Student Guide
for
MATH 11
COLLEGE ALGEBRA

Institute of Mathematical Sciences and Physics
UP Los Baños

1st Semester 2007-08

WELCOME to MATH 11. College Algebra. 3 units (2-hour lecture, 1-hour recitation)

Course Description: Sets, real number system, radicals and rational exponents, linear equations and inequalities, systems of equations, functions.

Course Goals: The course intends to supplement your knowledge and skills of Algebra that you will need in other mathematics courses and in keeping up with a highly technological and quantitative society. At the end of the course, you are expected to be able to harness the power of Algebra in formulating and solving problems.

Course Materials: You can obtain copies of the lecture materials from the Photocopying Section of the Mathematics Division, Second Floor, Math. Building or visit http://www.geocities.com/geneimsp . You need to have a copy of the **PSI for College Algebra Workbook** for the recitation exercises. You can obtain this from the Learning Resource Center (LRC).

Course Objectives:
Upon completion of the course, you must be able to

1. Perform set operations;
2. Identify and use the properties of real numbers;
3. Simplify and perform operations on algebraic expressions;
4. Solve linear equations;
5. Solve quadratic equations using any method;
6. Solve systems of equations;
7. Determine solution sets of inequalities;
8. Translate verbal problems to mathematical symbols and find their solutions.
9. Differentiate a relation from a function
10. Find domain and range of relations and functions
11. Sketch the graphs of linear and quadratic functions

Course Outline, Study Schedule, and Activities:

Week	Lecture Topics/Activities	Recitation Exercises/Activities
1	Orientation Set notations/relations/operations	Perform set operations Determine set relations
2	The Set of Real Numbers and Some of	Classify numbers.

	its Subsets; One-Dimensional Coordinate System	Plot points/Name points Identify properties of R
3	Integer Exponents	Quiz 1 Apply laws of integer exponents
4	Operations on Algebraic Expressions	Find the sum, difference, product and quotient of AE
5	Special Products and Factoring	Perform special products Factor an AE completely Quiz 2
6	Operations on Rational Expressions	Find the sum, difference, product and quotient of RE Simplify complex fractions
7	Rational Exponents and Radicals	Find the sum, difference, product and quotient of radicals Quiz 3
8	Linear and Quadratic Equations	Review for ME
9	Midterm Examination	Solve linear equations Solve quadratic equations
10	Systems of Equations	Solve linear and quadratic systems Quiz 4
11	Linear and Quadratic Inequalities; Equations and Inequalities Involving Absolute Value	Solve linear and quadratic inequalities Solve absolute value equations and inequalities
12	Word Problems	Solve word problems Quiz 5
13	Rectangular Coordinate System Relations and Functions	Plot points/identify points in RCS Differentiate a relation from a function Determine domain and range of a function
14	Linear and Quadratic Functions	Find properties and sketch the graph of linear and quadratic functions
15	Operations on Functions	Perform operations on functions Quiz 6
16	Review for Pre-final Exam Pre-final examination	Review for final exam

Evaluation Scheme:

Sources for Pre-final Grade	**Weight**
Midterm Examination	30
Pre-final Examination	30

Recitation Quizzes/Exercises	30
Attendance (lecture & recitation)*	10

* Provided student does not violate 20% rule on attendance

Grading Scale:

Raw Score	Equivalent	Raw Score	Equivalent
96-100	1.0	75-79	2.25
92-95	1.25	70-74	2.5
88-91	1.5	65-69	2.75
84-87	1.75	60-64	3.0
80-83	2.0	0-59	**5.00**

Exemption Policy: If you get 70 or above as Pre-final grade then you are exempted from taking the Final Examination. Your Pre-final grade shall be your Final grade. However, if you take the final exam, your grade shall be computed as follows:

Final Grade = 70% Pre-final Grade + 30% Final Exam

If Final Grade is not passing but score in Final Exam is passing then Final Grade = 4.0, otherwise, Final Grade = 5.

House Rules:

1. The University rules on attendance shall generally apply. Deductions of 1 point and 0.5 point shall be made for each day of absence and tardiness, respectively.
2. No make-up shall be given for missed examinations. However, if you miss either the Midterm or Pre-final (but not both) the Final Exam shall replace the missed exam, provided you present a duly certified excuse slip not later than 3 days upon your return from absence. For missed Pre-final Exam, you should present your excuse slip not later than the day before the Final Exam day. Otherwise, you will get 0 for your missed exam. If you missed both exams, you will get 3.0 provided you pass the Final Exam.
3. During lectures, you will be asked to recite or solve problems on the board. Don't be afraid that your answer maybe wrong. It's part of the learning process. If, on the other hand, you have questions or points for clarifications, don't hesitate to ask your question or give your comment anytime. Just raise your hand and wait to be recognized.
4. If some questions still persist on your mind, feel free to come to my consultation hours or consult your recitation instructor.
5. Any form of cheating during an examination will be severely punished.

References:

Panopio, et al, PSI for College Algebra, Learning Resource Center, UP, 1999
Panopio,(ed.), EUREKA: Workbook for the Bridge Course in Mathematics, IMSP, 2005
Leithold, L., College Algebra and Trigonometry, Addison Wesley Longman, Inc., 2001
Other College Algebra Books

Your Lecturer: Prof. Genaro A. Cuaresma
Email address: geneimsp@yahoo.com
Consulation Hours: 8:00 – 9:00 AM MW, 8:00 AM – 5:00 PM Fri