

**SYLLABUS
MAT 161
COLLEGE ALGEBRA**

Faculty Information

Instructor: Jerry L. Ashe, M.S. Mathematics
Email Address: jashe@abtech.edu
Office: Elm 340
Phone: 254-1921 ext. 313
Office Hours: **Mon 7:30-08:00** , **Tue 7:30 -800** **Wed 7:30-08:00**
Mon 9:30-11:00 , **Tue 9:30 -11:00** **Wed 9:30-11:00**

Course Information

Course Title: College Algebra
Course Number: MAT 161 WD1
Credit Hours: 3
Contact Hours: 3
Class Location: ELM 336
Class Meeting Time: MTW 11:00- 12:20
URL: <http://www.coursecompass.com/ccindex.html>
Class ID: ashe44723

Course Description: This course provides an integrated technological approach to algebraic topics used in problem solving. Emphasis is placed on applications involving equations and inequalities; polynomials, rational, exponential and logarithmic functions; and graphing and data analysis/modeling. Upon completion, students should be able to choose an appropriate model to fit a data set and use the model for analysis and prediction. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural science/mathematics.

Prerequisite: Mat 080 or Mat 090

Corequisite: Mat 161A

Textbook: Blitzer, *College Algebra*, Third Edition. ISBN: 0-13-101365-3

Course Goal: Upon completion, students should be able to choose an appropriate model to fit a data set and use the model for analysis and prediction.

Course Specific Competencies: Upon successful completion of the course, the student will be able to:

- Solve applications involving polynomial equations and inequalities.
- Solve applications involving rational equations and inequalities.
- Solve applications involving exponential and logarithmic functions.
- Solve applications involving graphing and data analysis/modeling techniques.

Reinforcement Experiences for General Education Cross-Curriculum Competencies

The course encapsulates reinforcement experiences for the general education cross-curriculum competencies:

- Communicate effectively in speaking, writing, reading, and listening.
- Locate, evaluate, and use information to analyze problems and make logical decisions.
- Apply math skills and/or natural science knowledge appropriately to organize, analyze and make information useful.
- Develop the ability to succeed as a self-directed learner.

Grading Policy: You will have 4chapter tests and two cumulative final exams during the semester. Your chapter test average will account for 75% of your final grade. *The Midterm and Final exam is mandatory and will count 25% of your final grade.* All tests will be closed book. *Makeup tests will not be given.* If for any reason it is necessary for you to withdraw from this class, you must complete the appropriate form and submit it to the Records and Registration Office by the deadline. If you quit attending class without completing the appropriate forms your grade will become an “F”. The final grade will be an average of all your test grades, A(90-100), B(80-89),C(70-79),D(60-69), F(below 60)

Inclement Weather Schedule: Refer to page 30 of your student handbook

The College will close when weather conditions are such that driving is hazardous.

The following procedure will be observed for inclement weather conditions:

1. Announcements concerning school operation will be made by 6:30 am on local radio and TV stations for day classes. A voice mail message will be recorded on the switchboard. If it appears that ice or snow may be cleared by mid-morning, the schedule below will be followed and all College personnel and students should report by 10am.
2. Closing or delaying the day programs does not automatically close evening classes. Announcements will be made on radio stations and the College switchboard no later than 3pm concerning the evening classes.
3. When weather conditions dictate early dismissal of the day or evening classes, the announcement will be made by telephone to each building on campus.
4. Commuters should exercise personal judgment concerning highway conditions regardless of College announcements, particularly those commuting from outlying areas.
5. Adjustments in the College calendar for days missed because of inclement weather will be made at the end of the semester.

Normal Class Time	Delayed Opening
8 am	10-10:40 am
8:30am	10:20-11 am
9 am.	10:45-11:25 am
9:30 am	11:05-11:45 am
10 am	11:30-12:10 pm
10:30 am	11:50am-12:30 pm
11 am	12:15-12:55 pm
11:30 am	12:35-1:15 pm
12 am	1-1:40 pm
12:30 pm	1:20-2 pm

1 pm	1:45-2:25 pm
1:30 pm	2:05-2:45 pm
2 pm	2:30-3:10 pm
2:30 pm	2:50-3:30 pm
3 pm	3:15-3:55 pm
3:30 pm	3:35-4:15 pm
4 pm	4 pm

Final Exam Policy: Will be the last day of scheduled class. See above Inclement Weather Schedule

Attendance Policy: To receive course credit, a student should attend a minimum of 80 percent of the contact hours of the class. Upon accumulating absences exceeding 20 percent of the course contact hours, the student may be dropped from the class with a grade of “U” at the discretion of the instructor. A tardy is defined as arriving late for class, leaving early, or being away from class without permission during class hours. Three tardies may constitute one absence. (refer to pg. 74 of your student handbook)

Important Dates:

Summer Session - 2009

Registration: Current and Continuing Students	May 4 - 8
General Registration	May 11 - 15
Last Day to Pay Tuition and Fees	May 15*
<i>* Unpaid registrations will be deleted from the computer registration system at 4:30 p.m.</i>	
Late Registration	May 18 - 22
Last Day to Pay Tuition and Fees for Late Registration	May 22*
<i>* Unpaid registrations will be deleted from the computer registration system at 4:30 p.m.</i>	
New Student Welcome	May 22, 9:00 a.m.
Memorial Day College Holiday	25-May
Classes Begin	26-May
Schedule Adjustments	May 26 - 27
Last Day to Apply for Summer Graduation	22-May
Last Day to Drop for a Partial Refund	8-Week Session: May 29
	10-Week Session: June 1
Independence Day College Holiday	3-Jul
Last Day to Withdraw	8-Week Session: July 7
10-Week Session: July 10	
Last Day of Class/Examinations	8-Week Session: July 21**
<i>** July 21 will be scheduled as a Friday make-up day for both sessions.</i>	
Summer Graduation	10-Week Session: August 4
	7-Aug
Total Class Days	8-Week Session: 40
	10-Week Session: 50

(*Up to 3 days made be made up due to inclement weather closings.)

Activity Day Schedule

This schedule will be used for most approved and announced student activities.

Normal Class Time	Activity Day Schedule
8:00 am	8:00-8:40 am
8:30 am	8:20-9:00 am
9:00 am	8:45-9:25 am
9:30 am	9:05-9:45 am
10:00 am	9:30-10:10 am
10:30 am	9:50-10:30 am
11:00 am	10:15-10:55 am
11:30 am	10:35-11:00 am*

11:00 am-1:00 pm Free for activities!

12:00 noon	1:00-1:40 pm
12:30 pm	1:20-2:00 pm
1:00 pm	1:45-2:25 pm
1:30 pm	2:05-2:45 pm
2:00 pm	2:30-3:10 pm
2:30 pm	2:50-3:30pm
3:00 pm	3:15-3:55 pm
3:30 pm	3:35-4:15pm
4:00 pm	4:00 pm

* 25 minute period

Academic Dishonesty

You may not deceive any official of the college by cheating on any assignment, exam, or paper. This includes plagiarism, which is the intentional theft or unacknowledged use of another's words or ideas. Plagiarism includes (but is not limited to) paraphrasing or summarizing another's words **or works** without proper acknowledgement, using direct quotes of material without proper acknowledgement, or purchasing or using a paper **or presentation** written **or produced** by another. The faculty at A-B Tech **may** also consider presenting as original work a paper written for one class to satisfy a requirement in another class to be academic dishonesty.

Code of Classroom Conduct: Asheville-Buncombe Technical Community College is an institution for adult learning. It is a partnership between instructors with the desire to teach and students with the desire to learn. In order to create an appropriate environment for teaching and learning to flourish, there must be respect for the instructor and fellow students. Listed below are guidelines for classroom behavior which the College has established to ensure that the learning environment is not compromised.

1. Attendance: You are expected to be in class the entire class time. Do not enter late or leave early. Rare exceptions may be excused, particularly under emergency circumstances, but you should be prepared to explain your tardiness to the instructor after class. Likewise, the need to leave early should be explained to the instructor before class.
2. Absences: Inform the instructor in advance, if you know you are going to miss a class. Also, take responsibility for getting missed assignments from other students. Do not expect that you will be allowed to make up work, such as

unannounced quizzes or tests, after an absence. Instructors are not responsible for re-teaching the material you missed because of absence.

3. Conversation: Do not carry on side conversations in class.
4. Other Activities: You may not work on other activities while in class. This includes homework for other courses or other personal activities.
5. Internet: In classes where Internet access is provided, you may use the Internet for valid, academic purposes only. You may not use it for open access to other non-academic sites which are unrelated to the course.
6. Sleep: Do not sleep in class.
7. Attitude: You are expected to maintain a civil attitude in class. You may not use inappropriate or offensive commentary or body language to show your attitude regarding the course, the instructor, assignments, or fellow students.
8. Profanity and Offensive Language: You may not use profanity or offensive language in class.
9. Cell phones and beepers: You may not receive or send telephone calls or pages during class. You are responsible for turning off cell phones and beepers upon entering class.
10. Guests: You may not bring unregistered friends or children to class.
11. Food, Drink, Tobacco Products: You may not have food or drink in class. You may not use tobacco products in the buildings of A-B Tech.
12. Personal Business: You may need to transact personal business with the instructor, asking him or her to sign forms. Plan to do this before instruction begins or after class.

Typically, violations of the Code of Classroom Conduct will be dealt with as minor infractions. However, repetition of minor infractions or other more serious violations of the Code of Student Conduct may lead to removal from the classroom while the matter is resolved and referral to the Vice President for Student Services for disciplinary action.

Other Information: Additional help in math and related courses is available in Developmental Studies, Laurel Building, Room 107. The hours are from 9am-6:30pm M-Th, and 9am-1:00pm on Friday.

Calculator: A graphing calculator is required for this course. The TI-83 or TI-86 will be the calculator used by the instructor. I will not permit the TI-89 or the TI-92 to be used on tests. Your calculators may be cleared before examinations.

Statement of Right to Make Changes: I reserve the right to make changes in the syllabus. Any changes will be announced in class.

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Content Outline

Sections	Page	Assignment
P.1 Real Numbers and Algebraic Expressions	11-12	1-81 every other odd -eoo
P.2 Exponents and Scientific Notation	22-23	1-97 eoo
P.3 Radicals and Rational Exponents	34-36	1-113 eoo
P.4 Polynomials	46-47	1-79 eoo, 89
P.5 Factoring Polynomials	57-58	1-97 eoo
P.6 Rational Expressions	68-70	1-63 odd
1.1 Graphs and Graphing Utilities	81-83	1-47 odd
1.2 Linear Equations	92-94	1-69 odd
1.3 Formulas and Applications	103-107	1-75 odd
1.4 Complex Numbers	113	1-43 odd
1.5 Quadratic Equations	128-131	1-93 eoo
TEST 1		
1.6 Other Types of Equations	141-144	1-89 odd
1.7 Linear Inequalities	153-156	1-83 odd
1.8 Quadratic and Rational Inequalities	165-167	1-47 odd
2.1 Lines and Slope	188-192	1-67 odd
2.2 Distance and Midpoint Formulas; Circles	199-201	1-59 odd
TEST 2		
MIDTERM		
2.3 Basics of Functions	211-212	1-73 odd
2.4 Graphs of Functions	228-232	1-81 odd
2.5 Transformations of Functions	244-245	1-55odd (skip # 9,19,33,41,51)
2.6 Combinations of Functions; Composite Functions	257-258	1-57 odd
2.7 Inverse Functions	267-268	1-39 odd
TEST 3		
3.1 Quadratic Functions	288-291	1-49 odd
3.2 Polynomial Functions and Their Graphs	300-302	1-53 odd
3.3 Dividing Polynomials: Remainder and Factor Theorems	313-314	1-43 odd
3.4 Zeros of Polynomial Functions	322-323	1-41 odd
3.5 More on Zeros of Polynomial Functions	332-333	1-43 odd
3.6 Rational Functions and Their Graphs	349-353	1-7, 21-31 ,35-51, 55-57 odd
3.7 Modeling Using Variation	363-365	1-49 odd (skip # 43)
TEST 4		
4.1 Exponential Functions	382-383	1-45 odd
4.2 Logarithmic Functions	395-396	1-79 odd
4.3 Properties of Logarithms	405-406	1-81 odd (skip # 37, 39)
4.4 Exponential and Logarithmic Equations	415-416	1-65 odd (skip # 21-25)
4.5 Modeling with Exponential and Logarithmic Functions	428-429	1-21 odd
TEST 5		
FINAL		

** This schedule is tentative and is subject to change

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Your Acknowledgement:

I have been provided access to the course syllabus, understand what is expected of me, and agree with the provision set forth in the syllabus.

Your name

Your student I.D. Number

Your signature

Date