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COURSE SYLLABUS

Term: Spring 2017 (2016-2)

Course: MATH 103 B Intermediate Algebra

Instructor Information:	
Instructor Name	Carrie Hutton
Office Number:	302
Phone Number:	219-473-4284
Email:	chutton@ccsj.edu
Hours Available:	<ul style="list-style-type: none"> M/W 8:00 am – 10:00 am, 3:15 pm – 4:15 pm T/R 3:15 pm – 4:15 pm Please note that meetings and appointments can effect these hours. Additional office hours are available by appointment
Instructor Background: B.S. Actuarial Science, Indiana University; M.S. Mathematics and Statistics, Purdue University; M.S.E. Engineering, Purdue University	

Course Information:	
Course Time:	Tuesday and Thursday, 10:15 – 11:45 AM
Classroom:	TBD
Prerequisites:	MATH 097 with a grade of 'C' or better, or an equivalent Accuplacer score
Required Books and Materials:	Lial, Hornsby, McGinnis <u>Intermediate Algebra</u> , 10 th edition, Pearson, 2014 ISBN: 9780321872180
Learning Outcomes/ Competencies:	
Through appropriate assessments students will demonstrate that they are able to:	
<ol style="list-style-type: none"> 1. Remember the necessary steps and procedures for manipulating, simplifying, and solving: algebraic expressions, exponents, polynomials, graphs, inequalities, absolute value, linear and quadratic expressions, systems of equations, rational expressions, and logarithms. 2. Understand what each procedure, manipulation, simplification, and solution means on a conceptual level. 	

3. **Apply** their understanding of algebraic expressions, exponents, polynomials, graphs, inequalities, absolute value, linear and quadratic expressions, systems of equations, rational expressions, and logarithms 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.

Course Description: This course treats algebraic expressions, exponents, polynomials, graphing, inequalities, absolute value, linear and quadratic expressions, and systems of equations, applications, rational expressions, and logarithms.

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 CCSJ Student Success Center will help ensure your success.

It is also suggested that you utilize Khan Academy for additional help on homework outside of the classroom. <http://www.khanacademy.org/math/algebra>

Experiential Learning Opportunities:

Applications of the course objectives

Assessments:

Exams:	Four chapter exams (R – 2, 3 – 5, 6 – 7, 8 – 10)	40 % of grade
Cumulative Final Exam:	Chapter R – Chapter 10	20% of grade
In Class Assignments:	Assigned Weekly in Class	10% of grade
Textbook Homework:	Assigned Weekly per schedule	15 % of grade
IXL Homework:	Assigned Weekly per schedule	15% of grade

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 (chutton@ccsj.edu) within 24 hours. The instructor is more than willing to meet you halfway on this, but remember that there are TWO halves. You are allowed to miss 2 classes, without penalty. After that, every class that you are absent from will result in a one (1) percentage point loss from your final grade. You should 'save' your two absences for emergencies. 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>
Using Electronic Devices	<p>Electronic devices are out of place in the classroom. 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>
Participating in Class	<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.

	<ul style="list-style-type: none"> • 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. • IXL homework will be due each week (see calendar for due dates). You MUST do at least 12 problems in each assignment, but can do more (before the due date) to raise your IXL homework score. • It is expected that you will spend 3 – 5 hours outside of class each week practicing math. You must practice to succeed. • 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 are subject to judicial review, and these procedures can be found in the College Catalog and the Student Planner. The maximum penalty for any form of academic dishonesty is dismissal from the College.</p> <p>Using standard citation guidelines, such as MLA or APA format, to document sources avoids plagiarism. The Library has reference copies of each of these manuals, and there are brief checklists in your Student Handbook and Planner.</p> <p>PLEASE NOTE: All papers may be electronically checked for plagiarism.</p>
Withdrawing from Class	<p>After the last day established for class changes has passed (see the College calendar), you may withdraw from a course by following the policy outlined in the CCSJ Course Catalog.</p>

Resources	
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.
CCSJ Alerts:	<p>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.</p> <p>In addition, you can check other media for important information, such as school closings:</p> <p>Internet: http://www.ccsj.edu Radio: WAKE – 1500 AM, WGN – 720 AM, WIJE – 105.5 FM, WLS – 890 AM, WZVN – 107.1 FM, WBBM NEWS RADIO 78 TV Channels: 2, 5, 7, 9, 32</p>

Emergency Procedures

MEDICAL EMERGENCY

EMERGENCY ACTION
<ol style="list-style-type: none"> 1. Call 911 and report incident. 2. Do not move the patient unless safety dictates. 3. Have someone direct emergency personnel to patient. 4. If trained: Use pressure to stop bleeding. 5. Provide basic life support as needed.

FIRE

EMERGENCY ACTION
<ol style="list-style-type: none"> 1. Pull alarm (located by EXIT doors). 2. Leave the building. 3. Call 911 from a safe distance, and give the following information: <ul style="list-style-type: none"> • Location of the fire within the building. • A description of the fire and how it started (if known)

BUILDING EVACUATION

1. All building evacuations will occur when an alarm sounds and/or upon notification by security/safety personnel. **DO NOT ACTIVATE ALARM IN THE EVENT OF A BOMB THREAT.**
2. If necessary or if directed to do so by a designated emergency official, activate the building alarm.
3. When the building evacuation alarm is activated during an emergency, leave by the nearest marked exit and alert others to do the same.
4. Assist the disabled in exiting the building! Remember that the elevators are reserved for persons who are disabled. **DO NOT USE THE ELEVATORS IN CASE OF FIRE. DO NOT PANIC.**
5. Once outside, proceed to a clear area that is at least 500 feet away from the building. Keep streets, fire lanes, hydrant areas and walkways clear for emergency vehicles and personnel. The assembly point is the sidewalk in front of the college on New York Avenue.
6. **DO NOT RETURN** to the evacuated building unless told to do so by College official or emergency responders.

IF YOU HAVE A DISABILITY AND ARE UNABLE TO EVACUATE:

Stay calm, and take steps to protect yourself. If there is a working telephone, call 911 and tell the emergency dispatcher where you are **or** where you will be moving. If you must move,

1. Move to an exterior enclosed stairwell.
2. Request persons exiting by way of the stairway to notify the Fire Department of your location.
3. As soon as practical, move onto the stairway and await emergency personnel.
4. Prepare for emergencies by learning the locations of exit corridors and enclosed stairwells. Inform professors, and/or classmates of best methods of assistance during an emergency.

HAZARDOUS MATERIAL SPILL/RELEASE

EMERGENCY ACTION

1. Call 911 and report incident.
2. Secure the area.
3. Assist the injured.
4. Evacuate if necessary.

TORNADO

EMERGENCY ACTION

1. Avoid automobiles and open areas.
2. Move to a basement or corridor.
3. Stay away from windows.
4. Do not call 911 unless you require emergency assistance.

SHELTER IN PLACE

EMERGENCY ACTION

1. Stay inside a building.
2. Seek inside shelter if outside.
3. Seal off openings to your room if possible.

4. Remain in place until you are told that it is safe to leave.

BOMB THREATS

EMERGENCY ACTION

1. Call 911 and report incident.
2. If a suspicious object is observed (e.g. a bag or package left unattended):
 - Don't touch it!
 - Evacuate the area.

TERRORISM AND ACTIVE SHOOTER SITUATIONS

EMERGENCY ACTION

1. Call 911 and report intruder.

RUN, HIDE OR FIGHT TIPS:

1. **Prepare** – frequent training drills to prepare the most effectively.
2. **Run and take others with you** – learn to stay in groups if possible.
3. **Leave the cellphone.**
4. **Can't run? Hide** – lock the door and lock or block the door to prevent the shooter from coming inside the room.
5. **Silence your cellphone** -- use landline phone line.
6. **Why the landline?** It allows emergency responders to know your physical location.
7. **Fight** – learn to “fight for your life” by utilizing everything you can use as a weapon.
8. **Forget about getting shot – fight!** You want to buy time to distract the shooter to allow time for emergency responders to arrive.
9. **Aim high** – attack the shooter in the upper half of the body: the face, hands, shoulder, neck.
10. **Fight as a group** – the more people come together, the better the chance to take down the shooter.
11. **Whatever you do, do something** – “react immediately” is the better option to reduce traumatic incidents.

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

Date	Topic	Homework Assigned	Homework Due Date/Time
1-10-17	Introduction to class Chapter R: Review of the Real Number System	Textbook (TB) p.44 #1-15 all IXL Algebra I: A.6 – Square Roots A.7 – Cube Roots A.8 – Classify Numbers B.2 – Evaluate Numerical Expressions involving Integers B.7 – Evaluate Variable Expressions using Rational Numbers	1-26-17 at the beginning of class (Exam I) 1-16-17 by 10 pm
1-12-17	Chapter R: Review of the Real Number System	IXL Algebra I: H.1 – Properties of Addition and Multiplication H.2 – Distributive Property H.4 – Properties of Equality	1-16-17 by 10 pm
1-17-17	Chapter 1: Linear Equations and Applications	TB p. 106 #1-8 all IXL Algebra I: J.7 – Find the number of solutions J.9 – Solve Linear Equations, Word Problems J.10 – Solve Linear Equations, Mixed Review G.1 – Coordinate Plane Review H.3 – Simplify Variable Expressions using Properties	1-26-17 at the beginning of class (Exam I) 1-23-17 by 10 pm
1-19-17	Chapter 1: Linear Equations and Applications	TB p. 156 #1-7 all, #10 – 22 all	1-26-17 at the beginning of class (Exam I)

	Chapter 2: Linear Inequalities and Absolute Value	<p>IXL Algebra I:</p> <p>K.2 – Write Inequalities from Graphs</p> <p>K.11 – Graph Solutions to Advanced Linear Inequalities</p> <p>K.13 – Write Compound Inequalities from Graphs</p> <p>K.15 – Graph Solutions to Compound Inequalities</p>	1-23-17 by 10 pm
1-24-17	Chapter 2: Linear Inequalities and Absolute Value	<p>IXL Algebra I:</p> <p>L.2 – Graph Solutions to Absolute Value Equations</p> <p>L.4 – Graph Solutions to Absolute Value Inequalities</p>	1-30-17 by 10 pm
1-26-17	Exam I (Chapter R – Chapter 2)	None	All Textbook homework is due TODAY, at the BEGINNING of class. NO LATE HOMEWORK will be accepted.
1-31-17	Chapter 3: Graphs, Linear Equations, and Functions	<p>TB p. 237 #1-22 all</p> <p>IXL Algebra I:</p> <p>S.3 – Find Slope from Two Points</p> <p>S.6 – Slope Intercept Form, Graph an Equation</p> <p>S.7 – Slope-Intercept Form: Write an Equation from a Graph</p> <p>S.11 – Linear Equations: Solve for y</p> <p>S.15 – Write Equations in Standard Form</p> <p>S.16 – Standard Form, Find x- and y- Intercepts</p> <p>S.17 – Standard Form, Graph and Equation</p> <p>S.19 – Graph a Horizontal or Vertical Line</p> <p>S.21 – Point-Slope Form: Write an Equation</p> <p>S.23 – Slopes of Parallel and Perpendicular Lines</p> <p>S.24 – Write an Equation for a Parallel or Perpendicular Line</p>	<p>2-23-17 at the beginning of class (Exam II)</p> <p>2-13-17 by 10 pm</p>

		T.3 – Graph two variable inequalities T.4 – Linear Inequalities Word Problems	
2-2-17	Chapter 3: Graphs, Linear Equations, and Functions	Continue with Chapter 3 homework	
2-7-17	Chapter 3: Graphs, Linear Equations, and Functions	Continue with Chapter 3 homework	
2-9-17	Chapter 4: Systems of Linear Equations	TB p. 287 #1-11 all IXL Algebra I: U.1 – Is (x,y) a Solution to the System? U.2 – Solve a System of Equations by Graphing U.8 – Solve a System of Equations using Substitution U.10 – Solve a System of Equations using Elimination	2-23-17 at the beginning of class (Exam II) 2-20-17 by 10 pm
2-14-17	Finish Chapter 4: Systems of Linear Equations Chapter 5: Exponents, Polynomials, and Polynomial Functions	TB p. 346 #1-22 all IXL Algebra I: V.6 – Multiplication and Division with Exponents V.8 – Evaluate Expressions Involving Exponents W.1 – Convert Between Standard and Scientific Notation Z.4 – Add and Subtract Polynomials Z.8 – Multiply Two Binomials Z.10 – Multiply Polynomials GG.5 – Divide Polynomials	2-23-17 at the beginning of class (Exam II) 2-27-17 by 10 pm
2-16-17	No Class – Instructor absence		

2-21-17	Chapter 5: Exponents, Polynomials, and Polynomial Functions	TB p. 348 #1-35 all	2-23-17 at the beginning of class (Exam II)
2-23-17	Exam II (Chapter 3 - Chapter 5)	None	All Textbook homework is due TODAY, at the BEGINNING of class. NO LATE HOMEWORK will be accepted
2-28-17	No Class – Spring Break		
3-2-17	No Class – Spring Break		
3-7-17	Chapter 6: Factoring	TB p. 391 #1-20 all IXL Algebra I: AA.1 – GCF of Monomials AA.2 – Factor out a Monomial AA.4 – Factor Quadratics with Leading Coefficient of 1 AA.5 – Factor Quadratics with other Leading Coefficients AA.6 – Factor Quadratics: Special Cases AA.7 – Factor by Grouping AA.8 – Factor Polynomials BB.7 – Solve a Quadratic Equation by Factoring	3-23-17 at the beginning of class (Exam III) 3-20-17 by 10 pm
3-9-17	Chapter 6: Factoring	Continue with Chapter 6 homework	
3-14-17	Chapter 6: Factoring	Continue with Chapter 6 homework	
3-16-17	Chapter 7: Rational Expressions and Functions	TB p. 463 #1-18 all IXL Algebra I: GG.2 – Simplify Complex Fractions GG.3 – Simplify Rational Expressions GG.4 – Multiply and Divide Rational Expressions	3-23-17 at the beginning of class (Exam III) 3-27-17 by 10 pm

		GG.6 – Add and Subtract Rational Expressions GG.7 – Solve Rational Equations R.5 – Write and Solve Direct Variation Equations R.8 – Write and Solve Inverse Variation Equations	
3-21-17	Chapter 7: Rational Expressions and Functions	Continue with Chapter 7 homework	
3-23-17	Exam III (Chapter 6 – Chapter 7)	None	All Textbook homework is due TODAY, at the BEGINNING of class. NO LATE HOMEWORK will be accepted
3-28-17	Chapter 8: Roots, Radicals, and Root Functions	TB p. 541 #1-30 all IXL Algebra I: EE.7 – Simplify Radical Expressions Mixed Review FF.1 – Evaluate a Radical Function FF.2 – Domain and Range of Radical Functions FF.4 – Solve Radical Equations II IXL Algebra II: H.6 – Add, Subtract, Multiply, and Divide Complex Numbers M.6 – Simplify Expressions Involving Rational Exponents II	4-18-17 at the beginning of class (Exam IV) 4-3-17 by 10 pm
3-30-17	Chapter 8: Roots, Radicals, and Root Functions	Continue with Chapter 8 homework	
4-4-17	Chapter 9: Quadratic Equations, Inequalities, and Functions (ONLY 9.1 and 9.2)	TB p. 627 #1-11 all, IXL Algebra I:	4-18-17 at the beginning of class (Exam IV) 4-10-17 by 10 pm

		BB.1 – Characteristics of Quadratic Functions BB.2 – Complete a Function Table: Quadratic Functions BB.5 – Solve a Quadratic Equation Using Square Roots BB.6 – Solve an Equation using the Zero Product Property BB. 9 – Solve a Quadratic Equation by Completing the Square BB. 10 – Solve a Quadratic Equation by using the Quadratic Formula	
4-6-17	Chapter 9: Quadratic Equations, Inequalities, and Functions	Continue with Chapter 9 homework	
4-11-17	Chapter 10: Inverse, Exponential, and Logarithmic Functions (Only 10.1, 10.3, 10.4, 10.5)	TB p. 692 #1, 8-19 all IXL Algebra II: R.1 – Convert Between Exponential and Logarithmic Form: Rational Bases R.4 – Evaluate Logarithms R.11 – Properties of Logarithms: Mixed Review S.2 – Evaluate Exponential Functions S.5 – Solve Exponential Equations using Common Logarithms	4-18-17 at the beginning of class (Exam IV) 4-17-17 by 10 pm
4-13-17	Chapter 10: Inverse, Exponential, and Logarithmic functions	TB p. 694 #1-25 all, 27, 29, 30-33	Week of 4-24-17 at the beginning of class (Final Exam)
4-18-17	Exam IV (Chapter 8 – Chapter 10)		All Textbook homework is due TODAY, at the BEGINNING of class. NO LATE HOMEWORK will be accepted

4-20	Review for the final exam	STUDY	
Week of 4-24-17	Final Exam (We will follow the CCSJ final exam schedule, to be released at a later date)		<p>All Textbook homework is due TODAY, at the BEGINNING of class. NO LATE HOMEWORK will be accepted</p> <p>Congrats! You have finished the semester!</p>