Math 123 Finite Mathematics
Departmental Syllabus Spring 2013
Monday – Wednesday – Friday Schedule

Instructor Contact Information: This information is section specific and will be given here in the copy given to each student on the first day of classes.

Course Description: For students not planning to major in the physical sciences, engineering, mathematics, or computer science. Linear systems and matrices, game theory, optimization, simple interest, compound interest, and annuities. Prereq: satisfactory placement test score, or pass M119 or M130. Prerequisite requirements are strictly enforced. Students not meeting these requirements will be dropped from the class. Students who receive a grade of C or better in Math 123 may not subsequently receive credit for M119. *(QR)* 3 credit hours.

Text: *Finite Mathematics,* by Waner and Costenoble, Custom 5th Edition, Brooks Cole Publishers.

WebAssign: WebAssign is an online homework system that is required for the course. Students should access WebAssign through their Blackboard course site for Math 123. The semester begins with a 14 day free trial period. An Enhanced WebAssign Access Code can be purchased either in the bookstore or online. Students who used WebAssign for Math 123 during the fall 2012 semester at UTK do not need to purchase a new access code. For purchasing options and instructions on how to access WebAssign via Blackboard, see the instructional pages just after the Brief Contents page in the custom text or as provided by their instructor.

Calculator: A graphing calculator is required for this course. The TI-83+ and TI-84+ models of graphing calculator are needed for the PIVOTA program which is required and can be downloaded to your calculator by the Math Tutorial Center staff. Use of cell phone calculators and calculators with advanced alpha-numeric capabilities such as the TI-89 or NSpire CAS are prohibited. Devices with internet capability are prohibited.

Grades: Grades will be determined using the grading scale below. Your letter grade is a measure of your mastery of course material and your fulfillment of course objectives. You should keep all of your graded work until final grades are posted. The content of the WebAssign Homework, Quizzes, and Other categories may vary with the individual instructor, but WebAssign Homework will be worth a minimum of 10%, and will be specified on their individual syllabus.

Grading Scale:

4 Tests for total of	60%	
WebAssign Homework,		
Quizzes, and Other	20%	
Cumulative Final Exam	20%	
Total Possible	100%	

$90\% \le A \le 100\%$ $70\% \le C < 73\%$

$87\% \le A- < 90\%$ $67\% \le C- < 70\%$

$83\% \le B+ < 87\%$ $63\% \le D+ < 67\%$

$80\% \le B < 83\%$ $60\% \le D < 63\%$

$77\% \le B- < 80\%$ $57\% \le D- < 60\%$

$73\% \le C+ < 77\%$ $F < 57\%$

Final Exam: The comprehensive final exam date and time will be stated on the individual instructor's syllabus.

You need to plan ahead for the date and time of your final exam especially regarding travel arrangements. There is not a common final for this course. Every instructor writes the final for their class.

All students are required to take the final exam. Students who miss the final
without securing permission ahead of time will fail the course.

Attendance & Make-up Policy: This will be clearly stated on the individual instructor's syllabus.

Disability Services: If you need course adaptations or accommodations because of a documented disability or if you have emergency information to share, please contact the Office of Disability Services at 2227 Dunford Hall at 974-6087. Do not wait until your grade is in jeopardy to contact them for accommodations.

Math Tutorial Center: The Math Tutorial Center is in Ayres Hall G012A1. It provides **free tutoring**. Hours of operation are posted at http://www.math.utk.edu/MTC/. Please make use of this free service.

Important Dates:	
Add/drop without W deadline	January 18, 2013
Test 1	February 4, 2013
Test 2	March 1, 2013
Drop with W deadline	April 2, 2013
Test 3	April 3, 2013
Test 4	April 22, 2013
Final Exam	Dependent on class meeting time per UT Final Exam Schedule, stated clearly on individual syllabus

Classroom Etiquette: Please be considerate of the instructor and those around you. Come to class on time and stay the entire period. Turn off cell phones and other electronic devices during class. Do not talk to classmates at inappropriate times. Refrain from reading newspapers or working on other coursework during class. For information on Classroom Behavior Expectations and consequences of non-compliance please see the following link: http://www.math.utk.edu/Courses/Expectations.pdf

Academic Standards of Conduct:
All students are expected to abide by the University **Honor Statement**. In mathematics classes, violations of the honor statement include copying another person's work on any graded assignment or test, collaborating on a graded assignment without the instructor's approval, using unauthorized "cheat sheets" or technical devices such as calculators, cell phones or computers for graded tests or assignments, or other infractions listed in "*Hilltopics*". These violations are serious offenses, subject to disciplinary action that may include failure in a course and/or dismissal from the University. The instructor has full authority to suspend a student from his/her class, to assign an "F" in an exercise or examination, or to assign an "F" in the course. See "*Hilltopics*" for more complete information. A report of all offenses will be sent to appropriate deans and the Office Student Judicial Affairs for possible further action.

>   **The Honor Statement**
>   *An essential feature of the University of Tennessee is a commitment to maintaining an*
>   *atmosphere of intellectual integrity and academic honesty. As a student of the University,*
>   *I pledge that I will neither knowingly give nor receive any inappropriate assistance in*
>   *academic work, thus affirming my own personal commitment to honor and integrity.*

The following schedule is tentative. <u>Emphasis should be on Applications and Communication and Reasoning Exercises</u>. The built-in financial applications in the graphing calculators **will** be used so focus is on understanding of more complex financial concepts and their relevance to real life.

Dates	Section	Topic and Suggested Practice Problems
1/9, 11	2.1	Introduction, Syllabus, and Systems of Two Equations in Two Unknowns odd: 1 – 13, **25 – 51** all: **53 – 66**
1/14, 16	2.2	Using Matrices to Solve Systems of Equations odd: 1 – 41 all: **51 – 64**
1/18, 23, & 25	2.3	Applications of Systems of Linear Equations odd: 1 – 13, 17, 19 odd: **25 – 45** all: **47 – 56**
1/28	3.1	Matrix Addition and Scalar Multiplication odd: 1 – 27, **37 – 51** all: **53 – 63**
1/30	3.2	Matrix Multiplication odd: 1 – 25, 29 – 51, **53 – 57, 63 – 73** all: **77 – 83**
2/1	Review	
2/4	**Test 1**	Sections: 2.1, 2.2, 2.3, 3.1, and 3.2
2/6, 8	3.3	Matrix Inversion odd: 1 – 33, 43 – 49, **51 – 57**, (Optional <u>fun</u>: 63 – 66) all: **67 – 78**
2/11, 13, 15, & 18	3.4	Game Theory all odd
2/20, 22	4.1	Graphing Linear Inequalities odd: 1 – 25, **33 – 43** all: **45 – 58**
2/22, 25	4.2	Solving Linear Programming Problems Graphically all odd
2/27	Review	
3/1	**Test 2**	Sections: 3.3, 3.4, 4.1, and 4.2
3/4, 6	4.3	The Simplex Method: Solving Standard Maximization Problems **Use PIVOTA program for all Simplex.** all odd
3/8, 11, & 13	4.4	The Simplex Method: Solving General Linear Programming Problems All odd focus on applications
3/15, 18, & 20	4.5	The Simplex Method and Game Theory pp: 321 – 325 all: 23 – 28, **39 – 44**
4/1	Review	
4/3	**Test 3**	Sections: 4.3, 4.4, and 4.5
4/5	5.1	Simple Interest all odd, focus on **13 – 44**
4/8, 10	5.2	Compound Interest (<u>add continuous compounding</u>) all odd plus continuous focus on **21 – 78**
4/12, 15, & 17	5.3	Annuities, Loans, and Bonds **Use built-in financial applications in graphing calculators to focus on Applications and life-skill problems. Be creative, use multi-phase, real-world examples and problems.**
4/19	Review	
4/22	**Test 4**	Sections 5.1, 5.2, and 5.3
4/24, 26	Review	Review for Final Exam
	Final	**Date and time by class meeting time per UT Final Exam Schedule**