IVY TECH COMMUNITY COLLEGE – REGION 03 SYLLABUS MATH 136: COLLEGE ALGEBRA SUMMER 2013

| Instructor: Jack Caster | Telephone: 260-482-9171 ext. 2518 |
|------------------------------------------|-----------------------------------------------|
| Classroom Number: CC1784 | E-mail Address: jcaster@ivytech.edu |
| Course Section Number: 40C | Meets –Days/Times: MW 2:00 pm – 4:50 pm |
| Office Location: HM 1228 | MML Course ID: caster03247 |
| Office Hours: T 2:30 pm – 5:50 pm | MML Website: www.pearsonmylabandmastering.com |
| | |

COURSE TITLE: College Algebra COURSE NUMBER: MATH 136

PREREQUISITES: MATH 111 Intermediate Algebra or demonstrated competency through appropriate assessment or earning a grade of "C" or better in MATH 035 Fundamentals of Algebra II or MATH 043 Essentials of Algebra II.

DIVISION: School of Applied Science and Engineering Technology

PROGRAM: Mathematics

CREDIT HOURS: 3 CONTACT HOURS: Lecture: 3

CATALOG DESCRIPTION: Presents an in-depth study of functions, quadratic, polynomial, radical, and rational equations, radicals, complex numbers, systems of equations, matrices, rational fractions and exponential and logarithmic functions. MATH 136 and MATH 137 together comprise a standard two-semester college algebra and trigonometry course.

MAJOR COURSE LEARNING OBJECTIVES: Upon successful completion of this course the student will be expected to:

- 1. Determine, evaluate, and graph functions.
- 2. Simplify and perform operations on complex numbers.
- 3. Simplify rational expressions.
- 4. Simplify and perform operations on radicals.
- 5. Solve radical equations.
- 6. Solve quadratic and rational equations and inequalities.
- 7. Apply the concepts of ratio, proportion and combined variation.
- 8. Apply the properties of logarithms to solve exponential and logarithmic equations.
- 9. Solve polynomial equations and graph polynomial functions.
- 10. Graph exponential and logarithmic functions.
- 11. Graph rational functions.
- 12. Solve systems of equations with three variables.
- 13. Solve a variety of application problems in the above areas.
- 14. Use a scientific and/or graphing calculator proficiently as related to coursework.
- 15. Use computer technology, which may include the Internet, the Web, e-mail or computer tutorials to enhance the course objectives.

COURSE CONTENT: Topical areas of study include –

Quadratic, polynomial, rational, and radical equations

Variation

Exponential and logarithmic functions

Radicals and rational expressions Graphs of equations and functions Complex Numbers

Systems of equations

TEXTBOOK/CURRICULUM MATERIALS:

- Sullivan, Michael. *Algebra and Trigonometry*. 9th Edition. Prentice Hall.

 This text is sold as a bundle by Ivy Tech bookstores (see purchasing directions below) with ISBN 9780321760654. The bundle includes the MyMathLab access code, the Student Solution's Manual and a set of Lecture CDs.
- MyMathLab access code (included with the suggested textbook bundle)

HOW TO ACCESS THE IVY TECH COMMUNITY COLLEGE LIBRARY:

The Ivy Tech Library is available to students on and off campus, offering full text journals and books and other resources essential for course assignments. Go to http://www.ivytech.edu/library/ and choose the link for your campus. The library contains several different books that contain similar material as the course textbook.

MATERIALS AND EQUIPEMENT SUPPLIED BY STUDENTS:

You will need paper, pencil, and a scientific and/or graphing calculator (no cell phone calculators).

EVALUATION PROCEDURES:

| 1. | Exam 1 | 20% |
|----|-------------------------|-----|
| | Exam 2 | 20% |
| | Exam 3 | 20% |
| | Exam 4 | 20% |
| | Assignments and Quizzes | 20% |

NO EXTRA CREDIT

2. Grading Scale

90%-100% A 80%-89% B 70%-79% C 60%-69% D Below 60% F

3. Assignments and Quizzes

The assignments & quizzes are due as directed by the instructor in MyMathLab. Quizzes may <u>not</u> be late or made up. Homework may be accepted for half credit within one week of the due date. There are unlimited attempts on homework, but only two attempts for quizzes. The second attempt is only earned if all homework is completed at 80%. Please follow due dates posted in MyMathLab online.

4. Exams

The dates for the exams are shown on the weekly outline. You must obtain your instructor's permission in <u>advance</u> to reschedule an exam. In the rare case of an emergency on the day of the exam, you must speak to your instructor via phone or receive an email reply from your instructor before class begins in order to receive approval. <u>Failure to secure approval from your instructor in advance will result in an exam score of zero</u>. If permission is granted & documentation provided, exams must be made up within a week of the original test date. There are no "retries" on any exams.

5. Final Exam

Exam 4 is scheduled during the last week of class and occurs in place of a comprehensive final exam.

GENERAL INFORMATION:

- 1. Each section has its own MyMathLab course. The course ID is **caster03247**. A student access kit is provided with new textbooks purchased from Ivy Tech's bookstore. If you purchased your textbook elsewhere the kit can be purchased from the bookstore or you can purchase a kit online at http://www.pearsonmylabandmastering.com (You will need a credit card). If you have any questions on using MyMathLab you can call 1-800-677-6337.
- 2. Attendance is very important. Students are expected to attend all classes. Students are responsible for all class notes, materials, and problems assigned whether absent or present. Excessive absences will have a negative affect on the learning experience. Students are expected to arrive to class on time and stay for the duration of the class.
- 3. Cell Phones, pagers, iPods, iPads, laptops, and other electronic devices should be turned off or on vibrate during class. All electronic devices *must* be put away and turned off or on silent during an exam. Cell phones may not be used as a calculator in this course. Texting will NOT be tolerated in this course. If you need to text, do so on the breaks given during class.
- 4. Seek help immediately if the work becomes too difficult. Help is available in the following ways:
 - Contact the Center for Academic Excellence at 480-4262, Coliseum Campus Room 2308 or Harshman Hall room 1610 for free tutoring.
 - Form a study group with classmates and meet before or after class.
 - Find someone who has already successfully completed the course.
 - Use the resources you purchased with your textbook, such as online videos or Study Plans.
 - See the instructor.
- 5. Exams, once taken and graded, are the property of Ivy Tech Community College and are confidential. You will be able to review each test and ask questions but must return each test and may not copy information from it.
- 6. It is college policy that no food or beverages are allowed in the classroom.

ACADEMIC HONESTY STATEMENT:

The College is committed to academic integrity in all its practices. The faculty value intellectual integrity and a high standard of academic conduct. Activities that violate academic integrity undermine the quality and diminish the value of educational achievement. Cheating on papers, tests or other academic works is a violation of College rules. No student shall engage in behavior that, in the judgment of the instructor of the class, may be construed as cheating. This may include, but is not limited to, plagiarism or other forms of academic dishonesty such as the acquisition without permission of tests or other academic materials and/or distribution of these materials and other academic work. This includes students who aid and abet as well as those who attempt such behavior.

COPYRIGHT STATEMENT:

Students shall adhere to the laws governing the use of copyrighted materials. They must insure that their activities comply with fair use and in no way infringe on the copyright or other proprietary rights of others and that the materials used and developed at Ivy Tech Community College contain nothing unlawful, unethical, or libelous and do not constitute any violation of any right of privacy.

ADA STATEMENT:

Ivy Tech Community College seeks to provide reasonable accommodations for qualified individuals with documented disabilities. If you need an accommodation because of a documented disability, please contact the Office of Disability Support Services. If you will require assistance during an emergency evacuation, notify your instructor immediately. Look for evacuation procedures posted in your classroom.

IVY TECH GROWING GREENER:

Ivy Tech Community College—Northeast is committed to the development and implementation of a comprehensive sustainability plan. We're emphasizing our responsibility to go green. To that end, we are asking students, faculty, and staff to actively participate in energy conservation measures and proper recycling on campus. The recycling bins located in classrooms and offices are for paper and paper products only. Ivy Tech participates in single-stream recycling for other items. All aluminum, glass, and plastic beverage containers can co-mingle in the same recycling bins located in the hallways. Please remember to empty the liquid from your containers before depositing them in the bins. Any materials that cannot be recycled should be placed in garbage cans. It is also important to turn off lights and computers when leaving a room. Together, we can make an impact on conserving our limited resources. Remember to reduce, reuse, and recycle!

BREATHE EASY:

Ivy Tech–Northeast is committed to providing a healthy, comfortable and productive environment for the students, faculty and staff of this campus. The use or sale of any tobacco product is prohibited on college-owned, operated, or leased property or vehicles at any time. The policy applied to all Ivy Tech–Northeast facilities and grounds, regardless of location. Smoking, including the use of an e-cigarette, shall not be permitted in any enclosed space and is also prohibited outdoors on all college campus property, including parking lots. This policy applies to all students, faculty, staff and visitors. **Tickets and fines will be issued to violators.**

IMPORTANT DATES: First Day of Summer Classes: Monday, June 10, 2013

Fourth of July - July 4, 2013 (No Classes)

Last Day to Withdraw: Saturday, July 19, 2013 Summer Semester Ends: Saturday, August 3, 2013

COURSE OUTLINE:

| WEEK | DATES | CHAPTER AND SECTION NUMBERS |
|------|---------------------------------------------------|-----------------------------|
| 1 | June 10 | R1 – R8 |
| | | |
| 2 | June 12 | 1.1, 1.2, 1.3, 1.4 |
| | | |
| 3 | June 17 | 1.4, 1.5, 1.6, 1.7 |
| | | |
| 4 | June 19 | Exam 1 & 2.1, 2.2 |
| | 7 04 | |
| 5 | June 24 | 2.3, 2.4, 3.1 |
| | Iva 26 | 2 2 2 2 |
| 6 | June 26 | 3.2, 3.3 |
| 7 | June 31 | 3.4, 3.5 |
| / | Julie 31 | 3.4, 3.3 |
| 8 | July 3 | Exam 2 & 4.3 |
| | | 20010 |
| 9 | July 8 | 5.1, 5.5 |
| | , | |
| 10 | July 10 | 5.2, 5.3 |
| | | , |
| 11 | July 15 | 4.5, 5.4 |
| | | |
| 12 | July 17 | Exam 3 & 6.1 |
| | **LAST DAY TO WITHDRAW: Saturday, July 20, 2013** | |
| 13 | July 22 | 6.2, 2.5, 6.3 |
| | | |
| 14 | July 24 | 6.4, 6.5, 6.6 |
| | | |
| 15 | July 29 | 6.6, 6.8, 12.1 |
| | | |
| 16 | July 31 | Exam 4 |

This course outline may vary at the discretion of the instructor. Please check for updates on MML (and Blackboard) throughout the semester for any changes announced in class.

General Grading and Makeup Policies

General Policies Regarding All Classes and All type of Assignments

- The instructor owns the copyright to all original material, and this material may not be duplicated without permission from the instructor.
- Computer/technical problems (printer ran out of ink, computer locked up, flash drive was stolen, etc.) do not constitute an excuse for turning anything in late.
- No late papers or assignments may be turned in during the last week of the semester.
- Being late or not attending class can negatively affect your grade. Missing 25% of the class may result in failure of the course due to missed instruction and missed work that cannot be made up.
- You are responsible for all missed material due to any absences.
- In case of a documentable emergency, the policies may be adjusted at the discretion of the instructor.

Classroom Etiquette

- Cell phones must be turned off or put in vibrate mode. <u>Text messaging is not allowed</u> during the class.
- Children under 16 are not allowed in the classroom.
- You must gain permission from the instructor before you can tape any portion of the class.

Homework and Assignments

- Homework and assignments are due at the **beginning** of class on the due date unless otherwise indicated by the instructor.
- If you are absent from class it is still expected that you will turn your homework or assignment in on time.
- Late homework and assignments may be turned in within **one** week of the due date <u>if</u> <u>permitted by the instructor</u>, but the late homework or assignment will be given only half credit. Certain types of homework or assignments may not be turned in late for any amount of credit. These are clearly identified in the class syllabus.
- After one week an assignment or homework will no longer be accepted for credit.

Papers and Projects

- Papers and projects are due at the **beginning** of class on the due date unless otherwise indicated by the instructor.
- If you are absent on the due date it is your responsibility to make sure the paper or project is still turned in on time.
- The instructor reserves the right to reject any paper that is not completed according to directions given or that fails to meet general college-level standards.
- The responsibility for proof regarding the originality of a paper rests with you, not the instructor.
- Late papers and projects may be accepted with the following late penalties. Certain types of papers or projects may not be turned in late for any amount of credit. These are clearly identified in the class syllabus.
 - o If it is turned in within 24 hours of the due date there will be a 10% reduction.

- After 24 hours and up to one week there will be a 50% reduction.
- o After one week the paper or project will no longer be accepted for credit.

Quizzes and in-class assignments

- Quizzes and in-class assignments **cannot** be made up.
- If you are absent for any reason on a day with a quiz or in-class assignment you will receive 0 points for it.

Tests

- Only one test a semester may be made up. This does <u>NOT</u> mean that you *may* make up one test. This means that you may not make up more than <u>ONE</u> test. Any/all make up tests require your instructor's written permission <u>in advance</u> of the exam.
- If you know you will have to miss a test, you must make arrangements with the instructor **before** the test date in order to take the test at an alternate time.
- In an emergency situation (i.e. emergency room visit) you must contact the instructor via means outlined in the syllabus **before the exam** to secure written permission and to make arrangements to make up the test.
- Arrangements to make up a test must be made with the instructor within one week of the original date of the test.

Labs

- Labs cannot be made up under any circumstances.
- Proper safety guidelines must be followed at all times. Failing to follow safety guidelines will result in a score of 0 on the lab, and the student will be asked to leave the classroom during the lab.
- A score of 0 will be entered for any labs that are missed.

Grading

• If questions about class policies and procedures or grades arise during or after the semester, you must meet with your instructor to discuss this first prior to speaking with a program chair or any other college representative.

Midterm

• Midterms may not be made up.

Final Exam

• There is no make-up for the final exam. The semester is over.

End of Semester

• The last class meeting is the end of the semester. Nothing may be turned in or completed after that date. All graded assignments should be picked up by the end of this meeting or they will no longer be available.