



INSTRUCTIONAL PACKAGE

EET 114

Electrical Circuits II

Effective Term
Spring/2019

INSTRUCTIONAL PACKAGE

Part I: Course Information

Effective Term: 2018.2

COURSE PREFIX: EET 114

COURSE TITLE: Electrical Circuits II

CONTACT HOURS: 6

CREDIT HOURS: 4

RATIONALE FOR THE COURSE:

This is the second course in the electrical circuit analysis. Along with the first course, EET 113, this course provides a thorough understanding of electrical circuit analysis which is foundational to the field of Electronics Engineering Technology.

COURSE DESCRIPTION:

This course is a continuation in electrical circuits, including advanced network theorems. Circuits are analyzed using mathematics and verified using electrical instruments.

PREREQUISITES/CO-REQUISITES:

Credit level [EET 113](#) Minimum Grade of C or Credit level [EET 113](#) Minimum Grade of TC

REQUIRED MATERIALS:

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.

ADDITIONAL REQUIREMENTS:

Scientific calculator, USB flash drive.

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*:

Module 1

Materials Covered: The student will describe and analyze sinusoidal waveforms for alternating current and voltage.

Assessments: homework, lab exercises, unit test

Learning Outcomes:

1. Sinusoidal waveforms
 - 1.1. Identify sinusoidal waveforms
 - 1.2. Measure sinusoidal waveform characteristics
 - 1.3. Determine the voltage and current values of sine waves
 - 1.4. Describe angular relationships of sine waves
 - 1.5. Apply the basic circuit laws to resistive ac circuits

Module 2

Materials Covered: The student will describe and analyze capacitors in AC and DC circuits. Circuits with resistors and capacitors will also be described.

Assessments: homework, lab exercises, unit test

Learning Outcomes:

2. Capacitors
 - 2.1. Describe basic structure and characteristics of capacitors
 - 2.2. Analyze series and parallel capacitors
 - 2.3. Describe how capacitors operate in a DC and AC circuit
 - 2.4. Describe the relationship between current and voltage in series RC circuits
 - 2.5. Determine impedance and phase angle in series and parallel RC circuits
 - 2.6. Determine power in RC circuits
 - 2.7. Analyze series and parallel RC circuits, describe circuit applications

Module 3

Materials Covered: The student will describe and analyze inductors in AC and DC circuits. Circuits with resistors and inductors will also be described.

Assessments: homework, lab exercises, unit test

Learning Outcomes:

3. Inductors
 - 3.1. Describe the basic structure and characteristics of inductors
 - 3.2. Analyze series and parallel inductors
 - 3.3. Analyze inductive DC and AC switching circuits

- 3.4. Describe the relationship between current and voltage in RL circuits
- 3.5. Determine impedance and phase angle in series and parallel RL circuits
- 3.6. Analyze series and parallel RL circuits
- 3.7. Determine power in RL circuits
- 3.8. Discuss how the RL circuit operates as a filter

Module 4

Materials Covered: The student will describe and analyze RLC.

Assessments: homework, lab exercises, unit test

Learning Outcomes:

- 4. RLC Circuits
 - 4.1. Determine the impedance and phase angle of series RLC circuits
 - 4.2. Analyze series RLC circuits, describe series resonance
 - 4.3. Analyze parallel RLC circuits, describe parallel resonance
 - 4.4. Discuss applications of resonant circuits

**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	30%
Labs	25%
Assignments	20%
Class Participation	5%
<u>Final Exam</u>	<u>20%</u>
	100%

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

GRADING SYSTEM:

State the College's or departmental grading system as delineated in the Catalog. Please note the College adheres to a 10 point grading scale A = 100 – 90, B = 89- 80, C = 79 – 70, D = 69 – 60, F = 59 and below. You must have your Dean's approval if changes in the scale are made.

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.**

Part V: Student Resources



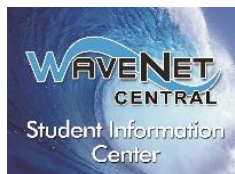
The Student Success and Tutoring Center (SSTC)

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.

Disability Services:

HGTC is committed to providing an accessible environment for students with disabilities. Inquiries may be directed to Beth Havens, 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.

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, gender, national or ethnic origin, age, religion, disability, marital status, veteran status, sexual orientation, gender identity, or pregnancy in educational programs and/or activities.

Title IX Requirements

Horry Georgetown Technical College prohibits the offenses of domestic violence, dating violence, sexual assault, and stalking. Any student who believe he or she has experienced or witnessed discrimination including sexual harassment, domestic violence, dating violence, sexual assault or stalking is encouraged to report such incidents to one of the College's Title IX Coordinators.

*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 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 Associate Vice President for Student Affairs.	Employee and applicant inquiries concerning Section 504, Title II, and Title IX and their application to the College may be directed to the Associate Vice President for Human Resources.
Dr. Melissa Batten, AVP Student Affairs <i>Title IX Coordinator</i> Building 1100, Room 107A, Conway Campus PO Box 261966, Conway, SC 29528-6066 843-349-5228 Melissa.Batten@hgtc.edu	Jacquelyne Snyder, AVP Human Resources <i>Section 504, Title II, and Title IX Coordinator</i> Building 200, Room 212A, Conway Campus PO Box 261966, Conway, SC 29528-6066 843-349-5212 Jacquelyne.Snyder@hgtc.edu