FALL_2015_ MAT 105 -53

College Algebra Syllabus

Office: 6.63.30
Office Phone:
Office Hours: W 1:30-3:30pm
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Course Objectives:

The course endeavors to develop critical thinking and geometric intuition from an algebraic perspective. Specifically, the principal goals are:

- To place previously learned concepts on a more rigorous foundation;
- To develop geometric intuition through the use of coordinate transformations applied to a small collection of elementary functions;
- To foster critical thinking by studying the solutions of polynomial equations in one variable;
- To promote and appreciate mathematics as a discipline and understanding its applications beyond the borders of the classroom;
- To engage in articulate expression through effective writing and speaking, to think critically and creatively, to locate, evaluate, and use information effectively and to integrate different areas of knowledge and view ideas from multiple perspectives; and
- To introduce students to the varied methods used to create knowledge, and they acquaint students with major questions and principles of the field.

At the end of the semester, you should be able to:

- Solve simple polynomial equations;
- Graph elementary functions using their natural parameters;
- Formulate and solve simple models derived from contemporary applications; and
- Quantitatively express and describe real world phenomena.

Textbook: Bundle: Algebra and Trigonometry, 4th + Enhanced Web Assign Printed Access Card for Pre-Calculus & College Algebra, Single-Term Courses
AUTHORS: Stewart/Redlin/Watson
ISBN-10: 1-305-71978-6
ISBN-13: 978-1-305-71978-1

Below is the link for the MAT 105 Microsite:

http://www.cengagebrain.com/course/1-1RE3VR3

Title and section of the class: MAT 105 Section 54
Start/End dates of your course: 8/26/15 through 12/23/15

Class Key: **jjay.cuny 4121 1669**

Text in use: Algebra and Trigonometry - 4e

http://www.webassign.net/

http://www.webassign.net/manual/WA_Student_Quick_Start.pdf

Online homework assignment for each lecture will be posted on Web Assign. In the case of extenuating circumstances, you may request an extension of the due date for any homework assignment. Reasonable requests

will be granted. However, *only one extension per assignment will be allowed*. Therefore, you need to budget your time carefully to avoid a tardy submission once an extension has been granted.

The use of calculators will be highly regulated in class and not permitted for use on exams.

Grading Policy: There will be three (3) **departmental tests** on the dates set forth in the reading outline (Dates subject to change), as well as a **two-hour departmental final examination** at the end of the semester. **The departmental exams will be cumulative in nature.** In addition, on-line (electronic) homework is assigned frequently. Your grade is based upon the best three test grades the final examination, the on-line homework.

Grading Rubric: Your grade will be determined by your performance on weekly online homework assignments, three tests, and one final exam. The rubric appears below.

Three Exams (15%) each	**45%**
Final Examination	**30%**
Electronic Homework	**25%**
Total:	**100%**

B-	**80.0- 82.9**
C+	**77.1- 79.9**
C	**73.0 - 77.0**
C-	**70.0 – 72.9**
D+	**67.1 – 69.9**
D	**63.0 – 67.0**
D-	**60.0 - 62.9**

Attendance, Lateness, and Decorum

Attendance is required. Students having more than four (4) unexcused absences may receive the grade of "F" for the course. Medical reasons and extenuating family circumstances are the only acceptable excuses for absence. You are also required to be punctual. Attendance can be taken 10 minutes after the start of the period.

MAT 105 is a three (3) credit course which means that you are expected to devote nine (9) hours per week to it; three hours are spent in class and the balance of six (6) hours is to be applied to homework and study outside of class time. (Please note that these are minimum recommendations to fulfill New York State higher education requirements.)

The course material is best learned by engaging word problems. Therefore, it is imperative that you plan your study time to allow for completion of the day's homework assignment before the subsequent class. If you are unavoidably absent, you are still expected to do the assigned reading as per the reading outline below.

Academic Support (Tutoring)

How do you get the most out of a tutoring session?

i *Start right away*. Students who begin tutoring from the beginning of the semester typically do better than those who wait.

ii *Book your appointments early*. During peak times, you may need to book at least a week in advance to get the times you want.

iii *Come prepared*. Please bring your class notes and textbook. Look over the reading and try the problems. If you can, bring a list of specific questions. The more you prepare, the more you will get out of the session.

iv If you miss a class, please get notes from a classmate *before* your session. Tutoring is not a substitute for attending class.

v If you are repeating the course (previous grade of "F" or "W"), you are eligible to participate in the Math Advancement Program (MAP), which provides weekly one-on-one tutoring with an experienced tutor. Please see Ms. Michele Doney in **Suite 01.94.00-07** for details.

Contact Information:

Mathematics & Science Resource Center
Contact Person: Michele Doney, Coordinator
Suite 01.94.00-07 NB
646.557.4635 & 212.237.8019
Email: msrc@jjay.cuny.edu
Website: http://www.jjay.cuny.edu/academics/592.php

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c Come prepared. Bring your class notes and textbook. Look over the readings and try the problems. If you can, bring a list of specific questions. The more you prepare, the more you will get out of the session.

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If you are a SEEK student, you have access to an additional resource of the SEEK Mathematics Support Program

Perry Ellis Sutton SEEK Mathematics Program
Contact Person: Mark Frances, Coordinator
North Hall, Room 3119
212.393.6389
Email: mfrancis@jjay.cuny.edu

* ADA STATEMENT: STUDENTS WITH DISABILITIES

Qualified students with disabilities will be provided reasonable academic accommodations if determined appropriate by the Office of Accessibility Services (OAS), 212- 237-8031, located in room L.66.00. Prior to granting disability accommodations, verification of a student's eligibility must be timely received from OAS by the course coordinator,

Rita Shamuilova
Math Foundation & Quantitative Reasoning Program
Department of Mathematics and Computer Science
New Building 6.63.04
John Jay College of Criminal Justice
524 West 59th street
New York City 10019
T. 212-237-8848
rshamuilova@jjay.cuny.edu

and the instructor, from the OAS. It is the student's responsibility to initiate contact with the OAS and to follow the established procedures for having the accommodation notice sent to both the course coordinator and the instructor.

Tentative Pacing Scale

Lectures Dates	**Topic(s)**	**Section(s)& Online H/W**

1	Integer Exponents. Rational Exponents. Radicals	**P3 & P4** **H/W_1**
2	Algebraic Expression. Factoring.	**P5 & P6** **H/W _2**
3	Rational Expressions	**P7** **H/W_ 3**
4	Solving Basic Equations.	**P8** **H/W_4**
5	Quadratic Equations and Complex Numbers	**1.4 &1.5** **H/W_5**
6	Other Types of Equations	**1.6** **H/W_6**
7	Inequalities	**1.7** **H/W_7**
8	Absolute Value Equations and Inequalities	**1.8** **H/W_8**
9	**Review For Exam 1**	**Exam 1 Review Paper**
10	**Exam 1 (Based on lectures 1-9)**	
11	Coordinate Plane. Distance and Midpoint Formulas Graphing Equations; Intercepts; Symmetry	**1.1** **H/W_9**
12	Lines	**1.3** **H/W_10**
13	Circles	**1.2** **H/W_11**
14	What is a Function? Evaluation Functions. Graphs of Functions. Piece- Wise.	**2.1&2.2** **H/W_12**
15	Getting Information from the Graph of Function: Values of Functions; Domain and Range; Increasing and Decreasing; Local Maximum and Minimum Values of Functions; Average Rate of Change of a Function.	**2.3 & 2.4** **H/W_13**
16	**Review for Exam 2**	
17	**Exam 2 (Based on lectures 11-16)**	
18	Combining Functions One –to- one Functions; Functions Inverse.	**2.7&2.8** **H/W_14**

19	Quadratic Functions **Transformations.(2.6)**	**3.1&2.6** **H/W_15**
20	Polynomial Functions and their Graphs.	**3.2** **H/W_16**
21	Dividing Polynomials. Real Zeroes of Polynomials	**3.3&3.4** **H/W_16**
22	Complex Zeroes and the Fundamental Theorem of Algebra.	**H/W_16** **3.5**
23	Rational Functions	**H/W_17** **3.6**
24	**Review Exam 3**	**Exam 3 Review Paper**
25	**Exam 3 (Based on lectures 18-24)**	**Final Exam Review Paper**
26	**Review for the DFE**	
27	**Review for the DFE**	**Final Exam Review Paper**
28	**Review for the DFE**	**Final Exam Review Paper**
29	**DFE**	**TBD**