
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.

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 I 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
MATH 1314 – 23003
SEMESTER: SPRING 2020
E-MAIL: CReyes@dccc.edu

INSTRUCTOR: Czarina Reyes, PhD
PHONE: 972-860-4338
OFFICE HOURS: MW Noon-1:30pm
TR Noon -1:00pm, F by appointment

ROOM ASSIGNMENT

This class meets on MW from **10:30 to 11:50am** in room **Q117**. For special help students are encouraged to come to the STEM Resource Center (K137) on campus, during hours when tutors 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% and MML quizzes 10%. **THE GRADE ON THE LOGARITHM TEST (CHAPTER 5) CANNOT BE REPLACED.**

For students to be able to Drop and Replace the lowest test grade with the final exam, they must have an 80% average on homework and have no more than three absences in the class.

The scale used to determine your final performance grade is:

- 90 to 100  A
- 80 to 89   B
- 70 to 79   C
- 60 to 69   D
- 0 to 59    F
- Withdrawal W

TI Graphing calculator required. TI-84 PLUS calculator recommended. NO TI-89 OR TI-92 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. 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: April 16, 2020)
- 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
### IMPORTANT DATES

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 2 (Thursday)</td>
<td>College buildings and offices open</td>
</tr>
<tr>
<td>January 13 (Monday)</td>
<td>Faculty Reports</td>
</tr>
<tr>
<td>January 20 (Monday)</td>
<td>Dr. Martin Luther King, Jr. Day - Holiday</td>
</tr>
<tr>
<td>January 21 (Tuesday)</td>
<td>Classes Begin</td>
</tr>
<tr>
<td>February 3 (Monday)</td>
<td>12th Class Day (Certification Date)</td>
</tr>
<tr>
<td>February 27 - 28 (Thursday thru Friday)</td>
<td>Professional Development Days -- Thursday and Friday classes will not meet. Friday evening, Saturday and Sunday classes will meet.</td>
</tr>
<tr>
<td>March 2 (Monday)</td>
<td>Classes Resume</td>
</tr>
<tr>
<td>March 16-20 (Monday thru Friday)</td>
<td>Spring Break - College buildings and offices will be closed for the week.</td>
</tr>
<tr>
<td>April 10 (Friday)</td>
<td>Classes Resume</td>
</tr>
<tr>
<td>April 13 (Monday)</td>
<td>Classes Resume</td>
</tr>
<tr>
<td><strong>April 16 (Thursday)</strong></td>
<td><strong>Last Day to Withdraw</strong></td>
</tr>
<tr>
<td>May 11-14 (Monday thru Thursday)</td>
<td>Final Exams</td>
</tr>
<tr>
<td>May 14 (Thursday)</td>
<td>Semester Ends</td>
</tr>
<tr>
<td>May 18 (Monday)</td>
<td>Last Day for faculty to submit grades electronically through eConnect to the Registrar's Office.</td>
</tr>
</tbody>
</table>

May Graduation: Ceremony dates may vary at the colleges depending on space available.

**INSTRUCTOR’S RIGHT TO MODIFY**: The instructor has the right to add, delete, or revise segments of this course syllabus.
# MATH 1314 – SUGGESTED LESSON PLAN

<table>
<thead>
<tr>
<th>DAY</th>
<th>SECTION</th>
</tr>
</thead>
</table>
| 1   | 1.1: Introduction to Graphing  
Introduction to Calculator (y(x), ZOOM - ZSTD, TRACE, WINDOW, GRAPH, TABLE, 2nd Trace: CALC – VALUE, CALC-ROOT) |
| 2   | 1.2: Functions and Graphs  
1.3: Linear Functions, Slope and Applications  
1.4: Equations of Lines and Modeling  
1.5: Linear Equations, Functions, Zeros, and Applications |
| 4   | Test 1 in class |
| 5   | 2.1: Increasing, Decreasing, and Piecewise Functions; Applications |
| 6   | 2.2: The Algebra of Functions  
2.3: The Composition of Functions |
| 7   | 2.4: Symmetry  
2.5: Transformations |
| 8   | Test 2 in class |
| 9   | JIT: Classification of Numbers (p. 595, 596)  
3.1: The Complex Numbers |
| 10  | 3.2: Quadratic Equations, Functions, Zeros, and Models  
Calculator Functions: FMIN, FMAX |
| 11  | 3.3: Analyzing Graphs of Quadratic Functions |
| 12  | 3.4: Solving Rational Equations and Radical Equations |
| 13  | Test 3 in class |
| 14  | 4.1: Polynomials Functions and Models  
4.2: Graphing Polynomial Functions  
4.3: Polynomial Division; The Remainder Theorem and the Factor Theorem |
| 15  | 4.4: Theorems about Zeros of Polynomial Functions  
4.5: Rational Functions |
| 16  | Test 4 in class |
| 17  | 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 |
| 18  | 5.4: Properties of Logarithmic Functions  
5.5: Solving Exponential and Logarithmic Equations  
5.6: Applications and Models: Growth and Decay; Compound Interest |
| 19  | Test 5 in class |
| 20  | 6.1: Systems of Equations in Two Variables  
6.2: Systems of Equations in Three Variables  
6.3: Matrices and Systems of Equations  
Review for Final Exam |
| 30  | COMPREHENSIVE FINAL EXAMINATION IN CLASS ACCORDING TO THE POSTED FINAL EXAM SCHEDULE |