Community College of Philadelphia **Fall 2011**
Math 151-Linear Mathematics **Dr. Yun Yoo**

SYLLABUS

Instructor: **Dr. Yun Yoo**

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Course Number: Math 151, Linear Mathematics **CRN:** 41694 **Section:** 004
Class Time: T / Th between 12:30 pm and 1:50 pm
Classroom: BR-11

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E-mail: yyoo@ccp.edu (The best way contact me)
Office: B1-9D
Phone: 215-751-8317
Office Hours: T/Th : 6:35 pm-8:05 pm , Mon: 4 pm-6 pm, Wed: 3:50-4:50 pm, or by appointment

Course Webpage: http://faculty.ccp.edu/faculty/yyoo/

Text: **Community College of Philadelphia, Linear Math, Math 151 taken from Finite Mathematics, 9th by Lial, Greenwell, and Ritchey**

Course Description: Cartesian coordinates, linear equations in two variables, graphing lines, systems of linear equations and inequalities, Gauss-Jordan elimination, matrices, matrix addition and multiplication, matrix inversion, geometric solution of linear programming problems, the Simplex method, duality.

Calculator: **You are NOT allowed to use it when you take tests.**

Prerequisites: MATH 118 with a grade of "C" or better.

Homework: It is especially important that you keep up with the homework. We will discuss some of these problems in class, and I will be glad to help you outside class as well, but it is your responsibility to do the work. **Homework will be assigned at the end of every class, but it will not be collected.** DO NOT ALLOW YOURSELP TO FALL BEHIND, AND SEEK HELP IF YOU ARE HAVING DIFFICULTY.

Attendance: Attendance will be taken at each class by means of an "Attendance Quiz." These are for practice and fun. I will give you solutions of each AQ at the end of class so that you shouldn't ask me solutions before taking exam. **The instructor as in accordance with College policy may drop any student who misses the equivalent of two weeks of class without an acceptable excuse.** Regular attendance is necessary in order to master the material. It is your responsibility to find out what you have missed due to absence. It is important that you try to do the work you have missed.

Test: **There will be 3 tests and a comprehensive final exam.**

Makeup Policy: Make-ups are the discretion of the instructor and require prior approval and a written, acceptable medical excuse.
Everyone must take the Comprehensive Final Exam. If not, you will get "F."

Help:

There are several resources for students with questions. First and foremost, you should participate and ask questions in class. If you still have unanswered

questions, please feel free to stop by my office during the office hours. More importantly, **CCP provides free tutoring and workshops in Room B2-36 (South Learning Lab) for daytime and Room B1-28 (Central Learning Lab) for evening time and weekend.** Many students find it helpful to form study groups for doing homework and studying for tests. It is a great way to learn materials.

Grading: The course average will be computed using the average of the three tests (75%: 300 pts), and the final (25%: 100 pts). Your written final grade will be determined as follow:

90-100 %	(360-400 pts)	A
80-89 %	(320-359 pts)	B
70-79 %	(280-319 pts)	C
60-69 %	(240-279 pts)	D
0-59 %	(0-239 pts)	F

Fall Semester 2011:
Final day to drop course for fall 2011 without penalty of 'F' grade: **Monday, Nov 21.**
Last day of class: Thursday, Dec 15 for T/Th classes
Final Exam Week: Friday, Dec 16- Wednesday, Dec 21, 2011

Final Remarks:

- **Avoid any behavior that can be disturbing to the class.**
- **Turn off cell phones and iPod.**
- **Be respectful to me and to your classmates.**
- **No food or gum during class.**
- **Be classroom on time if you really learn something from me.**
- **If you need to leave the classroom early, do it as quietly as possible.**

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Lecture Schedules

Week #1 (Sept 6-8)	1.1 Slopes and Equations of Lines 1.1 Slopes and Equations of Lines
Week #2 (Sept 13-15)	1.1 Slopes and Equations of Lines 1.2 Linear Functions and Applications
Week #3 (Sept 20-22)	1.2 Linear Functions and Applications 2.1 Solution of Linear System by the Echelon Method
Week #4 (Sept 27-29)	2.1 Solution of Linear System by the Echelon Method **Test 1**
Week #5 (Oct 4-6)	2.2 Solution of Linear System by the Gauss-Jordan Method 2.2 Solution of Linear System by the Gauss-Jordan Method
Week #6 (Oct 11-13)	**Professional Development day — no classes** 2.2 Solution of Linear System by the Gauss-Jordan Method
Week #7 (Oct 18-20)	2.3 Addition and Subtraction of Matrices 2.4 Multiplication of Matrices
Week #8 (Oct 25-27)	2.4 Multiplication of Matrices 2.5 Matrix Inverses
Week #9 (Nov 1-3)	2.5 Matrix Inverses **Test 2**
Week #10 (Nov 8-10)	3.1 Graphing Linear Inequalities 3.2 Solving Linear Programming Problems Graphically
Week #11 (Nov 15-17)	3.3 Applications of Linear Programming 4.1 Slack Variables and the Pivot
Week #12 (Nov 22-24)	4.2 Maximization Problems **Thanksgiving Holidays**
Week #13 (Nov 29-Dec1)	4.2 Maximization Problems 4.3 Minimization Problems
Week #14 (Dec 6-8)	**Test 3** 4.3 Minimization Problems; Duality
Week #15 (Dec 13-15)	4.4 Nonstandard problems
Week #16	**Comprehensive Final Exam (**Dec 16-21)