

BCN 3521C Electrical Systems

I. General Information

Spring 2026

Location: RNK 238

Instructor

Dr. Russell Walters

Office: 328 RNK

Office hours: Monday and Wednesday 6th Period (12:50 to 1:40)

Phone: (352) 273-1173

Course Description

Principles and practices of electrical systems, including code provisions and cost estimations.

Required & Recommended Course Materials

All assigned material will be available through Canvas.

II. Graded Work

Description of Graded Work

Attendance

Although not built into the course requirements, regular attendance is strongly recommended and the best guarantee of succeeding in the class. Regular attendance will better ensure that you engage in and properly absorb readings and lecture material. Much of the test material will come from lectures and discussions not fully represented by posted lecture slides. If you do attend a class meeting, it will be assumed you are prepared to participate. If you miss a class meeting, you will still be responsible for all course content and logistical information covered during the class. Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>

In-class and Take-Home Assignments (15%)

These assignments will assess your mastery of the course content. Due dates and descriptions for these assignments will be posted on the course website and graded based on accuracy. Makeup work will be accepted in a manner consistent with the course policies.

Laboratory Work (15%)

The course content will be reinforced through weekly laboratory work. Due dates and descriptions for these assignments will be posted on the course website and graded based on accuracy. Makeup work will be accepted in a manner consistent with the course policies.

Tests 1, 2 & 3 (14% + 14% + 14%)

Three 50-minute in-class tests will measure your mastery of the material covered, including in-class work, course readings, assignments, and laboratory work.

Final Exam (28%)

A 2-hour final exam will assess your mastery of the student learning outcomes (Section IV).

Grading Scale

For information on how UF assigns grade points, visit:

<https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>

A	94 – 100%		C	74 – 76%
A-	90 – 93%		C-	70 – 73%
B+	87 – 89%		D+	67 – 69%
B	84 – 86%		D	64 – 66%
B-	80 – 83%		D-	60 – 63%
C+	77 – 79%		E	<60

III. Weekly Schedule

Week/Date	Topic/Assignment
Week 1	Electrical Safety
Week 2	Lamps and Luminaires
Week 3	Wiring Methods - Branch Circuits
Week 4	Wiring Methods - Feeders
Week 5	Building Information Modeling (BIM)
	Exam 1
Week 6	Site Work
Week 7	<i>Temporary Utilities and Mobilization</i>
Week 8	Limited Energy - Telecom and Audio/Visual
Week 9	Limited Energy - Fire Alarm and Security
Week 10	Spring Break
Week 11	<i>Cybersecurity</i>
	Exam 2
Week 12	<i>Trade Partner Coordination and Project Scopes</i>
Week 13	<i>Project Documentation and Submittals</i>
Week 14	<i>Trade Partner Prequalification and Project Closeout</i>
Week 15	Exam 3
\Week 16	Final Exam

IV. Student Learning Outcomes (SLOs)

At the end of this course, students will be able to...

1. Understand electrical fundamentals (ACCE SLO 20)
 2. Evaluate safety issues in dealing with electrical systems (ACCE SLO 3)
 3. Analyze electrical drawings, specifications, and codes (ACCE SLO 7)
 4. Understand electrical boxes and conduit, service and distribution, transformers, grounding, branch circuits and feeders, motors and motor controls, lighting, fire alarm systems, and low voltage systems. (ACCE SLO 8)
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V. Required Policies

Attendance Policy

Regular attendance is strongly recommended and the best guarantee of succeeding in the class. Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>

Exam Dates/Policies

Exam dates are posted in the course schedule, and makeup exams are only available with prior approval.

Make-up Policy

Students are responsible for all material presented in class, including in-class assignments. For absences consistent with the course attendance policy, make-up work will be accepted within a reasonable time.
<https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>

Assignment Policy

Assignment due dates will be listed in Canvas. Late work is not accepted without prior approval.

Online course evaluation

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.ua.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluer.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.ua.ufl.edu/public-results/>

Course Website

<http://elearning.ufl.edu>

Course Communications

For questions outside of class time, please use the Canvas mail tool. For urgent matters, please call me.

Required or Recommended Textbooks

All course material is provided through Canvas.

Materials and Supplies Fees

\$10

University Policy on Accommodating Students with Disabilities

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center. See the following website to get started:

<https://disability.ufl.edu/get-started/>

Students need to share their accommodation letter with their instructor and discuss their access needs as early as possible in the semester.

University Policy on Academic Conduct

UF students are bound by The Honor Pledge, which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code." On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Conduct Code specifies a number of behaviors that are in violation of this code and the possible sanctions. Go to: <https://sccr.dso.ufl.edu/process/student-conduct-code/> to read the Conduct Code. If you have any questions or concerns, please consult with the instructor or TAs in this class.

In-Class Recording

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A "class lecture" is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation and delivered by any instructor hired or appointed by the University or by a guest instructor as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or guest lecturer during a class session.

Publication without permission of the instructor is prohibited. To "publish" means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third-party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

Use of AI Tools

The use of Artificial Intelligence (AI) tools has the potential for beneficial use. The course policy on AI tools will be to embrace and integrate them into certain course activities, like interactive projects, with full transparency about their use. However, using any AI tools during an exam are never permitted.

- Do not use any AI tools during any exams.
- Do not use AI tools during any assignments or activities without specific permission and instructions.
- Credit and cite any time you use AI.
- Except during exams, you may use writing assistants to check your written work for grammar and punctuation.
- Writing assistants and other AI should not be used to write, paraphrase, or change the style and composition of your writing.

University Policies and Resources

Please review the content at <https://go.ufl.edu/syllabuspolices> for up-to-date university policies and resources.