**MTH 111: College Algebra** Spring 2019, CRN: 40103 2:00 – 2:50 P.M., MTWRF, WOH-126

Instructor: Stanley Leung Office: WOH-103 E-mail: leungs@linnbenton.edu Phone: leungs@linnbenton.edu Office hours: Tuesday, Thursday: 12:00 – 1:00 P.M. (Appointments are welcome)

# **Course Description:**

Explores relations and linear, quadratic, exponential, polynomial, rational and logarithmic functions. Includes theory of equations, matrices and determinants.

Prerequisite: MTH 095 Intermediate Algebra or equivalent with a grade of C or better.

# Learning Outcomes:

Upon successful completion of this course, students will be able to:

- 1. Interpret graphical information, such as identifying types of functions, translations, inverses, intercepts, and asymptotes.
- 2. Solve a variety of symbolic equations and inequalities, such as rational, absolute value, exponential, radical, logarithmic, and linear systems.
- 3. Construct appropriate models for real world problems, such as fitting an algebraic function model to a set of data, and system of linear equations.

# **Required Materials**:

- Text: *Algebra and Trigonometry*, by Abramson, et al., Openstax College, Rice University, 2015; you can get a free electronic copy at: https://openstax.org/details/books/algebra-and-trigonometry
- Graphing Calculator: TI83 or TI84.
- You will be asked to bring your laptop to bring.

#### **Class format**

The course consists of lectures, discussion/problem solving.

#### **Grading Criteria**

Points Allocated		Grade Assignment
The final course grade will be computed as follows:		A: 90 – 100 points
<ul> <li>Homework assignments</li> </ul>	35 points	B: $80 - 89.99$ points
• Two tests	20 points	C: $70 - 79.99$ points
• Five quizzes	10 points	D: $60 - 69.99$ points F: $0 - 59.99$ points
<ul> <li>In-class assignments</li> </ul>	15 points	1. 0 <i>59.99</i> points
• Final examination	20 points	

Grades of Y and WP are not given in this course. Note: Your scores for this course are not stored on Moodle.

• Absences and excuses do not improve grades. Understanding comes after studying.

"The capacity to learn is a gift; the ability to learn is a skill; the willingness to learn is a choice." Brian Herbert (American author)

# **Cell-phone policy:** Zero tolerance for cell-phone use in class.

You will be asked to leave the classroom if you use cell phone in class. All **electronic devices** (except approved medical devices, graphing calculator) **are banned** from our classroom or instructor's office. This policy gives you a higher chance of success in Math 111.

# How to do well in this course?

To do well in this course, **your responsibilities** include: **Attend all classes and do all required course work**. Take quizzes, tests, and the final examination. Submit homework assignments and in-class assignments on time. Study lecture notes (stored on Moodle) and the textbook daily. Understand the connections between concepts. Pay close attention to definitions, technical details.

# Notice: You are responsible for the material covered, course-related information, and announcements

made during the class(es) that you miss. Even if you are sick, even if your car breaks down, even if your cats have to go to the vet; you are still responsible for all the material you missed in your absence.

# **Tips for success**

- To succeed in Math 111, attendance is essential. Two or more absences can affect your grade, due to missed work, and explanation of concepts.
- Keep up! You need to be comfortable with the topics from the first 4 weeks of the course to be successful in the end.
- Study your lecture notes and read the textbook. (You are expected to review lecture notes daily.)
- Help will be much more effective and productive if *you know what it is that you don't understand* and if *you bring specific questions from lecture*!
- To ensure you comprehend the material, plan on studying at least 1 hour a day outside of class. You are expected to spend 10 to 20 hours per week outside of class studying and working on the content of Math 111.
- Use learning center (WH-226), Math Café, and instructor's office hours. Ask questions in class. Do not wait. You are encouraged to form teams of two.

# **In-class assignments**

Besides lectures, the instructor provides guided discussion/problem solving to illustrate and reinforce concepts. Students are encouraged to work in *teams of two*. Students studying in teams can improve understanding concepts, acquire learning skills; and make new friends, too.

# Notice:

- To receive credit for in-class assignments, you must be present in class. No excuses.
- In-class assignments must be turned at the end of that class meeting, unless instructed otherwise.

# **Homework assignments**

Do homework assignments **completely** on your own team (= 1 student or 2 students). You must work on the homework assignments on your own team, independent of other teams in class. **Credit for an assignment is equally divided among those teams for work that has been copied.** This includes computer output when used in the homework assignments. The instructor retains copied homework assignments. Random grading of certain problems in a homework assignment may be used.

# You must hand in your homework assignment at the start of class.

Homework deadline: 5 minutes after the start of class on the due date.

Notice: The instructor does not accept electronic versions of homework assignments.

#### Policy on late homework assignments

[1] You are allowed to turn in one late homework assignment (up to 72 hours late) without penalty. Use it for an emergency only.

This 72-hour policy may change when it is close to a test or final exam.

[2] If you turn in your homework assignment later than **2:05 P.M**., you will **lose one point** from the score of the assignment for every minute past the due time. If your assignment is more than 10 minutes late, then option [3] applies.

[3] 1 day late: 90% credit; 2:06 P.M.(due day) to within 24 hours

2 days late: 70% credit; 2:06 P.M. (due day) to within 48 hours

3 days late: 50% credit; 2:06 P.M. (due day) to within 72 hours (After 72 hours, late HW assignments will go to recycle bins.)

#### **Homework Policy**

- To get credit, all parts of your response to a problem (or part of a problem) must be **correct**, **specific**, and **explicit**.
- You **must use standard procedure of solving math problems**, with standard mathematical symbols and notation. Clear written communications are expected.
- Homework must be written neatly and in an **organized manner**. Homework that is submitted for grading must be in **finished form** and not in draft form. **Do not put your sketch work on homework sheets**.
- Use 3 or 4 decimal places for numerical answers if necessary. Units of measurement must be included.
- For **full credit**, show all your **WORK** (problem setup, formulas and steps of calculation, standard procedure, standard notation, units, ...)
- Correct numerical answers with no WORK receive no credit.

This policy applies to in-class assignments, homework assignments, tests, and the final examination.

#### Tests

In-class tests consist of true-or-false questions, multiple-choice questions, computational problems, short-answer conceptual questions. All in-class tests are closed-book and closed-notes. You may use a letter-size sheet for notes. Both sides are fine.

If you have questions regarding your graded test, you must talk to the instructor within **3 school days** after it is returned to you.

Test 1: Thursday, Week 4; Test 2: Thursday, Week 8

#### Policy on tests:

- Make-up tests will not be given under any circumstances.
- If you missed a test and have a **documented reason** or **verifiable emergency**, the credit for the test will be transferred to the final exam. That is, the credit for your final exam is 30 (= 20 + 10) points.
- You must not use cell phones or cell-phone calculators during tests, or the final examination.

#### Quizzes

You will have 5 quizzes. The topics for a quiz will be announced on Moodle. Quiz time: 2:30 - 2:50 p.m., **Thursday**. Quiz dates: Weeks 2, 3, 5, 6, 7. No make-up quizzes.

#### **Final Examination**

The final examination is comprehensive and covers all lectures through the end of the spring quarter. This is an open-book and open-notes exam. The final exam consists of true-or-false questions, multiple-choice questions, conceptual questions, and computational problems. **No make-up final examination**. Final exam: week 11 (Finals week, Monday, 3:00-4:50 P.M.)

#### Math 111 Incomplete Policy

- If you are **passing the course** (C or above) **and** have a **documented reason** or **verifiable emergency** for not being able to complete the course, I may be able to grant you an incomplete. You must obtain my written agreement if you wish to have a grade of incomplete recorded.
- If you miss the final exam, are passing Math 111 and have a **documented reason** or **verifiable emergency**, you will be given an Incomplete. If you miss the final exam and your absence is unexcused, you will receive whatever grade you have earned by your total points (maximum 80) prior to the final exam.

# **Special Circumstances:**

Students who have any emergency medical information the instructor should know of, who need special arrangements in the event of evacuation, or students with documented disabilities who may need accommodations, should **make an appointment with the instructor as early as possible, no later than the first week of the term.** 

# Request for Special Needs or Accommodations

You should meet with your instructor during the first week of class if:

- 1. You have a documented disability and need accommodations.
- 2. Your instructor needs to know medical information about you.
- 3. You need special arrangements in the event of an emergency.

If you have documented your disability, remember that you must make your request for accommodations through the Center for Accessibility Resources (CFAR) Online Services webpage every term in order to receive accommodations. If you believe you may need accommodations but are not yet registered with CFAR, please visit the CFAR Website for steps on how to apply for services or call 541-917-4789.

# Center for Accessibility Resources

# Main Office, Red Cedar Hall 105 (RCH-105)

Monday-Friday 9:00 a.m. - 3:00 p.m. Phone: (541) 917-4789 Email: cfar@linnbenton.edu

# Support Lab, Red Cedar Hall 114 (RCH-114)

Monday-Friday 8:00 a.m. - 3:00 p.m. Phone: (541) 917-4343 Email: cfarlab@linnbenton.edu

# The LBCC Center for Accessibility Resources and YOU!

The Center for Accessibility Resources provides assistance to students who have documented disabilities by:

- Reviewing documentation, provided by the student, that provides evidence of disability
- Planning reasonable accommodations
- Coordinating services in the classroom
- Providing support (i.e. assistive technology, testing accommodations, and classroom accommodations)
- Success coaching and advocating

If you have a disability and feel that you will need accommodations as a student at Linn-Benton Community College, we are here to support you.

#### Math 111

# LBCC Comprehensive Statement of Nondiscrimination

LBCC prohibits unlawful discrimination based on race, color, religion, ethnicity, use of native language, national origin, sex, sexual orientation, gender, gender identity, marital status, disability, veteran status, age, or any other status protected under applicable federal, state, or local laws. For further information see Board Policy P1015 in our <u>Board Policies and Administrative Rules</u>. Title II, IX, & Section 504: Scott Rolen, CC-108, 541-917-4425; Lynne Cox, T-107B, 541-917-4806, LBCC, Albany, Oregon. To report: <u>linnbenton-advocate.symplicity.com/public report</u>

# **Brief Basic Needs Statement:**

Any student who has difficulty affording groceries or accessing sufficient food to eat every day, or who lacks a safe and stable place to live, and believes this may affect their performance in the course, is urged to contact the Single Stop Office for support (SinglestopatLBCC@linnbenton.edu, 541-917-4877, or visit us on the web www.linnbenton.edu under student services for current students). Our office can help students get connected to resources to help. Furthermore, please notify the professor if you are comfortable in doing so. This will enable them to provide any resources that they may possess.

Your instructor is a fair dictator!

- To be fair to all students in Math 111, the instructor strictly enforces the course policies. For individual situations not covered in the course policies, the instructor will act at his discretion. Additional information relating to the course material or assignments will be handed out or announced in class. You are responsible for the material covered, course-related information, and announcements made during the class(es) that you miss.
- The instructor does not use class time to return graded assignments, and tests.

The amount of time you spend on homework problems as well as in-class problems will directly affect how much you learn, your exam scores and, therefore, your grade in the course.

# **APPROXIMATE COURSE SCHEDULE (Not carved in stone yet)**

Week	Chapter	Topics
1	2	Review of linear equations, and quadratic equations
2	3	Functions
3	3	Functions
	4	Linear functions
		<b>Review for Test 1</b> (Check Moodle for review materials)
4	4	Linear functions
		Test 1
5	5	Polynomial and rational functions
6	5	Polynomial and rational functions
7	6	Exponential functions
		<b>Review for Test 2</b> (Check Moodle for review materials)
8	6	Logarithmic functions
		Test 2
9	11	Systems of equations and inequalities
10	11	Systems of equations and inequalities
11		Final examination: Finals Week: Monday, 3:00-4:50 P.M.

*Note*: This outline gives you a rough sense of our course of study. We go faster on some simple topics, and slower on some important concepts. We will cover and learn as much as we can.

# **Important**:

- Class notes, homework assignments, solutions, announcements, and review materials are stored on Moodle.
- Make sure that you check Moodle for class-related materials at least 3 times a week.

O I hope you will enjoy your *guided tour* through the **wonderland of College Algebra**. O