MATH 1314 COURSE SYLLABUS
COLLEGE ALGEBRA
BROOKHAVEN COLLEGE
MATH/SCIENCE DIVISION


ISBN: 9780321970008

This course will run using interactive software called MyMathLab. MyMathLab is an online, textbook-based software where you will complete assignments. Students must have access to a computer with Internet to complete the required work for this course. Standard plug-ins are needed to access this tool. The web address for MyMathLab is http://www.pearsonmylabandmastering.com.

To enroll into your MyMathLab course you will need a course ID which will be given to you by your instructor. You can request temporary access but will only have access from the first day of the semester through day 14. After this point, you must enter a valid MyMathLab student access code. If the access code is not entered by that day, access to all online assignments will be suspended. Students should have permanent access to MyMathLab by the end of the first test.

If you purchase your MyMathLab code online you MAY have the option of purchasing a 10 or an 18 week subscription. You MUST purchase the 18 week subscription so that you will have access to your assignments for the entire 16 week semester.

CATALOG DESCRIPTION: This is a Texas Common Course Number. This is a Core Curriculum course selected by the colleges of DCCCD.

Prerequisite: Required: College level ready in Mathematics algebra-based level.

Course Description: This course is an in-depth study and applications of polynomial, rational, radical, exponential and logarithmic functions, and systems of equations using matrices. Additional topics such as sequences, series, probability, and conics may be included. This course is cross-listed as MATH 1414. The student may register for either MATH 1314 or MATH 1414 but may receive credit for only one of the two. (3 Lec.)

Student Learning Outcomes: Upon successful completion of this course, students will:
1. Demonstrate and apply knowledge of properties of functions, including domain and range, operations, compositions, and inverses.
2. Recognize and apply polynomial, rational, radical, exponential and logarithmic functions and solve related equations.
3. Apply graphing techniques.
4. Evaluate all roots of higher degree polynomial and rational functions.
5. Recognize, solve and apply systems of linear equations using matrices

MATH 1314 is a Tier 1 course in the Quantitative Reasoning learning category. Knowledge and skills that are important to your success in other college courses will be introduced and
reinforced in Tier 1. The Quantitative Reasoning category promotes the application of mathematics to increase your ability to solve “real-world” problems. When you are quantitatively literate, you can use logic and critical thinking in new ways. www.dcccd.edu/core

Core Objectives:
MATH 1314 is part of the Mathematics Foundational Component Area 020.

i. Courses in this category focus on quantitative literacy in logic, patterns, and relationships.

ii. Courses involve the understanding of key mathematical concepts and the application of appropriate quantitative tools to everyday experience.

iii. MATH 1314 develops the following Core Objectives:
   Critical Thinking (CT) – to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.
   Communication (COMM) – to include effective development, interpretation and expression of ideas through written and visual communication.
   Empirical and Quantitative Skills (EQS) – to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.

MATH 1314 develops Critical Thinking, Communication, and Empirical and Quantitative Skills by requiring students to solve and analyze applications of various functions and systems of equations.

CHAPTERS/UNITS COVERED:

Chapter 1: Graphs, Functions, and Models
Chapter 2: More on Functions
Chapter 3: Quadratic Functions and Equations; Inequalities
Chapter 4: Polynomial Functions and Rational Functions
Chapter 5: Exponential Functions and Logarithmic Functions
Chapter 6: Systems of Equations and Matrices

Revised August, 2019
ROOM ASSIGNMENT

This class meets online from October 22 to December 12. For special help students are encouraged to come to the STEM Resource Center (K137) on campus, during hours when tutors, computers, and other resources for your course are available. Consult your instructor for the appropriate hours.

EVALUATION PROCEDURES

Tests 60% of the final grade
Final Exam 20%
MML homework 10%
MML quizzes 10%.

THE GRADE ON THE LOGARITHM TEST (CHAPTER 5) CANNOT BE REPLACED.

Practice Tests – Bonus Points. There are practice tests in MyMathLab to help you prepare for the tests. There is a practice test to correspond to each of the 5 tests in the class. You will have unlimited times to take each test and the highest score will determine the grade you will get. The grades will be calculated when the class takes the corresponding test (To get the points you must do the practice test before the test, you can take them after if you want, but you will not receive points for them)

Bonus Point Scale: If you make a 50-59 you get 1 point, If you make a 60-69 you get 2 points, if you make a 70-79 you get 3 points, if you make a 80-89 you get 4 points, if you make a 90-100 you will get 5 points. The points are added onto the corresponding test (Test 1, Test 2, Test 3, Test 4, Test 5)

The scale used to determine your final performance grade is:

<table>
<thead>
<tr>
<th>Score Range</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>90 to 100</td>
<td>A</td>
</tr>
<tr>
<td>80 to 89</td>
<td>B</td>
</tr>
<tr>
<td>70 to 79</td>
<td>C</td>
</tr>
<tr>
<td>60 to 69</td>
<td>D</td>
</tr>
<tr>
<td>0 to 59</td>
<td>F</td>
</tr>
</tbody>
</table>

Extra Credit: For students to be able to Drop and Replace the lowest test grade with the final exam, they must have an 90% average on homework at the end of the semester (In the MyMathLab Gradebook, click “See Calculation” to see homework average)

TI Graphing calculator required. TI-84 PLUS calculator recommended. NO TI-89 OR TI-Nspire.

Cell phones are not appropriate in class. In addition, cell phones and pagers are NOT allowed in the Testing Center. If tests are administered in the Testing Center, room S080, Permission Slips will be issued, by the instructor, prior to the test. Students must have a permission slip to take the test.

Revised August, 2019
test. The Permission slips will contain the testing code, due date, and information on testing times in the Testing Center.

Incomplete grades are given when an unforeseen emergency prevents a student from completing the work in a course. The division dean must approve all “I” grades.

*We, the Math Department of BHC, take issues of dishonesty very seriously. If a student is caught violating any policy of the Testing Center, or an instructor’s own policy for their particular class, the following consequences will be enforced: The minimum penalty a student will receive is a zero for the assignment/exam and the maximum penalty will be to receive an F for the course and/or academic suspension.*

**Classroom Expectations**
The theme of this class is respect. I will treat you with respect and I expect the same treatment from you. In addition, I ask that you also be respectful to classmates. This means that you are not to interrupt your classmates or interrupt me when I am talking. Disparaging comments about classmates or about me will not be tolerated. Furthermore, cell phones ringing during class, text messaging during class, and arriving late to class are examples of rude and disrespectful behaviors. You are to arrive on time to class and turn off cell phones or put them on vibrate when entering the classroom. If you receive an emergency call, please step outside of the classroom to take the call. Text messaging is not allowed during class time.

Because disrespectful behaviors can sometimes become an issue, I’ve developed a policy that I will follow. Students who continue to display rude and disrespectful behaviors will be given a warning. If the behavior continues, students will be asked to leave the class. The student must meet with me before he/she can return to class.

**INSTITUTIONAL POLICIES**

Institutional Policies of Brookhaven College may be found at the following link:
https://www.Brookhavencollege.edu/syllabusaddendum

The institutional policies covered are:
- Drop/Withdrawal Policy (*Drop Date: Nov 27th*)
- Six Drop Rule
- Repeating this Course
- Financial Aid Statement
- Financial Aid Certification of Attendance
- International Students
- Religious Holidays
- ADA Statement
- Academic Integrity
- Grade Reports
- Family Educational Rights and Privacy Act (FERPA)
- Institutional Equity
- Instructors Right to Modify
### Fall Academic Semester, 2019
#### Dates for 16 Week Fall Semester

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 22 (T)</td>
<td>Classes Begin</td>
</tr>
<tr>
<td>October 28 (M)</td>
<td>12th Class Day (Certification Date)</td>
</tr>
<tr>
<td>November 27 (SU)</td>
<td>Last Day to Withdraw</td>
</tr>
<tr>
<td>November 28 (Thursday)</td>
<td>Thanksgiving Holidays Begin</td>
</tr>
<tr>
<td>December 2 (Monday)</td>
<td>Classes Resume</td>
</tr>
<tr>
<td>December 9-12 (M-TH)</td>
<td>Final Exams</td>
</tr>
<tr>
<td>December 12 (Thursday)</td>
<td>Semester Ends</td>
</tr>
<tr>
<td>December 16 (Monday)</td>
<td>Last day for faculty to submit grades electronically through eConnect to the Registrar’s Office.</td>
</tr>
<tr>
<td>December 24 (Tuesday)</td>
<td>College buildings and offices will be closed for the holidays at end of workday.</td>
</tr>
</tbody>
</table>

**INSTRUCTOR’S RIGHT TO MODIFY:** The instructor has the right to add, delete, or revise segments of this course syllabus.
<table>
<thead>
<tr>
<th>Wk</th>
<th>SECTIONS</th>
<th>Homework</th>
</tr>
</thead>
</table>
| 1 | 10/22-10/27 | Introduction to College Algebra  
Other: Buy calculator for class  
1.1: Introduction to Graphing  
Introduction to Calculator (y(x), ZOOM - ZSTD, TRACE, WINDOW, GRAPH, TABLE, 2nd Trace: CALC – VALUE, CALC-ROOT)  
1.2: Functions and Graphs  
1.3: Linear Functions and Graphs  
1.4: Equations of lines and Modeling  
1.5: Linear Equations, Functions, Zeros, Applications  
Homework sections covered and respective quizzes are due by Sunday  
Certification date 10/28 – Must have Respondus Sample Test completed |
| 2 | 10/28-11/3 | 2.1: Increasing, Decreasing, and Piecewise Functions; Applications  
2.2: The Algebra of Functions  
2.3: The Composition of Functions  
2.4: Symmetry  
2.5: Transformations  
Review/Test 1  
Homework sections covered and respective quizzes are due by Sunday  
Test 1 due in Respondus on or before Monday 11/4 |
| 3 | 11/4-11/10 | JIT: Classification of Numbers (p. 595, 596)  
3.1: The Complex Numbers  
3.2: Quadratic Equations, Functions, Zeros, and Models  
Calculator Functions: FMIN, FMAX  
3.3: Analyzing Graphs of Quadratic Functions  
3.4: Solving Rational Equations and Radical Equations  
Review/Test 2  
Homework sections covered and respective quizzes are due by Sunday  
Test 2 due in Respondus on or before Monday 11/11 |
| 4 | 11/11-11/17 | 4.1: Polynomials Functions and Models  
4.2: Graphing Polynomial Functions  
4.3: Polynomial Division; The Remainder Theorem and the Factor Theorem  
4.4: Theorems about Zeros of Polynomial Functions  
4.5: Rational Functions  
Review/Test 3  
Homework sections covered and respective quizzes are due by Sunday  
Test 3 due in Respondus on or before Monday 11/18 |
| 5 | 11/18-11/24 | 5.1: Inverse Functions  
5.2: Exponential Functions and Graphs (On Calculator: e)  
5.3: Logarithmic Functions and Graphs (On Calculator: LN, LOG)  
5.4: Properties of Logarithmic Functions  
Review/Test 4  
Homework sections covered and respective quizzes are due by Sunday |
| 6 | 11/25-12/1 | 5.5: Solving Exponential and Logarithmic Equations  
5.6: Applications and Models: Growth and Decay; Compound Interest  
Review/Test 5  
Homework sections covered and respective quizzes are due by Sunday  
Test 4 due in Respondus on or before Monday 12/2  
Drop Date: 11/27  
Campus Closed 11/28-12/1 |
| 7 | 12/2-12/8 | 6.1: Systems of Equations in Two Variables  
6.2: Systems of Equations in Three Variables  
6.3: Matrices and Systems of Equations  
Review/Test 5  
Homework sections covered and respective quizzes are due by Sunday  
Test 5 due in Respondus on or before Monday 12/9 |
| 8 | 12/9-12/12 | Review for Final Exam  
Grade on Final Exam can replace lowest test grade (NOT Test 4) ONLY IF overall homework average is a 90 or above.  
Final Exam due in Respondus on or before Thursday 12/12 |

Revised August, 2019