

Intermediate Algebra

Virtual Campus Summer 2017

School of Mathematics & Sciences

MATH 1300 – VC01

**Wayland Mission Statement:** Wayland Baptist University exists to educate students in an academically challenging, learning-focused and distinctively Christian environment for professional success and service to God and human kind.

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**Course Description:**

**Description:** This course develops skills in basic concepts of algebra, real numbers, linear equations and inequalities, polynomials, systems of equations and inequalities, and graphing and functions.

**Prerequisites:** This class is generally for students with some background in high school algebra (at least a semester). If you have not had any, ACAC MATH is strongly suggested. If you have (recently) had two years of high school algebra, take MATH 1304 (College Algebra).

**Required Resources:**

**Lecture Notes:** Lecture Notes for Intermediate Algebra by Dr. Scott Franklin

(These are available through the Wayland Bookstore or downloadable from Blackboard. If you choose to download the lecture notes, you will need to print them so you can fill them in as you watch the online lecture videos.)

**Student Access Pack:** MyMathLab Student Access Kit (ISBN: 0-13-147894-X)

**Supplies:** All students need to have a scientific calculator that has at least  and  functions, and the exponential function ().

**Optional Resource:**

**Textbook (hard copy):** INTERMEDIATE ALGEBRA FOR COLLEGE STUDENTS, 6th edition by Blitzer (ISBN: 0-13-600762-7)

***NOTE: The hard copy of the textbook is optional because the access code above will grant you access to an online copy of the textbook.***

**Outline and Outcome Competencies:**

 To understand and apply the following concepts:

**Linear Equations** Term, Coefficient, Degree

 Like and Unlike Terms, Simplification

 Solving Linear Equations

 Mathematical Models, Translating from Words to Formulas

**Sets** Variable, Constant, Algebraic Expressions

 Sets, Elements, Null Set

 Real, Natural, Whole, Rational, and Irrational Numbers, Integers

 Subset, Interaction, Union

**Properties of Real Numbers** Double Negatives, Absolute Value

 Commutative, Associative, Distributive, Identity, Inverse

 Order of Operations

 Roots and Powers

 Scientific Notation

**Graphs** Quadrants

 Plotting Points

 Graphing Functions

**Functions** Relation, Function, Domain, Range

 Linear Functions, Intercepts, Slope

 Standard Form, Slope-Intercept Form, Point-Slope Form

 Parallel and Perpendicular Linear Functions

 Adding, Subtracting, Multiplying, and Dividing Functions

 Graphing Linear Inequalities

**Linear Inequalities** Dividing and Multiplying by Negative Numbers

 Number Line, Interval Notation, Solution Set

 Compound Inequalities

 Absolute Values

 Systems of Linear Equalities

**Systems of Linear Equations** No Solutions, Infinite Solutions, One Solution

 Solving by Graphing, Substitution, Elimination

 Three-Variable Problems

**Polynomials** Degree, Leading Term, Leading Coefficient

 Adding, Subtracting, and Multiplying Polynomials, FOIL

 Factoring, Greatest Common Factor, Grouping

 Solving Polynomial Equations

 Special Factoring Formulas

**Statement on Plagiarism and Academic Dishonesty**: Wayland Baptist University observes a zero tolerance policy regarding academic dishonesty. Per university policy as described in the academic catalog, all cases of academic dishonesty will be reported and second offenses will result in suspension from the university.

**Disability Statement:** In compliance with the Americans with Disabilities Act of 1990 (ADA), it is the policy of Wayland Baptist University that no otherwise qualified person with a disability be excluded from participation in, be denied the benefits of, or be subject to discrimination under any educational program or activity in the university. The Coordinator of Counseling Services serves as the coordinator of students with a disability and should be contacted concerning accommodation requests at (806) 291-3765. Documentation of a disability must accompany any request for accommodations.

**Assessment of Student Achievement:**

There are 4 components to the final grade in this course.

1. **Homework Exercises:** You have homework exercises that must be completed for each section that we cover in the course. You will complete those online through the MyMathLab Course Interface. Instructions for using MyMathLab are included in your textbook. When you login to CourseCompass/MyMathLab you will be able to click on Homework and view your homework exercises. (see attachment)
2. **Weekly Quizzes:** By the end of each week of the course you will be required to complete an online quiz covering the sections from that week. The deadline for completing this quiz will be midnight on Sunday, each week. You can take the quiz up to *three times* and your highest score will be counted. Each time you take the test, the questions will be randomly generated, but of the same type.
3. **Exams:** During the course, there will be two major exams: a Midterm and a Final. Each test will cover half of the course. Both of these tests are to be taken in person at one of the external campuses or a testing center. They will be paper and pencil tests which will be mailed to your instructor for grading. They must be proctored by an approved representative of the University.
4. **Lecture Video and Notes:** You will be required to watch the videos for this course and completely fill in the lecture notes for each section. This will be verified at each of the proctored exams. You will be required to bring it with you to these tests, although you cannot use it while taking the exam.

**Assessment of Student Achievement: (cont.)**

Homework 20%

Weekly Quizzes 30%

Exams 40%

Lecture Video and Notes: 10%

A: 90 – 100 B: 80 – 89 C: 70 – 79 D: 60 – 69 F: Below 60

**Academic Honesty:** Disciplinary action for academic misconduct is the responsibility of the faculty member assigned to this course. The faculty member is charged with assessing the gravity of any case of academic dishonesty, and with giving sanctions to any student involved.

### Course Schedule (All times are for the Central Time Zone, so plan accordingly)

**Week 1: May 29 - June 5**

Videos and Notes for Sections 1.1 – 1.2

Homework Exercises Sections 1.1 – 1.2

Weekly Quiz covering Sections 1.1 – 1.2

**Due by 5:00 p.m. on Monday, June 5.**

**Week 2: June 6 - June 12**

Videos and Notes for Sections 1.3 – 1.4

Homework Exercises 1.3 – 1.4

Weekly Quiz covering 1.3 – 1.4

**Due by 5:00 p.m. on Monday, June 12.**

**Week 3: June 13 - June 19**

Videos and Notes for Sections 1.5 – 1.7

Homework Exercises 1.5 – 1.7

Weekly Quiz covering 1.5 – 1.7

**Due by 5:00 p.m. on Monday, June 19.**

**Week 4: June 20 - 26**

Videos and Notes for Sections 2.1 – 2.3

Homework Exercises 2.1 – 2.3

Weekly Quiz covering 2.1 – 2.3

**Due by 5:00 p.m. on Monday, June 26**

**Week 5: June 27 - July 3**

Videos and Notes for Sections 2.4 – 2.5

Homework Exercises 2.4 – 2.5

Weekly Quiz covering 2.4 – 2.5

**Due by 5:00 p.m. on Monday, July 3.**

**Week 6: July 4 - July 10**

Videos and Notes for Sections 3.1 – 3.3

Homework Exercises 3.1 – 3.3

Weekly Quiz covering 3.1 – 3.3
**Due by 5:00 p.m. on Monday, July 10.**

**Midterm Exam: Paper and Pencil exam (Proctored)**

**(Covers Chapters 1 – 2)**
**This needs to be completed between Tuesday, Jan 4 and Monday, July 10.**

**Week 7: July 11 - July 17**

Videos and Notes for Sections 4.1 – 4.2, 4.4

Homework Exercises 4.1 – 4.2, 4.4

Weekly Quiz covering 4.1 – 4.2, 4.4

**Due by 5:00 p.m. on Monday, July 17.**

**Week 8: July 18 - July 24**

Videos and Notes for Sections 5.1 – 5.2

Homework Exercises 5.1 – 5.2

Weekly Quiz covering 5.1 – 5.2

**Due by 5:00 p.m. on Monday, July 24.**

**Week 9: July 25 - July 31**

Videos and Notes for Sections 5.3 – 5.4

Homework Exercises 5.3 – 5.4

Weekly Quiz covering 5.3 – 5.4

**Due by 5:00 p.m. on Monday, July 31.**

**Week 10: August 1 - August 7**

Videos and Notes for Sections 5.5, 5.7

Homework Exercises 5.5, 5.7

Weekly Quiz covering 5.5, 5.7

**Due by 5:00 p.m. on Monday, August 7.**

**Week 11**

Review for Final

No assignments

**Final Exam: Paper and Pencil exam (Proctored)**

**(Covers Chapters 3 – 5)**

**This needs to be completed between Monday, August 7 and Saturday, August 12.**

### Important Details

Here are a few VERY important details that you should make note of as you prepare to get the course underway:

1. The majority of the coursework will not be in Blackboard but instead at MyLab (http://pearsonmylabandmastering.com/). There is a link to MyLab on our Blackboard page. This is where the MyMathLab tools for homework and quizzes will be located.

You need to set up your student account at MyLab before you begin any work in the course. You should have a Student Access Code and a Getting Started pack included with your textbook. Click the link to MyLab on our Blackboard page, and you will be asked for your Student Access Code. If you do not have one purchased yet, then you will have the option to purchase it directly from the website at that point.

The first thing you'll need to do after setting up the account is to run the "Installation Wizard" and view "How to Enter Answers" tours and tip sheets for information about entering math notation.

2. As part of this course, you will watch the series of lecture videos and fill in the lecture notes. The proctor that you use for your midterm and final will verify that you have filled in the lecture note book. The videos and book are downloadable for the Blackboard site. However, you will definitely need a broadband internet connection if you expect to watch the videos online. And if you download the lecture notes, you will need to print them to fill them in. As I mentioned, your proctor for your midterm and final will confirm that you have filled them out so be sure to take them with you to the proctored exams.

3. Both the Midterm and the Final are paper and pencil tests and must be administered by a Wayland-approved proctor.

If you live in a city with a Wayland campus, you must take the tests on that campus, so you do not need to submit a proctor request form. However, you should contact the campus the week before your test to arrange a date and time for you to take the test, to find out where the test will be administered, and to give them the course number (MATH1300) and instructor name (Dr. Cole).

For the Plainview campus, contact the Virtual Campus offices at 800-203-9048.

For external campuses, see the listing at <http://www.wbu.edu/about_wayland/campus_locations/> for contact information.

If you cannot take the tests on a Wayland campus, you must have your proctor approved by Wayland before they can administer the tests. The proctor must be approved every term (but only once per term) even if they have proctored tests for Wayland in past terms. Commonly used proctors are librarians holding a Master of Library Sciences, authorized employees at U.S. Military Education centers, and college testing centers (like Sylvan Learning). See the proctor request form for more details.

The proctor request form is located at <http://www.wbu.edu/academics/online_programs/proctor/proctorrequest.htm>. Once the form is filled out, the proctor will receive an email requesting they provide certain information for verification. When the information has been provided, the Virtual Campus will approve or deny the request and will notify both the student and the proctor by email. **This entire process must be completed at least a week before the Midterm**. Do not forget to contact the proctor the week before the test to arrange a date and time and location (and to let them know the course number and instructor name).
Please email me with any questions you may have: Dr. Cole's email: colel@wbu.edu.