Spring 2023 Master Course Syllabus

IPCT 2335 Electrical IV

This syllabus sets forth the expectations for course content, work, and grading as well as expectations for student performance and conduct. The syllabus does not constitute a contract between the student and the instructor or the College. The information contained here is subject to change at any time. Students will be notified if any changes are made. Though changes are possible, it is expected that the course will be conducted as described in this syllabus.

Course Information:

Course Title: **IPCT 2335 Electrical IV**
Credits: **3 Credits**
Class Hours: **2 Class Hours, 2 Lab Hours**

Course Description:

 Topics include electrical feeder and service calculations, health care facilities, emergency systems, electronic theory, fire alarm systems, advanced electrical controls and HVAC controls, motor operations and maintenance, and fundamentals of crew leadership. Prerequisite(s): IPCT 2330

Instructor Information:

Name:
Email:
Office Phone:
Office Location:
Office Hours:

Instructor Zoom Room link:

Class Session Zoom Link Information (if virtual):

Required Textbook(s) & Other Materials:
Textbook(s): Electrical Level 4 Trainee Guide, 10th Edition
ISBN: ISBN-13: 9780136910787
          AND
          NEC
          ISBN-13: 978-1455912773
          ISBN-10: 1455912778

Reference Materials: None
Supplies: Pencils, Pens, Highlighters, Notepaper

Once enrolled, all students should verify that they have the correct textbook and materials information by consulting the D2L/NS Online shell for the course. If you are registered with the Access Center and require an alternate format for the textbook and other course materials, please contact the Access Center at 615-353-3721, 615-353-3741, or accesscenter@nscc.edu.

Digital Course Materials (DCM):

To ensure the lowest cost for students, this course includes a materials fee. This means that some or all of the required textbooks and materials for this course are available through your *NS Online* course shell. When you register for this course, the charge will appear on your account. If you decide you do not want to purchase the course materials embedded in *NS Online*, you can opt out of the program until the end of the second week of classes. If you opt out, you will be responsible for obtaining the required course materials on your own. For more information, please visit www.nscc.edu/dcm.

Course Outcomes:

Upon successful completion of this course, students should be able to:

- Assess, identify and apply proper NEC requirements concerning feeder and service calculations
- Identify and evaluate commercial electrical services, motor calculation, and code requirements
- Identify applications for health care facilities
- Assess and demonstrate trouble shooting techniques involving motor operations
- Understand and describe proper crew leadership techniques

Course Competencies:

Demonstrated through NCCER Performance Evaluations (PVs) following successful completion of testing at a grade of 70 or above. (See course Assessments)

Topics to Be Covered:

- Electrical Load Calculations Feeder & Branch
- Health Care Facilities
- Standby and Emergency Systems
- Basic Electronic Theory
- Fire Alarm Systems
- Specialty Transformers
- Advanced Electrical Controls
- HVAC Controls
- Heat Tracing and Freeze Protection
- Electric Motor Operation and Maintenance
- Special Locations

Course Assessments:

The following performance assessments will be used to demonstrate students' understanding, knowledge, and skills:
A student's mastery of the learning outcomes will be assessed through both module exam and performance evaluation as determined by The National Center for Construction Education and Research (NCCER). The student must pass each module assessment with a score of 70% in order to take the performance evaluation. Performance evaluations (PV) are graded as Pass/Fail and must be successfully completed in order to obtain grading credit for the module PV.

This is an NCCER class. Tests will be graded as follows:

1) All module exams must be passed with a 70% or higher to become "knowledge verified" through NCCER.
2) Any exams not passed at this level can and should be retaken. One re-take is allowed*.

3) Although the student may make above a 70 on the re-take and become knowledge verified with NCCER, the grade of record for the NSCC grade will be the grade made on the first attempt. (See example below)
4) A score of 70 or above (initially or re-take) is required in order to allow the Performance Verification score.
5) Students with an unexcused absence on the day of a module exam will receive a zero (0) on the module exam for NSCC class scoring; however, the student will be able to retake the exam for NCCER "knowledge verification" purposes.
6) Students who know they will be absent in advance, and inform their instructor, will be given opportunity to test early without penalty.
   Class notes, handouts, practice exercises and your textbook are excellent resources to prep for module exams. Written assignments will periodically be assigned for you do outside of class. Along with the required reading, the homework will guide you and require summarizing key points, conducting research or answering questions.

*Example: A student scores a 56 on his first module exam attempt. Student re-takes the exam and scores a 72. The 72 now applies to the NCCER as being knowledge verified;   however, the original score of 56 is the grade that applies for the NSCC class.

Late Work Policy & Make-up Procedures for Missed Assignments and Work:

Late work and ability to re-test is covered in the Attendance Policy section. Missed Assignments are covered in Course Assessments section.

Attendance Policy

Students who have been exposed to COVID-19 or who have tested positive must email virusinfo@nscc.edu.

The College is not an attendance taking institution as defined by 34 CFR 668.22(b)(1) in the Code of Federal Regulations; however, students are expected to attend all scheduled classes and laboratories.
- Absences in a course may affect a student's final grade.
- Tardiness may also affect a student's final grade.
- Students are responsible for all work/tests that occur during any missed class session(s) regardless of reason(s) for absence.
- Students who are sick or not well enough to attend class must notify the instructor as soon as possible before the scheduled class time, unless incapacitated or unable to do so. In that case, students must contact the instructor as soon as reasonably possible.
- If a student has an unavoidable conflict with a scheduled class session, students must notify the instructor, preferably before the class session, or as soon as possible.

For purposes of financial aid continued attendance is determined via engagement in the course. This can be accomplished in several ways including, but not limited to, continued attendance and/or participation in on-ground class sessions, participating in D2L as prompted (e.g., responding to an instructor's email, posting to a discussion board), and/or completing and submitting assignments.)

To the extent that attendance is kept in this class it is not for the purpose of the College but is instead associated with the instructor's individual grading rubric. The attendance policy for this class is: Students are expected to attend all scheduled classes and laboratories. Absences in a course may affect a student's final grade. The student is responsible for all assigned work in the course regardless of excused or unexcused absences. Tardiness may also affect a student's final grade.

Attendance will be included as part of the student's grade. The student will be awarded an attendance grade of 100 for perfect attendance. Each absence, both excused and unexcused, will result in an

attendance grade reduction of 5 points for a maximum of 5 absences. (i.e. 5 absences results in an attendance grade of 75%) A student with 6 or more absences will be awarded an attendance grade of 0. Excused Absences allow the student to make-up any assignments or tests without penalty.

Excused Absences include:

Sickness with a doctor's note and /or Death of immediate family member

Grading Policy:

The Grading Policy is covered within the course assessment section above.

Grading Scale:

Letter Grade	Percentage Range
A	90.0 – 100.0
B	80.0 – 89.9
C	70.0 – 79.9
D	60.0 - 69.9
F	Below 59.9

Electrical 4 Grade Totals:

Homework (Review questions for 13 Modules)	10%
Module Exams (13 modules in Electrical 4)	50%
Performance Evaluations (7 PV's in Electrical 4)	30%
Attendance	10%
Total	**100%**

FA
According to NSCC policy, an FA is awarded to students who do not officially withdraw from a course and do not attend after the cut-off date provided in the academic calendar. Please refer to the current academic calendar available on the Nashville State web site, looking for the date that indicates it is the "Last Day to Earn F for Attendance (FA)." Students who stop attending on or before this date March 24, 2022 receive an FA; students who stop attending after this date receive an F.

For online courses, attendance is defined by submission of assignments. Students who fail a course and whose last assignment is submitted on or before the FA date will earn an FA for the course. Students who fail a course and whose last assignment is submitted after the FA date will earn an F for the course. An FN is assigned to students who do not submit any assignments.

FN
An FN is awarded to students who never attended class.

CLASS PARTICIPATION POLICY
Class participation is essential to the student's educational development as well as preparation for employment in an industrial environment. Students should fully cooperate with their instructor and each other. When you become a member of a work force it is essential that you cooperate with those you work with. You are learning in your academic environment and you will also learn in your working experiences. The academic environment doesn't teach you everything you need to know but it does teach you how to learn in order that you carry the ability to learn on into your working career.

Technology Statement
- All classes at the College are web enhanced.

- It will be essential for students to have access to a computer and an internet connection to complete assignments, engage in online discussions, and access various course materials through D2L/NS Online course shells.
- Students may also be required to use free video conferencing platforms (ex: Zoom, Teams) for classes and meetings.
- Students will be responsible for appropriate dress while on video, to ensure a distraction free environment (mute sound as needed) and to ensure their background is neutral for others to view.
- If you have questions or concerns regarding access to a computer or internet resources, please contact your instructor. Additional information available: https://www.nscc.edu/current-students/student-online-resources/access-to-internet-and-technology.
- Certain publisher materials may not work on cellphones.

Computer Labs

Computers are available for student use at each campus during campus open hours. Open computer lab availability for Spring 2023 may vary from campus to campus.

Students should check NSCC website for current hours of operation.

D2L/NS Online and myNSCC

It is students' responsibility to check D2L/NS Online course shells for all enrolled courses and myNSCC, including student email, on a regular basis. These are the official communication channels between the college and students, who are responsible for the information communicated through those channels. D2L/NS Online contains specific course information and myNSCC contains information important for other purposes.

ADA Compliance Statement

Nashville State complies with the Americans with Disabilities Act (ADA). Nashville State complies with the Americans with Disabilities Act (ADA) and so provides accommodations for students with a documented physical, emotional, and/or learning condition. If you require accommodations for any courses in which you are enrolled, contact the Access Center at 615.353.3741 or 615.353.3721, or e-mail accesscenter@nscc.edu. If you are registered with the Access Center and require an alternate format for the textbook and other course materials, please contact the Access Center.

Classroom Misconduct

Nashville State Community College has a zero-tolerance policy for disruptive conduct in the classroom. Students whose behavior disrupts the classroom will be subject to disciplinary measures. Please review the Nashville State Student Code of Conduct policy. Please be aware that children are not allowed in class or to be left unattended on campus.

Academic Misconduct

Any form of academic dishonesty, cheating, plagiarizing, or other academic misconduct is prohibited. Students are responsible for understanding and abiding by the Academic Misconduct Policy in the Nashville State Student Code of Conduct. In addition to other possible disciplinary measures that may be applied through regular college procedures as a result of academic dishonesty, the instructor has the authority to assign an "F" or a "zero" for the exercise, paper, or examination, or to assign an "F" for the course. Students may appeal through the appropriate college grade appeal procedures.

Academic Early Alert System

Nashville State Community College uses an Early Alert System to let students know of a faculty member's concern in one or more of these academic areas: lack of attendance, lack of classroom participation, late or missing assignments, and/or poor performance on assignments/tests. *Please note

that Early Alerts do not affect a student's academic standing. If you receive an Early Alert email, please see your instructor and your academic advisor as soon as possible.

RAVE Emergency Alert System

Emergency events can happen at any time, and Nashville State Community College wants to notify students if and when they occur. For this reason, all students have been enrolled in the free RAVE alert system. If you have not already done so, please log in at https://www.getrave.com/login/nscc to confirm and update your contact information and notification preferences. It is critical that your information be correct so that you will receive any emergency notifications. Your RAVE Username is your NSCC email address. If you've never received an email from RAVE with your password, or if you need to reset your password, select "Forgot your password?" and a new password will be emailed to you. Should the RAVE system indicate "user not found", select Register and create your own RAVE account.

Student Wellness

- The general well-being of students is an important component of their academic success. With this in mind, Nashville State Community College has several resources available to provide support when needed:
    - Tutoring options and appointments: https://www.nscc.edu/current-students/on-campus-resources/learning-center-and-tutoring
    - Academic and student resources for school:https://www.nscc.edu/current-students/student-online-resources
    - Support services: https://www.nscc.edu/current-students/on-campus-resources/student-support-services

Equity Statement

Nashville State Community College has a relentless commitment to the transformation of our institution through the intentional design of college experiences that expect and promote excellence from students, faculty, staff and administration. We consider equity to be an obligation of higher education. We strive to ensure that each student receives what that student needs to be successful, with goals of success beyond the classroom. We do this through an evidence-based and collaborative effort, understanding that our student population has diverse needs that must be addressed. We recognize that this effort may not always be comfortable and that partnering with students is the driving force to overcome barriers to success.

Inclement Weather & Campus Closings

Nashville State will use the RAVE alert system to send a text message to students, staff, and faculty about adjusted hours of operation and/or closings at individual campuses. All students should check the Nashville State web site home page at www.nscc.edu for announcements on campus closures, which may vary from campus to campus. Campus closures will also be announced on local television stations. Students should use their own best judgment in determining whether to report to campus during inclement weather when classes are not cancelled.

Even when campuses are closed, students are still responsible for completing all assigned work. When classes are cancelled, faculty will post online assignments and any additional instructions in the D2L/NS Online course shell. Check D2L/NS Online for a message from your instructor regarding your online assignment requirements. Faculty have discretion over adjusting deadlines or due date for assignments, but students are responsible for completing all assigned work by the due date established by the instructor**.**

Class Cancellation Policy

If the class is cancelled, the instructor will notify all students by posting in the D2L/NS Online course, e-mailing through D2L/NS Online, and/or by posting a sign on the classroom door. In the event of class cancellation, students must access D2L/NS Online to complete classwork and the assignment that will be posted in the course D2L site.