



INSTRUCTIONAL PACKAGE

MAT 101
Beginning Algebra

Effective Term
Fall 2022/Spring 2023/Summer 2023

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Part I: Course Information

Effective Term: Fall 2022/Spring 2023/Summer 2023

COURSE PREFIX: MAT 101

COURSE TITLE: Beginning Algebra

CONTACT HOURS: 3.0

CREDIT HOURS: 3.0

RATIONALE FOR THE COURSE:

Beginning Algebra is designed for students who have never had high school algebra, or who have one year and did not do well or who completed the course several years ago. All skills are learned with a focus on solving word problems, so that algebra becomes a useful tool in their related fields.

COURSE DESCRIPTION:

This course includes the study of rational numbers and their applications, operations with algebraic expressions, linear equations and applications, linear inequalities, graphs of linear equations, operations with exponents and polynomials, and factoring.

PREREQUISITES/CO-REQUISITES:

Credit level [MAT 155](#) Minimum Grade of C or Credit level [MAT 155](#) Minimum Grade of TC or ACT Math 15 or SAT Mathematics 400 or New SAT Mathematics 420 or ACCUPLACER Elementary Algebra 040 or New ACCUPLACER Adv Algebra 200 or New ACCUPLACER Arithmetic 260 or Multiple Measures MAT 101 1 or COMPANION Elementary Algebra 040 or Multiple Measures Math 1

***Online/Hybrid** courses require students to complete the [DLi Orientation Video](#) prior to enrolling in an online course.

REQUIRED MATERIALS:

1. Please visit the Bookstore online site for most current textbook information. Use the direct link below to find textbooks.
[BOOKSTORE](#).

Enter the semester, course prefix, number and section when prompted and you will be linked to the correct textbook.

2. ALEKS 360 Access Code (recommended 18-week access if MAT 101 is your degree's terminal mathematics course; recommended 52-week access if your degree also requires MAT 102.)
3. Scientific/Graphing Calculator

ENTRY LEVEL COMPETENCIES:

1. Students should be proficient in whole numbers, fractions and decimal computation.
2. Students should be able to solve word problems involving ratio, proportion and percent.
3. Students should be able to solve basic geometry problems and convert measurements.
4. Students should know how to operate with signed numbers.

TECHNICAL REQUIREMENTS:

Access to Desire2Learn (D2L), HGTC's student portal for course materials.
myHGTC and college email access.

STUDENT IDENTIFICATION VERIFICATION

Students enrolled in online courses will be required to participate in a minimum of one (1) proctored assignment and/or one (1) virtual event to support student identification verification. Please refer to your Instructor Information Sheet for information regarding this requirement.

CLASSROOM ETIQUETTE:

As a matter of courtesy to other students and your professor, please turn off cell phones and other communication/entertainment devices before class begins. If you are monitoring for an emergency, please notify your professor prior to class and switch cell phone ringers to vibrate.

NETIQUETTE: is the term commonly used to refer to conventions adopted by Internet users on the web, mailing lists, public forums, and in live chat focused on online communications etiquette. For more information regarding Netiquette expectations for distance learning courses, please visit [Online Netiquette](#).

Part II: Student Learning Outcomes**COURSE LEARNING OUTCOMES and ASSESSMENTS*:**

The student should be able to:

1. Understand the Real Number System and the various subsets of the Real Number System.
2. Solve linear equations in one variable and more than one variable (i.e., formulas).
3. Solve linear inequalities.
4. Understand and use the properties of integer exponents.
5. Operate (add, subtract, multiply & divide) on polynomial expressions.
6. Factor polynomial expressions or identify as prime.
7. Graph linear equations in two variables.
8. Use simple problem solving techniques to solve word problems.

UNIT 1: The Set of Real Numbers

- 1.1 Fractions
- 1.2 Introduction to Algebra and The Set of Real Numbers
- 1.3 Exponents, Square Roots and the Order of Operations
- 1.4 Addition of Real Numbers
- 1.5 Subtraction of Real Numbers
- 1.6 Multiplication/Division of Real Numbers

1.7 Properties of Real Numbers and Simplifying Expressions

UNIT 2: Linear Equations and Inequalities

- 2.1 Addition, Subtraction, Multiplication and Division Properties of Equality
- 2.2 Solving Linear Equations
- 2.3 Linear Equations: Clearing Fractions and Decimals
- 2.4 Applications of Linear Equations: Introduction to Problem Solving
- 2.5 Applications Involving Percents
- 2.6 Formulas and Applications of Geometry
- 2.7 Mixture Applications and Uniform Motion
- 2.8 Linear Inequalities

UNIT 3: Graphing Linear Equations in Two Variables

- 3.1 Rectangular Coordinate System
- 3.2 Linear Equations in Two Variables
- 3.3 Slope of a Line and Rate of Change
- 3.4 Slope Intercept Form of a Linear Equation
- 3.5 Point Slope Formula
- 3.6 Applications of Linear Equations and Modeling

UNIT 4: Polynomials & Properties of Exponents

- 5.1 Multiplying and Dividing Expressions with Common Bases
- 5.2 More Properties of Exponents
- 5.3 Definitions of b^0 and b^{-n}
- 5.4 Scientific Notation
- 5.5 Addition and Subtraction of Polynomials
- 5.6 Multiplication of Polynomials and Special Products
- 5.7 Division of Polynomials

UNIT 5: Factoring Polynomials

- 6.1 Greatest Common Factor & Factoring by Grouping
- 6.2 Factoring Trinomials of the Form $x^2 + bx + c$
- 6.3 Factoring Trinomials: Trial-and-Error Method
- 6.5 Difference of Squares and Perfect Square Trinomials
- 6.6 Sum and Difference of Cubes
- 6.7 Solving Equations Using Zero Product Rule
- 6.8 Applications of Quadratic Equations

****Students – please refer to the Instructor’s Course Information sheet for specific information on assessments and due dates.***

Part III: Grading and Assessment

EVALUATION OF REQUIRED COURSE MEASURES/ARTIFACTS*

Students' performance will be assessed and the weight associated with the various measures/artifacts are listed below.

EVALUATION*

Online Homework (ALEKS)	20%
Cumulative Final Exam	20%
Remaining graded material (e.g. exams, quizzes, etc.)	60%
	100%

****Students, for the specific number and type of evaluations, please refer to the Instructor's Course Information Sheet.***

GRADING SYSTEM:

- A 90-100%
- B 80-89%
- C 70-79%
- D 60-69%
- F Below 60%

Grades earned in courses impact academic progression and financial aid status. Before withdrawing from a course, be sure to talk with your instructor and financial aid counselor about the implications of that course of action. Ds, Fs, Ws, WFs and Is also negatively impact academic progression and financial aid status.

The Add/Drop Period is the first 5 days of the semester for **full term** classes. Add/Drop periods are shorter for accelerated format courses. Please refer to the academic calendar for deadlines for add/drop ([ACADEMIC CALENDAR](#)). You must attend at least one meeting of all of your classes during that period. If you do not, you will be dropped from the course(s) and your Financial Aid will be reduced accordingly.

Part IV: Attendance

Horry-Georgetown Technical College maintains a general attendance policy requiring students to be present for a minimum of 80 percent (80%) of their classes in order to receive credit for any course. Due to the varied nature of courses taught at the college, some faculty may require up to 90 percent (90%) attendance. Pursuant to 34 Code of Federal Regulations 228.22 - Return to Title IV Funds, once a student has missed over 20% of the course or has missed two (2) consecutive weeks, the faculty is obligated to withdraw the student and a student may not be permitted to reenroll. **Instructors define absentee limits for their class at the beginning of each term; please refer to the Instructor Course Information Sheet.**

For online and hybrid courses, check your Instructor's Course Information Sheet for any required on-site meeting times. Please note, instructors may require tests to be taken at approved testing sites, if you use a testing center other than those provided by HGTC, the center may charge a fee for its services.

Part V: Student Resources



THE STUDENT SUCCESS AND TUTORING CENTER (SSTC):

The SSTC offers to all students the following **free** resources:

1. **Academic tutors** for most subject areas, **Writing Center support**, and **college success skills**.
2. Online **tutoring** and academic support resources.
3. Professional and interpersonal communication **coaching** in the EPIC Labs.

Visit the [Student Success & Tutoring Center](#) website for more information. To schedule tutoring, contact the SSTC at ssc@hgtc.edu or self-schedule in the Penji iOS/Android app or at www.penjiapp.com. Email ssc@hgtc.edu or call SSTC Conway, 349-7872; SSTC Grand Strand, 477-2113; and SSTC Georgetown, 520-1455, or go to the [Online Resource Center](#) to access on-demand resources.



STUDENT INFORMATION CENTER: TECH Central

TECH Central offers to all students the following **free** resources:

1. **Getting around HGTC:** General information and guidance for enrollment, financial aid, registration, and payment plan support!
2. Use the [Online Resource Center \(ORC\)](#) including Office 365 support, password resets, and username information.
3. **In-person workshops, online tutorials and more services** are available in Desire2Learn, Student Portal, Degree Works, and Office 365.
4. **Chat with our staff on TECH Talk**, our live chat service. TECH Talk can be accessed on the student portal and on TECH Central's website, or by texting questions to (843) 375-8552.

Visit the [Tech Central](#) website for more information. Live Chat and Center locations are posted on the website. Or please call (843) 349 – TECH (8324), Option #1.

STUDENT TESTING:

Testing in an **online/hybrid** course may be accomplished in a variety of ways:

- Test administered within D2L
- Test administered in writing on paper
- Test administered through Publisher Platforms

Further more tests may have time limits and/or require a proctor.

Proctoring can be accomplished either face-to-face at an approved site or online through our online proctoring service. To find out more about proctoring services, please visit the [Online Testing](#) section of the HGTC's Testing Center webpage.

The **Instructor Information Sheet** will have more details on test requirements for your course.

DISABILITY SERVICES:

HGTC is committed to providing an accessible environment for students with disabilities. Inquiries may be directed to HGTC's [Accessibility and Disability Service webpage](#). The Accessibility and Disability staff will review documentation of the student's disability and, in a confidential setting with the student, develop an educational accommodation plan.

Note: It is the student's responsibility to self-identify as needing accommodations and to provide acceptable documentation. After a student has self-identified and submitted documentation of a disability, accommodations may be determined, accepted, and provided.

STATEMENT OF EQUAL OPPORTUNITY/NON-DISCRIMINATION STATEMENT:

Horry-Georgetown Technical College prohibits discrimination and harassment, including sexual harassment and abuse, on the basis of race, color, sex, national or ethnic origin, age, religion, disability, marital or family status, veteran status, political ideas, sexual orientation, gender identity, or pregnancy, childbirth, or related medical conditions, including, but not limited to, lactation in educational programs and/or activities.

TITLE IX REQUIREMENTS:

All students (as well as other persons) at Horry-Georgetown Technical College are protected by Title IX—regardless of their sex, sexual orientation, gender identity, part- or full-time status, disability, race, or national origin—in all aspects of educational programs and activities. Any student, or other member of the college community, who believes that he/she is or has been a victim of sexual harassment or sexual violence may file a report with the college's Chief Student Services Officer, campus law enforcement, or with the college's Title IX Coordinator, or designee.

*Faculty and Staff are required to report incidents to the Title IX Coordinators when involving students. The only HGTC employees exempt from mandatory reporting are licensed mental health professionals (only as part of their job description such as counseling services).

INQUIRIES REGARDING THE NON-DISCRIMINATION/TITLE IX POLICIES:

Student and prospective student inquiries concerning Section 504, Title II, and Title IX and their application to the College or any student decision may be directed to the Vice President for Student Affairs.

Dr. Melissa Batten, VP Student Affairs

Title IX Coordinator

Building 1100, Room 107A, Conway Campus

PO Box 261966, Conway, SC 29528-6066

843-349-5228

Melissa.Batten@hgtc.edu

Employee and applicant inquiries concerning Section 504, Title II, and Title IX and their application to the College may be directed to the Vice President for Human Resources.

Jacquelyne Snyder, VP Human Resources

EEO and Title IX Coordinator

Building 200, Room 212A, Conway Campus

PO Box 261966, Conway, SC 29528-6066

843-349-5212

Jacquelyne.Snyder@hgtc.edu