UAB Department of Mathematics

SYLLABUS (MA 102-ZNB)

MA 102 - Intermediate Algebra

Semester: Spring 2020 **Section: ZNB**

Instructor: Arein M Duaibes **Instructor e-mail:** areindu@uab.edu **phone: (205)-934-2154**

Instructor office hours: Tue 10:00 am – 12:00 pm (in the lab), by appointment

NOTE: All instructor office hours are held during lab meeting time in the UAB Math Learning Laboratory (MLL), room 202 Heritage Hall. Other times are available by appointment.

Class meeting times: Class Meeting Time/Location: Wed 11:15 am – 12:05 pm / 443 Campbell Hall
Lab Meeting Time/Location: Mon 11:15 am – 12:05 pm / 202 Heritage Hall

**** BE SURE TO READ THE STUDENT EXPECTATIONS STATEMENT ON PAGE 3 FOR IMPORTANT INFORMATION ABOUT THE COURSE.**

Course Description: (3 semester hours). Absolute values. Cartesian coordinates. Graphs of equations. Concept of a function. Function notation. Lines. Linear systems. Word problems with linear models. Algebra of polynomials. Factoring of polynomials. Polynomial Division. Algebra of fractional expressions. Literal equations. Rational equations. Word problems with rational models. Integer and rational exponents. Algebra of radical expressions. Radical equations. Complex numbers. Introduction to quadratic functions. Quadratic equations.

Learning Outcomes:

Upon successful completion of MA102, a student

- can solve linear equations and inequalities in one variable, can solve absolute value equations and inequalities, and can use interval notation and the real number line for describing solution sets. Students can graph linear equations in two variables and are able to recognize and use the equation of a straight line in different forms.
- can use the slope to identify parallel or perpendicular lines, can solve linear systems of two equations algebraically and by graphing lines, and can use linear systems of two equations to solve a variety of verbal problems.
- can perform arithmetic operations on polynomial expressions, factor polynomials, and solve polynomial equations by factoring. Students know that solving polynomial equations of higher degree is intrinsically difficult.
- can identify rational expressions and functions and their domains, can multiply, divide, add, and subtract rational expressions, simplify complex fractions, and solve rational equations.
- will know the rules of exponents and can apply them to simplify expressions involving positive and negative rational exponents. Students are able to combine, multiply and divide radical expressions and solve radical equations.
- will be able to solve quadratic equations by factoring, by the square root method, by completing the square, and by using the quadratic formula. Students can interpret square roots of negative numbers as complex numbers and perform arithmetic operations on complex numbers.
- can create, interpret, and use linear, polynomial, and rational models to solve problems in a variety of application areas.

Prerequisite. **"**C" or better in MA 096, Ma097, or MA 098, or "P" in MA 098. Or, beginning freshmen meet Math Screening requirements (see ACT Math Sub-score/GPA Grid in the latest on-line UAB Class Schedule). Transfer students must have an appropriate score on the Advanced Screening Test in order to be eligible for MA 102.

Course Structure: This is a 3 credit-hour course. The first course-hour is a classroom meeting once a week with the course instructor. The second course-hour is a laboratory meeting with the instructor in a supervised lab format. The third course-hour is a self-scheduled, self-study period in the Math Learning Lab working with Math Lab tutors and a computer-based course instruction system.

This course is primarily computer-based. All homework assignments and quizzes are on-line and can be completed either on your own computer or using one of the computers in the UAB Math Learning Lab (MLL) in **202 Heritage Hall**. All tests and the final exam must be taken in the MLL during your lab meeting time. **To receive credit for homework and quizzes, the work must be done in advance of course deadline dates**. See the course schedule for the course deadline dates.

Materials: *Intermediate Algebra MA 102 package,* which includes (1) a *UAB Math 102 Student Workbook, by Elena Kravchuk,* Pearson/Prentice Hall, and (2) MyMathLab Plus **ACCESS CODE for MA 102, <u>is required</u>**. You must purchase the **ACCESS CODE unless you are repeating the course and the same online textbook is being used.**

Attendance policy: Attendance at every class meeting and lab meeting is **required**. Roll will be taken. There are 13 scheduled class meetings and 13 scheduled lab meetings. At the discretion of the instructor, students can earn up to 5 participation points toward their final grade for each class or lab meeting attended, provided the following conditions are met:

1. **Students must be in the classroom or lab at the start of the meeting until the end of the meeting**.
2. Students must participate in class with their workbook open, taking notes.
3. All electronic devices (cell phones, laptop computers, etc.) must be turned off and put away during class.
4. **Students may not sign the roll for another student**. Violation of this policy may result in a grade of F for academic misconduct for both students.
5. If you come late to the class meeting, you may see the instructor after class to record your presence and receive reduced participation points.
6. Do not sign the roll if you intend to leave the class early. Discuss this with your instructor.
7. A sign-out may be required if students have left class early.
8. **NO participation points can be earned if the student is absent**, whether or not the absence is excused. If you are absent on official university business, you can obtain tutoring to earn the participation points. **Arrangements must be made in advance of the absence.**

<u>Access for a Course in MyMathLab Plus</u>

All Homework, Quizzes, and Tests for this course are available only in MyMathLab Plus.
A MyMathLab Plus account has already been established for you and must be activated.

- Log in to **BlazerNet** and click on the MyMathLab Plus link.
- Click on your course.
- Choose one of the following:
    - Access Code (enter your purchased code)
    - Buy Now (credit card required)
    - Pay Later (allows temporary access, good for only 14 days, no extensions when it expires)*

***Once Pay Later (Temporary Access) has expired, you will be prompted to choose Access Code or Buy Now. You will no longer have access to your course materials and assignments in MyMathLab Plus until you enter your code or purchase it.** Please note that there will be **NO EXTENSIONS for missed homework, quiz, or test deadlines due to failure to purchase access to your online materials.**

If you have any questions regarding your MyMathLab Plus account, email me or you may stop by the Math Learning Lab in HHB 202 and ask the staff.

TROUBLESHOOTING TIPS:

If you have difficulty accessing your assignments in MyMathLab Plus, try the following steps:

- Close the browser and start over logging into BlazerNet. You can only access through BlazerNet.
- Run the Browser check to make sure you have all needed components.
- Try a different browser. Some work better than others
- Try turning the computer off, then back on and start over.
- If you are working at home, you may have to reboot your router.
- Contact Pearson technical support via chat.
- Have a backup plan: Go to the MLL in HHB 202 and do your work there. Ask the staff for help.
- If the above steps do not work, email your instructor.

STUDENT EXPECTATION STATEMENT

The Course Syllabus and Schedule serve as a Contract by which the student must comply. An excuse of "not knowing" information covered in these documents is not an acceptable excuse for mistakes in this class.

To emphasize the importance of knowing the syllabus you must take a Syllabus Quiz before beginning any other assignments. You must score 100% on this quiz in order to continue the course. You may retake the Syllabus Quiz as many times as necessary to achieve 100%.

• Students are required to complete weekly assignments (homework and a quiz). All deadlines are based on Central Time. **There are NO EXTENSIONS of DEADLINES**.

• Students are expected to check their UAB e-mail daily and respond within 48 hours to instructor emails. Regular communication via e-mail with the Course Instructor is expected. **Be sure to include your name, the course and section number in all communications with your instructor.**

• It is the student's responsibility to make sure a valid e-mail address is provided. Failure on the student's part to do so can result in the student missing important information that could affect his grade. **Students are responsible for the information that is sent to their UAB e-mail account.**

• Students are expected to devote an average of 8 to 12 hours per week to the assignments.

• Students are expected to have a back-up plan in the event their computer has operational problems, there is loss of electricity, or there is loss of Internet access. These events are not acceptable as an excuse for late or incomplete submission of assignments, nor are they acceptable reasons for an assignment deadline extension. UAB's MLL, most public libraries, school libraries, university libraries, etc. have computers with Internet access and are available for use by the public.

MATH HELP – The **Math Learning Lab** (**MLL**) in 202 Heritage Hall is available for student use Monday through Friday. Students in this course may use the computers to complete assignments, and they may get assistance from math tutors. Tutors will not solve all of your problems or sit with you for extended periods of time, but they will help guide you so that you can complete your work independently. No appointment is necessary. The hours of operation are Monday through Thursday 8:00am to 8:00pm, and Fridays 9:00am to 3:00pm. Limited hours are available during final exams. The MLL is closed during all holidays and breaks. For more information, go to http://www.uab.edu/cas/mathematics/mll. Please note that all computer use in the MLL is monitored.

The **University Academic Success Center (UASC)** provides students with a host of free services and resources that include Tutoring and Supplemental Instruction. For more information, go to http://www.uab.edu/students/academics/student-success.

Calculator policy. Handheld calculators may be used for homework and quizzes, but **students may not use personal calculators while taking tests**. Note that all tests and the final exam for this course are administered in the MLL during your scheduled lab meeting times. The Windows on-screen scientific calculator must be used when testing. Your instructor will not assist you with the on-screen calculator during a test, so it would be to your advantage if you familiarized yourself with the use of the Windows on-screen calculator *before* you take a test.

Course Grades: Students earn their grade in the course by accumulating points. There is a maximum of 1001 points available. Student letter grades are awarded as shown in the following tables. Students should go to https://secure.cas.uab.edu/mll/db/ (MADDIE) to review the status of their grades in the course. Note that grades are awarded by points earned, not by percentages. The apparent "reduced percentages" are used to compensate for the no-makeup-except-for-tests policy described below.

Number of Points	Letter Grade
880 to 1001	A
750 to 879	B
620 to 749	C
500 to 619	D
Below 500	F

Grade Element	Points	Quantity	Total Points
Homework	7	13	91
Participation points	5	13	65
Quizzes	10	13	130
MLL attendance	5	13	65
Tests	100	4	400
Final Exam	250	1	250
Total points			1001

Homework: There are 13 homework assignments containing the necessary tools to help you to learn each topic. For each assignment you can earn up to 7 points, based on your homework score. You will have 1 week or more to complete each homework assignment. **Since this is the learning stage, you are expected to work on each assignment until it is 100% complete.** An **unlimited** number of attempts can be made on each homework problem. If you miss a problem, click on *similar exercise* to work another problem correctly. There is no time limit for homework, so you may go in and out of the homework as many times as you like before the deadline (all of your work is automatically saved). You earn points when your homework is completed on or before the due date. After the due date, you can review homework assignments and work similar exercises, but you cannot change your score.

… you are expected to work on each assignment until it is 100% complete.

Class Meetings: There are 13 class meetings. For each class meeting that you attend you may earn up to 5 participation points, provided attendance requirements on page 2 are met. Points are earned if you are on time, and if you stay in the classroom for the entire class meeting. **No participation points are awarded for an absence (excused or unexcused).**

Quizzes: There are 13 quizzes. Each quiz is worth 10 points. Quizzes must be taken on or before the deadline date. **You must complete the quiz by yourself**. You may not obtain assistance from a fellow student or from a tutor. The **quizzes are timed**. Once you begin a quiz you must finish it within 30 minutes. You cannot exit the quiz or that will count as one of your attempts. Each quiz can be taken a **maximum of two times**. The higher grade attained will count.

MLL Attendance: There are 13 lab meetings. For each lab meeting that you attend, you may earn up to 5 points, provided attendance requirements on page 2 are met. Points are earned if you are on time, and if you stay in the lab for the entire meeting. **No points are awarded for an absence (excused or unexcused).**

Students can work on their homework, take quizzes, obtain tutoring assistance, and listen to course video lectures in the MLL. (To watch and listen to computer video lectures, students can bring their own headsets or can check out a headset from the MLL.)

When you come into the MLL, you must press CTRL-ALT-DELETE to log on to the UAB network with your Blazer ID and password. You will then enter BlazerNet and click on the link for MyMathLab Plus. After you finish your work in the MLL you should log off and press CTRL-ALT-DELETE to exit.

Tests: There are four major tests to be taken. Tests will be taken in **Heritage Hall 202** during scheduled lab meeting times. You are allowed up to 50 minutes on each test. **Students are required to keep a government issued photo ID on their desks during testing (UAB student ID, driver's license, etc.).**

Make-up policy: There is no make up for missing any of the following: Participation Points, lab meeting attendance points, homework deadlines, or quiz deadlines. The only grade component which can be made up is a test. If you miss a test, you may request that your final exam grade will be used to replace the missed test grade. If you miss a test you must complete a Replacement Test Grade form in the Math Department Office (UH 4005) no later than 12:00 pm on the last day of classes. Note that only one (1) missed test grade can be replaced by the final exam grade.

The only grade component which can be made up is a test.

If you know that you will have to miss a test for official university business or another government mandated circumstance, you should discuss this with your instructor no later than 1 week prior to the scheduled test date. A makeup test will be scheduled prior to the scheduled test date. A student who fails to make this prior arrangement must complete the Replacement Test Grade form described above.

Final Exam: Students will take the final exam in the MLL just as they take the major tests. The final exam will be given on April 27 at 10:45 am.

Course Completion: The course is complete once the student takes the final exam. No other points may be earned after the final exam has been taken.

Cell Phones. Student cell phones and laptops must be **turned off** and **put away** during all class meetings. In the MLL, cell phones must be **turned off and placed in your book bag, not your pocket, during testing**.

Notebook. Students are required to have a folder in which they can file the workbook, record class meeting notes, file this syllabus, file instructor e-mail messages, and file other course related information.

DSS Accessibility Statement UAB is committed to providing an accessible learning experience for all students. If you are a student with a disability that qualifies under Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act, and you require accommodations, please contact Disability Support Services for information on accommodations, registration and procedures. Requests for reasonable accommodations involve an interactive process and consist of a collaborative effort among the student, DSS, faculty and staff. If you are registered with Disability Support Services, please contact DSS to discuss accommodations that may be necessary in this course. If you have a disability but have not contacted Disability Support Services, please call 934-4205 or visit http://www.uab.edu/dss or Hill Student Center Suite 409.

Title IX Statement. UAB is committed to providing an environment that is free from sexual misconduct, which includes gender-based assault, harassment, exploitation, dating and domestic violence, stalking, as well as discrimination based on sex, sexual orientation, gender identity, and gender expression. If you have experienced any of the aforementioned conduct we encourage you to report the incident. UAB provides several avenues for reporting. For more information about Title IX, policy, reporting, protections, resources and supports, please visit http://www.uab.edu/titleix for UAB's Title IX Policy, UAB's Equal Opportunity, Anti-Harassment Policy and Duty to Report and Non-Retaliation Policy.

Withdrawal: The last day for withdrawing from this course without the payment of full tuition and fees is January 21, 2020. The last day to withdraw from this course with a grade of ***W*** is March 13, 2020. Students may withdraw from a course online using BlazerNet or by completing the appropriate forms in the UAB Registrar's Office. Permission of the instructor is not required.

DEADLINE DATES

The Syllabus Quiz is the only prerequisite for the graded assignments.

Work should be completed before deadline dates **but cannot be completed after deadline dates.**

Deadlines for homework, quizzes, and tests are INDEPENDENT of one another.

You do not have to complete homework to take quizzes or tests. (However, it is recommended.)

Once you take the Final Exam the course is complete, and no additional homework assignments or quizzes will count toward your grade. **You must attempt the Final Exam to complete the course** (even if you have 620 points prior to taking the Final exam).

Homework/Quizzes		
Assignment	**Sections**	**Due Date**
HW1/Q1	2.1, 2.4, 2.5	1/21
HW 2/Q2	2.6, 2.7, 3.1, 3.2,3.3	1/28
HW3/Q3	3.4, 3.6	2/4
HW4/Q4	4.1,4.3	2/11
HW5/Q5	5.1,5.2,5.3	2/18
HW6/Q6	5.4,5.5,5.6	2/25
HW7/Q7	5.7,6.1,6.2	3/3
HW 8/Q8	6.3,6.4	3/10
HW9/Q9	6.5,7.1	3/24
HW10/Q10	7.2,7.3	3/31
HW11/Q11	7.4,7.5	4/7
HW12/Q12	7.6,7.7	4/14
HW13/Q13	8.1,8.2	4/21

** Note that each homework assignment is worth 7 points and each quiz is worth 10 points.

Tests			
Assignment	**Related Q/Quiz Assignments**	**Points**	**Date**
Test 1	HW 1-3; Q 1-3	100	2/10
Test 2	HW 4-6; Q 4-6	100	3/2
Test 3	HW 7-10; Q 7-10	100	4/6
Test 4	HW 11-13; Q 11-13	100	4/22
Final Exam	HW 1-13; Q 1-13	250	4/27

Info:	Class #: 102	Sections: ZNB	Version: 007	201					
	Mon	**Tues**	**Wed**	**Thurs**	**Fri**	**Homework**	**Quiz**	**Test**
Week 1	13-Jan	14-Jan	15-Jan	16-Jan	17-Jan	HW 1	Q 1	
	LAB 1		**CLASS 1**			2.1, 2.4, 2.5	2.1, 2.4, 2.5	
Week 2	20-Jan	21-Jan	22-Jan	23-Jan	24-Jan	HW 2	Q 2	
	Holiday	**HW 1; Quiz 1 due**	**CLASS 2**			2.6, 2.7, 3.1, 3.2,3.3	2.6, 2.7, 3.1, 3.2,3.3	
Week 3	27-Jan	28-Jan	29-Jan	30-Jan	31-Jan	HW 3	Q 3	**TEST 1**
	LAB 2	**HW 2; Quiz 2 due**	**CLASS 3**			3.4, 3.6	3.4, 3.6	**HW 1-3**
Week 4	3-Feb	4-Feb	5-Feb	6-Feb	7-Feb	HW 4	Q 4	
	LAB 3	**HW 3; Quiz 3 due**	**CLASS 4**			4.1, 4.3	4.1, 4.3	
Week 5	10-Feb	11-Feb	12-Feb	13-Feb	14-Feb	HW 5	Q 5	
	LAB 4 (TEST 1)	**HW 4; Quiz 4 due**	**CLASS 5**			5.1, 5.2, 5.3	5.1, 5.2, 5.3	
Week 6	17-Feb	18-Feb	19-Feb	20-Feb	21-Feb	HW 6	Q 6	**TEST 2**
	LAB 5	**HW 5; Quiz 5 due**	**CLASS 6**			5.4, 5.5, 5.6	5.4, 5.5, 5.6	**HW 4-6**
Week 7	24-Feb	25-Feb	26-Feb	27-Feb	28-Feb	HW 7	Q 7	
	LAB 6	**HW 6; Quiz 6 due**	**CLASS 7**			5.7, 6.1, 6.2	5.7, 6.1, 6.2	
Week 8	2-Mar	3-Mar	4-Mar	5-Mar	6-Mar	HW 8	Q8	
	LAB 7 (TEST 2)	**HW 7; Quiz 7 due**	**CLASS 8**			6.3, 6.4	6.3, 6.4	
Week 9	9-Mar	10-Mar	11-Mar	12-Mar	13-Mar	HW 9	Q 9	
	LAB 8	**HW 8; Quiz 8 due**	**CLASS 9**			6.5, 7.1	6.5, 7.1	
Week 10	16-Mar	17-Mar	18-Mar	19-Mar	20-Mar	HW 10	Q 10	**TEST 3**
	SPRING BREAK	**SPRING BREAK**	**SPRING BREAK**	**SPRING BREAK**	**SPRING BREAK**	7.2, 7.3	7.2, 7.3	**HW 7-10**
Week 11	23-Mar	24-Mar	25-Mar	26-Mar	27-Mar	HW 11	Q 11	
	LAB 9	**HW 9; Quiz 9 due**	**CLASS 10**			7.4, 7.5	7.4, 7.5	
Week 12	30-Mar	31-Mar	1-Apr	2-Apr	3-Apr	HW 12	Q 12	
	LAB 10	**HW 10; Quiz 10 due**	**CLASS 11**			7.6, 7.7	7.6, 7.7	
Week 13	6-Apr	7-Apr	8-Apr	9-Apr	10-Apr	HW 13	Q 13	**TEST 4**
	LAB 11 (TEST 3)	**HW 11; Quiz 11 due**	**CLASS 12**			8.1, 8.2	8.1, 8.2	**HW 11-13**
Week 14	13-Apr	14-Apr	15-Apr	16-Apr	17-Apr			
	LAB 12	**HW 12; Quiz 12 due**	**CLASS 13**					
Week 15	20-Apr	21-Apr	22-Apr	23-Apr	24-Apr			
	LAB 13	**HW 13; Quiz 13 due**	**TEST 4**		LDOC			
Week 16	27-Apr	28-Apr	29-Apr	30-Apr	1-May	* All lab meetings in HHB202.		
	Final Exam 10:45 am							

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