INSTRUCTOR INFORMATION
Ladan Scott
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Campus Office Hours: MW 9:00am – 10:30am, TR 10:30am – 11:30am

ISBN: 9780321970008

SOFTWARE: In this course, we will use a software program called MyMathLab, which can be accessed via the Internet. You will use this program to complete all required homework, quizzes, tests, and final exam. The web address for MyMathLab is http://www.pearsonmylabandmastering.com. To enroll into MyMathLab you will need a course ID, which is scott82353.

You can buy standalone MyMathLab access code with the e-book at Brookhaven College Bookstore.

IMPORTANT NOTICE
Purchase of a MyMathLab access code is required! It is not optional. You may obtain a temporary code, good for 14 days. You must purchase a permanent code before your 14 days runs out.
In order to be certified for attendance for this class, you must enroll and complete the Orientation Homework in MyMathLab by February 2.

CATALOG DESCRIPTION
This is a Texas Common Course Number. This is a Core Curriculum course selected by the colleges of DCCCD.
Prerequisite: 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 0202.
   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

You need plug-ins and players, such as Adobe® Acrobat® Reader and RealPlayer®, to use the multimedia content
inside your course. If you experience technical problems while using MyMathLab, you may contact Technical
Support at (800) 677-6337.

CALCULATOR REQUIREMENT
TI Graphing calculator required. TI-84 PLUS calculator recommended. NO TI-89 OR TI-92 OR TI-NSPIRE.

CONTACTING YOUR INSTRUCTOR
Please make sure that you have updated your email address in eConnect and MyMathLab. I will periodically send
out group emails to the class and will use one of these systems. Your main communication with your instructor will
be via email. To ensure that you receive a prompt response, when emailing your instructor, please be sure to
include your name somewhere in the body of the email, and write the course for which you are enrolled
(MATH 1314) and the section number in the subject line of all email correspondences. I should respond to your
email within 24 hours Monday through Thursday. If I don’t respond to your email within 48 hours (Monday –
Thursday) then please call my office number (972-860-4679) and leave a message. Emails sent on Friday, Saturday,
or Sunday will be answered by Monday of the following week.

ANNOUNCEMENTS
Announcements will be posted regularly by the instructor. All students are responsible for checking announcements
that will be posted on the Announcements page in the MyMathLab classroom. These announcements may contain
review material, reminders, updates, and other important information that you will find necessary and useful for the
course.

VIEWING LESSONS AND COMPLETING ASSIGNMENTS
Under the Course Menu, you will find a tab entitled, “Multimedia Library”. The Multimedia Library has several
resources for your course, such as the multimedia textbook, lesson videos, animations, learning activities, and
power points.
The class will work in the following way.

**STEP 1:** Read the appropriate section in the multimedia textbook. The multimedia textbook will have several icons available to you. There is a “Video Clip” icon, a “You Try It” icon, and an “Animation” icon. The “Video Clip” will explain a concept or the solution of a problem to you, the “You Try It” will allow you to work corresponding problems as you move along, and the “Animation” will present that portion of the lesson in animated form. Use these icons regularly. They will help you to get a good understanding of the material before you attempt the homework.

**STEP 2:** Watch the Section Video Lecture for that section.

**STEP 3:** Do the assigned homework under the button “Assignments”. I highly recommend that you achieve a score of 70% or better on each homework assignment before you move on to the next assignment. Achieving this score will ensure that you have mastered enough of the material to understand and do well on the next section. You may improve your homework grades through, May 11 by 11:59 pm.

**TAKE THE ONLINE TEST.** Click on the button “Assignments” on the course menu. You will select the current test that you will be taking. **You have 180 minutes to take your test in one attempt. You are not allowed to get in and out of your test (you cannot access any other screens – ebook, homework, etc.) while you are taking the test. No make-up tests and extension on deadline will be given, a missed test is a zero grade. It is your responsibility to have a reliable computer with a reliable browser and all the proper plug-ins.**

**TAKE THE ONLINE FINAL EXAM.** You will have 180 minutes to take the final exam in one sitting. **The same rules apply as for the tests.**

**EVALUATION PROCEDURES**
Assessment of your performance will be based upon scores from homework assignments, tests, and the final exam. Your final grade will be based upon the following scale:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Homework Assignments</td>
<td>16%</td>
</tr>
<tr>
<td>Tests (4 tests, 16% each)</td>
<td>64%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>20%</td>
</tr>
</tbody>
</table>

The Final Exam score may replace the lowest test score for Tests 1, 2, or 3. The grade on Test 4 (chapters 5) cannot be replaced. No make-up tests will be given and there will be no extensions of deadlines unless arrangements are made prior to the test deadline.

Averages are interpreted as follows:

- **A** 90 – 100%
- **B** 80 – 89%
- **C** 70 – 79%
- **D** 60 – 69%
- **F** less than 60%

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

**HELP AND AVAILABLE RESOURCES**
Brookhaven College has a STEM Resource Center (SRC) that offers free assistance and other resources to students enrolled in this course. The center is equipped with computers and Internet access so that lessons can be viewed and homework can be done in the Center. However, you should not depend on the Center to complete the work for this course, you should have your own personal computer with the appropriate Internet access. The STEM Resource Center is located in K137. You may call 972-860-4198 or 972-860-4750 for the hours of the SRC.
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
- 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 DATE

The last day to withdraw from the course with a”W” is April 16, 2020. Students sometimes drop a class when help is available that would enable them to continue. Please discuss your plans with the instructor if you feel you need to withdraw.

IMPORTANT NOTE

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.

As with any online course, you are expected to do your own work. By starting the work in this course you are agreeing to follow the honor system. Any indication that you are being dishonest will result in taking your tests at the Brookhaven College Testing Center, receiving an F for the course and/or academic suspension. This is at the instructor’s discretion.

COURSE SCHEDULE

This course starts on January 21, 2020 and ends on May 12, 2020. The last day to drop this course with a “W” is April 16, 2020. The following is a timeline for the course. These deadlines must be followed very closely. No extensions will be given. All exams may be taken on or before the required date. Exams will not be accepted after the given deadline. All homework, tests and final exam are due on the due date by 11:59 pm. All tests and final exam are timed and must be completed in one sitting once they are started. You cannot save and return.
<table>
<thead>
<tr>
<th>WEEK</th>
<th>SECTION(S)</th>
<th>DEADLINE(S)</th>
<th>CALCULATOR OPERATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>买MyMathlab and get all plug-ins set up</td>
<td>1.1, 1.2 homework due by Sunday, 1/26/20</td>
<td>GRAPH, WINDOW, TRACE, ZOOM, ZSTD, ZERO, TABLE, CALC-VALUE, CALC-ROOT</td>
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<tr>
<td>1/21/20</td>
<td>READ syllabus</td>
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<tr>
<td></td>
<td>1.1: Introduction to Graphing</td>
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<td>1.2: Functions and Graph</td>
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<tr>
<td>Week 2</td>
<td>1.3: Linear functions, Slope and Applications</td>
<td>1.3, 1.4, 1.5 homework due by Sunday, 2/2/20</td>
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<tr>
<td>1/26/20</td>
<td>1.4: Equations of Lines and Modeling</td>
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<td>1.5: Linear Equations, Functions, Zeros, and Applications</td>
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<tr>
<td>Week 3</td>
<td>2.1: Increasing, Decreasing, and Piecewise Functions; Applications</td>
<td>2.1, 2.2, 2.3 homework due by Sunday, 2/9/20</td>
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<tr>
<td>2/2/20</td>
<td>2.2: The Algebra of Functions</td>
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<td>2.3: The Composition of Functions</td>
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<tr>
<td>Week 4</td>
<td>2.4: Symmetry</td>
<td>2.4, 2.5 homework due by Sunday, 2/16/20</td>
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<tr>
<td>2/9/20</td>
<td>2.5: Transformations</td>
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<td></td>
<td>Practice Test 1</td>
<td>Take Test 1 by Tuesday, 2/18/20</td>
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<td></td>
<td>Test 1 (Ch 1 &amp; 2)</td>
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<td>Week 5</td>
<td>JIT: Classification of Numbers (p. 595, 596)</td>
<td>JIT, 3.1, 3.2 homework due by Sunday, 2/23/20</td>
<td>MAXIMUM, MINIMUM</td>
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<td>2/16/20</td>
<td>3.1: The Complex Numbers</td>
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<td>3.2: Quadratic Equations, Functions, Zeros, and Models</td>
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<tr>
<td>Week 6</td>
<td>3.3: Analyzing Graphs of Quadratic Functions</td>
<td>3.3, 3.4 homework due by Sunday, 3/1/20</td>
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<tr>
<td>2/23/20</td>
<td>3.4: Solving Rational Equations and Radical Equations</td>
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<td>Practice Test 2</td>
<td>Take Test 2 by Tuesday, 3/3/20</td>
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<td>Test 2 (Ch 3)</td>
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<tr>
<td>Week 7</td>
<td>4.1: Polynomials Functions and Models</td>
<td>4.1, 4.2 homework due by Sunday, 3/8/20</td>
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<td>3/1/20</td>
<td>4.2: Graphing Polynomial Functions</td>
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<tr>
<td>Week 8</td>
<td>4.3: Polynomial Division; The Remainder Theorem</td>
<td>4.3, 4.4 homework due by Sunday, 3/15/20</td>
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<tr>
<td>3/8/20</td>
<td>and the Factor Theorem</td>
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<td></td>
<td>4.4: Theorems about Zeros of Polynomial Functions</td>
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<td>SPRING BREAK March 16 – March 21</td>
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<tr>
<td>Week 9</td>
<td>4.4: Theorems about Zeros of Polynomial Functions</td>
<td>4.4, 4.5 homework due by Sunday, 3/29/20</td>
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<tr>
<td>3/22/20</td>
<td>4.5: Rational Functions</td>
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<td>Practice Test 3</td>
<td>Take Test 3 by Tuesday, 3/31/20</td>
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<td>Test 3 (Ch 4)</td>
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<td>Week 10</td>
<td>5.1: Inverse Functions</td>
<td>5.1, 5.2 homework due by Sunday, 4/5/20</td>
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<tr>
<td>3/29/20</td>
<td>5.2: Exponential Functions and Graphs</td>
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<tr>
<td>Week 11</td>
<td>5.3: Logarithmic Functions and Graphs</td>
<td>5.3, 5.4 homework due by Sunday, 4/12/20</td>
<td>LN, LOG</td>
</tr>
<tr>
<td>4/5/20</td>
<td>5.4: Properties of Logarithmic Functions</td>
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</tbody>
</table>
| Week 12 | 4/12/20 | 5.4: Properties of Logarithmic Functions  
5.5: Solving Exponential and Logarithmic Equations | 5.4, 5.5 homework due by Sunday, 4/19/20 |
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<td><strong>NOTE - The last day to drop the course is 4/16/20.</strong></td>
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| Week 13 | 4/19/20 | 5.5: Solving Exponential and Logarithmic Equations  
5.6: Applications and Models: Growth and Decay; Compound Interest | 5.5, 5.6 homework due by Sunday, 4/26/20 |
|---------|---------|----------------------------------------------------------------|------------------------------------|
|         |         | **Take Core Assessment Quiz**  
**(Prerequisite for Test 4)** | Core Assessment Quiz due on 4/27/20 |
|         |         | **Practice Test 4**  
**Test 4 (Ch 5)** | **Take Test 4 by Tuesday, 4/28/20** |

| Week 14 | 4/26/20 | 6.1: Systems of Equations in Two Variables  
|---------|---------|----------------------------------------------------------------|------------------------------------|

| Week 15 | 5/3/20 | 6.3: Matrices and Systems of Equations | 6.3 homework due by Sunday, 5/10/20  
MATRIX EDIT, *ROW, *ROW+, RREF |
|---------|--------|-------------------------------------|----------------------------------|

<table>
<thead>
<tr>
<th>Week 16</th>
<th>5/10/20</th>
<th><strong>NOTE - Homework improvements must be made by 5/11/2020 at 11:59.</strong></th>
<th><strong>Take Final Exam by Tuesday, 5/12/20</strong></th>
</tr>
</thead>
</table>
|         |         | **Practice Final Exam**  
**Final Exam (comprehensive)** |                                    |

Please note that the instructor reserves the right to modify this course schedule, assignments, grading procedures, and other related policies as circumstances so dictate. Students will be notified via email of any changes that are to be made.