INSTRUCTIONAL PACKAGE

MAT 155

Contemporary Mathematics

Effective Term
2017—2018 Academic Year
INSTRUCTIONAL PACKAGE

PART I: COURSE INFORMATION

Effective Term: 2017—2018 Academic Year

COURSE PREFIX: MAT 155          COURSE TITLE: Contemporary Mathematics

CONTACT HOURS: 3.0              CREDIT HOURS: 3.0

RATIONALE FOR THE COURSE:
Contemporary Mathematics is designed for students who need a review of basic skills in arithmetic, percent, geometry, measurement, and elementary algebra. All skills are learned with a focus on application and developing problem solving skills, which will be applied in future courses.

COURSE DESCRIPTION:
This course includes techniques and applications of the following topics: properties of and operations with real numbers, elementary algebra, consumer mathematics, applied geometry, measurement, graph sketching and interpretations, and descriptive statistics.

PREREQUISITES/CO-REQUISITES:
Successful completion of MAT 032 with a C or higher or appropriate placement scores: COMPASS Pre-Algebra score of 40, or ACCUPLACER Arithmetic score of 43.

*Online/ Hybrid courses require students to complete the DLi Online Student Orientation prior to completing an online course. The DLi Online Student Orientation can be found in WaveNet, under the My Student tab.

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. MyMathLab

3. Notebook, three-ring binder and paper, pencils, erasers, etc.

ADDITIONAL REQUIREMENTS:
1. Solution manual on closed reserve in all campus libraries.
2. Tutoring is available through the Student Success and Tutoring Center.

TECHNICAL REQUIREMENTS:
Access to Desire2Learn (D2L), HGTC’s student portal for course materials. WaveNet and D2L 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:

- Add, subtract, multiply, and divide whole numbers, signed numbers, fractions and decimals
- Express portions of a whole as fractions and decimals
- Solve application problems involving signed numbers, fractions, decimals, percentages and ratios
- Convert among percents, fractions, and decimals
- Convert measurements within the English System, and within the Metric System
- Convert measurements between the English & Metric Systems
- Identify geometric concepts and figures
- Calculate perimeter, circumference, and area for two-dimensional geometric and composite figures
- Find volume of three-dimensional geometric figures
- Solve application problems involving geometry
- Graph and compare integers; find absolute values and opposites
- Use order of operations to simplify expressions
- Apply the order of operations in solving application problems
- Solve single and multi-step linear equations in one variable using the addition and multiplication properties of equality
- Use algebra to solve application problems
• Apply the concepts of term, exponent and degree of simple polynomials

Unit 1: Whole numbers
• Exhibit proficiency in solving whole number word problems.
• Identify the Properties of Real Numbers and simplify expressions using the properties.
• Simplify expressions using the Order of Operations rules.
• Find the square root of a number.
• Demonstrate the rules of rounding whole numbers and apply rounding to estimate answers to computational problems.
• Differentiate between expressions and equations.

Text Reference: Chapter One

Unit 2: Basic Algebra
• Locate positive and negative real numbers on the number line.
• Identify the absolute value of a real number.
• Add, subtract, multiply, and divide with positive and negative real numbers.
• Evaluate algebraic expressions.
• Solve conditional equations.
• Use equations to solve applications.
• Multiply monomial expressions
• Identify polynomials
• Compute Perimeters and areas of squares, rectangles and parallelograms.

Text Reference: Chapters Two and Three

Unit 3: Ratio, Fractions, and Proportions
• Comprehensively perform all computations with fractions and apply that knowledge to solving applications involving fractions.
• Calculate and simplify numerical fractions and mixed numbers.
• Add, Subtract, Multiply, and Divide numerical fractions.
• Use fractions to solve applications.
• Write ratios and rates in simplest form.
• Use the Properties of Proportions to identify proportions, compare ratios, compare rates, and solve proportions.
• Use proportions to solve applications.

Text Reference: Chapters Four and Five

Unit 4: Elementary Polynomials
• Add and Subtract Polynomials.
• Multiply monomials with polynomials.
• Translate English expressions into algebraic expressions.
• Solve multi-step algebraic equations.
• Use equations to solve applications.

Text Reference: Chapters Six and Seven
Unit 5: Decimals and Percents
- Comprehensively perform all computations with decimals and apply that knowledge to the solution of applications involving decimals.
- Write equivalent forms involving fractions, decimals, and percents.
- Solve percent problems using proportions and equations.
- Solve applications involving percent.
- Solve simple interest problems.

Text Reference: Chapter Eight

Unit 6: Measurement and Geometry
- Use dimensional analysis to find equivalent measures of length, weight and capacity within the English and Metric systems of measurement.
- Use dimensional analysis to approximate equivalent English and Metric measures involving length, weight, and capacity.
- Use formula to convert English and Metric measures of temperature.
- Basic geometric terms, angles, and their relationships.
- Calculate circumference of circles, and areas of triangles and circles.
- Calculate volumes of rectangular solids, spheres, cylinders, right circular cones, and right pyramids.
- Use the Pythagorean Theorem to find the missing side of a right triangle and to solve applications involving right triangles.

Text Reference: Chapter Ten

Unit 7: Statistics
- Read circle graphs, bar graphs and double bar graphs, line graphs and comparison line graphs.
- Arrange data in class intervals and record class frequencies.
- Find the mean, median, and mode of a list of numerical data.

Text Reference: Chapter Nine

*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 weights associated with the various measures/artifacts are listed below.

EVALUATION*
Cumulative Final Exam 20%
Online Homework (MyMathLab) 10%
Remaining graded material (e.g. exams, quizzes, etc.)* 70%
Course Total 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 eighty percent (80%) of his or her classes in order to be eligible to receive credit for any course. However, due to the varied nature of courses taught at the College, a more rigid attendance policy may be required by individual instructors. At a minimum, a student may be withdrawn from a course(s) after he or she has been absent in excess of ten percent (10%) of the total contact hours for a course. 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 coaches for most subject areas, Writing Center Support, and college success skills.

2. On-line student success and academic support resources.

Visit the SSTC website: Student Success & Tutoring Center and visit the student services tab in your WaveNet account to schedule appointments using TutorTrac. For more information, call: SSTC Conway, 349-7872; SSTC Grand Strand, 477-2113; and SSTC Georgetown, 520-1455. Room locations and Live Chat is available on the SSTC website.

Student Information Center: WaveNet Central (WNC)
WNC offers to all students the following free resources:

1. Getting around HGTC: General information and guidance for enrollment!
2. Use the Online Resource Center (ORC) for COMPASS support, technology education, and online tools.
3. Drop-in technology support or scheduled training in the Center or in class.
4. In-person workshops, online tutorials and more services are available.

Visit the WNC website: Wavenet Central. Live Chat and Center locations are posted on the website. Or please call one of the following locations: WNC Conway, 349-5182; WNC Grand Strand, 477-2076; and WNC Georgetown, 520-1473.

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

Furthermore, 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 RPNow, 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 Jocelyn Williams, Director of Student Development on the Conway Campus Jaime Davis, Counselor/Advisor on the Georgetown Campus or Kristin Griffin, Counselor on the Grand Strand Campus. These individuals 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.

Title IX Requirements

The South Carolina Technical College System does not discriminate on the basis of race, color, gender, national or ethnic origin, age, religion, disability, marital status, veteran status, sexual orientation, gender identity, or pregnancy in educational programs and activities as required by Title IX. As outlined in the Violence Against Women Act, Horry Georgetown Technical College prohibits the offenses of domestic violence, dating violence, sexual assault, and stalking. Students who believe he or she has experienced or witnessed discrimination including sexual harassment, domestic violence, dating violence, sexual assault or stalking are encouraged to report such incidents to the Title IX Coordinators:

Dr. Melissa Batten, AVP of Student Affairs
Building 1100, Room 107A, Conway Campus
843-349-5228
Melissa.Batten@hgtc.edu

Jacquelyne Snyder, AVP of Human Resources
Building 200, Room 212A, Conway Campus
843-349-5212
Jacquelyne.Snyder@hgtc.edu

*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).