



# **INSTRUCTIONAL PACKAGE**

EGR 170 C02  
Engineering Materials

Effective Term  
Fall 2023/Spring 2024/Summer 2024

# INSTRUCTIONAL PACKAGE

## Part I: Course Information

Effective Term: Fall 2023/Spring 2024/Summer 2024

COURSE PREFIX: EGR 170 C02

COURSE TITLE: Engineering Materials

CONTACT HOURS: 3.0

CREDIT HOURS: 3.0

### **RATIONALE FOR THE COURSE:**

To introduce the student to the origin, availability, and quality of common engineering materials. Emphasis will be on materials terminology and physical properties to provide the foundation for subsequent material courses.

### **COURSE DESCRIPTION:**

This course is the study of the properties, material behaviors, and applications of materials used in engineering structures and products.

### **PREREQUISITES/CO-REQUISITES:**

None.

### **REQUIRED MATERIALS:**

Please visit the [BOOKSTORE](#) online site for most current textbook information.

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

Textbooks: *Construction Materials, Methods and Techniques, Building For A Sustainable Future*, 5<sup>th</sup> Edition, by Eva Kultermann and William P. Spence

### **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.

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

1. Identify the properties of materials that must be known when specifying construction products.
2. Be Aware of the numerous technical aspects of mechanical, thermal, acoustical, and chemical properties of materials applied in architectural and engineering design.
3. Understand the concepts of embodied energy and life cycle analysis.
4. Understand the basic environmental issues related to the selection of construction materials.
5. Describe the materials used to produce concrete and mortar.
6. Describe how clay and concrete masonry units are fabricated.
7. Become aware of the different types of clay and concrete masonry units.
8. Develop a basic knowledge of the properties of ferrous and nonferrous metals.
9. Relate to the properties and composition of lumber materials.
10. Understand the process to produce paper, plastic and glass building construction products.
11. Be aware that are many types of painting and coatings, sealants, sealers and waterproofing materials for various applications.
12. Understand the properties of bituminous materials.

***\*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\***

Tests	60%
Assignments	30%
Papers/Reports	10%
	<hr/> 100%

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

## GRADING SYSTEM:

The College adheres to a 10 point grading scale. The grading scale requires that grades within the indicated range be defined as: 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. 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, and 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 [sstc@hgtc.edu](mailto:sstc@hgtc.edu) or self-schedule in the Penji iOS/Android app or at [www.penjiapp.com](http://www.penjiapp.com). Email [sstc@hgtc.edu](mailto:sstc@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.

## **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](mailto: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](mailto:Jacquelyne.Snyder@hgtc.edu)