Course Syllabus: Algebra 1B
Adult Diploma

Materials: The textbook used for this course will be <u>Algebra I, Structure and Method</u>, McDougal Littell, 2004. This book may be checked out of the High School office. (Building 30, Room 115)

Algebra 1, Semesters A/B, Presents the key components of first year algebra. Includes variables and equations, real number operations, operations with polynomials, fractions, functions, systems of linear equations, inequalities, rational and irrational numbers, quadratic functions, and problem solving.
Chapters 7-12

Grading Policy

Class Assignments   40%
Tests and Quizzes   50%
Final Exam   10%

The required work for each chapter will be divided into section objectives. Your assignments are attached to this course syllabus. You must earn a minimum 70% in order to receive credit for this class. Follow instructions carefully and turn in your assignments when completed **IN ORDER**. Tests will be assigned once class assignments, quizzes and projects are finished within each chapter. Chapter tests and quizzes are proctored by the instructional staff.
Students must show evidence of their work for all class assignments, projects AND tests and quizzes. NO credit will be given for work without the proper steps shown on students' answer sheets.

STUDENT LEARNING GOALS
We will prepare all students to be:

Effective Communicators who	Lifelong Learners who
• Acquire reading and listening skills • Speak and write to be understood • Work productively as part of a team • Use technology to express ideas	• Apply strengths and improve weaknesses • Learn and apply new information or skills • Participate productively in the community
Critical Thinkers who	**Self-Directed Individuals who**
• Gather, organize, and analyze information from a variety of sources • Form and express a logical opinion or conclusion • Demonstrate problem-solving skills • Apply knowledge to personal, professional, or academic situations	• Set goals, establish, and implement a plan of action • Work independently • Seek appropriate information and help

Note Taking Rubric and Page Diagram

CUE COLUMN	BOOK NOTES SECTION
❖ Reduce each main idea or set of facts into key words or phrases. Write these key phrases in the Cue Column. (2 points)	❖ Notes should be easy to read. Papers should be clean, not torn or wrinkled. (1 pt) ❖ Class name, lesson/page numbers, assignment #, and date should be written at the top of each page. (1 pt) ❖ Using short statements and abbreviations, paraphrase the main ideas and supporting details presented; record definitions as stated. (3 points) ❖ Page should be formatted using correct outline format. Write headings to indicate changes in topics during the course of the text. Use numbering and/or indentation to organize supporting ideas under each heading. (2 point)

SUMMARY SECTION

❖ Write a summary of the main points for the section. Be sure to include the objectives of the section. (6 points)

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Chapter 7- Applying Fractions

Standards: 2.0, 15.0, 25.3

SECTION	ASSIGNMENT	DESCRIPTION	PAGES	POINTS
Section 1 Ratio	**1**	Read and take notes	287-289	15 *See rubric for grading*
	2	Written Exercises 2-30 even	289-290	15
	3	Problems 2-10 even	291	15
Section 2 Proportions	**4**	Read and take notes	293	15 *See rubric for grading*
	5	Written Exercises 2-30 even	295	15
	6	Problems 2-10 even	296	15
Section 3 Equations with Fractional Coefficients	**7**	Read and take notes	298, 302	15 *See rubric for grading*
	8	Written Exercises 2-16 even	299	8
	9	Problems 2-10 even	300-301	15
Section 4 Fractional Equations	**10**	Read and take notes	304-305	15 *See rubric for grading*
	11	Written Exercises 2-20 even	305-306	10
	12	Problems 2-10 even	307-308	15
Section 5 Percent	**13**	Read and take notes	309-311	15 *See rubric for grading*
	14	Written Exercises 2-36 even	312	18
	15	Problems 2-10 even	313-314	15

Section 6 Percent Problems	16	Read and take notes	315-316	15 *See rubric for grading*
	17	Written Exercises 2-20 even	317-318	10
	18	Problems 2-10 even	318-319	15
Section 7 Mixture Problems	19	Read and take notes	321-322	15 *See rubric for grading*
	20	Problems 2-16 even	324-325	24
Section 8 Work Problems	21	Read and take notes	326-327	15 *See rubric for grading*
	22	Problems 2-16 even	328-329	24
Section 9 Negative Exponents	23	Read and take notes	331-333	15 *See rubric for grading*
	24	Written Exercises 2-50 even	333-334	25
Section 10 Scientific Notation	25	Read and take notes	336-338	15 *See rubric for grading*
	26	Written Exercises 2-26 even	339	13
Chapter Review	27	Chapter 7 Review: 1-16 all	342	16
	28	Chapter 7 Test	*See Instructor*	35

- Word Problems (with work shown)-----3 points

- All other problems (with work shown)-----1 point

- Projects, Writing Assignments, and Notes----- have their own rubrics and points.

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Chapter 8- Introduction to Functions

Standards: 6.0, 7.0, 8.0, 16.0, 17.0, 18.0, 21.0

SECTION	ASSIGNMENT	DESCRIPTION	PAGES	POINTS
Section 1 Equations in Two Variables	**29**	Read and take notes	349-351	15 *See rubric for grading*
	30	Written Exercises 1-35 odd	351	18
Section 2 Points, Lines, and Their Graphs	**31**	Read and take notes	353-355	15 *See rubric for grading*
	32	Written Exercises 1-35 odd	357	18
Section 3 Slope of a Line	**33**	Read and take notes	360-363	15 *See rubric for grading*
	34	Written Exercises 1-29 odd	363-365	15
Section 4 The Slope- Intercept Form of a Linear Equation	**35**	Read and take notes	366-368	15 *See rubric for grading*
	36	Written Exercises 1-35 odd	368-369	18
Section 5 Determining an Equation of a Line	**37**	Read and take notes	371-372	15 *See rubric for grading*
	38	Written Exercises 1-27 odd	372	14
	39	Chapter 8 Quiz A	*See Instructor*	6
Section 6 Functions Defined by Tables and Graphs	**40**	Read and take notes	374-376	15 *See rubric for grading*
	41	Written Exercises 1-10 all	377	10
Section 7 Functions Defined by Equations	**42**	Read and take notes	379-380	15 *See rubric for grading*
	43	Written Exercises 1-33 odd	380-381	17

Section 8 Linear and Quadratic Functions	44	Read and take notes	383-385	15 *See rubric for grading*
	45	Written Exercises 1-29 odd	386-387	15
	46	Chapter 8 Quiz B	*See Handout*	6
Chapter Review	47	Chapter 8 Review: 1-17 all	405	17

Chapter 9- Systems of Linear Equations

Standards: 7.0, 8.0, 9.0, 15.0

SECTION	ASSIGNMENT	DESCRIPTION	PAGES	POINTS
Section 1 **The Graphing** **Method**	48	Read and take notes	413-414	15 *See rubric for grading*
	49	Written Exercises 2-16 even	415	8
Section 2 **The Substitution** **Method**	50	Read and take notes	417-418	15 *See rubric for grading*
	51	Written Exercises 2-24 even	419-420	12
Section 3 **Solving Problems** **with Two** **Variables**	52	Read and take notes	421-423	15 *See rubric for grading*
	53	Problems 2-16 even	424	24
Section 4 **The Addition-or-** **Subtraction** **Method**	54	Read and take notes	426-427	15 *See rubric for grading*
	55	Written Exercises 2-18 even	427-428	9
Section 5 **Multiplication** **with the** **Addition-or-** **Subtraction** **Method**	56	Read and take notes	430-431	15 *See rubric for grading*
	57	Written Exercises 2-24 even	432	12
Section 6 **Wind and Water** **Current Problems**	58	Read and take notes	438-439	15 *See rubric for grading*
	59	Problems 2-16 even	440-442	24
Section 7 **Puzzle Problems**	60	Read and take notes	444-446	15 *See rubric for grading*
	61	Problems 2-16 even	447-448	24
Chapter Review	62	Chapter 9 Review: 1-9 all	451	9
	63	Chapter 9 Test	*See Instructor*	25

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Chapter 10- Inequalities

Standards: 1.1, 3.0, 4.0, 5.0, 6.0, 25.3

SECTION	ASSIGNMENT	DESCRIPTION	PAGES	POINTS
Section 1 Order of Real Numbers	**64**	Read and take notes	457-459	15 *See rubric for grading*
	65	Written Exercises 1-29 odd	459-460	15
Section 2 Solving Inequalities	**66**	Read and take notes	462-465, 468	15 *See rubric for grading*
	67	Written Exercises 1-39 odd	466-467	20
Section 3 Solving Problems Involving Inequalities	**68**	Read and take notes	463-465	15 *See rubric for grading*
	69	Written Exercises 1-15 odd	471-472	8
Section 4 Solving Combined Inequalities	**70**	Read and take notes	478-479	15 *See rubric for grading*
	71	Written Exercises 1-25 odd	480-481	13
	72	Chapter 10 Quiz A	*See Instructor*	6
Section 5 Absolute Value in Open Sentences	**73**	Read and take notes	482-483	15 *See rubric for grading*
	74	Written Exercises 1-23 odd	484-485	12
Section 6 Absolute Value of Product in Open Sentences	**75**	Read and take notes	486-487	15 *See rubric for grading*
	76	Written Exercises 1-17 odd	487-488	9
Section 7 Graphing Linear Inequalities	**77**	Read and take notes	490-492	15 *See rubric for grading*
	78	Written Exercises 1-23 odd	492-493	12

Section 8 **Systems of Linear Inequalities**	**79**	Read and take notes	495	15 *See rubric for grading*
	80	Written Exercises 1-17 odd	496	9
	81	Chapter 10 Quiz B	*See Instructor*	6
Chapter Review	**82**	Chapter 10 Review: 1-11 all	501	11

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Chapter 11- Rational and Irrational Numbers

Standards: 1.1, 2.0, 24.1, 25.1

SECTION	ASSIGNMENT	DESCRIPTION	PAGES	POINTS
Section 1 Properties of Rational Numbers	**83**	Read and take notes	507-509	15 *See rubric for grading*
	84	Written exercises 2-20 even	510	10
Section 2 Decimal Forms of Rational Numbers	**85**	Read and take notes	512-515	15 *See rubric for grading*
	86	Written Exercises 2-28 even	515	14
Section 3 Rational Square Roots	**87**	Read and take notes	517-518	15 *See rubric for grading*
	88	Written Exercises 2-32 even	519	16
Section 4 Irrational Square Roots	**89**	Read and take notes	521-522	15 *See rubric for grading*
	90	Written Exercises 2-30 even	522-523	15
Section 5 Square Roots of Variable Expressions	**91**	Read and take notes	525	15 *See rubric for grading*
	92	Written Exercises 2-38 even	526	19
	93	Problems 2-10 even	527	15
Section 6 The Pythagorean Theorem	**94**	Read and take notes	529-531	15 *See rubric for grading*
	95	Written Exercises: 2-20 even	532	10
	96	Problems 2-8 even	533	12
Section 7 Multiplying, Dividing, and Simplifying Radicals	**97**	Read and take notes	537-538	15 *See rubric for grading*
	98	Written Exercises 2-32 even	538-539	16

Section 8 Adding and Subtracting Radicals	**99**	Read and take notes	540	15 *See rubric for grading*
	100	Written Exercises 2-32 even	541	16
Section 9 Multiplication of Binomials Containing Radicals	**101**	Read and take notes	544-545	15 *See rubric for grading*
	102	Written Exercises 2-34 even	545-546	17
Section 10 Simple Radical Equations	**103**	Read and take notes	547-548	15 *See rubric for grading*
	104	Written Exercises 2-24 even	548	12
	105	Problems 2-10 even	549-550	15
Chapter Review	**106**	Chapter 11 Review: 1-17 all	*555*	17
	107	Chapter 11 Test	*See instructor*	25

Chapter 12- Quadratic Functions

Standards: 14.0, 19.0, 20.0, 21.0, 22.0, 23.0

SECTION	ASSIGNMENT	DESCRIPTION	PAGES	POINTS
Section 1 Quadratic Equations with Perfect Squares	**108**	Read and take notes	561-562	15 *See rubric for grading*
	109	Written Exercises 1-29 odd	563	15
Section 2 Completing the Square	**110**	Read and take notes	564-565	15 *See rubric for grading*
	111	Written Exercises 1-17 odd	566	9
Section 3 The Quadratic Formula	**112**	Read and take notes	567-568	15 *See rubric for grading*
	113	Written Exercises 1-17 odd	569	9
Section 4 Graphs of Quadratic Equations: The Discriminant	**114**	Read and take notes	572-573	15 *See rubric for grading*
	115	Written Exercises 1-17 odd	574	9
	116	Chapter 12 Quiz A	*See Instructor*	6
Section 5 Methods of Solution	**117**	Read and take notes	576-577	15 *See rubric for grading*
	118	Written Exercises 1-21 odd	577	11
Section 6 Solving Problems Involving Quadratic Equations	**119**	Read and take notes	579	15 *See rubric for grading*
	120	Problems 1-11 odd	580	18
	121	Chapter 12 Quiz B	*See Instructor*	6
Chapter Review	**122**	Chapter 12 Review: 1-12 all	595	12
Final Exam	**123**	Algebra 1 B Final Exam	*See Instructor*	100