
Calumet College



of Saint Joseph

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Calumet College of St. Joseph is a Catholic institution of higher learning dedicated to the academic, spiritual and ethical development of undergraduate and graduate students. Informed by the values of its founding religious community, the Missionaries of the Precious Blood (C.P.P.S.), the College promotes the inherent dignity of all people, social justice, an ethic of service, student empowerment, opportunity, and lifelong learning.

We are committed to the Five Pillars of a CCSJ Education: The CCSJ graduate will be Open to Growth, Intellectually Competent, Religious, Loving, and Committed to Doing Justice. This class, as outlined below, will help you to achieve those goals.

COURSE SYLLABUS, Fall 2019

Course: MATH 104 Algebra and Trigonometry

Instructor Information:

Instructor Name	Alyssa Rodriguez
Office Number:	400
Phone Number:	Office: 219-473-4266
Email:	arodriguez@ccsj.edu
Office Hours:	MW 7:30 – 8:30 MW 12:30 – 5:30 <ul style="list-style-type: none">• Please note that meetings and appointments can impact these hours.• Additional office hours are available by appointment

Instructor Background:

Alyssa Rodriguez has a BS in Mathematics Education, a MA in Leadership in Teaching, and is finishing a Ph.D. in Research Methodology. Alyssa teaches research methods at the graduate level, statistics at the undergraduate level, and consults in the areas of general research and data analysis.

Course Information:

Course Time:	Monday and Wednesday 8:30 – 10:00AM
Classroom:	206
Prerequisites:	MATH 103 with a grade of 'C' or better, or an equivalent Accuplacer score.
Required Books and Materials:	Beecher, Penna, Bittinger; <u>Algebra and Trigonometry</u> ; 4 th ed, Pearson ISBN: 9780321693983

		Scientific Calculator
<p>Learning Outcomes/ Competencies: Through appropriate assessments students will demonstrate that they are able to:</p> <ol style="list-style-type: none"> 1. Remember the necessary steps and procedures for manipulating, simplifying, and solving: polynomial and rational functions, exponential and logarithmic functions, trigonometric functions, and the laws of sine's and cosines. 2. Understand what each procedure, manipulation, simplification, and solution means on a conceptual level. 3. Apply their understanding of polynomial and rational functions, exponential and logarithmic functions, trigonometric functions, and the laws of sine's and cosines to solve application problems. 4. Analyze problems in physics, economics, business, and biology to determine appropriate methods for solving them using algebra skills and concepts. 5. Evaluate proposed solutions with respect to commonly accepted practices used in physics, economics, business, and biology. <p>The course also meets the following General Education Program objectives:</p> <ul style="list-style-type: none"> • Students can represent, apply, analyze, and evaluate relevant qualitative and quantitative mathematical and scientific evidence to support or refute an argument (e.g., using equations, graphs, diagrams, tables, words). <p>This course meets Calumet College of St. Joseph's Signature Assignment requirement to demonstrate fundamental competency in quantitative reasoning and scientific inquiry.</p>		
<p>Course Description: This course is designed to prepare students for the standard calculus sequence. Topics include polynomial and rational functions, exponential and logarithmic functions, trigonometric functions, and the laws of sine's and cosines.</p>		
<p>Learning Strategies: Group discussions, lecture, IXL software, and lots of practice. The objective is to promote your understanding of mathematics concepts and to enable you to apply them in a meaningful way. You are encouraged to rely on logical thinking, rather than on memorization. It is VERY important that you READ the sections of the textbook, STUDY the examples and WORK problems. Active participation in class and utilization of services such as the <u>CCSJ Student Success Center</u> will help ensure your success.</p> <p>It is also suggested that you utilize Khan Academy for additional help on homework outside of the classroom. http://www.khanacademy.org/math/algebra</p>		
<p>Experiential Learning Opportunities: Applications of the course objectives</p>		

Assessments:		
Exams:	Chapter exams	60 % of grade

Cumulative Final Exam:	Chapter R – Chapter 10	20% of grade
Written Homework:	Assigned Weekly per schedule	10 % of grade
IXL Homework:	Assigned per chapter (se schedule)	10% of grade
Grading Scale:		
100% – 92%: A	91% – 90%: A-	
89% – 88%: B+	87% – 82%: B	81% – 80%: B-
79% – 78%: C+	77% – 72%: C	71% – 70%: C-
69% – 68%: D+	67% – 62%: D	61% – 60%: D-
59% and below:	F	

Responsibilities	
Attending Class	<p>You cannot succeed in this class if you do not attend. We believe that intellectual growth and success in higher education occur through interaction in the classroom and laboratories. However, we do not want to penalize students for participating in college-sponsored events. When you miss class because of a college event, you must give notice of your absence in advance, and you are responsible for all missed work. Being absent doesn't excuse you from doing class work; you have more responsibilities to keep up and meet the objectives of this course.</p> <p style="text-align: center;"><i>Eighty percent of success is showing up.</i> -Woody Allen</p> <p>Attendance is important and is expected. You are responsible for all material covered in class, including announcements of assignments and quizzes. If you miss class, you must contact the instructor by email (arodriguez@ccsj.edu) within 24 hours. The instructor is more than willing to meet you halfway on this, but remember that there are TWO halves. If you are more than 15 minutes late to class, that will count as an absence. BE PRESENT, BE ON TIME.</p>
Turning In Your Work	<p>You cannot succeed in this class if you do not turn in all your work on the day it is due.</p> <p>Late homework is not accepted for any reason, under any circumstances. If you are absent on the day that work is due on paper, please scan it and email it to the instructor.</p>
Meeting Standards for Classroom Behavior	<ul style="list-style-type: none"> • Use all the class time. Come to class on time and stay in class until the end. Coming late, leaving early, and getting up during class disrupts the class and disrespects others. • Come prepared. Bring your texts, be prepared to take notes, and be able to demonstrate that you have completed the assignments for the day through your participation in class. • Respect others. Listen when your classmates and the instructor are speaking. Think about their contributions. Respond appropriately. • Use electronic devices only for class purposes. Engage with your classmates and the instructor without technological distractions. Unless

	<p>specified, please keep them silent and put away during class. Additionally, NO ELECTRONIC DEVICES OF ANY KIND ARE TO BE USED ON QUIZZES OR EXAMS.</p>
<p>CCSJ Student Honor Code</p>	<p>This course asks students to reaffirm the CCSJ Student Honor Code:</p> <p>I, as a student member of the Calumet College academic community, in accordance with the college's mission and in a spirit of mutual respect, pledge to:</p> <ul style="list-style-type: none"> • Continuously embrace honesty and curiosity in the pursuit of my educational goals; • Avoid all behaviors that could impede or distract from the academic progress of myself or other members of my community; • Do my own work with integrity at all times, in accordance with syllabi, and without giving or receiving inappropriate aid; • Do my utmost to act with commitment, inside and outside of class, to the goals and mission of Calumet College of St. Joseph.
<p>Participating in Class</p>	<p>Tests and In Class Assignments:</p> <ul style="list-style-type: none"> • Four <u>chapter tests</u> will be given during the term and <u>one comprehensive final exam</u> during exam week. • You will be allowed to use one piece of paper (8 ½ x 11), one side only, of notes on your chapter tests. • You will be allowed to use one piece of paper (8 ½ x 11), both sides, of notes on your final exam. • You will be allowed to use a calculator on all exams. • You will NOT be allowed to use any electronic devices on an exam (i.e. phone, tablet, etc.). • Please note that you MUST pass your exams to pass this course. • Thoughtful completion of your homework should be done to practice and prepare for your exams. • You are allowed to drop your lowest chapter test score (NOT final exam). There are absolutely NO makeup exams, for any reason so if you are absent on the day of an exam, that will be your dropped score. If you know of a planned absence in advance, you can take the exam BEFORE the scheduled exam date. • In class assignments cannot be made up, but your two lowest scores will be dropped. In class assignments will not be announced ahead of time. <p>Written homework assignments and IXL homework assignments:</p> <ul style="list-style-type: none"> • Homework is critical to your success in this course. The written homework and IXL homework are meant to serve as practice for the exams. • Your written homework should be neat and organized. Problems should be copied from the book and all necessary work should be shown. Answers without work will not be given credit. All written homework from the textbook will be due when you take your exams. • NO LATE HOMEWORK will be accepted, for any reason, period. You are welcome to turn it in early, but never late.

Doing Your Own Work	<p>If you turn in work that is not your own, you will be subject to judicial review by the Faculty-Student Grievance Committee. These procedures can be found in the Student Planner. The maximum penalty for any form of academic dishonesty is dismissal from the College.</p> <p>Using standard citation guidelines to document sources avoids plagiarism. You'll find guides to the major citation methods at the CCSJ Specker Library Web page at http://www.ccsj.edu/library/subjectsplus/subjects/guide.php?subject=cite</p> <p>PLEASE NOTE: All papers may be electronically checked for plagiarism.</p>
Tracking Your Progress	Your midterm grade will be available on MyCCSJ between Weeks 6 and 8. Be sure to see how you're doing and follow up with your instructor.
Sharing Your Class Experience	Your voice matters! At the end of the term, you will have the opportunity to evaluate your classroom experience. These confidential surveys are essential to our ongoing efforts to ensure that you have a great experience that leaves you well prepared for your future. Take the time to complete your course evaluations – we value your feedback!
Withdrawing from Class	After the last day established for class changes has passed (see the College calendar in the CCSJ Course Catalog), you may withdraw from a course by following the policy outlined in the Course Catalog.

Resources	
CCSJ Book Rental Program	The CCSJ Book Program ensures that everyone has the right course materials on the first day of class to be successful. You pay a book rental fee each semester, and in return, receive all the materials for all your classes prior to the beginning of classes. At the end of the semester, simply return the books. For traditional students, the Book Rental Program is conveniently located in the library, where students can pick up and return their books. For students in accelerated programs and graduate programs, books will be delivered to their homes and they can return them by mail. For more information, see http://www.ccsj.edu/bookstore . All books must be returned at the end of the semester or you will incur additional fees, which will be charged to your student account.
Student Success Center	The Student Success Center provides faculty tutors at all levels to help you master specific subjects and develop effective learning skills. It is open to all students at no charge. You can contact the Student Success Center at 219 473-4287 or stop by the Library.
Disability Services	Disability Services strives to meet the needs of all students by providing academic services in accordance with Americans with Disabilities Act (ADA) guidelines. If you believe that you need a "reasonable accommodation" because of a disability, contact the Disability Services Coordinator at 219-473-4349.
Student Assistance Program	Through a partnership with Crown Counseling , Calumet College of St. Joseph provides a free Student Assistance Program (SAP) to current students. The SAP is a confidential counseling service provided to students for personal and school concerns which may be interfering with academic performance and/or quality of life. The SAP counselor is available on campus once a week and off-site at the Crown Counseling offices in Crown Point or Hammond. For more information, contact Kerry Knowles SAP Counselor,

	at 219-663-6353 (office), 219-413-3702 (cell), or kerryk@crowncounseling.org .
CCSJ Alerts	Calumet College of St. Joseph's emergency communications system will tell you about emergencies, weather-related closings, or other incidents via text, email, or voice messages. Please sign up for this important service annually on the College's website at: http://www.ccsj.edu/alerts/index.html .

Course Schedule:

I reserve the right to change this schedule to meet the needs of the class.

Date	Topic	Homework Assigned	Homework Due Date/Time
8-26-19	Introduction to class Chapter R Pretest	<p style="text-align: center;">Written:</p> <p style="text-align: center;">Pgs. 154 – 156 #1 -41</p> <p style="text-align: center;">IXL:</p> <p>Ch. R <u>Algebra 2 (A2 or M) tab:</u> N.7 – Solve rational equations</p> <p><u>Pre-calculus (PC or N) tab:</u></p> <p>H.6 – Simplify radical expressions w/variables</p> <p>H.8 – Simplify expressions with rational exponents</p> <p>Ch. 1 <u>Pre-calculus (PC or N) tab:</u></p> <p>A.3 – Evaluate functions</p> <p>A.7 – Graph a linear function</p> <p>A.8 – Write the equation of a linear function</p> <p>P.5 – Write equations of circles in standard form</p>	<p style="text-align: center;">9-9-19</p> <p style="text-align: center;">Notes:</p> <p style="text-align: center;">For written work, ALL work must be shown to receive credit.</p> <p style="text-align: center;">For IXL work, a smart score of <u>at least 75</u> (a “C”) should be achieved on each section. But <u>AIM FOR 100</u> (an “A”).</p>
8-28-19	Chapter R and Chapter 1		
9-2-19	No Class – Labor Day		
9-4-19	Chapter R and 1 Test Prep Chapter 2		
9-9-19	Chapter R and 1 Exam		

9-11-19	Chapter 2	<p>Written:</p> <p>Pgs. 231-232, #1-39</p> <p>IXL:</p> <p>Pre-calculus (PC) tab [or (N) tab]: A.11 Add, Subtract, Multiply, Divide Functions</p> <p>A.12 Composition of Functions</p> <p>B.1 Function Transformation Rules</p> <p>B.2 Translations of Functions</p> <p>B.3 Reflections of Functions</p> <p>Algebra 2 (A2) tab [or (M) tab]:</p> <p>Q.4 Write Joint and Combined Variations Equations I</p> <p>Q.7 Solve Variation Equations</p>	<p>9-23-19</p> <p>Notes:</p> <p>For written work, ALL work must be shown to receive credit.</p> <p>For IXL work, a smart score of <u>at least 75</u> (a “C”) should be achieved on each section. But <u>AIM FOR 100</u> (an “A”).</p>
9-16-19	Chapter 2		
9-18-19	Chapter 2		
9-23-19	Chapter 2 Exam		
9-25-19	Chapter 3	<p>Written:</p> <p>Pgs. 293, #1-32</p> <p>IXL:</p> <p>Pre-calculus (PC) tab [or (N) tab]:</p> <p>R.6 Powers of i</p> <p>R.4 Add, Subtract, Multiply, Divide Complex Numbers</p> <p>C.4 Match Quadratic Functions and Graphs</p> <p>E.2 Solve Rational Equations</p> <p>G.2 Solve Radical Equations</p> <p>Algebra 2 (A2) tab [or (M) tab]:</p>	<p>10-7-19</p> <p>Notes:</p> <p>For written work, ALL work must be shown to receive credit.</p> <p>For IXL work, a smart score of <u>at least 75</u> (a “C”) should be achieved on each section. But <u>AIM FOR 100</u> (an “A”).</p>

		B.4 Solve Absolute Value Equations C.6 Solve Absolute Value Inequalities	
9-30-19	Chapter 3		
10-2-19	Chapter 3		
10-7-19	Chapter 3 Exam		
10-9-19	Chapter 4	<p>Written:</p> <p>Pgs. 385-386, 3,4,9-21,23</p> <p>Pg. 358 [NOTE page], #33-75 (every other odd) – Graphs not required; just give equations of all asymptotes</p> <p>Pg. 386, #26-31</p> <p>IXL:</p> <p>Pre-calculus (PC) tab [or (N) tab]:</p> <p>D.7 Complex Conjugate Theorem</p> <p>D.9 Descartes' Rule of Signs</p> <p>D.11 Match Polynomials and Graphs</p> <p>E.1 Rational Functions: Asymptotes and Excluded Values</p>	<p>10-21-19</p> <p>Notes:</p> <p>For written work, ALL work must be shown to receive credit.</p> <p>For IXL work, a smart score of <u>at least 75</u> (a "C") should be achieved on each section. But <u>AIM FOR 100</u> (an "A").</p>
10-14-19	Chapter 4		
10-16-19	Chapter 4		
10-21-19	Chapter 4 Exam		
10-23-19	Chapter 5	<p>Written:</p> <p>Pg. 409, #28-34 (even) [use $f(x) = 2x$ as basic function – do not need to graph], #51, 53 [show work]</p> <p>Pgs. 426-427, # 12, 14, 18, 20, 24, 26, 34, 38, 42, 48, 50, 54, 56, 62, 64, 66, 69, 72, 84-92 (even)</p> <p>Pg. 475 #14-30, 32, 33</p> <p>IXL:</p> <p>Pre-calculus (PC) tab [or (N) tab]:</p> <p>F.2 – Convert between exponential and logarithmic forms</p>	<p>11-4-19</p> <p>Notes:</p> <p>For written work, ALL work must be shown to receive credit.</p> <p>For IXL work, a smart score of <u>at least 75</u> (a "C") should be achieved on each section. But <u>AIM FOR 100</u> (an "A").</p>

		F.4 - Evaluate logarithms F.11 - Solve logarithmic equations with one logarithm F.12 – Solve logarithmic equations with multiple logarithms	
10-28-19	Chapter 5		
10-30-19	Chapter 5		
11-4-19	Chapter 5 Exam		
11-6-19	Chapter 6	<p>Written:</p> <p>Pgs. 581-582, #1-26, 28</p> <p>IXL:</p> <p>Pre-calculus (PC) tab [or (N) tab]:</p> <p>M.5 – Find trigonometric ratios using right triangles</p> <p>M.12 – Solve a right triangle</p> <p>M.1 – Convert between radians and degrees</p> <p>M.2 – Radians and arc length</p> <p>M.6 – Find trigonometric ratios using the unit circle</p> <p>N.1 – Find properties of sine function</p> <p>N.2 – Write equations of sine functions from graphs</p>	<p>12-4-19</p> <p>Notes:</p> <p>For written work, ALL work must be shown to receive credit.</p> <p>For IXL work, a smart score of <u>at least 75</u> (a “C”) should be achieved on each section. But <u>AIM FOR 100</u> (an “A”).</p>
11-11-19	Chapter 6		
11-13-19	Chapter 6 Chapter 7	<p>Written:</p> <p>Pg. 613, #5-14</p> <p>Pg. 613, #15-20, 22 [Work must be shown to receive credit]</p> <p>Pg. 645, #13-15, 17, 18 [Work must be shown to receive credit]</p> <p>IXL:</p> <p>Pre-calculus (PC) tab [or (N) tab]:</p>	<p>12-4-19</p> <p>Notes:</p> <p>For written work, ALL work must be shown to receive credit.</p> <p>For IXL work, a smart score of <u>at least 75</u> (a “C”) should be achieved on each</p>

		<p>O.3 – Trigonometric identities I</p> <p>Use these for the IXL:</p> <p>Reciprocal Identities:</p> $\csc(\theta) = \frac{1}{\sin(\theta)} \quad \sin(\theta) = \frac{1}{\csc(\theta)}$ $\sec(\theta) = \frac{1}{\cos(\theta)} \quad \cos(\theta) = \frac{1}{\sec(\theta)}$ $\cot(\theta) = \frac{1}{\tan(\theta)} \quad \tan(\theta) = \frac{1}{\cot(\theta)}$ <p>Pythagorean Identities:</p> $\sin^2(\theta) + \cos^2(\theta) = 1$ $\tan^2(\theta) + 1 = \sec^2(\theta)$ $\cot^2(\theta) + 1 = \csc^2(\theta)$	<p>section. But <u>AIM FOR 100 (an "A")</u>.</p>
11-18-19	Chapter 7		
11-20-19	Chapter 7 Chapter 8	<p>Written:</p> <p>Pg. 660, #1, 3, 5, 24 [Work must be shown to receive credit.]</p> <p>Pg. 670, #1, 5. 17-19, 22-24</p> <p>IXL:</p> <p>No IXL for chapter 8</p>	<p>12-4-19</p> <p>Notes:</p> <p>For written work, ALL work must be shown to receive credit.</p> <p>For IXL work, a smart score of <u>at least 75 (a "C")</u> should be achieved on each section. But <u>AIM FOR 100 (an "A")</u>.</p>
11-25-19	No Class – Thanksgiving Break		
11-27-19	No Class – Thanksgiving Break		
12-2-19	Chapter 8		
12-4-19	Chapter 6 – 8 Exam		
12-9-19	Review for Final Exam		
12-11-19	Final Exam		<p>Congrats! You have finished the semester!</p>

