

Instructor: Jeff Wagner  
Office: Q-141  
Email: jeffwagner@kennesaw.edu  
Office Hours: Tu/Th 8:00am–9:30am & 4:00pm–5:00pm

Office Phone: 678-915-7323  
Cell Phone: 404-791-5427  
Lecture: Q-221 / Lab: Q-215

TEXTBOOK: NFPA 70 – National Electric Code (2014 Edition) – © National Fire Protection Agency.

**COURSE OBJECTIVE:** This course covers the basic concepts of electrical distribution systems and the National Electric Code (NEC). The lecture portion of the course begins with several introductory topics including conductor types and characteristics, protective devices, single-phase and three-phase system characteristics, AC power, and per-unit values. The remaining lectures focus on electrical distribution system theory including system design, system protection, parameter calculation, and various NEC requirements, followed by a brief introduction to illumination and lighting systems. The course also includes an experimental component and a design component, both of which address the practical aspects of electrical distribution systems and their design. The experimental component includes both hands-on, laboratory-based measurements and take-home calculations. The design component consists of an individually-assigned project that focuses on the design of a practical distribution system.

**GRADING POLICY:** The overall course grade will be based on the following:

In-Class Exams	45% of final grade	← 20% Exam I / 25% Exam 2
Laboratory Assignments	20% of final grade	← Details presented during the initial lab session
Final Project	35% of final grade	← Details presented mid-semester

**Note:** *Although the numerical course grade is based on the above-stated percentages, students must receive a passing grade of at least 65% on the Final Project in order to receive an overall passing grade for the course. Students receiving a grade less than 65% on the Final Project will be assigned an “F” for the overall course.*

**GRADE DISTRIBUTION:** A 90+, B 80-89, C 70-79, D 65-69, F below 65

**ATTENDANCE POLICY:** Students **\*are\*** required to attend all of the scheduled lecture and laboratories sessions and to take all of the exams during the times that they are scheduled.

In the case of a missed **lecture session**, the student is responsible for obtaining any information or assignments provided during the missed session.

In the case of an in-class **exam** that is missed due to unpreventable circumstances:

A “make-up exam” may be given at the instructor’s convenience♦ provided that the student has contacted the instructor directly♦♦, either in-person or by phone call, as soon as possible after missing the scheduled exam.

No “make-up exam” will be given after any graded exams have been returned to the class. If a missed exam (due to an extended illness, work-related travel, or family/other emergency) is not “made-up” in time, then the final exam grade will be substituted for the missing grade. Otherwise, a grade of zero will be assigned for the missed exam.

In the case of a **laboratory session** that is missed due to unpreventable circumstances:

Students will have one week to “make up” a missed laboratory session at the instructor’s convenience♦. Failure to make up the missed session within the required timeframe will result in a grade of zero being assigned for all work associated with the missed session.

Note – attendance may be taken at the beginning and/or ending of each scheduled laboratory session. Arriving more than five minutes late or leaving early will result in the session being counted as an absence.

♦ – “at the instructor’s convenience” does **not** guarantee the instructor’s availability to allow for “make-up” material within the required timeframe; therefore every effort should be made to attend all scheduled exams and laboratory sessions.

♦♦ – sending an email/text or leaving a voice-message is **not** considered “adequate” in terms of contacting the instructor.

**OFFICE HOURS:** The instructor will try to be available during the regularly scheduled office hours. In-office consultations during other times may be scheduled by appointment.

**LAB ASSIGNMENTS:** The due-date for each lab assignment and the required submission format for each assignment will be specified within the assignment documents.

All lab assignments must be completed individually with no collaboration between students and submitted in the form of neat and orderly hand-calculations that are written single-sided on blank sheets of paper.

**LATE SUBMISSIONS:** Lab Assignments submitted after their due-date will be penalized on a 10% per *calendar* day basis, but with a one week grace period allowed before any penalties are applied.

**EXAM CORRECTIONS:** Once a graded exam has been returned to the class, students may submit “corrections” to their exam in order to recover a percentage of the points (typically 15%) that they lost due to solution mistakes/errors.

Exam corrections should be submitted within one week after the graded exams were returned to the class. The corrections must be completed **one-sided**, on **blank sheets** of paper that are **stapled to the back** of the original exam.

**FINAL PROJECT:** The final project for this course will be an individually assigned design project that involves the design and analysis of a practical electrical distribution system.

The actual project will be assigned mid-semester, at which time the exact details and requirements will be provided.

Note – the details of a previously-assigned final project will be available on-line for students to view.

**REQUIRED EQUIPMENT:** Students should bring a calculator and a copy of the NEC to **every** class and lab session.

**TEXTBOOK FORMAT:** Although a printed copy of the NEC is preferred, students may utilize an electronic version of the NEC during the lecture and lab sessions. Links to online versions of the NEC are provided on the course webpage.

Note – any tables or other references required for the in-class exams will be provided within the exam booklets.

**CONTACTING THE INSTRUCTOR:** The instructor may be contacted by phone/email/text as needed.

Phone consultations are available on a 24/7 basis with the understanding that calls will only be answered when they will not interrupt the instructor’s other activities. Although “voice-messages” can be left for the instructor if the instructor is not immediately available, a “written” form of communication (email/text) is preferred.

*Notes: Replies to “text-messages” will be in the form of a traditional phone call. Anonymous/ID-Blocked phone calls will never be answered. Additionally, there may be a notable delay in responses to emails sent on non-lecture days.*

**ACADEMIC HONESTY:** All institute policies will be strictly enforced. (See KSU Undergraduate Catalog for details)

**ADA/504:** Students with disabilities that require accommodation in this course must first contact KSU’s Disability Services and have the required paperwork provided by Disability Services before contacting the instructor.

**ELECTRONIC DEVICES:** Phones/computers must be set to silent-mode during all lecture and laboratory sessions.

Only “traditional” calculators are allowed on the desktops during the exams... other devices must remain out-of-sight.