INSTRUCTOR’S INFORMATION
(Instructor reserves the right to amend this information as necessary.)

Semester and Year: Fall 2019
Meeting Dates: 8/26 – 10/18
Section: 81410
Class time and days: Online
Room: INET
Instructor: Jonathon Verwys
Contact Info: jonathonverwys@dcccd.edu
Last date to withdraw: October 4, 2019
Final Exam Day and time: Done by end of the day, Friday, 10/18
MyMathLab course ID: 26% MyMathLab Homework Score
Evaluation Procedures 4% 4 Exam Review Assignments in MML
40% 4 Exams (10% each, must submit written work)
30% Final Exam (must submit written work)

Grades for MATH2412 are assigned according to the following scale:
A: [90, 100], B: [80, 90), C: [70, 80), D: [60, 70), F: [0, 60]

Required Materials:

1. The textbook required for this course is Sullivan Precalculus, 10e, Pearson, 2016, A La Carte Books with MyMathLab Access code ISBN 0134026640
2. A graphing calculator is required. A TI-83 or TI-84 (any version) is recommended. However, it should be one without a computer algebra system or algebraic manipulation ability.

A 14-day temporary access to MyMathLab is available so that you may get started on the course. Your access must be updated with a valid, purchased code prior to the end of the 14 days or your access will be closed.
<table>
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<tr>
<th>Week</th>
<th>Sections Covered</th>
<th>Comments</th>
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| Week 1: 8/26 – 8/30 | Getting Ready for Precalculus  
Section 11.5  
Section 12.4  
Section 4.1 | Assignments Due: **Sunday, 9/1**          |
| Week 2: 9/2 – 9/6   | Section 10.2  
Section 10.3  
Section 4.3  
Section 10.4  
Test #1 Review  
**Test #1** | Assignments Due: **Sunday, 9/8**          |
| Week 3: 9/9 – 9/13  | Media Assignment for 7.1  
Section 7.1  
Section 7.2  
Section 7.5  
Section 7.6  
Section 7.7 | Assignments Due: **Sunday, 9/15**          |
| Week 4: 9/16 – 9/20 | Section 10.5  
Section 9.1  
Section 9.2  
Test #2 Review  
**Test #2** | Assignments Due: **Sunday, 9/22**          |
| Week 5: 9/23 – 9/27 | Media Assignment for 10.6  
Section 10.6  
Section 10.7  
Section 9.4  
Section 9.5  
Section 9.6 – Vectors in space | Assignments Due: **Sunday, 9/29**          |
| Week 6: 9/30 – 10/4 | Section 9.6 Part 2  
9.7 – Cross Product  
Section 9.7 Part 2  
Test #3 Review  
**Test #3**  
Media Assignment for Section 5.3  
Section 5.3  
Assignments Due: **Sunday, 10/6** |
| Week 7: 10/7 – 10/11 | Section 5.4  
Section 5.5  
Section 5.6  
Section 5.7  
Section 5.8  
Section 12.3  
Assignments Due: **Sunday, 10/13** |
| Week 8: 10/14 – 10/18 | Test #4 Review  
**Test #4**  
Final Exam  
Assignments Due: **Friday, 10/18** |

**Homework Assignments:**
All homework assignments are due at 11:59pm on their due date, unless otherwise specified. Assignments are found on the MyMathLab website, [pearsonmylabandmastering.com](http://pearsonmylabandmastering.com). This is a fast 8 week class, so there is lots of homework due each week. Do not fall behind or it will be almost impossible to pass the class. If you find yourself behind, you should immediately carve out the necessary time needed in order to get completely caught back up as soon as possible. I cannot stress about the pace enough in this class.

Each assignment is labeled with the number of problems that it contains. Each problem has 5 similar problems available. Use “Help Me Solve It” wisely; if you click on it before grading a problem, it uses up one similar problem. However, it is a very useful tool and is still accessible on a problem after it has been graded. You will also want to make use of the “View an Example” feature. This is an example that will also guide you through the working of a problem.

Keep up with your homework assignments and have them completed on time. Students who keep on pace with their homework assignment due dates usually have much better
exam grades than those who fall behind schedule. Late work may be submitted for up to 70% credit (30% deduction).

Allow time for computer problems -- do not wait until the last minute to submit work. Computers are available on campus; you do not have to have a computer or internet access at home, unless you do not want to work on campus. It is your responsibility to know the computer lab hours if you choose to only work on campus and to plan accordingly.

**Exam Review Assignments:**
There are 4 Exam Reviews in MyMathLab that help you review for each exam. A review assignment is due by the date and time indicated in MML and on the syllabus. Each exam will be based on its review quiz, so be sure to have your exam review quiz and homework assignments (that are covered on an exam) done before you take an exam so you can do well.

**Exams:**
There are four (4) regular exams and one final exam. The Final Exam, which is cumulative, is due by the last day of class, as specified on the syllabus. Calculators may be used on exams. Calculators used on exams must not have a computer algebra system or algebraic manipulation. All exams have a time limit of 2 hours and must be completed in one sitting.

**Instructor Policies (Read these carefully, make sure you understand):**
1. Print out Online information sheet, fill this out by hand, then scan and email this back to me.
2. When you email me, your subject line should include the name of our class, and your email should include a greeting as well as your name at the end of your email.
3. Make sure to stay caught up or even ahead on the material. If you get behind, it is incredibly difficult to do well in the class. Remember, since this is an 8 week class, it moves twice as fast and will involve twice the work each week of a normal, 4 credit class each week.
4. For all exams, you must submit written work to me in order to receive full credit for your unit tests. Any test submitted without any written work may only receive 50% of the credit earned by the test score, by the instructor’s discretion. Please scan in your work and submit it to me as a pdf file. If you do not have a scanner, please check out the app called Camscanner which allows you to convert pictures to pdf files to send to me.

**Instructor Suggestions for Student Success:**
1. Read the etext for every section before beginning the homework for that section.
2. Work hard every day.
3. Make sure you know what is due every day and stay on top of the assignments.
4. Use videos and animations (under the Multimedia tab) to supplement reading the etext.
5. When you don’t understand something, ask questions. Struggle is good because it means your brain is growing and you are learning.
6. Visit the Learning Center on Richland’s campus (located in M216), which is Richland’s free tutoring center.
7. Email your instructor when you have questions or find yourself struggling. Use tabs like “help me solve this” and “view an example” to help with homework problems. Be sure to use “help me solve this” conservatively, as using this option will use up one of your 4 attempts on the homework problem.
COURSE SPECIFIC INFORMATION

Catalog Course Description
This course consists of the study of algebraic and trigonometric topics including polynomial, rational, exponential, logarithmic and trigonometric functions and their graphs. Conic sections, polar coordinates, and other topics of analytic geometry will be included.

Prerequisite
Math 1316.

Course Objectives and Learning Outcomes
1. Continue the development of algebraic and transcendental functions.
   a. Demonstrate and apply knowledge of properties of functions
   b. Recognize and apply algebraic and transcendental functions and solve related equations.
   c. Apply graphing techniques to algebraic and transcendental functions
2. Continue the development of the trigonometric functions and their inverses
   a. Compute the values of trigonometric functions and inverse trigonometric functions for key angles in all quadrants of the unit circle measured in both degrees and radians.
   b. Prove trigonometric identities.
   c. Solve right and oblique triangles
3. Expand on the development of the conic sections, polar coordinates, parametric equations, and the three-dimensional rectangular coordinate system
   a. Use the definitions and equations of the conic sections to graph the conics
   b. Apply the conic sections to application problems
   c. Apply the definition of the polar coordinate system to applications and graphs.
   d. Graph curves expressed in parametric form and apply parametric equations to application problems
   e. Use a three-dimensional rectangular coordinate system
4. Continue the development of concepts and computational skills of vectors
   a. Apply vectors to two-dimensional applications
   b. Apply vectors to three-dimensional applications
5. Continue the development of sequences, series, and infinite series
   a. Use geometric series in application problems
   b. Prove statements about sequences and series using mathematical induction

Core Statement
Math 2412 is a core course for Core 2015. It is in the Foundational Component Area of Mathematics. Courses in this category focus on quantitative literacy in logic, patterns, and relationships. Courses involve the understanding of key mathematical concepts and the application of appropriate quantitative tools to everyday experience.

The following core objectives will be addressed and assessed through the content covered in this course:
• Critical Thinking Skills: to include creative thinking, innovation, inquiry, and analysis, evaluation and syntheses of information
• Communication Skills: to include effective development, interpretation and expression ideas through written, oral and visual communication
• Empirical and Quantitative Skills: to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions

Specific Content Coverage

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<tr>
<td>12.4</td>
<td>Mathematical Induction</td>
<td>5b</td>
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<td>4.1</td>
<td>Polynomial Functions and Models</td>
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<td>10.1</td>
<td>Conics</td>
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<td>10.2</td>
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<td>The Graph of a Rational Function</td>
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<td>7.2</td>
<td>The Inverse Trigonometric Functions (Continued)</td>
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<td>Rotation of Axes; General Form of a Conic</td>
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<tr>
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<td>Polar Equations of Conics</td>
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<td>Lines, Planes, and Spheres</td>
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<td>Exponential Growth and Decay Models; Newton’s Law; Logistic Growth and Decay Models</td>
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<td>12.3</td>
<td>Geometric Sequences; Geometric Series</td>
<td>5a</td>
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Academic Dishonesty in Math Classes
Academically dishonest behavior is, in general, the representation of another’s work as one’s own. This includes unauthorized collaboration between students, and on exams it includes using books, notes, or other unauthorized materials or websites or apps during the exam. Students who behave in academically dishonest ways may have their grade penalized, or be subject to disciplinary action by the Dean of Students. Students who collaborate during exams or use unauthorized materials or websites or apps on exams may, at the instructor’s discretion, have the exam grade lowered or be given a grade of zero. In the instance that a student is given the grade of zero on a unit exam, the right of having any unit exam grade replaced with the Final Exam grade is forfeited. Students who are academically dishonest on the Final Exam may, at the instructor’s discretion, have the grade lowered, be given a grade of zero on the final, or be given the grade of F in the course.

RICHLAND COLLEGE INSTITUTIONAL POLICIES
Institutional Policies relating to this course can be accessed from the following link:
www.richlandcollege.edu/syllabipolicies