

## COLLEGEWISE COURSE OUTLINE OF RECORD

MAT111 – Intermediate Algebra (Online), Summer 2005

**Course Title:** Intermediate Algebra

**Course No.:** MAT111

**Course Section No.:** 11I

**Prerequisites:** Demonstrated competency through appropriate assessment or a grade of “C” or better in MAT 050 Basic Algebra

**Division:** General Education

**Program:** General Education

**Credit Hours:** 3

**Contact Hours:** Lecture: 3

**Date of Last Revision:** Spring, 2004

**Effective Date of This Revision:** Summer, 2005

**Catalog Description:** Reviews basic operations of polynomials, scientific notation, linear equations and inequalities, graphing linear equations, and factoring algebraic expressions. Concentrates on properties of integer and rational exponents, rational expressions and equations, systems of linear equations, radicals, radical equations, quadratic equations, functions and their graphs, and applications. A standard college level intermediate algebra course.

**Major Course Learning Objectives:** Upon successful completion of this course the student will be expected to:

1. Perform basic operations on polynomials and factor polynomials
2. Use the properties of integer and rational exponents and scientific notation
3. Solve linear equations and inequalities
4. Graph linear equations and inequalities in two variables
5. Determine linear equations from geometric data
6. Solve systems of equations using graphing, substitution, and elimination
7. Solve quadratic equations by factoring and by the quadratic formula
8. Graph quadratic functions
9. Simplify rational expressions and solve rational equations
10. Solve literal equations
11. Simplify radicals and solve radical equations

12. Interpret functions algebraically, graphically, and numerically and use function notation
13. Use relevant mathematical terminology, laws, and notation
14. Solve a variety of application problems in the above areas
15. Use a scientific and/or graphing calculator proficiently as related to coursework
16. Solve absolute value equations and inequalities
17. Solve application problems using variation
18. Use computer technology which may include the Internet, the Web, email, or computer tutorials to enhance the course objectives

**Course Content:** Topical areas of study include –

- Polynomial operations
- Scientific notation
- Linear equations and inequalities
- Graphs of linear equations and inequalities
- Factoring
- Rational expressions and equations
- Integer and rational exponents
- Radicals and radical equations
- Systems of linear equations
- Functions and their graphs
- Quadratic equations
- Applications

**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.

**ADA Statement:**

Ivy Tech State College Region 9 seeks to provide effective services and accommodations for qualified individuals with documented disabilities. If you need an accommodation because of a documented disability, please contact Desiree Polk Bland, Director of Student Support and Development, Office of

Disability Support Services, Ivy Tech State College Region 9, 2325 Chester Boulevard, Richmond, IN, 765-966-2656 ext. 334, for Disability Support Services.

(For other issues such as facility closing, grants & loans, on-campus learning resources, etc., see “*Course Outline Addendum*” in Blackboard’s “**Course Information**”)

**Additional Course Learning Objectives:**

- 1) Be able to follow online instructions and weekly assignments schedule
- 2) Meet the deadlines of required coursework
- 3) Use e-mail effectively in communicating with instructor
- 4) Use Blackboard as an online learning platform

**Required Text:** *Introductory and Intermediate Algebra*, 2<sup>nd</sup> Edition, 2003, by Marvin L. Bittinger and Judith A. Beecher, published by Pearson Education, Inc. ISBN 0-201-77341-4

**Required Consumable Materials/Equipment:** None

**Instructor:** Charles Wang

**Instructor E-mail:** [chwang@ivytech.edu](mailto:chwang@ivytech.edu)

**Instructor Phone Number:** 302/893-1055

**Instructor Office Hours:** E-mail normally answered within 48 hours, leave voice message any time

**Method of Instructional Delivery:**

This online course uses Internet-based course management software Blackboard. The instructions and assignments are posted in online classroom via <https://elearning.ivytech.edu/>.

See documents from the office of information technology for computer hardware/software requirements for this Internet course.

Special notes on how this online course is organized, how to participate the class discussion forums, how the tests and the final exam are conducted, how to check grades in the online gradebook, effective learning methods, the use of e-mail, etc. are in “*Course procedures*” in Blackboard’s “**Course Information**”.

**Method of Evaluation:**

5 (class discussion forums) × 10 (points each) = 50 (points)

3 (tests) × 100 (points each) = 300 (points)

Final exam: 200 points

Total 50 + 300 + 200 = 550 (points)

The final course grade is from above class discussions, tests and final exam only.  
No extra credit.

**Grading Scale:**

A: 90-100%; B: 80-89%; C: 70-79%; D: 60-69%; F: below 60%

**Make-up Policy:** you must submit all coursework by the due dates; no make test will be given without proof of emergency

**Attendance Policy:** you're required to log in to the online course at least once a week. The Blackboard automatically keeps tracking every time you log in and your class attendances through login are reported to school on a regular basis. Weekly e-mail check-in is not required.

**Activities Schedule (Weekly Schedule Overview):**

<b>Week</b>	<b>Readings</b>	<b>Class discussion &amp; Tests/Exam</b>
Week 1 (5/23-5/29)	Course orientation & Chapters 1-5 review	
Week 2 (5/30-6/5)	6.1-6.5	
Week 3 (6/6-6/12)	6.6-6.9	Class discussion #1 (Chapter 6); Test #1 (Chapters 1-6)
Week 4 (6/13-6/19)	7.1-7.5	Class discussion #2 (Chapter 7)
Week 5 (6/20-6/26)	8.1-8.4	Class discussion #3 (Chapter 8)
Week 6 (6/27-7/3)	9.1-9.3	Class discussion #4 (Chapter 9); Test #2 (Chapters 7-9)
Week 7 (7/4-7/10)	10.1-10.4	
Week 8 (7/11-7/17)	10.5-10.8	Class discussion #5 (Chapter 10)
Week 9 (7/18-7/24)	11.1-11.3, 11.5	Test #3 (Chapters 10&11)
Week 10 (7/25-7/31)	Final exam week	

\* See “**Assignments**” in Blackboard for detailed weekly assignments-what chapters/sections and examples to read, what problems you need to work on, and how to participate the class discussions.

**Last Date of Drop Course without Grade:** Fri, 7/15 (Call 800/659-4562 or 765/966-2656 Student Services at the Richmond Campus for course drop questions)

**The Name and Location of the Disability Service Coordinator:**

Desiree Polk-Bland  
Ivy Tech State College  
2325 Chester Blvd.  
Richmond, IN 47374  
1-800/659-4562 or 1-765/966-2656

**Right of Revision Statement:**

**Disclaimer:** The course objectives and schedule are tentative, and subject to change.