

Fall 2007
MTH 105 - Intermediate Algebra (3 credit hours)

Class Meets: Section 01	8:00-8:50AM	Mon/Wen/Fri.	BMH C226
Section 10	10:00-10:50AM	Mon/Wen/Fri.	BMH C200

Instructor: Dr. Ming Fang

Office Location: B-181 Brown Memorial Hall

Phone: 823-8867

E-mail: mfang@nsu.edu (preferred)

Office Hours: MWF 9:00-10:00am, Tuesday 9:30-12:30pm, 2:00-3:00pm, and Thursday 2:00-3:00pm or by appointments.

Course Description: Topics include linear and quadratic equations, graphing, polynomials, roots, radicals, and system of equations. A lab component is used to reinforce the concepts of the topics introduced in class.

Prerequisites: Completion of MTH 101 with a minimum of “C” or a satisfactory level of competence on the SAT.

Course Rationale:

This course is designed for students who need additional preparation to attain entrance level requirements for the pre-calculus sequences: MTH 131/132, MTH 151/153. It will also satisfy the minimum general education mathematics requirement. Students will be given the skills to appreciate mathematics for its beauty and power.

Goals & Measurable Intended Student Learning Outcomes:

To provide an adequate foundation for the student’s success in pre-calculus. At a competence level not less than 70%, the student will be able to:

1. Recall and/or recognize mathematical definitions, facts, and symbols.
2. Perform mathematical computations and algebraic manipulations with understanding, accuracy, and efficiency.
3. Analyze and solve problems.

Course Materials/Requirements/Required Text:

Each student should:

1. prepare for each lecture by reading the appropriate topic(s).
2. devote a minimum of 6 hours per week for preparation.
3. attend all lectures and keep a notebook of lecture notes and solved problems.
4. complete and turn in all assignments on time.
5. have a scientific calculator.

Text: "INTERMEDIATE ALGEBRA" by Tussy and Gustafson, 3rd edition

Available Supplements:

An Interactive Video Skillbuilder CD is included with the purchase of a new textbook

Primary Method(s) of Instruction/Methods to Engage Students:

The course will consist of lectures on relevant topics, followed by class discussion associated with the subject. Assigned homework problems will aid the student in mastering the algebraic concepts presented in class.

Course Outline:

<u>Week Number</u>	<u>Topics</u>	<u>Sections</u>
1	The Rectangular Coordinate System, Graphing Linear Equations	2.1, 2.2
2	Rate of Change and the Slope of a Line	2.3
3	Writing Equations of Lines	2.4
4	Introduction to Functions (Terminology and notation only) Graphs of Functions (Examples 2, 3, 4 only) Test 1	2.5, 2.6
5	Solving systems by Graphing, Solving Systems Algebraically (Substitution Method Only)	3.1, 3.2
6	The Greatest Common Factor and Factoring by Grouping Factoring Trinomials	5.5, 5.6
7	Test 2, The Difference of Two Squares; Sum and Difference of Two Cubes	5.7
8	Summary of Factoring Techniques, Solving Equations by Factoring	5.8, 5.9
9	Rational Functions and Simplifying Rational Expressions Multiplying and Dividing Rational Expressions	6.1, 6.2
10	Adding and Subtracting Rational Expressions	6.3
11	Test 3, Complex Fractions	6.4
12	Solving Rational Equations, Radical Expressions and Radical Functions	6.7, 7.1
13	Rational Exponents Radical Equations (Single radicals only), Complex Numbers (Introduce i only)	7.2, 7.5, 7.7
14	Test 4	
15	Completing the Square, The Quadratic Formula	8.1, 8.2

Final Exam: **Monday, December 3, 2007 8:00-10:00am**

2. **All cell phones** should be turned off before entering the classroom.
3. Failure will occur if absences total 20% of class time.

University Assessment Statement

As part of NSU's commitment to provide the environment and resources needed for success, students may be required to participate in a number of university-wide assessment activities. The activities may include tests, surveys, focus groups and interviews, and portfolio review. The primary purpose of the assessment activities is to determine the extent to which their university's programs and services maintain a high level of quality and meet the needs of the students. Students will not be identified in the analysis of results. Unless indicated otherwise by the instructor, results from University assessment activities will not be computed in the student grades.

**Mth 105 – Lab
Lab Test Assessment Form (LTAF)**

Student Name & ID _____ Instructor Ming Fang

Course Key: **E-42PS32SZH9TXC** Section 01 Semester **Fall 2007**

Lab Test	Completed (signature/date)
1. Graphing 2.1-2.2	
2. Equations of Lines 2.3-2.4	
Completion Date September 12, 2007 In-class Test 1	
3. Systems of Equations 3.1-3.2	
4. Factoring I 5.5-5.8	
Completion Date September 28, 2007 In-class Test 2	
5. Solving Nonlinear Equations 5.9	
6. Rational Expressions 6.1	
7. Multiplying/Dividing Rational Expressions 6.2	
8. Adding/Subtracting Rational Expressions 6.3	
Completion Date October 26, 2007 In-class Test 3	
9. Complex Fractions 6.4	
10. Solving Rational Equations 6.7	
11. Radical Expressions 7.1, 7.2, 7.5	
Completion Date November 16, 2007 In-class Test 4	
12. Quadratic Equations 8.1-8.2 Completion Date November 28, 2007	
Final	

Tests must be taken in consecutive order. No credit is given for Lab scores below 70%.
Students are given **unlimited attempts** to pass each test. **Only 2 tests can be taken per day!**
Lab tests are taken in C227- BMH,

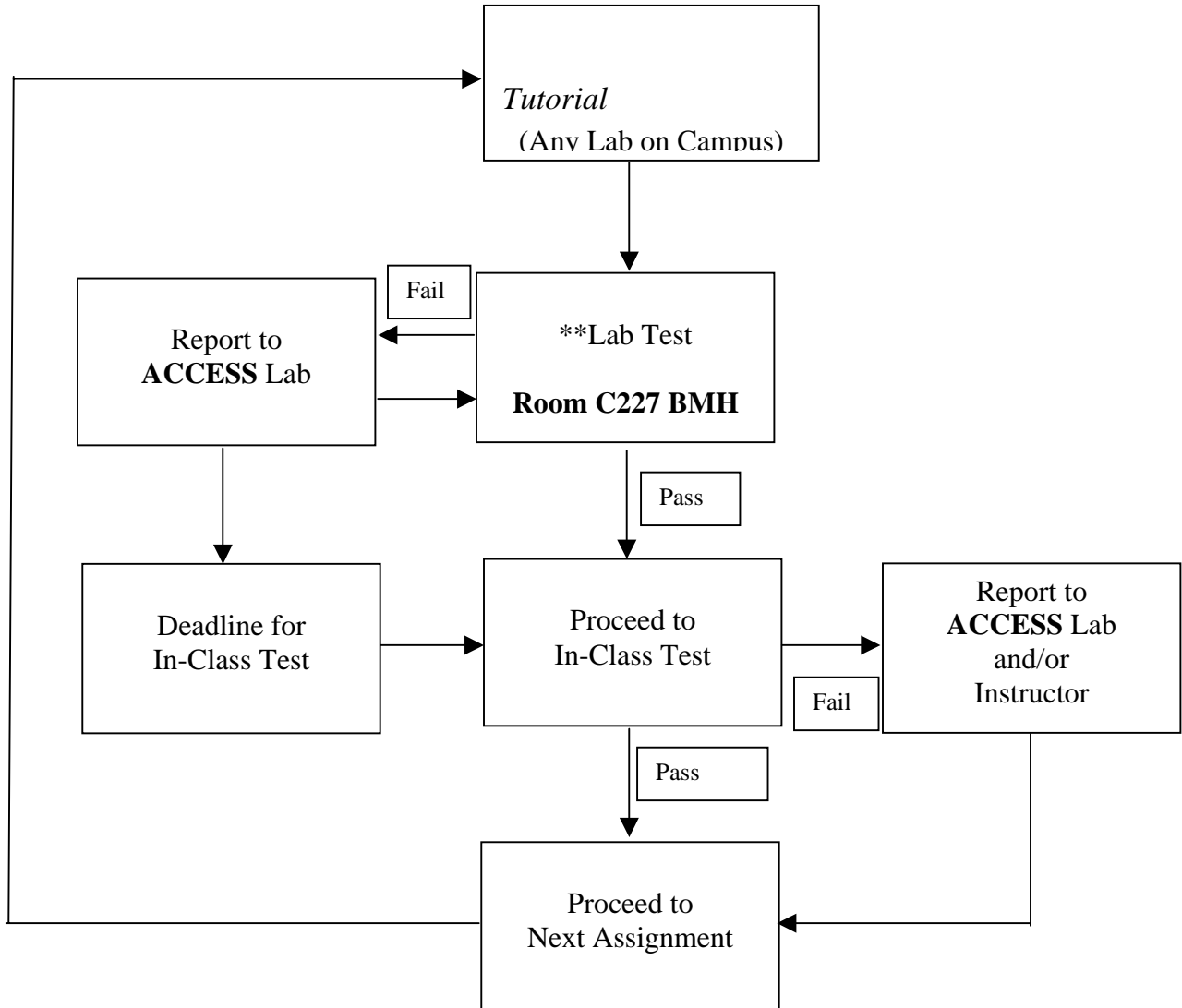
TESTING CENTER HOURS
Wednesday Thursday and Friday
8:00 a.m. – 4:50 p.m.

Monday and Tuesday
8:00 a.m. – 6:20 p.m.

Saturday 9:00 a.m. – 11:50 a.m.
September 15th & 29th, October 13th & 20th, November 17th

NO EATING, DRINKING, SMOKING, CELL PHONES, OR MATH NOTES ARE
PERMITTED IN THE CENTER!

Mathematics 105 Flowchart



****No Credit awarded for Lab Tests not passed.
Lab Tests count for 15% of Final Grade**

**Mth 105 – Lab
Lab Test Assessment Form (LTAF)**

Student Name & ID _____ Instructor Ming Fang

Course Key: **E-3EJ8SJGXT7DPU** Section 10 Semester **Fall 2007**

Lab Test	Completed (signature/date)
1. Graphing 2.1-2.2	
2. Equations of Lines 2.3-2.4	
Completion Date September 12, 2007 In-class Test 1	
3. Systems of Equations 3.1-3.2	
4. Factoring I 5.5-5.8	
Completion Date September 28, 2007 In-class Test 2	
5. Solving Nonlinear Equations 5.9	
6. Rational Expressions 6.1	
7. Multiplying/Dividing Rational Expressions 6.2	
8. Adding/Subtracting Rational Expressions 6.3	
Completion Date October 26, 2007 In-class Test 3	
9. Complex Fractions 6.4	
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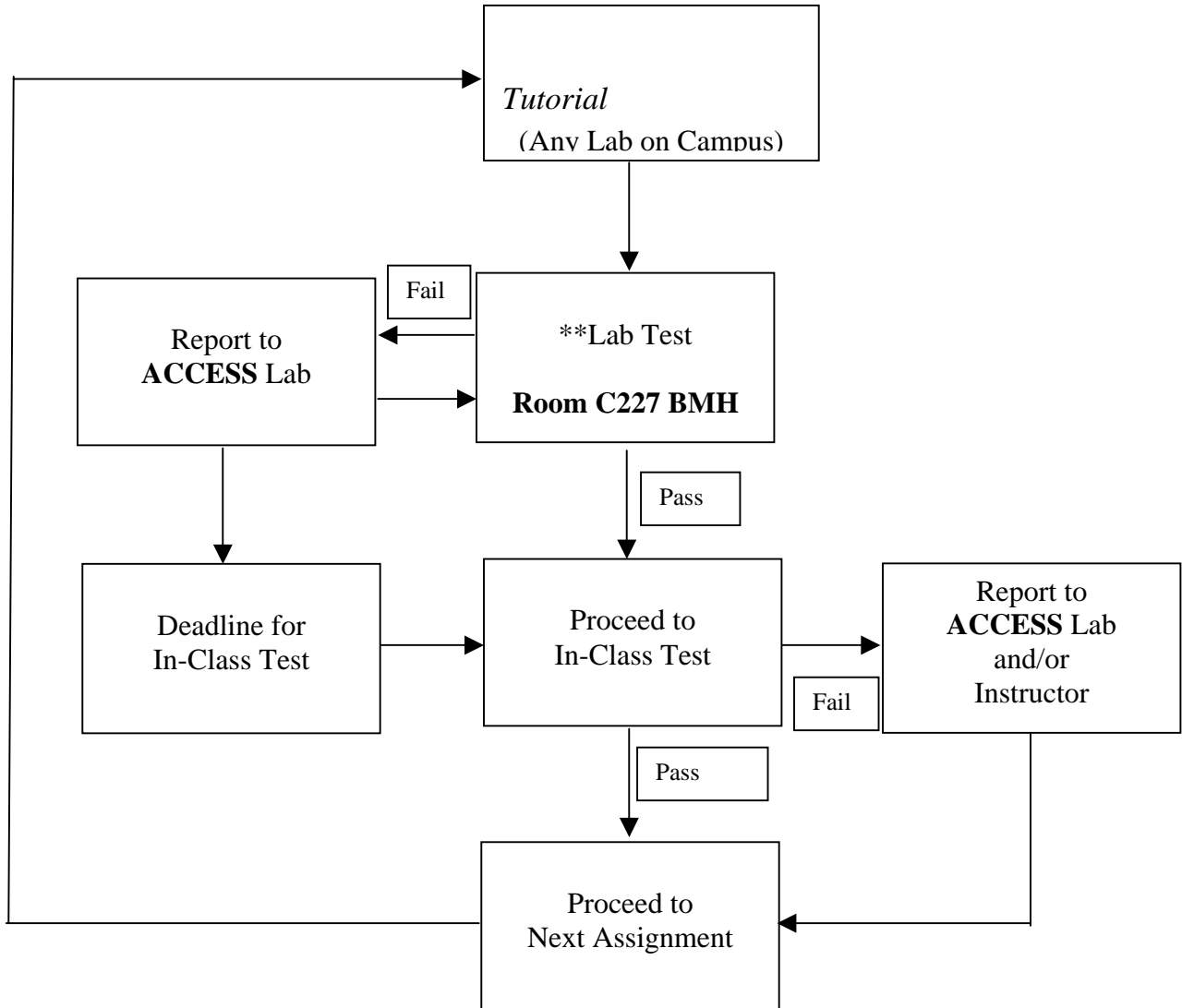
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