COURSE SYLLABUS

TITLE OF COURSE: **College Algebra** NUMBER: **MAT 100 –** _____

TERM: YEAR: CLASS MEETING TIMES: _____ **ROOM** _____

PREREQUSITE(S): **MAT 070/073 – Basic Algebra** COREQUISITE(S): _____

CPT Algebra 76 or SAT 530 **Credits: 3**

INSTRUCTOR: _____

OFFICE HOURS: _____ LOCATION: _____

EMAIL ADDRESS: _____ PHONE: _____

A. COURSE DESCRIPTION: This course teaches the essentials of college algebra. The topics include polynomials, first-degree equations, word problems, graphing, systems of linear equations, factoring, exponents, quadratic equations, matrices, and radicals. Pre-requisite: Exit CPT in Basic Math and Algebra. A graphing utility such as a TI 83 or TI-89 calculator will be used.

B. COURSE OBJECTIVES (Expected Student Learning Outcomes):

Successful College Algebra students will be able to:

1. Apply mathematical concepts to real-life problems; Interpret and present data in a variety of ways; Apply mathematical concepts to problem solving.
2. Solve systems of linear equations including two or more variables, absolute value, matrices, and inequalities.
3. Distinguish between a relation and a function and perform basic operations (addition, subtraction, multiplication, division, and composition) with functions; Find the domain and range of functions; Represent functions verbally, graphically, numerically, and algebraically.
4. Solve polynomial, radicals, and exponential equations.
5. Analyze basic properties (intercepts, domain, and range) of graphs of functions.
6. Solve quadratic equations using the completing the square method and the quadratic formula.
7. Perform the arithmetic operation with complex numbers.

C. TEXTBOOK REQUIRED: MATH 100 – College Algebra, Custom Edition for Hudson County Community College. [Taken From: Algebra for College Students, 3rd Edition, Allen R. Angel]

D. EVALUATION METHODS:

Homework: Students are required to do all homework assignments on MyMathLab.

Exams: There will be three departmental exams and a comprehensive final exam.

Evaluation Criteria:		
	Test 1	20%
	Test 2	20%
	Test 3	20%
	Homework & Quizzes	10%
	Final Exam	30%
	Total	100%

FINAL AVERAGE	GRADE EARNED	FINAL AVERAGE	GRADE EARNED
92 – 100	**A**	**75 – 77**	**C+**
88 – 91	**A–**	**70 – 74**	**C**
85 – 87	**B+**	**60 – 69**	**D**
82 – 84	**B**	**0 – 59**	**F**
78 – 81	**B–**		

Course Requirements: All students are required to: (1) Attend class regularly; (2) complete assigned homework before they can take the final exam; (3) Participate in class through class discussions and solving problems on the board when necessary. (4) Students are required to take all examinations: Three exams and a comprehensive Final Exam and quizzes when scheduled. Normally, make-up exams are not given unless a student can prove why he or she did not take the exam when it was administered.

E. WEEKLY OUTLINE:

Topic	MymathLab Homework
1.2 Sets and other Basic Concepts 1.5 Exponents	**Chapters 1.2 and 1.5** 1.2.49, 1.2.51,1.2.53, 1.2.57, 1.2.69, 1.2.71, 1.2.73, 1.2.79, 1.2.83, 1.5.37, 1.5.41, 1.5.57, 1.5.60, 1.5.61, 1.5.67, 1.5.69, 1.5.95, 1.5.109, 1.5.117, 1.5.121
2.1 Solving Linear Equations 2.2 Problem Solving and Using Formulas 2.3 Applications of Algebra	**Chapters 2.1, 2.2, and 2.3** 2.1.46, 2.1.54, 2.1.61, 2.1.73, 2.1.77, 2.1.94, 2. 97, 2.2.15, 2.2.21, 2.2.23, 2.2.45, 2.2.49, 2.2.57, 2.2.63, 2.3.23, 2.3.25, 2.3.31, 2.3.45, 2.3.57, 2.3.72
2.5 Solving Linear Inequalities 2.6 Solving Equations and Inequalities Containing Absolute Value	**Chapters 2.5 and 2.6** 2.5.13, 2.5.15, 2.5.31, 2.5.41, 2.5.43, 2.5.45, 2.5.49, 2.5.59, 2.5.69, 2.6.15, 2.6.47, 2.6.53, 2.6.59, 2.6.63, 2.6.69, 2.6.74, 2.6.75, 2.6.81, 2.6.83, 2.6.89.
Exam 1	**(Chapter 1 – 2)**
3.1 Graphs 3.2 Functions 3.3 Linear Functions And Graphs	**Chapters 3.1, 3.2, and 3.3** 3.1.17, 3.1.21, 3.1.27, 3.1.31, 3.1.35, 3.1.39, 3.1.45, 3.1.93, 3.2.17, 3.2.19, 3.2.25, 3.2.41, 3.2.45, 3.2.47, 3.3.13, 3.3.15, 3.3.23, 3.3.41, 3.3.43, 3.3.59.
3.4 The slope –intercept form of a Linear Equation 3.5 The Point-Slope Form of a Linear Equation 3.6 The algebra of Functions	**Chapters 3.4, 3.5. and 3.6** 3.4.13, 3.4.19, 3.4.21, 3.4.29, 3.4.35, 3.4.43, 3.4.45, 3.5.5, 3.5.7, 3.5.11, 3.5.15, 3.5.17, 3.5.19, 3.5.25, 3.5.35, 3.5.39, 3.6.11, 3.6.15, 3.6.23, 3.6.31,
4.1 Solving Systems of Linear Equations in Two Variables 4.2 Solving Systems of Linear Equations in Three Variables 4.5 Solving Systems of Equations Using Determinant	**Chapter 4.1, 4.2, 4.3, and 4.5** 4.1.11, 4.1.15, 4.1.25, 4.1.39, 4.1.41, 4.1.53, 4.1.59, 4.1.61, 4.1.63, 4.1.89, 4.2.3, 4.2. 7, 4.2.15, 4.2.17, 4.2.21, 4.3.5, 4.5.7, 4.5.11, 4.5.61, 4.5.63
5.1 Addition and Subtraction of Polynomials 5.2 Multiplication of Polynomials 5.3 Division of Polynomials (Synthetic Division)	**Chapters 5.1, 5.2, 5.3, 5.4, and 5.5** 5.1.35, 5.1.41, 5.1.55, 5.1.77, 5.1.79, 5.1.91, 5.2.13, 5.2.21, 5.2.27, 5.2.31, 5.2.49, 5.2.69, 5.2.85, 5.2.91, 5.2.93, 5.3.25, 5.3.31, 5.3.45, 5.3.61, 5.3.71
5.4 Factoring By Grouping 5.5 Factoring Trinomials 5.6 Special Factoring Formulas	5.4.37, 5.4.45, 5.4.53, 5.5.13, 5.5.15, 5.5.29, 5.5.31, 5.5.37, 5.5.61 5.5.65, 5.5.69, 5.5.75, 5.5.89, 5.6.11, 5.6.21, 5.6.31, 5.6.51, 5.6.53, 5.6.75, 5.6.87
Exam 2	**(Chapter 3 – 5)**

6.1 The Domain of Rational Functions and Multiplications and Division of Rational Expressions 6.2 Addition and Subtraction of Rational Expressions 6.3 Complex Fractions 6.4 Solving Rational Equations	**Chapters 6.1, 6.2, 6.3, and 6.4** 6.1.11,6.1.21, 6.1.25, 6.1.37, 6.1.39, 6.1.46, 6.1.55, 6.1.59, 6.1.69, 6.2.5, 6.2.11, 6.2.13, 6.2.36, 6.2.45, 6.2.47, 6.3.12, 6.3.13, 6.3.16, 6.4.17, 6.4.25
7.2 Rational Exponents 7.3 Simplifying Radicals 7.4 Additing, Subtracting, and Multiplying Radicals	**Chapters 7.2, 7.3, and 7.4** 7.2.51, 7.2.91, 7.3.9, 7.3.33, 7.3.48, 7.3.50, 7.3.57, 7.3.61, 7.3.63,7.3.69, 7.3.81, 7.3.93, 7.3.97, 7.4.9, 7.4.19, 7.4.53, 7.4.59, 7.4.61, 7.4.65, 7.4.107
7.5 Dividing Radicals 7.6 Solving Radical Equations 7.7 Complex Numbers	**Chapters 7.5, 7.6, and 7.7** 7.5.11, 7.5.13, 7.5.53, 7.5.68, 7.5.71, 7.5.93, 7.6.15, 7.6.16, 7.6.33, 7.7.23, 7.7.27, 7.7.35,7.7.35 7.7.51, 7.7.65, 7.7.77, 7.7.83, 7.7.93, 7.7.95, 7.7.101
8.1 Solving Quadratic Eqns. By Completing The Square 8.2 Quadratic Eqns: Applications and Problem Solving 8.5 Graphing quadratic Functions	**Chapters 8.1, 8.2 and 8.5** 8.1.13, 8.1.21, 8.1.33, 8.1.39, 8.1.41, 8.1.43, 8.1.49, 8.1.57, 8.1.87, 8.2.29, 8.2.30, 8.2.31, 8.2.39, 8.2.41, 8.2.45, 8.2.47, 8.3.15,8.5.17, 8.5.19, 8.5.63
Exam 3	**(Chapter 6 – 8)**
Review	
Comprehensive Final	**ALL CHAPTERS**

F. ATTENDANCE POLICY: Students are expected to attend all classes. Students
G. are responsible for material covered in classes that they have missed. Two or more absences may result in Failure Grade of the course.

H. USE OF ELECTRONIC COMMUNICATION DEVICES: Cellular phones should be turned off or put in vibration mode.

I. DISABILITY SUPPORT STATEMENT:

Students with disabilities who believe that they might need accommodations in this class are encouraged to contact, Disability Support Services at (201) 360-4163, as soon as possible to better ensure that such accommodations are implemented in a timely fashion. All disabilities must be documented by a qualified professional such as a Physician, Licensed Learning Disabilities Teacher Consultant (LDTC), Psychiatrist, Psychologist, Psychiatric Nurse, Licensed Social Worker or Licensed Professional Counselor, who is qualified to assess the disability that the student claims to have and make recommendations on accommodations for the student. All information provided to the Disability Support Services Program will be confidential between the program, professors involved with the student and individual student.

J. ACADEMIC INTEGRITY STATEMENT:

Academic Integrity Standards

Academic integrity is central to the pursuit of education. For students at HCCC, this means maintaining the highest ethical standards in completing their academic work. In doing so, students earn college credits by their honest efforts. When they are awarded a certificate of degree, they have attained a goal representing genuine achievement and can reflect with pride on their accomplishment. This is what gives college education its essential value.

Violations of the principle of academic integrity include:

- Cheating on exams
- Reporting false research data or experimental results
- Allowing other students to copy one's work to submit to instructors
- Communicating the contents of an exam to other students who will be taking the same test
- Submitting the same project in more than one course, without discussing this first with the instructor
- Submitting plagiarized work. Plagiarism is the use of another writer's words or ideas without properly crediting that person. This unacknowledged use may be from published books or articles, the Internet, or another student's work.

When students act dishonestly in meeting their course requirements, they lower the value of education for all students. Students who violate the college's policy on academic integrity are subject to failing grades on exams or projects, or for the entire course. In some cases, serious or repeated instances of academic integrity violations may warrant further disciplinary action.

K. MyMathLab

MyMathLab is an interactive website where you will be completing homework assignments to help you master the course objectives. By using MyMathLab, you can get help when YOU need it. MyMathLab includes multimedia learning aids, videos, animations, and live tutorial help.

Before You Begin:
To register for MyMathLab, you need:

- ☑ **A MyMathLab student access code** (packaged with your new student workbook or available for purchase with a major credit card at www.mymathlab.com)
- ☑ **Your instructor's Course ID**:
- ☑ **A valid email address**

Student Registration:

- Enter www.mymathlab.com in your web browser.
- Under Register, click **Student**.

- Enter your **Course ID** exactly as provided by your instructor and click **Continue.** *Your course information appears on the next page. If it does not look correct, contact your instructor to verify the Course ID.*
- Sign in or follow the instructions to create an account. Use an email address that you check and, if possible, use that same email address for your username. Read and accept the License Agreement and Privacy Policy**.**
- Click **Access Code**. Enter your **Access Code** in the boxes and click **Next**. *If you do not have an access code and want to pay by credit card or PayPal, select the access level you want and follow the instructions. You can also get temporary access without payment for 14 days.*

Once your registration is complete, a **Confirmation** page appears. You will also receive this information by email. Make sure you print the Confirmation page as your receipt. Remember to **write down your username and password**. You are now ready to access your resources!

Signing In:

- Go to www.mymathlab.com and click **Sign in**.
- Enter your **username** and **password** and click **Sign In**.
- On the left, click the name of your course.

The first time you enter your course from your own computer and anytime you use a new computer, click the **Installation Wizard** or **Browser Check** on the Announcements page. **Need help?** Contact Product Support at **http://www.mymathlab.com/student-support** for live CHAT, email, or phone support.

L. CLASSROOM RECORDING POLICY

Student Classroom Recording Policy

- Hudson County Community College prohibits the audio-visual recording, transmission, and distribution of classroom sessions. Classes may only be recorded with the advance written permission of the instructor. The Hudson County Community College classroom recording policy must be listed in all syllabi.
- All classroom recordings can only be used for academic purposes by students enrolled in that class. Recordings may not be shared, reproduced, or uploaded to public websites or other mediums, and these recordings may contain copyrighted material and are prohibited from any form of commercial use.
- All students and guests must be informed that the class may be recorded. Due to issues related to privacy and the possible inhibition of student

participation, instructors should be mindful of the effects of permitting classroom recording.
- Instructors should retain electronic or paper copies of their written consent to grant classroom recordings.
- Students must destroy their recordings at the end of the semester.
- Students who are granted permission to record their class by the office of Disability Support Services should inform the instructor beforehand and are subject to the policies outlined in this document.
- Violation of this policy is subject to disciplinary action listed under the code of conduct as included in the Student Handbook.

Instructor Classroom Recording Policy

- Instructors may record their classes as long as students are informed in writing in advance that recording will take place. Instructors may distribute their own lectures, but this must be limited to the lecture portion of the class. Recordings of student presentations or activities may be used in the class if the students are notified in advance of the recording. Recordings of student presentations or activities may not be distributed in any way without the advance written consent of the students.