**COLLIN COLLEGE**

**COURSE SYLLABUS**

**Course Number:** CETT 1305

**Course Title:** AC Circuits

**Course Description:** A study of the fundamentals of alternating current including series and parallel AC circuits, phasors, capacitive and inductive networks, transformers, and resonance. Lab required.

**Course Credit Hours:** 3

Lecture Hours: 2

Lab Hours: 3

**Prerequisite:** CETT 1303 or consent of Associate Dean.

**Student Learning Outcomes:**

Course Information

* **State-mandated Outcomes:** Upon successful completion of this course, students will:

1. Operate test equipment. (SCANS: F1-F16) (SCANS: C1, C5, C6, C10, C11-C14, C15, C16, C19)
2. Identify various sources of electricity in alternating (AC) circuits. (SCANS: F1-F16) (SCANS: C1, C5, C6, C10, C11-C14, C15, C16, C19)
3. Analyze AC circuits using applicable mathematical formulas. (SCANS: F1-F16) (SCANS: C1, C5, C6, C10, C11-C14, C15, C16, C19)
4. Troubleshoot various AC circuits using schematic diagrams. (SCANS: F1-F16) (SCANS: C1, C5, C6, C10, C11-C14, C15, C16, C19)

**Secretary’s Commission on the Acquisition of Necessary Skills (SCANS) -** SCANS skills are a group of foundational skills and workplace competencies that the Secretary’s Commission on the Acquisition of Necessary Skills established as vitally important for workplace success in the 21st century. In Collin’s workforce programs, the SCANS skills are developed and reinforced throughout the curriculum to provide students with an opportunity to hone these skills/competencies in the context of their education. Over the course of an entire degree program, the successful student is expected to demonstrate all of the SCANS skills and competencies as part of their education. The SCANS Foundation Skills and Workplace Competencies are described at: <http://www.collin.edu/academics/programs/Workforce_SCANS_Skills_Syllabi_Code_Key.pdf>

**Withdrawal Policy:** See the current *Collin Registration Guide* for last day to withdraw.

**Collin College Academic Policies:** See the current *Collin Student Handbook.*

**Americans with Disabilities Act Statement:** Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student’s responsibility to contact the ACCESS office, SCC-D140 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.

Fall 2014 – Revised Fall 2017