Instructor: Ondrej (Andrew) Zjevik Office #: AC1 – 389 Phone #: TBD E-mail: <u>ozjevik@fiu.edu</u> Office Hours: MWF: 11:15AM-12:45PM TR: 10:30-11:15AM, 1:15-2:00PM

NOTE: This syllabus is subject to change

### **COURSE BASICS**

**Prerequisites:** Grade of C or higher in MAT1033 or appropriate score on placement exam for students with no prior college-level coursework in mathematics.

**Course Description:** Simplify expressions using rational exponents, factor polynomials and expressions with rational exponents, operations on polynomials, rational expressions, radicals; graphing polynomial and rational functions, lines and circles; inverse functions, exponential and logarithmic functions; systems of equations and inequalities.

### **MATERIALS NEEDED**

**Textbook:** Algebra & Trigonometry by R. Blitzer, 6<sup>th</sup> edition, packaged with MyLabsPlus access code or MyLabsPlus Access Code alone (MyLabsPlus program contains an electronic textbook version). ISBN for textbook + access code : 9781323656495; ISBN for access code alone: 9781323739778

#### Access code to MyLabsPlus :

If you took MAC 1105, MAC 1140, MAC 1114 or MAC 1147 at FIU after Fall 2017, you will receive a code in the first two weeks of the semester after it is verified that you purchased a code already. You will be asked to complete a quick survey and provide relevant information. Otherwise, you must purchase a code. You can purchase an access code at FIU bookstore together with the textbook or as standalone item. Or you can purchase it online directly from Pearson while attempting to use the MyLabs Plus site (valid credit card required) - this is the cheapest option. **Please be advised that you MUST purchase a code with a specific ISBN or it will not work for the course**. *Note: Pearson can only support access cards purchased from the bookstore and directly through the publisher. Any issues that arise from materials purchased from a third-party vendor (Amazon, Chegg, eBay, etc) must be handled by that particular company. Access cards purchased through third-party vendors will not be replaced by Pearson. This policy includes standalone access cards and access cards included within a packaged bundle.* 

If you are not able to purchase an access code immediately, you can use a **temporary access code**. A temporary access code can be obtained directly from the MylabsPlus site. A temporary access code is valid for ONLY 14 calendar days and it allows you to get started with your assignments on the first day of classes. After the code expires you will be prompted to enter the permanent code or purchase the code using a credit card. You will not be allowed to continue your course until a permanent code is entered. You cannot buy/enter a permanent code until the temporary code expires.

**Dedicated notebook (recommended)**: Use it for your class notes and homework assignments. It will be very helpful when reviewing for the tests.

#### **KEYS TO SUCCESS**

To be successful in this course you need to:

• Complete all assignments on time. Aim for 100% on each of the assignments. Every point at the end of the semester counts!

- Write out complete solutions in all assignments, as if you were taking a test. Get into a habit of showing complete work, which is required on all tests. Math is learned by **doing** problems. Watching videos and reading the textbook, while important in the learning process, will not allow you to see which parts are challenging **for you**. If your answer is not correct, review your class notes and start over.
- Be an active participant in the classroom If you don't understand something, ask questions. Take full advantage of the in-class time.
- Be consistent with your work and study time math takes practice and time to process. Make it a habit (early in the semester) to set time to work *regularly* on the course assignments and material. Work with a friend. Form a study group. An hour every day is better than cramming for 4 hours at a time.
- Get help early and often: If you are having difficulties or need support, reach out to the instructor and your classmates. Use e-mail or stop by office hours. Go to campus tutoring sessions. All students need help at some point, do not be shy about getting the help you need. We want you to succeed!
- Take advantage of campus resources: Visit the University Learning Center (GL 120 in MMC/ AC1 160 in BBC) or the AAA Tutorial Program for free tutoring (GC 267 in MMC/ WUC 253 in BBC). Look at reviews in the Math Department website: <a href="https://mathstat.fiu.edu/useful-information/math-resources/college-algebra/">https://mathstat.fiu.edu/useful-information/math-resources/college-algebra/</a>. Another excellent resource is <a href="https://www.pantheralgebra.com/">https://www.pantheralgebra.com/</a>.

## **COURSE DETAILS**

Online Homework (6% of the grade): Your online course assignments are available at <a href="http://fiu.mylabsplus.com">http://fiu.mylabsplus.com</a>. Your username is your panther ID. Use "Forgot your password?" link to obtain your password. You will be able to access the site, but to gain access to assignments you must purchase an access code for MyLabsPlus. Online problems can be attempted an infinite number of times, but must be completed by 11:59 PM on the assigned due date. It is your responsibility to track the due dates. Late submissions will not be accepted under any circumstances (a grade of 0 will be assigned), so please plan accordingly and don't wait until the last minute. At the end of the semester, the homework with the lowest grade will be dropped.

**Online Quizzes (9% of the grade):** To take a quiz you have to complete associated homework assignments (usually one assignment per week) with a score of 80% or more. If you do not score **at least 80% on the homework assignment, you will not be able to take the associated quiz** and therefore you will receive a 0% on that quiz. You can take each quiz up to 2 times and only the highest score will be recorded. At the end of the semester, the quiz with the lowest grade will be dropped.

**Offline Homework (5% of the grade):** Throughout the semester, you will have six offline homework assignments. They have to be handed in, in class, on the due date. At the end of the semester, the offline hw with the lowest grade will be dropped.

**Offline Quizzes (5% of the grade):** A quiz will be administered at the end of each class on Friday. At the end of the semester, the offline quiz with the lowest grade will be dropped.

**Exams (75% of the grade):** There will be four tests (see the schedule, worth 12.5% each) and a comprehensive final exam (worth 25%).

Note: **Deadlines will not be extended** under any circumstances. All online assignments are due at midnight on the due day. The pre-class assignments are due at the beginning of class and in-class worksheets at the end of class. Do not wait till the last moment to complete the assignments since you don't know what problems, technical or not, you might encounter along the way.

### **COURSE POLICIES**

## Grading policy:

Your grade will depend on your performance on tests and the online and offline homework and quizzes. Keep in mind that 75% of your grade is determined by your performance on tests

Course Requirements	Number of Items	Weight
Online Homework Assignments	15	6%
Online Quizzes	15	9%
Offline Homework Assignments	7	5%
Offline Quizzes	15	5%
Exams	4	50%
Final Exam	1	25%
Total		100%

- To get a full credit for a problem on a test you **must show your work**. An answer alone, even correct, will get no credit.
- The lowest scores on quizzes and homework assignments will be dropped at the end of the semester. The score on the final will replace the lowest test score, if it is to your advantage.
- The final will NOT replace a 0 that you get for missing a test.

Your final grade will be assigned according to the following scale. All grades will be available in MyLabsPlus, so you can monitor your progress.

Letter	Range (%)	Letter	Range (%)	Letter	Range (%)
A	Above 93	B-	79 - 82		
A-	89 - 92	C+	75 - 78	D	59 - 68
B+	86 - 88	С	69 - 74	F	0 - 58
В	83 - 85				

Make-up Policy: There will be no make-up tests. If you miss a test due to illness or other emergency and provide supporting documentation, your final exam will count in place of the missed test. In this case, the option of replacing the lowest test score will not be applied. There are no make-ups for online and offline assignments since the lowest score will be dropped.

**Class Attendance Policy:** You are expected to attend all classes. **Attendance will be taken daily.** It is your responsibility to complete all assignments on time regardless of whether or not you were present in the class.

**Calculator Policy:** Use of graphing calculators is prohibited in this course. A scientific calculator will be used occasionally but **not on the tests**.

**Early Alert:** In an effort to help you succeed in your academic courses, FIU utilizes an Early Alert system. Instructors are now able to notify students' academic advisors if there are concerns about class performance. If an alert is submitted, your academic advisor will send you a message via your Student Dashboard (accessed via your MYFIU page) to discuss ways to improve your performance. Please respond to any communication you receive from your academic advisor about an early alert. Our goal with this program is to help you succeed by identifying any issues as early as possible and working to address them.

**Incomplete Grade Policy:** The incomplete grade is given to a student who has substantially and successfully completed most of the course work but is unable to finish an exam or other work because of circumstances beyond the student's control. An IN grade cannot be given if it is necessary for the student to repeat the course. An incomplete grade must be made up within two semesters. There is no extension of the two semester deadline. The student must not register again for the course to make up the incomplete. Every incomplete grade must be approved by the Mathematics Department.

Drop Date: The last day to drop a course with a refund is January 16<sup>th</sup> and with a DR grade is March 19<sup>th</sup>.

**Academic Misconduct**: Includes (but is not limited to) giving or receiving assistance on a test, quiz, or homework assignment for which such assistance is not permitted, falsifying a document to obtain an excuse from a test, and using unauthorized notes on a test or quiz. A more complete definition of Academic Misconduct is given in the Student Handbook. Penalties for Academic Misconduct range from an F in the course to expulsion from the University.

**Classroom Etiquette:** To create and preserve a classroom atmosphere that optimizes teaching and learning, students are expected to conduct themselves at all times in a manner that does not disrupt teaching or learning. You are expected to come prepared to class, be on time and remain in the classroom for the duration of the class period. Eating, sleeping, checking e-mail, using a phone or laptop, reading a newspaper, preparing for another class, packing up early is disruptive to others around you and to the instructor. All classroom participation must be relevant to the topic at hand. Electronic devices such as cell phones, iPods, tablets and computers must be turned off and put away during class. Student conduct which disrupts the learning process shall not be tolerated and may lead to disciplinary action and/or removal from class.

**TENTATIVE** Daily Class Schedule

Spring 2018	Week Starting	Day	Topics (Sections – Blitzer)	Last day to complete assignments (Homework and Quizzes)
Week 1	1/8		Polynomials (P.4), Operations on Polynomials (P.4), Factoring (P.5), Rational	HW 1(on MLP): 1/13
			Expressions (P.6), Exponents (P.3)	Quiz 1(on MLP): 1/14
Week 2	1/15	Monday—	No class.	HW 2: 1/20
		MLK Holiday		Quiz 2: 1/21
			Prep for Class: Solving Linear Equations and	
			Intro to Quadratic Equations:	
			Solving Quadratic Equations (1.5), Equations Quadratic in Form (1.6)	

# Schedule of Topics Spring 2018

Spring 2018	Week Starting	Day	Topics (Sections – Blitzer)	Last day to complete assignments (Homework and Quizzes)
			Factorable Equations (1.6), Radical equations (1.6), Complex Numbers (1.4)	
Week 3	1/22		<ul> <li>Pre Class Worksheet: Coordinate systems (1.1), Intercepts (1.1), Slopes (2.3)</li> <li>In class: Graphs of Equations (1.1), Parallel and Perpendicular Lines (2.3), Distance and Midpoint Formulas (2.4), Circles (2.8)</li> </ul>	HW 3: 1/27 Quiz 3: 1/28
Week 4	1/29		Pre Class Worksheet: Interval notation In class: Functions (2.1), Domain and Range (2.1), Functional Notation (2.1), Find Sum Difference, Product and Quotient of Functions (2.6), and Graphs of Functions (2.1)	HW 4: 2/3 Quiz 4: 2/4
Week 5	2/5	Monday Test 1	Test 1 (1.1,2.1, 2.3,2.4, 2.6, 2.8) Pre Class Worksheet: Absolute value (P.1), Radicals (P.3) In class: Properties of Functions (2.2), Library of Functions (2.5)	HW 5: 2/10 Quiz 5: 2/11
Week 6	2/12		Pre Class Worksheet: Library of functions practice In class: Piecewise Functions (2.2), Intro to Graphing Techniques (2.5)	HW 6: 2/17 Quiz 6: 2/18
Week 7	2/19		Pre Class Worksheet: Graphing module In class: More Graphing Techniques (2.5), Constructing Functions – Mathematical Models (2.6)	HW 7: 2/24 Quiz 7: 2/25

Spring 2018	Week Starting	Day	Topics (Sections – Blitzer)	Last day to complete assignments (Homework and Quizzes)
Week 8	2/26	Monday Test 2	Test 2 (2.2, 2.5, 2.6)Pre Class Worksheet: Input, Output, and the Mechanics of FunctionsIn Class: Composition of Functions (2.6), One-to-one Functions (2.7), Inverse Functions (2.7)	HW 8: 3/3 Quiz 8: 3/4
Week 9	3/5		<ul> <li>Pre Class Worksheet: Introduction to Graph of a Quadratic Function</li> <li>In Class: Quadratic functions and Their Graphs (3.1), Mathematical Models (3.1)</li> </ul>	HW 9: 3/10 Quiz 9: 3/11
Week 10	3/12	Spring Break	No class all week.	
Week 11	3/19		Last day to Drop is Monday, 3/19 at 11:59pm Pre Class Worksheet: Rational expressions and review of domain In Class: Rational Functions: Domain, Asymptotes, and Graph (3.5)	HW 11: 3/24 Quiz 11: 3/25
Week 12	3/26	Monday Test 3	Test 3 (2.6, 2.7, 3.1,3.5)         Pre Class Worksheet: Solving Linear         Inequalities         In Class: Solving Polynomial and Rational         Inequalities (3.6)	HW 12: 3/31 Quiz 12: 4/1

Spring 2018	Week Starting	Day	Topics (Sections – Blitzer)	Last day to complete assignments (Homework and Quizzes)
Week 13	4/2		<b>Pre Class Worksheet:</b> Exponential Exercise <b>In Class:</b> Exponential Functions (4.1), Basic Exponential Equations (4.4), Logarithmic Functions (4.2)	HW 13: 4/7 Quiz 13: 4/8
Week 14	4/9		<ul> <li>Pre Class Worksheet: Rules of exponents and properties of logs</li> <li>In Class: Graphs of Logarithmic Functions (4.2) Properties of Logarithms (4.3), Solving Exponential and Logarithmic Equations (4.4)</li> </ul>	HW 14: 4/14 Quiz 14: 4/15
Week 15	4/16	Monday Test 4	Test 4 (3.6, 4.1–4.4) Pre Class Worksheet: solving systems of equations by graphing In Class: Systems of Linear Equations (8.1), Systems of Nonlinear Equations (8.4)	HW 15: 4/21 Quiz 15: 4/22
Week- 16	4/23	Finals Week	Final Exam: Comprehensive	