Course Syllabus for MAT 206 Online

Read this entire document very carefully. It contains all the details on how the course works and how you are graded.

General requirements for this course
Course Description
Prerequisites
Required Text
Academic adjustment for students with disabilities
Evaluation of students
Final grade

General requirements for this course
The following are a must to succeed in this course:
1) A working computer with good Internet connection that would allow you to download programs, send or receive e-mails (that includes a workable email address)
2) 8-10 hours of available time every week (spread over 2 or 3 days) to read, complete assignments and solve problems for this course
3) There are no face-to-face meetings but diligence and self-discipline are necessary to work earnestly and at a regularly-paced schedule each week, and be prompt in meeting deadlines

Course description
This course covers basic algebraic and trigonometric skills, graphing algebraic and transcendental functions and Analytic Trigonometry.

Prerequisites: Intermediate Algebra and Trigonometry (MAT 056) or the equivalent with department approval.

Required text

Academic adjustment for students with disabilities
Students with disabilities who require reasonable accommodations or academic adjustments for this course must contact the Office of Services for Students with Disabilities (Room N769, 220-8180). BMCC is committed to providing equal access to all programs and curricula to all students.
This is a sample syllabus only. (Do not purchase the textbook until you confirm with the instructor.)

**Requirement of students**
Students should check for new announcements on a daily basis. Your attendance to the class session is based on the time that you log in to the course page (minimum two times per week). Students should read the relevant sections of the textbook and try to understand the sample problems given in each section. They should be prepared to work out the practice problems in the text, sample problems in the lecture notes, and solve the assignment questions between lectures to develop a better understanding of the material. Always check for new assignments on a weekly basis.

**Evaluation of students**

**Quizzes**
There will be a lecture quiz at the end of each chapter. Study the chapter material very thoroughly before you attempt the quiz. Take all the chapter quizzes online in a timely fashion. A missed quiz will be recorded as a zero grade. You may do the quizzes as many times as you want before you submit the final result - each time, you will get instant feedback from Blackboard for your work. However, you must submit the quiz before the final submission deadline (date and time of submission is recorded precisely for each quiz).

**Assignments**
There will be a set off assigned homework problems each week. The due date for these assignments is very important. All the homework assignments need to be submitted on or before the due date. Solutions will be posted and the homework assignments will not be accepted after the solution is posted.

This class has the following kinds of assignments

1. **Discussion questions**
The discussion questions will be posted each week under the Discussion Board button on the main course menu. Before submitting your first discussion board, read about how to submit your discussion board by clicking here.

Post your first response to the discussion board by the first discussion board deadline. Make sure to read the posts by other students before the final deadline – you can use their ideas, thoughts, suggestions, etc. either to correct your own post or if you feel the other student is making an error to help guide your fellow classmates (without giving away answers). Make sure you respond to students’ and professor’s questions and comments on your post.

2. **Weekly assignments**
Each week you will be assigned specific problems from your textbook. Before submitting your first homework assignment read the instructions for submitting the homework carefully. Finish all the online homework on time.

3. **Technology assignments**
Students are expected to do mathematical projects using technology either with a graphing calculator or computer software.
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Examinations - Midterm and Final
The midterm and final exam will be online exams during the middle of the semester and the final week of the semester, respectively. The questions will be in Microsoft Word format. There will be a deadline for final submission by way of time and date for each exam.

Final Grade
The final grade will be determined in the following manner.

- Student online participation - virtual attendance and online discussion (10%)
- Lecture quizzes (20%)
- Assignments - weekly homework (20%)
- Technology assignment - projects (10%)
- Midterm and Final (40%)

Outline of Topics

Review of Fundamental Concepts of Algebra

A.1 Real Number and Their Properties A1 - A10
A.2 Exponents and radicals A11 - A22
A.5 Solving Equations A46 - A49
A.6 Solving Inequalities in one Variable A60-A69

Functions and Their Graphs

1.1 Rectangular Coordinates 2-13
1.2 Graphs of Equations 4-24
1.3 Linear Equations in Two Variables 25-39
1.4 Functions 40-53
1.5 Analyzing Graphs of Functions 54-65
1.6 A Library of Parent Functions 66-73
1.7 Transformations of Functions 74-83
1.8 Combinations of Functions: Composite Functions 84-92
1.9 Inverse Functions 93-102

Polynomial and Rational Functions

2.1 Quadratic Functions 128-138
2.2 Polynomial Functions of Higher Degree 139-152
2.3 Polynomial and Synthetic Division 153-161
2.4 Complex Numbers 162-168
2.5 Zeros of Polynomial Functions 169-183
2.6 Rational Functions 184-196
7.4 Partial Fractions 533-538

Midterm Exam
This is a sample syllabus only. (Do not purchase the textbook until you confirm with the instructor.)

### Exponential and Logarithmic Functions

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*Final Exam*