The course covers linear and quadratic functions, systems of equations and inequalities, polynomials, exponential, logarithms; trigonometric functions and their inverses, graphs, identities, complex numbers.


You may also contact the SEU bookstore (863-669-4412) to have a hard copy textbook shipped to you at no additional charge.

Students must have completed or be currently enrolled in Classical Conversations Challenge III or IV curriculum, completed high school Algebra II, earned a 490 or above on the SAT or 23 or above on the ACT (or equivalent), and have satisfactorily completed the approved math placement assessment. Alternatively, MATH 1213 College Algebra serves as a prerequisite. The completion of MATH 1413 at Southeastern University will earn 3 credit hours.

Jeremy M. Denton, Assistant Professor of Mathematics, jmdenton@seu.edu

As a result of reading, study, and activities in this course, the student should be able to:

1. Analyze and explain the behavior of functions
2. Discuss algebraic relations and functions and describe various transformations of their graphs
3. Apply theorems to find zeros, roots, factors, and intercepts of polynomial equations and functions
4. Solve problems involving rational functions and inverse functions
5. Graph exponential and logarithmic functions and discuss their behavior
6. Analyze the behavior of trigonometric functions and their relationship to the unit circle
7. Graph trigonometric functions
8. Use and apply trigonometric laws, identities, and equations

MyMathLab is an online interactive and educational system designed by Pearson Education to accompany its published math textbooks.

Southeastern University has been using MyMathLab for most of its face-to-face and online math courses for several years. Because MyMathLab embeds tutorials, practice exercises, multimedia learning aids and other resources, students build the confidence they need to perform well on graded assignments and examinations. Students can practice problems as much as they need to gain mastery. MyMathLab includes several learning aids and automated feedback. Based on SEU student assessment data, use of MyMathLab improves averages student course grades by approximately one letter grade.
Use of MyFire and MyMathLab
Please obtain all course information from MyFire at the beginning of the term. After obtaining these documents, MyFire will no longer be used. All course work will then be obtained by using MyMathLab.

Grading Scale
The university’s general grading scale is provided in the Academic Policies and Procedures section of the Southeastern University Catalog. All undergraduate courses use the following scale:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>94 – 100%</td>
</tr>
<tr>
<td>A-</td>
<td>90 – 93%</td>
</tr>
<tr>
<td>B+</td>
<td>87 – 89%</td>
</tr>
<tr>
<td>B</td>
<td>84 – 86%</td>
</tr>
<tr>
<td>B-</td>
<td>80 – 83%</td>
</tr>
<tr>
<td>C+</td>
<td>77 – 79%</td>
</tr>
<tr>
<td>C</td>
<td>74 – 76%</td>
</tr>
<tr>
<td>C-</td>
<td>70 – 73%</td>
</tr>
<tr>
<td>D+</td>
<td>67 – 69%</td>
</tr>
<tr>
<td>D</td>
<td>64 – 66%</td>
</tr>
<tr>
<td>D-</td>
<td>60 – 63%</td>
</tr>
<tr>
<td>F</td>
<td>0 – 59%</td>
</tr>
</tbody>
</table>

Technical Difficulties
Southeastern University is committed to providing a reliable online course system to all users. However, in the event MyMathLab is experiencing technical difficulty that prevents students from completing a time-sensitive assessment, students should report any problems to the course evaluator. The course evaluator will respond to the student’s request at the earliest possible time within 24 hours.

Be sure your computer system complies with all Technical Requirements listed on the opening page of MyMathLab. See RUN BROWSER CHECK.

Drop/Add and Withdrawal
The last day to drop this course with no grade is at the end of week 1. The last day to officially withdraw from this course and receive a grade of “W” is at the end of week 10. Please check the course chart or contact the registrar’s office for specific dates.

Assessments and Grading

<table>
<thead>
<tr>
<th>Category</th>
<th>POINTS</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit Exams</td>
<td>700</td>
<td>There will be seven unit exams totaling 78% (700/900) of the student’s final average. Chapter P, 1 – 5. (Some chapters are split into two different units)</td>
</tr>
<tr>
<td>MyMathLab Homework</td>
<td>100</td>
<td>The Homework average from MyMathLab will count as 11% (100/900) of the student’s final average.</td>
</tr>
<tr>
<td>Final Exam</td>
<td>100</td>
<td>The Final Comprehensive Exam will count as 11% (100/900) of the student’s final average.</td>
</tr>
</tbody>
</table>
Note: Student may work ahead, but missing a due date has consequences. This course requires students to complete each assignment and exam by the due date, or zero credit will be recorded. This online course runs for 16 consecutive weeks and does not have days off. It is imperative that students stay on track, look ahead, and work around holidays.

## Course Chart

### Course Name:
MATH 1413 Precalculus

### Text:

### MyMathLab:
See MyMathLab instruction handout from MyFire

NOTE: Textbook pages and suggested problems are listed below. They are listed to help you narrow the field of problems in each section. There are no required assignments from the textbook. The only graded problems are online problems from MyMathLab.

Due Dates and Times: Assignments are due on or before 11:59pm EST on due date. **No late assignments will be accepted. Exams not completed by the due/date/time will earn a zero.**

<table>
<thead>
<tr>
<th>DATES</th>
<th>WEEK</th>
<th>TOPICS</th>
<th>ASSIGNMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug 22\textsuperscript{nd} – Aug 28\textsuperscript{th}</td>
<td>1</td>
<td>Chapter P: Basic Concepts of Algebra</td>
<td>• Familiarize yourself with the functionality of MyMathLab by working through the Chapter 0 Orientation to MyMathLab.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sections P.1 – P.3</td>
<td>• MLP Online Homework</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NOTE: To begin working on course</td>
<td>• Optional Textbook Assignment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>content, please go to the Assignments</td>
<td>Section P.1 page 10 (1 – 60)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>and begin with Chapter P. At this</td>
<td>Section P.2 page 19 (1 – 84)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>time students are not required to</td>
<td>Section P.3 page 31 (1 – 62)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>complete the study plan or optional</td>
<td><em>The last day to withdraw from the course with no grade is at the end of Week 1.</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td>quizzes.</td>
<td></td>
</tr>
<tr>
<td>Aug 29\textsuperscript{th} – Sept 4\textsuperscript{th}</td>
<td>2</td>
<td>Chapter P: Basic Concepts of Algebra</td>
<td>• MLP Online Homework</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sections P.4 – P.5</td>
<td>All Chapter P HW is due by 11:59 p.m. on Tuesday, September 4, 2018.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>CHAPTER P EXAM</strong></td>
<td>• Optional Textbook Assignment</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Section P.4 page 43 (1 – 64)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Section P.5 page 49 (1 – 46)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Complete Chapter P Exam. The exam will be available until 11:59 p.m. on Tuesday, September 4, 2018.</td>
</tr>
<tr>
<td>Sept 5\textsuperscript{th} – Sept 11\textsuperscript{th}</td>
<td>3</td>
<td>Chapter 1: Graphs and Functions</td>
<td>• MLP Online Homework</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sections 1.1 – 1.3</td>
<td>• Optional Textbook Assignment:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Section 1.1 page 62 (1 – 62)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Section 1.2 page 74 (1 – 62)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Section 1.3 page 90 (1 – 60)</td>
</tr>
</tbody>
</table>

Last edited: 3/22/2018
<table>
<thead>
<tr>
<th>Date Range</th>
<th>HW Assignment</th>
</tr>
</thead>
</table>
| Sept 12th – Sept 18th | **Chapter 1: Graphs and Functions**  
Sections 1.4 – 1.5  
**CHAPTER 1 (1.1 – 1.4) EXAM**  
- MLP Online Homework  
All Chapter 1 (1.1 – 1.4) HW is due by 11:59 p.m. on Tuesday, September 18, 2018.  
- Optional Textbook Assignment:  
Section 1.4 page 106 (1 – 64)  
Complete Chapter 1 (1.1 – 1.4) Exam. The exam will be available until 11:59 p.m. on Tuesday, September 18, 2018. |
| Sept 19th – Sept 25th | **Chapter 1: Graphs and Functions**  
Section 1.5 – 1.6  
- MLP Online Homework  
- Optional Textbook Assignment:  
Section 1.5 page 121 (1 – 60)  
Section 1.6 page 132 (1 – 50) |
| Sept 26th – Oct 2nd  | **Chapter 1: Graphs and Functions**  
Section 1.7  
**CHAPTER 1 (1.5 – 1.7) EXAM**  
- MLP Online Homework  
All Chapter 1 (1.5 – 1.7) HW is due by 11:59 p.m. on Tuesday, October 2, 2018.  
- Optional Textbook Assignment:  
Section 1.7 page 144 (1 – 58)  
Complete Chapter 1 (1.5 – 1.7) Exam. The exam will be available until 11:59 p.m. on Tuesday, October 2, 2018. |
| Oct 3rd – Oct 9th    | **Chapter 2: Polynomial and Rational Functions**  
Sections 2.1 – 2.3  
- MLP Online Homework  
- Optional Textbook Assignment:  
Section 2.1 page 161 (1 – 56)  
Section 2.2 page 175 (1 – 52)  
Section 2.3 page 185 (1 – 54) |
| Oct 10th – Oct 16th  | **Chapter 2: Polynomial and Rational Functions**  
Section 2.4 – 2.5  
**CHAPTER 2 EXAM**  
- MLP Online Homework  
All Chapter 2 HW is due by 11:59 p.m. on Tuesday, October 16, 2018.  
- Optional Textbook Assignment:  
Section 2.4 page 195 (1 – 64)  
Section 2.5 page 211 (1 – 78)  
Complete Chapter 2 Exam. The exam will be available until 11:59 p.m. on Tuesday, October 16, 2018. |
| Oct 17th – Oct 23rd  | **Chapter 3: Exponential and Logarithmic Functions**  
Sections 3.1 – 3.3  
- MLP Online Homework  
- Optional Textbook Assignment:  
Section 3.1 page 235 (1 – 62)  
Section 3.2 page 250 (1 – 90)  
Section 3.3 page 262 (1 – 70) |
| Oct 24th – Oct 30th | 10 | Chapter 3: Exponential and Logarithmic Functions  
Sections 3.4 | ✓ MLP Online Homework  
All Chapter 3 HW is due by 11:59 p.m. on Tuesday, October 30, 2018.  
Optional Textbook Assignment:  
Section 3.4 page 273 (1 – 78)  
Complete Chapter 3 Exam. The exam will be available until 11:59 p.m. on Tuesday, October 30, 2018.  
*The last day to withdraw from the course with a grade of “W” is at the end of Week 10.* |
| Oct 31st – Nov 6th | 11 | Chapter 4: Trigonometric Functions  
Section 4.1 – 4.3 | ✓ MLP Online Homework  
Optional Textbook Assignment:  
Section 4.1 page 290 (1 – 50)  
Section 4.2 page 307 (1 – 72)  
Section 4.3 page 325 (1 – 44) |
| Nov 7th – Nov 13th | 12 | Chapter 4: Trigonometric Functions  
Section 4.4 | ✓ MLP Online Homework  
All Chapter 4 (4.1 – 4.4) HW is due by 11:59 p.m. on Tuesday, November 13, 2018.  
Optional Textbook Assignment:  
Section 4.4 page 335 (1 – 36)  
Complete Chapter 4 (4.1 – 4.4) Exam. The exam will be available until 11:59 p.m. on Tuesday, November 13, 2018. |
| Nov 14th – Nov 20th | 13 | Chapter 4: Trigonometric Functions  
Section 4.5 – 4.7 | ✓ MLP Online Homework  
Optional Textbook Assignment:  
Section 4.5 page 348 (1 – 78)  
Section 4.6 page 358 (1 – 34)  
Section 4.7 page 370 (1 – 70) |
| Nov 21st – Nov 27th | 14 | Chapter 4: Trigonometric Functions  
Section 4.8 | ✓ MLP Online Homework  
All Chapter 4 (4.5 – 4.8) HW is due by 11:59 p.m. on Tuesday, November 27, 2018.  
Optional Textbook Assignment:  
Section 4.8 page 385 (1 – 56)  
Complete Chapter 4 (4.5 – 4.8) Exam. The exam will be available until 11:59 p.m. on Tuesday, November 27, 2018. |
| Nov 28th – Dec 4th | 15 | PREPARE FOR THE FINAL EXAM | Online Homework for Chapter P and Chapters 1 – 4 will be re-opened this week to prepare for the Final Exam.  
Each chapter test is open for review to prepare for the Final Exam. Students may also review the Unassigned Pre-Test as a way to prepare for the final. |
| Dec 5th – Dec 11th | 16 | FINAL EXAM | Final Exam should be completed by 11:59 p.m. Tuesday, December 11, 2018. |