MT 103 Intermediate Algebra
DONNELLY COLLEGE
[Enter Semester Year]
[Enter Days, Times]
[Enter Room]
3 credit hours

INSTRUCTOR INFORMATION:

Name:
Office:
Office hours:
Telephone:
E-mail address:
Web site address:

COURSE DESCRIPTION:
This course includes the algebra of polynomials, linear and quadratic equations, applications involving linear and quadratic equations, linear and quadratic inequalities, functions and graphs, rational expressions and equations, systems of equations, factoring, rational exponents, radicals and complex numbers.

PREREQUISITES:
C or better in MT 085 or by appropriate score on the placement test.

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REQUIRED TEXTBOOK & SUPPLIES:

- Intermediate Algebra: Concepts with Applications, 2013, by McKeague
- Calculators (cell phone calculators are not allowed)

PHILOSOPHY OF GENERAL EDUCATION:
Donnelly College has consistently maintained a strong commitment to the liberal arts and sciences as a foundation for a complete education. The faculty strongly believes that the liberal arts and sciences provide the context through which students can engage with the larger questions about students' place in the world and their pursuit of truth. Therefore, the College's general education requirements are designed to ensure that liberal arts and sciences graduates develop a breadth of content knowledge and the skills and abilities which will enable them to become educated participants in a diverse global community.

DONNELLY COLLEGE LEARNING OUTCOMES:

1. **Communication Skills:** Students will communicate effectively in writing and speaking.
2. **Technology and Information Literacy Skills:** Students will demonstrate proficiency in information literacy skills.
3. **Symbolic Problem Solving:** Students will demonstrate competency in qualitative and quantitative problem solving.
4. **Analytical Thinking:** Students will employ reflective thinking to evaluate diverse ideas in the search for truth.
5. **Personal and Interpersonal Skills:** Students will develop an understanding across cultural differences locally, nationally, and internationally.
6. **Academic Inquiry:** Students will engage independently and effectively in lifelong learning.
7. **Values:** Students will demonstrate moral and ethical behavior in keeping with our Catholic identity.

LIBERAL ARTS AND SCIENCES PROGRAM LEARNING OUTCOMES:

In addition to the general education learning outcomes – communication skills, technology and information literacy skills, symbolic problem solving, analytical thinking, personal and interpersonal skills, academic inquiry, and values – upon successful completion of the Associate of Arts in Liberal Arts degree, the graduate should be able to demonstrate:

1. Proficiency and creativity in written and verbal communication.
2. Effective use of current technology in support of academic work.
3. Proficient use of qualitative and quantitative methods in problem solving.
4. Critical and Analytic thinking across a range of disciplines.
5. A commitment to ethics and integrity in academic and professional relationships, within the community and the environment.

6a. The ability to conduct research using sources, strategies, and approaches across disciplines. (AA)

6b. Use of the scientific method. (AS)

MT 103 INTERMEDIATE ALGEBRA STUDENT LEARNING OUTCOMES:

Upon completion of MT 103 the student will have the ability to:

1. Solve equations and inequalities.
2. Solve application problems.
3. Evaluate functions.
4. Factor and/or simplify algebraic expressions.
5. Construct and graph equations of lines.

Donnelly College Learning Outcomes	Program Learning Outcomes[1]	Student Learning Outcomes[2]	Application and Assessment[3]
Students will communicate effectively in writing and speaking.	1. Students will demonstrate proficiency and creativity in written and verbal communication.	2. Students will have the ability to solve application problems.	2. Class average grade of 70% or more on problems 23 – 25 on the Final Exam.
Students will demonstrate proficiency in information literacy skills.	2. Students will demonstrate effective use of current technology in support of academic work.		
Students will demonstrate competency in qualitative and quantitative problem solving.	3. Students will demonstrate proficient use of qualitative and quantitative methods in problem solving.	1. Students will have the ability to solve equations and inequalities. 3. Students will have the ability to evaluate functions. 4. Students will have the ability to factor and/or simplify algebraic expressions. 5. Students will have the ability to construct and graph equations of lines.	1. Class average grade of 70% or more on problems 13 – 20 on the Final Exam. 3. Class average grade of 70% or more on problems 11 – 12 on the Final Exam. 4. Class average grade of 70% or more on problems 1 – 10 on the Final Exam. 5. Class average grade of 70% or more on problems 21 – 22 on the Final Exam.
Students will employ reflective thinking to evaluate diverse ideas in the search for truth.	4. Students will demonstrate critical and analytic thinking across a range of disciplines.		

Students will develop an understanding across cultural differences locally, nationally, and internationally.	5. Students will demonstrate a commitment to ethics and integrity in academic and professional relationships, within the community and the environment.		
Students will engage independently and effectively in lifelong learning.	6b. Use of the scientific method.		
Students will demonstrate moral and ethical behavior in keeping with our Catholic identity.			

COURSE REQUIREMENTS:

Homework: Each instructor has their own homework assignments.

ACE (Academic Center for Excellence) is located in Room 205. They provide tutoring at no cost. Contact ACE for more details.

Extra Credit: Each instructor has their own extra credit towards the test or homework grade policy. Some may use homework, some may use Review Sheets, and some may use no use of a calculator. Extra credit is not to exceed 5% of the final grade.

Tests: Tests will be given as is indicated in the class schedule. You may use one-half sheet of notes when testing. The notes must be turned in with the test.

Final Exam: There is a comprehensive final exam. You may not use notes on the final exam. You may use calculators.

Make-up Tests: You may make up one test. In order to be allowed to make up a test you must call or e-mail me BEFORE the start of the test. You must have a valid reason and give it at this time ("I'm not ready" is NOT a valid reason.) If you do not provide prior notice, you must provide documentation (doctor's note, etc.) as to why you could not take the test. Unless there are extenuating circumstances, all tests must be made up within one week of the scheduled test time. It is up to the student to schedule the test. A make-up test can only be scheduled once.

Retests: There are no retests.

GRADING POLICY:

Grades are awarded on the basis of the following scale:

Homework	100 pts
Tests	500 pts
Final Exam	100 pts
Total	700 pts

A	630 – 700 pts
B	560 – 629 pts
C	490 – 559 pts
D	420 – 489 pts
F	0 – 419 pts

The following rubric will be used to evaluate problems on the Final Exam.

0 pts	1 pt	2 pts	3 pts	4 pts
Answer is not correct and no work is shown or work shown is not labeled or not readable OR answer is correct but the directions were not followed	Work is shown (as appropriate), work is neat and readable, answer is not correct but work shown indicates the student had some idea of what was to be done	Work is shown (as appropriate), work is neat and readable, answer is not correct but work shown indicates minimal computational error(s)	Work is shown (as appropriate), work is neat and readable, answer is correct but has not been simplified as much as possible or answer differs by the sign	Work is shown (as appropriate), work is neat and readable, answer is correct and has been simplified as much as possible

CALCULATOR POLICY: Students wishing to use a calculator must provide their own. Cell phones with calculator capabilities may NOT be used on tests. Calculators may NOT be shared on tests.

CELL PHONE POLICY: Cell phones should be turned off (or placed on vibrate) and should be kept in your book bag or on the floor (not on the desk or in your lap) during class.

ACADEMIC INTEGRITY: "…Academic integrity is to be maintained at all times to insure genuine educational growth. Cheating and plagiarism in all forms, therefore, will be subject to disciplinary action. Serious infractions will be reviewed by an ad hoc committee, appointed by the appropriate dean. Appropriate sanctions will be imposed."

PLAGIARISM: Plagiarism – the appropriation or imitation of the language or ideas of another person and presenting them as one's original work – sometimes occurs through carelessness or ignorance. Students who are uncertain about proper documentation of sources should consult their instructors.

ACCOMMODATIONS: In compliance with the Americans with Disabilities Act, Donnelly College will make every attempt to provide equal access for persons with disabilities. Students in need of accommodations must request them in writing from the Vice President of Academic Affairs.

CIVILITY & DECORUM: As noted in its Code of Conduct, Donnelly College is committed to maintaining an overall atmosphere of civility and respect. Civility and decorum both inside and outside the classroom are fundamental foundations of the values at Donnelly College. Classroom discussions and interactions outside the classroom will at all times be focused on the learning process and should always be respectful of both students and faculty. In open discussions of ideas and issues, disagreements should focus on ideas and facts. Name calling and assaults (either in person or on-line) will not be tolerated. Should any problems occur, the instructor should be notified immediately. Those who do not comply with civility and decorum requirements may be subject to a grade reduction and/or other sanctions up to and including dismissal from Donnelly College.

ATTENDANCE POLICY: Class attendance is encouraged. Any student who misses six or more class sessions may be withdrawn from the class at the discretion of the instructor.

WITHDRAWAL FROM COURSES OR FROM SCHOOL: It is the responsibility of the student to withdraw from class. If a student decides to withdraw from a class, ideally, they should see an advisor and the financial aid staff before taking the withdrawal form to the Registrar's office for processing. However, any verifiable contact (e-mail, fax, phone, mail, etc.) with authorized college personnel expressing the student's intent to withdraw from a class will be honored.

If students withdraw before they have earned their financial aid, they will owe Donnelly College a debt for the unearned portion of the financial aid as well as for any unpaid balances (subject to the College's refund policy). Not attending class is not a withdrawal from class.

Donnelly College reserves the right to withdraw a student from class(es) if the student does not meet their financial obligations, including two missing or incomplete payments, or loss of financial aid. Faculty may initiate an administrative withdrawal on the basis of non-attendance. In extreme circumstances (i.e. a disciplinary problem), the Vice President of Academic Affairs may initiate an administrative withdrawal. The student remains responsible for the tuition owed in this instance.

The deadlines for withdrawing from classes are as follows:

14 to 16 weeks	3 weeks before the end of the class
6 to 8 weeks	7 weekdays before the end of class
4 to 5 weeks	4 weekdays before the end of class
Less than 4 weeks	Withdrawals are not allowed

Withdrawal deadline dates will be published in the academic calendar.

TENTATIVE COURSE CALENDAR:

The schedule is subject to change based on the progress or needs of the class. Each instructor adjusts the schedule based on the time of the class (day, night, summer), holidays, snow days, surveys, conferences, sick days, etc.

Week	Day	Section	Problems Covered	Homework
1	1	Diagnostic Test Syllabus LB - Order of Operations LB - Solving Equations		
	2	1.1 Linear Equations Handout – Fractional Coefficients 1.2 Formulas LB - Applications	1 – 52 1 - 58, 71 - 76	
	3	1.3 Applications Handout – Consecutive Integers	1 - 36	
2	1	LB - Solving Inequalities 1.4 Interval Notation and Linear Inequalities 1.5 Sets and Compound Inequalities	13 – 50 33 - 72	
	2	1. 6 Absolute Value Equations 1.7 Absolute Value Inequalities	1 – 68 1 - 44	
	3	Review		
3	1	**Test Chapter 1** LB - Graphing		
	2	2.1 Graphs of Equations 2.2 Introduction to Functions Handout – Equations as Functions	15 - 30 1 - 34	
	3	2.3 Function Notation 2.4 Algebra and Composition with Functions	1 - 56 1 - 31, 41 - 50	

Week	Day	Section	Problems Covered	Homework
4	1	2.5 Slope and Average Rate of Change 2.6 Linear Functions LB Graphing Linear Inequalities	35 – 42 1 - 44	
	2	2.7 Linear Inequalities 3.6 Systems of Linear Inequalities and Applications LB - Systems of Equations	1 - 48 1 - 6	
	3	3.1 Solving Linear Systems	1 - 50	
5	1	Review		
	2	**Test Chapters 2 & 3**		
	3	4.1 Sums and Differences of Polynomials 4.2 Multiplication of Polynomials LB - GCF and Factor by Grouping LB - Factoring Trinomials	1 – 58 1 - 68	
6	1	4.3 Greatest common Factor and Factoring by Grouping 4.4 Factoring Trinomials LB - Factoring Binomials LB - Factor Completely	1 – 46 1 - 82	
	2	4.5 Factoring Special Products 4.6 Factoring: A General Review	1 - 102 1 - 90	
	3	4.7 Solving Equations by Factoring	1 - 106	

Week	Day	Section	Problems Covered	Homework
7	1	Review		
	2	**Test Chapter 4** LB - Simplifying Rational Expressions		
	3	5.1 Basic Properties and Reducing to Lowest Terms 5.2 Multiplication and Division of Rational Expressions	1 – 58 1 - 74	
8	1	5.3 Addition and Subtraction of Rational Expressions LB - Mathematical Operations with Rational Expressions	1 - 72	
	2	5.4 Complex Rational Expressions	1 - 56	
	3	5.5 Rational Equations	1 - 54	
9	1	5.6 Applications	9 - 26	
	2	5.7 Division of Polynomials	1 - 44	
	3	5.8 Variation	1 - 32	
10	1	Review		
	2	**Test Chapter 5** LB - Exponents		
	3	6.1 Rational Exponents	1 - 96	
		LB - Simplifying Square Roots		

Week	Day	Section	Problems Covered	Homework
11	1	6.2 Simplifying Radicals LB - Adding and Subtracting Square Roots	1 - 76	
	2	6.3 Addition and Subtraction of Radical Expressions LB - Multiplying and Dividing Square Roots	1 - 44	
	3	6.4 Multiplication and Division of Radical Expressions	1 - 64	
12	1	6.5 Radical Equations and Functions	1 - 48	
	2	6.6 Complex Numbers LB - Solving Equations by Factoring and Square Root Method	1 - 82	
	3	7.1 Completing the Square LB - Solving Equations by Quadratic Formula	1 - 20	
13	1	7.3 The Discriminant and Multiplicity 7.2 The Quadratic Formula	1 – 12 1 - 54	
	2	Review		
	3	**Test Chapters 6 and 7**		
14	1	Review		
	2	Review		
	3	Review		
15	1	Review		
	2	Review		
	3	Review		
16		**Final Exam**		