# MTH 95 Intermediate Algebra

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| **Term: Winter 2019** | **CRN: 30141** | **Class Code: 84** |
| **Instructor: Mike Storrs** | **Office: WHO-129** | **Office Hours: Fri 2-3pm** |

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## MTH 95 Intermediate Algebra Course Description:

Intermediate Algebra is a course that develops the concept of a function. It is designed for the student who has an algebraic foundation (Math 75). Topics include an investigation of different functions, their graphs, and properties. The functions included are linear, quadratic, polynomial, radical, and exponential. Problem solving, technology, and cooperative learning is emphasized throughout the course. During the term, students will learn to recognize and express mathematical ideas graphically, numerically, symbolically, and in writing. Application problems are realistic with some data to be collected, analyzed and discussed in a group setting with results submitted in written form. Credits 4 Prerequisite: MTH 75 or Placement into the course.

### MTH 095 Student Learning Outcomes:

1. Interpret and analyze functions to find information such as domain, range, variable and function values by using a variety of tools that may include graphs, tables or given equations.
2. Model application problems using appropriate algebraic models, which may include linear, quadratic, and exponential.
3. Communicate mathematical concepts, processes and solutions.
4. Apply algebra skills to topics such as factoring polynomials, solving quadratic equations, and simplifying expressions.

### Required Materials:

- Tablet or Laptop (available for purchase or rent in bookstore if you don't have one.) Minimum specifications for use with ALEKS software: https://www.aleks.com/support/system_requirements
- ALEKS access code for 11 weeks. (If a 52-week code was previously purchased, that may be continued.)
- Course Materials Packet

- **Recommended**
  - Non-graphing, scientific calculator for testing.
  - Three ring binder for your course packet, ALEKS notes and class notes.

**Grading Policies:**

| Category | Percent of Grade | Grading Scale |
|---|---|---|
| ALEKS Weekly Objectives | 20% | A: 90 -100% |
| ALEKS Topics/Pie Overall | 5% | B: 80 – 89% |
| In-Class Work | 25% | C: 70 - 79% |
| ALEKS Skills Test 1 | 5% | D: 60 - 69% |
| ALEKS Skills Test 2 | 15% | F: 0 - 59% |
| Midterm Exam | 12% | |
| Final Exam | 18% | |

**Tests:**

- The **Midterm Exam** will be taken in our classroom and it has a time limit of one class period. The test must be taken on the scheduled day. If you miss this test you will get a score of zero. Testing at an alternate time will only be allowed for special prearranged circumstances. However, the midterm exam grade may be replaced by the final exam score, up to a maximum of 75%. The *tentative* midterm exam date is listed on the course calendar.
- **The date and time of the Comprehensive Final Exam will not change: Wednesday, March 20, 2019 at 3:00pm. Students have 1 hour and 50 minutes to complete the exam.**
- The **ALEKS Skills Tests** will be taken in the Testing Center in RCH-111. Once the instructor has signed your testing ticket, you will have a few days to go in and take the test on your own time. These tests are taken in ALEKS and they are not timed. Refer to the test ticket for further information. The instructor will sign the testing ticket when you are ready to test. There are no notes or graphing calculators allowed during any of the tests.

**Homework:**

ALEKS is an adaptive online homework website (www.aleks.com). You will need to purchase an access code in order to get logged in. Your skills work will be completed on this site. Each week's skills, called "Objectives," will be available for a given length of time and you must learn those skills and demonstrate mastery by the deadline date and time. Your score at the time of the deadline will be recorded as a homework grade for that week. Students who finish their ALEKS work before the deadline can work on other topics in the course pie.

- **ALEKS Homework Guidelines:**

You should keep a notebook of loose leaf paper for your ALEKS homework. You are expected to work through each problem and then write up neat, readable solutions for your notebook. Include the original problem unless it is a lengthy word problem. This will give you a study reference before testing.

**In-Class Work:**

Students will be actively participating in learning activities and group work every class meeting. Generally these activities must be done in class and cannot be made up. These are the lessons for this course. The activities are designed to help students develop and understand the concepts behind the math skills and how to apply them to various situations. The experiences gained from working in the groups will be a major component in determining the student's success in this course. **Attendance is therefore required. At the end of the quarter your lowest score from this category will be dropped.**

- Students may view their grades on the ALEKS website.
- A grade of Incomplete may be assigned at the discretion of the instructor under special circumstances. The student must have completed the majority of the course, been in regular attendance and passing the course prior to the "special circumstance".

**Attendance Policy**

If you miss four hours of class (1/10 of the class) you will get a warning. If you miss eight hours of class (20% of the class) your final course grade will drop one letter grade. Essentially, there are five letter grades, and if you miss 1/5th of the class, you will not be eligible for the top letter grade.

**Late Work**

Late work will not be accepted and any make-up work will have to be agreed upon by me and will not be worth full credit.

**Notes online**

Class notes will be available on my instructor website. I will also use my website to post the syllabus, my schedule, test information, and announcements.

**Help**

If you have questions, PLEASE **come see me** and ask! I have scheduled office hours but you're welcome to come in at other times too. **Study groups** are encouraged! Many students find that working with classmates is the best way to learn and understand the material. Don't forget about the **e-book and videos** available on ALEKS.

**Use the Learning Center /Math Café**

The Learning Center, WH226, is an excellent place to study and to get help with your homework. (Please remember to log on and log off the computer with each visit to the Learning Center.) The other LBCC campuses have similar facilities with Math Help available. The Albany Campus has The Math Café in WH-208, which is connected to the Learning Center.

- There is free wireless available in the Math Café and Learning Center (with lots of places to plug in so your battery won't be depleted.)
- The relaxed atmosphere and table arrangement in the Math Café and Learning Center provide great locations for study groups to meet and work.
- Instructional assistants are available in the Math Café to answer your math, ALEKS and study skills questions for Math 50, 75, 95 and 98.
- The Learning Center offers some free individual and small group tutoring in addition to the help desk.

**Computers**

Computer labs are open to students in the Library and in the Learning Center. Laptops are usually available for short-term check out from the Library. Laptops are also available for use in the Math Cafe.

**Expectations:**

- I expect that my students will be involved in class. This includes being present, asking questions and participating in discussions and group work. (The instructor notes excellent attendance/attitude and will sometimes "bump up" a borderline grade for such students.)
- You should come to class prepared (this means you should bring your notebook, tablet/laptop, etc. in addition to having your work with you). Spend **at least 8 hours per week working on this class.**
- I expect you will be respectful of everyone in the class, in word as well as behavior. Along these lines, I ask that you turn off and/or put away your cell phone, mp3 player, laptop, etc. during class unless it is being used for an activity so as to avoid causing a distraction.

**LBCC Email:**

You are responsible for all communications sent via ALEKS and to your LBCC email account. You are required to use your LBCC provided email account for all email communications at the College. You may access your LBCC student email account through Student Email.

**Academic Honesty:**

I assume that you are ethical and honest. However, if there is an incident of academic dishonesty (cheating), you will receive a score of zero for that test/assignment and the incident will be reported to the college administration for possible further disciplinary action. If there is a second offense, you will receive a grade of F for the course and the incident will be reported to the college administration with a recommendation for disciplinary action.

**Special Circumstances:**

Students who may need accommodations due to documented disabilities, who have medical information which the instructor should know, or who need special arrangements in an emergency should speak with their instructor during the first week of class. If you believe you may need accommodations but are not yet registered with the Center for Accessibility Resources (CFAR), please visit the CFAR Website for steps on how to apply for services or call 541-917-4789.

**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 Board Policies and Administrative Rules. Title II, IX, & Section 504: Scott Rolen, CC-108, 541-917-4425; Lynne Cox, T-107B, 541-917-4806, LBCC, Albany, Oregon. To report: linnbenton-advocate.symplicity.com/public_report

***The instructor reserves the right to make changes to the syllabus/calendar at any time.***
Tentative Course Calendar:

| Week | Topics |
|---|---|
| 1 | Course Introduction, Making Group Work Effective, Functions, Dimensional Analysis |
| 2 | Linear Functions, Variation, Growth Mindset |
| 3 | Rules of Integer and Rational Exponents<br>ALEKS Skills Test 1 (Taken in Testing Center) |
| 4 | Solving Equations for Variables, Rational Exponent Function Application, Simplifying Radicals, Radical Application |
| 5 | Radical Functions, Rational Exponent Functions, Growth Mindset 2, Introduction to Polynomials |
| 6 | Polynomials, Midterm Exam (Taken in class), Factoring |
| 7 | More Factoring Methods, Solving Quadratic Equations by Factoring |
| 8 | More Methods for Solving Quadratic Equations |
| 9 | Quadratic Functions, Exponential Functions<br>ALEKS Skills Test 2 (Taken in Testing Center) |
| 10 | Modeling, Review for Final Exam |
| 11 | Final Exam (Taken in class according to the LBCC Exam Schedule) |
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**System requirements for using ALEKS on a laptop or tablet:**

| | Windows[1] | Macintosh | Chromebook | iPad | Android Tablet[2] |
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| **Operating System** | 7+ | OSX 10.9+ | Chrome OS | iOS 9+ | Android 4.4+ |
| **Screen Resolution** | 1024x768+ | 1024x768+ | Any | Any | 8.9” |
| **Browsers[3]** | Chrome 30+<br>Explorer 11+<br>Firefox 25+<br>Edge 40+ | Chrome 30+<br>Safari 9+<br>Firefox 25+ | Chrome 30+ | Safari | Chrome 30+ |

Notes:

1. Windows based Microsoft Surface tablets require the use of an external keyboard and mouse (e.g., touch cover keyboard, Bluetooth keyboard/mouse or USB keyboard/mouse).
2. At this time only Samsung Galaxy tablets have been tested.
3. ALEKS multimedia requires that Flash is enabled in updated Chrome browsers.