ACADEMIC AFFAIRS

Course Number: **ALGB 081**   Department: **Mathematics**

Course Title: **Algebra 1 - First Module**   Semester: **Spring**   Year: **1999**

Objectives/Competencies

Course Objective	Competencies
First course in developmental algebra which covers the topics of sets, the arithmetic of real numbers, variables, exponents, integers, equation solving, simplifying rational expressions, solving rational equations. 1. Perform operations with whole numbers. 2. Use grouping symbols in evaluating numerical expressions. 3. Recognize and use signs of equality and inequality between numbers. 4. Recognize that division by zero is not defined. 5. Recognize and apply the distributive property of multiplication over addition. 6. Use variable expressions as mathematical models for word statements. 7. Classify equations as identities or as conditionals. 8. Solve simple equations by inspection. 9. Recognize and use the transformation properties of	

Course Objective	Competencies
substitution, addition, and multiplication. 10. Understand the use of whole numbers as exponents. 11. Identify the base and the exponent in an exponential expression. 12. Rewrite certain products in exponential form. 13. Use the following properties of exponents: 14. Recognize and use the concept of opposite and additive inverse. 15. Recognize and use absolute value.	a. $x^0 = 1$ b. $x^m x^n = x^{m+n}$ c. $\dfrac{x^m}{x^n} - x^{m-n}$ d. $\left(x^m\right)^n = x^{mn}$ e. $\left(xy\right)^m = x^m y^m$