Judiciary. Faculty in the Health Sciences Center (School of Health Technology and Management, Nursing, Social Welfare, Dental Medicine) and School of Medicine are required to follow their school-specific procedures. For more comprehensive information on academic integrity, including categories of academic dishonesty, please refer to the academic judiciary website at <http://www.stonybrook.edu/uaa/academicjudiciary/>

Critical Incident Management Statement: Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of Judicial Affairs any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn. Faculty in the HSC Schools and the School of Medicine are required to follow their school-specific procedures.

Master Quantitative Problem Solving / DEC C: To satisfy the QPS learning objective, students must pass a QPS certified course with a letter grade of C or higher.

Learning Outcomes for Master Quantitative Problem Solving: A certified course must meet at least four of the following outcomes.

1. Interpret and draw inferences from mathematical models such as formulas, graphs, tables, or schematics.
2. Represent mathematical information symbolically, visually, numerically, and verbally.
3. Employ quantitative methods such as algebra, geometry, calculus, or statistics to solve problems.
4. Estimate and check mathematical results for reasonableness.
5. Recognize the limits of mathematical and statistical methods.