Instructor Information

<table>
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<tr>
<th>CRN:</th>
<th>30036</th>
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<tr>
<td>Instructor:</td>
<td>Sandy Gilpin</td>
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<td>Office:</td>
<td>Jones 114</td>
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<tr>
<td>Office Hours:</td>
<td>Tu 2:30 – 3:00 p.m., Th 9 – 10 a.m., Fri 11:15 – 12:15 p.m.</td>
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<td>My Alcove Hours:</td>
<td>Mon 11:15 – 1:00 p.m., Wed 11:15 – 12:30 p.m.</td>
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Course Description
Intermediate Algebra provides review and instruction in college preparatory mathematics for students with deficiencies or apprehensions concerning required entrance-level mathematics courses. The instructor will use a combination of lecture, problem-solving skills, group work and individualized assistance. Students will be substantially involved in the instructional process through class participation, problem solving, and completing homework, in-class activities, and group work. Student work will include writing as well as doing calculations. Throughout the course, topics such as number systems, algebraic expressions, algebraic properties, and algebraic manipulations will be learned to solve and graph linear and exponential functions, equations and inequalities; applications will be included. Credit for this class does not count toward the minimum semester credits required for a degree.

Prerequisites
Students must have successfully completed at least the equivalent of Algebra I and have been placed in TRS 92 as a result of the FLC Math Placement or have completed TRS 82 (Introduction to Algebra) with a C- or better.

Challenging Your Placement
If you feel you have been placed into this course inappropriately, you may challenge your placement by taking the Accuplacer Exam. There is a $25 fee and you must have a photo ID and a #2 pencil. Questions can be answered by contacting the Testing Center at 970-382-6938 or testingcenter@fortlewis.edu.

Required Materials
- A scientific calculator is required. A TI-83, TI-83 Plus, or TI-84 Graphing Calculator is suggested; a TI-85, TI-86, TI-89, or TI-92 Graphing Calculator will be prohibited. Several programs on campus like PAA and the NAC have graphing calculators to loan if you are a participant in their program. The Freshman Math Program also has calculators to loan for a small fee; see your instructor for details. If you plan to take Math 110, College Algebra, it is strongly suggested that you purchase a TI-83 or TI-84 calculator.
- A 2-inch, 3-ring binder/notebook with 4 tab dividers.
- Access code to MyMathLab (includes online textbook).
- TRS 92 Coursepack (available at the bookstore)
- A commitment of at least 2 - 3 hours/day of your time and effort outside of class along with active participation in class.

Class Policies
- Attendance – It is very important that students come to class and actively participate every day. Students who miss class may not make up any in-class exercises or activities, quizzes, or exams. Students who miss more than 6 class periods during the term will receive an F and will NOT have the opportunity to receive a “W” as a final grade in the class. There is no difference between an “excused” absence and an
“unexcused” absence. However, students who know they must miss class due to school sponsored activities or religious holidays should discuss this matter with the instructor at least one week in advance so that appropriate arrangements can be made. It is the responsibility of the student to ensure the instructor of the class has received such notification. Students can contact their instructor by e-mail, voice mail, and, of course, by going to his/her office to make the necessary arrangements.

- **Tardy Behavior/Leaving class** – Tardy arrivals and early departures will affect a student’s attendance, at the instructor’s discretion. An absence may be recorded if a student leaves for any amount of time during the class period.

- **Student Graders** – A student grader may grade homework assignments and portfolios in this class. The student grader has qualified for this position by completing this class with a B+ or better and being recommended by an instructor. He/she has signed a confidentiality agreement pledging not to discuss information about the work he/she sees to anyone other than the instructor. Graders are also not allowed to grade the work of students with whom they have a personal relationship. If a student has concerns about a grader grading his/her work, please contact the instructor. If a student ever has questions about a grade on an assignment, bring it to the instructor’s attention immediately upon having the assignment returned.

- **Cell phones and other electronic devices** – Cell phone, I pods, or other electronic devices are NOT allowed in the classroom. They are to be turned off before class starts and not turned on again until class ends. Students are especially not allowed to use them during any exam.

**Grading**

- **The grade in this class will be calculated as follows:**
  - Exams: 50%
  - Written Homework: 30%
  - MyMathLab Assignments: 15%
  - Portfolio: 5%

- **Grade cutoffs**
  (If a student earns a “D” or “F” as a final grade, he/she will not be allowed to enroll in the next higher-level math class. TRS 92 must be repeated.)

Credit does not count toward graduation or GPA. However, a student must obtain a grade of “C-” or above to be allowed to advance to the next course and to satisfy the Colorado Assessment Law. There are external consequences to be considered if a grade of “D” or lower is earned. Some of the consequences may include financial aid, academic standards, NCAA eligibility, and housing.

- **Incompletes** – Incompletes will only be given under **very special** circumstances, upon the decision of the instructor.

- **Last Day to Withdraw** – The last day that a student can drop with a grade of W is **Friday, March 1st**. It is the student’s responsibility to discuss a grade of W with his/her instructor. After **March 1st**, dropping the class will result in a grade of F.

- **Exams** – There will be 5 exams. The first four exams will be given in the regular classroom at the regular class time. Exams cannot be made up. Corrections must be made on all tests. With any grade of less than 70% on a test, students must go to the ALGEBRA ALCOVE for corrections and have the corrections signed by a member of the Alcove staff.
Tentative exam dates:

Exam #1 – Wednesday, January 30th
Exam #2 – Wednesday, February 20th
Exam #3 – Wednesday, March 20th
Exam #4 – Friday, April 12th
Exam #5 – Final Exam Time, Wednesday, April 24th at 4:30 – 6:30pm, Room TBD

- **Written Work** – Homework will be assigned on a daily basis and will cover the concepts that were covered during class. Students will be expected to do the assignments as a way to gain a better understanding of the new concepts. Homework will be collected often and randomly throughout the semester. Late homework will NOT be accepted. It is up to you to turn it in on time. All work must be shown, if credit is expected. Answers alone are not acceptable. There will be several writing assignments throughout the semester. These assignments will be used throughout the course to give students an opportunity to express their thoughts in writing, reflect on experiences throughout the semester and to learn how to express mathematical concepts in words.

- **MyMathLab** – MyMathLab assignments are a required part of the grade for this course. Access codes for MyMathLab can be purchased online and also will give students access to the textbook. An access code can be purchased at the bookstore as well. Another handout will be provided that shows how to purchase this access online.

- **Portfolio** – Students will be expected to maintain an organized portfolio throughout the course. See the portfolio instruction sheet distributed separately.

**Learning Support**

- **Office Hours** – I hope you will visit during my office hours. Come individually or with friends. It’s a chance to talk about the course, assignments, exams, study strategies, or whatever else you’d like to discuss. You don’t have to have a problem to visit. If you find yourself having difficulty with a reading or assignment, however, I definitely want to see you; I may be able to help. If my office hours are impossible for you, please let me know so that we can make an appointment for another time.

- **Algebra Alcove** – The Algebra Alcove is located in Jones Hall 147. It is staffed with math instructors and trained peer tutors to answer your questions. The current schedule is posted on the door and on the FMP webpage. **Please bring your FLC ID card with your 900 number. You need it to check in.**

- **Writing Center** – The Writing Center is located in Jones Hall 105A. It is staffed with writing instructors and trained peer tutors. They provide assistance with reading and writing.

- **Instructor Webpage** – Your instructor’s webpage provides important resources for students including a link to the Freshman Math Program’s website.

**College Policies**

- **Disabilities** – Students with disabilities have equal access and equal opportunity in this course. If you require reasonable accommodations to fully participate in course activities or meet course requirements, you must register with Disability Services, 280 Noble Hall, 247-7459. If you qualify for services, bring your letter of accommodation to me as soon as possible.

- **Academic Honesty** – Our course is an academic community that is bound together by the traditions and practice of scholarship. Honest, intellectual work – on examinations and on written assignments – is essential to the success of our own community of scholars. Using classmates’ responses to answer exam questions or disguising works written by others as your own undermines the trust and respect on which our course depends. When you work with others, which is encouraged in many situations, it is important
that they are given credit for any written work they did. The work in this course is challenging and will demand a good deal of each of you. I have every confidence that each of you can succeed. Doing your own work will enhance your sense of accomplishment. Academic honesty is taken very seriously. Any students caught cheating may automatically fail the course and be reported to the Academic Vice President for additional sanctions.

- **Drugs & Alcohol** – Increasing concern about the effects of the use and abuse of alcohol and other substances requires a reminder that attending class under the influence of alcohol or other substance is detrimental to academic achievement and effective classroom activities and will not be tolerated.

**Awards**
The faculty of the Freshman Math Program would like to honor the achievement of students who have distinguished themselves by their effort, positive attitude and commitment to learning. There is a list and description of awards given on the FMP website under AWARDS.

**TRS 92 Learning Objectives**
Note: All objectives allow for the use of a calculator unless otherwise noted.

**92-1 Equations**
Given a linear equation with one variable, students will be able to solve by…
   a. Clearing fractions
   b. Using the distributive property
   c. Using the addition and multiplication properties

Given a literal equation, students will be able to…
   d. Solve for the given variable

Given the conversion factors, students will be able to…
   e. Set up a unit analysis problem to make a conversion with multiple steps

**92-2 Inequalities**
Given an inequality (with one variable) students will be able to…
   a. Solve algebraically
   b. Graph the solution
   c. Describe the solution using inequality notation

Given an inequality (with two variables) students will be able to…
   d. Solve the solution graphically

**92-3 Functions**
Given a function in any of the four forms (algebraic, table, graph, in context), students will be able to…
   a. Identify a function as a relationship of the dependent variable being dependent upon the independent variable
   b. Demonstrate the proper use of function notation
   c. Identify dependent and independent variables in context
   d. Evaluate functions
   e. Identify domain and range based on a graph

**92-4 Linear Functions**
**General**
Given the equation for a linear function, students will be able to …
   a. Create a table
   b. Change equation from standard to slope-intercept form
   c. Write an equation using parallel relationships
Intercepts
Students will be able to …
  d. Solve for vertical and horizontal intercepts from an equation in standard form
e. Identify vertical intercept from slope-intercept form
f. Interpret intercepts in context

Slope
Students will be able identify the slope of a linear function given …
g. Two points
h. A graph

Given a graph, equation, or context, students will be able to …
i. Identify type of slope (negative, positive, zero, undefined)

Given a context, students will be able to …
j. Interpret the meaning of the slope

Equations
Students will be able to write equations for linear functions given …
k. Slope and one point (other than vertical intercept)
l. Table of values
m. Context with ARC and initial value

Students will be able to …
n. Identify and write equations for horizontal and vertical lines

Given an equation, students will be able to …
o. Solve for independent and dependent values
p. Interpret the solution to an equation in context

92-5 Graphing
Students will be able to graph a linear function by hand given …
a. An equation
b. A table
c. A point and a slope
d. Two points

Using the graphing calculator with a standard window or with a given a window, students will be able to…
e. Graph linear functions
f. Graph exponential functions
g. Identify the solution to a system of equations using technology

92-6 Systems of Equations
Given a system of equations, students will be able to…
a. Identify the number of solutions (e.g., one, infinitely many, none)
b. In the case of one solution to a system of linear equations, solve for the solution to that system using the elimination or substitution method
c. Identify the solution graphically
d. Interpret the solution if the system is given in context

92-7 Exponential Functions
Given an exponential function, students will be able to…
a. Identify the growth or decay factor
b. Determine the growth or decay rate
c. Write an equation from a vertical intercept and a rate, both with and without context
92-8 Expressions
Given algebraic expressions, students will be able to…
   a. Use the Laws of Exponents to simplify expressions containing exponents (positive, negative, zero, and rational)
      ➢ Change simple rational exponent expressions to radical form (e.g., \( x^{\frac{1}{3}}, x^{\frac{2}{3}}, 64^{\frac{1}{3}} \))
   b. Simplify numeric radicals with a calculator
   c. Add, subtract, and multiply polynomial expressions
   d. Factor polynomials (GCF, trinomials with leading coefficient of 1)
   e. Perform multiplication and division with scientific notation using the Laws of Exponents

92-9 General Mathematical Skills
   a. Estimate and determine if an answer is reasonable and justify reasoning
   b. Explain mathematical concepts and procedures using appropriate mathematical terminology in writing
   c. Use the TI–83 calculator to perform calculations and to graph equations using a standard window or a given window
   d. Organize and update a math portfolio as directed in the portfolio guide

Learning Outcomes
This course also meets the requirements for Math 099 Intermediate Algebra offered at Southwest Colorado Community College. The course objectives of that course are as follows:
   A. Demonstrate competency in the prerequisite course.
   B. Demonstrate a knowledge and usage of Elementary Algebra and problem solving.
   C. Demonstrate a knowledge and usage of functions, graphing linear equations and inequalities.
   D. Demonstrate a knowledge and usage of systems of two equations in two and three variables.
   E. Demonstrate a knowledge and usage of inequalities and absolute value.
   F. Demonstrate a knowledge and usage of polynomials.
   G. Demonstrate a knowledge and usage of rational expressions.
   H. Demonstrate a knowledge and usage of exponents and radicals
   I. Demonstrate a knowledge and usage of quadratic equations and functions.
   J. Demonstrate a knowledge and usage of Exponential and Logarithmic Functions.