

***This is a SouthArk Master Syllabus. The course syllabus distributed by the instructor may include additional requirements, must be followed by the student in the given term, and is considered to supersede the Master Syllabus.***

**Course Number**

BSTD 0513

**Course Title**

Intermediate Algebra

**Course Description**

Prerequisite: Pass BSTD 0413 with a grade of “C” or better or make the required score on one of the placement tests. This is a pre-college course for students who have had some algebra but need further development of their skills before they take MATH 1023, College Algebra. Topics include, factoring polynomials, using factoring to solve equations together with applications, rational expressions and equations, functions, linear functions, variation, systems of equations with applications, compound inequalities, absolute value equations and inequalities, exponents and radicals, radical equations, and quadratic equations. (3 hours lecture, 2 hours lab).

**College Mission**

South Arkansas Community College promotes excellence in learning, teaching, and service; provides lifelong educational opportunities; and serves as a cultural, intellectual, and economic resource for the community.

**College Wide Student Learner Outcomes**

Critical Thinking                      Responsibility                      Communication

**ACTS Course**                       **Program Course**

**ACTS Outcomes**

**Program Outcomes**

**Course Learner Outcomes**

CLO #	Course Learner Outcomes (CLO)	Unit Outcomes/ Competencies	ACTS Outcomes	Program Outcomes	Critical Thinking	Communication	Responsibility	Assessment
CLO1	Factor polynomial expressions and equations and compute application problems by factoring.	I.1-6			CT 2			Comprehensive Final Exam
CLO2	Evaluate rational expressions and equations.	II.1-5			CT2			Comprehensive Final Exam
CLO3	Analyze functions and their graphs and solve real-world function problems.	III.1-5			CT 2			Comprehensive Final Exam
CLO4	Apply systems of linear equations to real-world examples.	IV.1-3			CT 2			Comprehensive Final Exam
CLO5	Evaluate and graph inequalities on the x-axis.	V.1-3			CT2			Comprehensive Final Exam
CLO6	Calculate radical and exponential equations.	VI.1-5			CT2			Comprehensive Final Exam
CLO7	Analyze quadratic functions and equations.	VII.1-2			CT2			Comprehensive Final Exam

**Unit Outcomes/ Competencies/ Objectives**

- I. Factor polynomial expressions and equations and compute application problems by factoring.
  1. Factor monomials.
  2. Factor trinomials.

3. Factor trinomials with a coefficient of more than 1.
  4. Factor perfect square trinomials and a difference of squares.
  5. Evaluate equations using the principle of zero products.
  6. Solve quadratic equation problems through factoring and the principle of zero rule.
- II. Evaluate rational expression and equations.
1. List numbers for which rational expressions are undefined.
  2. Multiply and divide rational expressions.
  3. Add and subtract rational expressions with common denominators.
  4. Simplify complex rational expressions.
  5. Compute rational equations.
- III. Analyze functions and their graphs and solve real-world function problems.
1. Determine whether a correspondence is a function.
  2. Find the domain and range of a function.
  3. Graph linear functions.
  4. Evaluate direct and indirect variation problems.
  5. Solve real-world problems using direct or indirect variation.
- IV. Apply systems of linear equations to real-world examples.
1. Determine whether an ordered pair is a solution to a given system.
  2. Evaluate systems of linear equations by the graphing method, substitution, and elimination.
  3. Solve applications of systems using either substitution or elimination.
- V. Evaluate and graph inequalities on the x-axis.
1. Solve inequalities algebraically.
  2. Find the intersection or union of sets of inequalities.
  3. Evaluate equations and inequalities using absolute value.
- VI. Calculate radical and exponential equations.
1. Compute square roots and higher roots of real numbers.
  2. Rewrite rational exponents using radical notation.
  3. Multiply radical expressions.
  4. Solve radical equations using the principle of powers.
  5. Apply the distance and midpoint formulas and the Pythagorean Theorem to solve real-world problems.
- VII. Analyze quadratic functions and equations.
1. Solve quadratic equations using the principle of square roots.
  2. Evaluate equations using the quadratic formula.

### **Assessment Description(s)**

A comprehensive final for all sections is given to students for the purpose of assessment. The departmental final is used for end of semester assessment and aligned with the outcomes of this course.

In order to complete the course and be eligible to move to College Algebra, students *must* take the final exam and satisfactorily pass, as the exam acts as an exit test. Students who do not take the final exam will receive an F for the course, no matter their semester average.

### **Materials and Technological Requirements**

#### Required:

MyLabsPlus Student Access code for Elementary and Intermediate Algebra, 5<sup>th</sup> edition, by Bittinger, Ellenbogen, and Johnson. Students have the option of buying the hard copy textbook if needed.

#### Supporting Materials:

1.5" or 2" three ring binder with loose leaf notebook paper, headphones, a calculator (TI-83 or TI-84 plus).

### **Class Attendance Policy**

Students are expected to attend all classes in which they are enrolled. If a student is absent from a class session, it is the student's responsibility to make arrangements to complete or make up any work missed. No make-up work for missed classes will be allowed without the approval of the instructor. Students who enroll late must assume all responsibility for work missed. Classes not attended as a result of late enrollment may be counted toward excessive absences. Students not attending the entire class period may be counted absent for that period. An instructor may drop students with a grade of "WE" if students have been absent for an excessive number of days. Warning letters will

be sent to the students advising them of the consequences of nonattendance and urging them to contact their instructors immediately. Excessive absences are defined as follows:

### **Regular Semester**

Courses which meet once a week .....	2 absences
Courses that meet twice per week .....	3 absences
Courses that meet four times per week .....	5 absences

### **Summer Session**

Courses that meet four times per week in a five week session .....	3 absences
Courses which meet two evenings per week in a 10 week session .....	3 absences

Students enrolled in special programs or individualized instruction should contact their program director/instructor regarding specific attendance requirements for the program/course. Some of the selective-admission, health-science programs have specific criteria regarding attendance. Students are encouraged to refer to program policies in these matters.

### Jury Duty/Military/Official School Function

Scheduled absences are those that occur due to college-related activities or as a result of summons to jury duty or military duty. Classes missed as a result of scheduled absences will not be counted as excessive absences if the instructor is notified and provided documentation prior to the absence(s). Make-up work for scheduled absences will be at the discretion of the instructor.

In all instances, documentation must be provided to the instructor within 24 hours of receipt. Documentation should come from an appropriate party on letterhead or other official stationery with a signature and contact information. Documentation should list the corresponding dates of the leave.

### Medical leave

For medical-related absences, documentation must include written notice from the treating medical professional documenting time needed off related to medical reasons and time student may resume classes. The medical reason does not need to be listed on the documentation; the documentation must include only that there is a medical reason, the amount of time the student needs to be absent, and the time the student should be able to return to classes. Students who elect to work at home while on excused leave must meet with their instructors to make arrangements to do so. Working on coursework while on medical leave is not a requirement but can be requested by students. If students request that they be allowed to work at home while on an excused leave, the instructor will make every reasonable effort to ensure that the student is able to do so.

For students who have a medical condition necessitating time off or accommodation:

- 1) They may work at home on assignments if they choose to if on medical leave approved by a medical professional
- 2) Receive appropriate accommodations related to coursework (i.e., excused from labs with potentially harmful chemicals, have a larger desk, etc.)
- 3) Resume their studies where they left off once they return to classes
- 4) Be allowed to make up any missed work related to medical leave
- 5) Receive incompletes on their transcripts until coursework is completed, according to the incomplete grade contract.
- 6) Be given a reasonable time frame in which to complete missed coursework

### **Academic Honesty Policy**

Students enrolled at South Arkansas Community College are expected at all times to uphold standards of integrity. Students are expected to perform honestly and to work in every way possible to eliminate academic dishonesty. Academic dishonesty includes cheating and plagiarism, which are defined as follows:

- Cheating is an attempt to deceive the instructor in his/her effort to evaluate fairly an academic exercise. Cheating includes copying another student's homework, class work, or required project (in whole or in part) and/or presenting another's work as the student's own. Cheating also includes giving, receiving, offering, and/or soliciting information on a quiz, test, or examination.
- Plagiarism is the copying of any published work such as books, magazines, audiovisual programs, electronic media, and films or copying the theme or manuscript of another student. It is plagiarism when one uses direct quotations without proper credit or when one uses the ideas of another without giving proper credit. When three or more consecutive words are borrowed, the borrowing should be recognized by the use of quotation marks and proper parenthetical and bibliographic notations.

If, upon investigation, the instructor determines that the student is guilty of cheating or plagiarism, the following penalties will apply:

- The student will receive a penalty of no less than a zero on the work in question.
- The instructor will submit a written report of the incident to the Vice President for Learning
- The Vice President for Learning will determine whether further disciplinary action will be taken.
- All decisions may be appealed for review through the college's Academic Appeals procedure.

### **Equal Opportunity-Affirmative Action Statement**

South Arkansas Community College does not discriminate on the basis of age, race, color, creed, gender, religion, marital status, veteran's status, national origin, disability, or sexual orientation in making decisions regarding employment, student admission, or other functions, operations, or activities.

### **Library Services**

Library Homepage: <http://southark.libguides.com/homepage> Library Contact: LibraryStaff@southark.edu or 870.864.7115

### **Procedures to Accommodate Students with Disabilities:**

If you need reasonable accommodations because of a disability, please report this to the Vice President of Student Services with proper documentation. . VPSS Contact: 870.875.7262

### **The Early Alert System**

In an effort to ensure student retention and success, South Arkansas Community College employs an Early Alert System to identify and support at-risk students as soon as possible in a given semester. The intent of Early Alert is to provide this assistance while there is still time to address behaviors or issues that have the potential of preventing students from completing their courses and degree plans. Students referred through the Early Alert System will be required to work on a corrective action plan with their student advising coach and to include attendance accountability and mandatory academic tutoring either in the academic division or in the Testing and Learning Center (TLC).

Once the Student Advising Coach has met with the referred student, and again when the student has met the prescribed corrective actions, the coach will update the Early Alert System so that the instructor is kept informed of the progress in resolving issues.

### **Behavioral Review Team**

At South Arkansas Community College (SouthArk), we are committed to proactive leadership in student wellbeing and campus safety. By focusing on prevention and early intervention with campus situations that involve any person experiencing distress or engaging in harmful or disruptive behaviors, the BRT will serve as the coordinating hub of existing resources to develop intervention and support strategies and offer case management. Students, faculty, staff, and campus guests are encouraged to report any person on campus who is a concern. BRT Contact: 870.875.7262 BRT@southark.edu

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