Nashville State Community College  
Computer and Engineering Technologies Division  
Electrical Engineering Technology  

Master Course Syllabus  

EETH 1100 Electrical Maintenance Orient  
4 Credits  
3 Class Hours  
3 Lab Hours  

An introductory course in electricity that includes the basic physics and mathematics while developing structured problem-solving techniques along with basic computer skills. Topics include laws of motion, simple machines, basic thermodynamics, and the behavior of matter while reviewing algebra, simple geometry, and right angle trigonometry.

Instructor Information:  
Name:  
Email:  
Office Phone:  
Office Location:  
Office Hours:  

Textbook and Other Materials:  
Textbook:  Applied Physics, w/CD, by Pearson, 10 Edition  
- ISBN-10: 0136116337  

Reference Materials:  
Supplies: Safety glasses and prototype board  
R.S.R. AMK-200 Professional Multimeter & Transistor Tester  
(KIT – not the assembled version) (check with instructor)  

Course Outcomes:  
Upon successful completion of this course, students should be able to:  
- Answer questions on English and metric system conversions, algebra, trigonometry, vectors, and concepts in physics during a series of timed tests.  
- Construct designated laboratory exercises and be able to use in-lab measurement equipment to accurately measure laboratory parameters. In addition the student will be provided instruction on computer usage and will be able to use the computers in the laboratory to do exercises, as designated, and to do lab reports.  
- Write technical laboratory reports.  
- Present technical information to a group.  
- Work safely in an electrical/electronic environment.  
- Work as a team member.
Course Competencies:
The following are detailed course competencies intended to support the course outcomes.

Course Assessments:
The following performance assessments will be used to demonstrate students' understanding, knowledge and skills:

- An average grade of at least 70% on all timed tests will be considered a satisfactory outcome.
- A demonstration by each student as to competency in constructing respective laboratory exercises and measuring exercise parameters using laboratory equipment provided.
- Since laboratory reports are retained by the students at the completion of the course, and will be used by the student as reference in succeeding courses, it is essential that they be both complete and descriptive enough to be understood at a later date. The instructor will evaluate the reports for these two items as well as for basic grammar and spelling.
- The presentation of technical information by the students on the subjects assigned as research projects must be complete enough to explain the research subject and its relationship to industrial maintenance. Use of the computer for the presentation is required. The presentations will be evaluated on these two criteria.
- Safety is of paramount concern in the laboratory, and 100% compliance with the safety standards is required. Any violation of safety standards will result in both a private counseling session with the instructor and an immediate lowering of one letter grade for laboratory participation.

Grading Policy
The following grading policy applies to this course:

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid-term Exam</td>
<td>100</td>
</tr>
<tr>
<td>Weekly Tests</td>
<td>300</td>
</tr>
<tr>
<td>Homework and Reports</td>
<td>100</td>
</tr>
<tr>
<td>Problem Solving Presentations</td>
<td>100</td>
</tr>
<tr>
<td>Final Exam</td>
<td>400</td>
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<tr>
<td>Total</td>
<td>1000</td>
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</tbody>
</table>

Grading Scale:

A (90-100%), B (80-89%), C (70-79%), D (60-69%), F (less than 60%)
### Topics to Be Covered:

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Math Review</td>
<td>Math Exercises</td>
</tr>
<tr>
<td>1</td>
<td>Problem Solving Techniques</td>
<td>Introduction to lab equipment</td>
</tr>
<tr>
<td>2</td>
<td>Motion</td>
<td>Problem Solving Exercise</td>
</tr>
<tr>
<td>3</td>
<td>Forces in One Direction</td>
<td>Motion</td>
</tr>
<tr>
<td>4</td>
<td>Vectors &amp; Trigonometry</td>
<td>Problem Solving Phasors, Vectors, Trigonometry</td>
</tr>
<tr>
<td>5</td>
<td>Vectors &amp; Trig. Cont.</td>
<td>Problem Solving Phasors, Trig and Inclined Planes</td>
</tr>
<tr>
<td>6</td>
<td>Work &amp; Energy</td>
<td>Work</td>
</tr>
<tr>
<td>7</td>
<td>Mid-Term Review &amp; Exam</td>
<td>Energy</td>
</tr>
<tr>
<td>8</td>
<td>Simple Machines</td>
<td>Mechanical Advantage</td>
</tr>
<tr>
<td>9</td>
<td>Rotational Motion</td>
<td>Pulleys &amp; Gears</td>
</tr>
<tr>
<td>10</td>
<td>Properties of Matter</td>
<td>Matter</td>
</tr>
<tr>
<td>11</td>
<td>Temperature &amp; Heat</td>
<td>Heat Transfer</td>
</tr>
<tr>
<td>12</td>
<td>Gasses and Fluids</td>
<td>Hydraulic &amp; Pneumatic</td>
</tr>
<tr>
<td>13</td>
<td>Magnetism</td>
<td>Review for Final</td>
</tr>
<tr>
<td></td>
<td>Final Examination</td>
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</tr>
</tbody>
</table>

### Attendance Policy

A student is expected to attend all scheduled classes and laboratories. Each instructor will formulate an attendance policy and provide it on the course syllabus. Absences are counted from the first scheduled meeting of the class, and it is the responsibility of each student to know the attendance policy of each instructor in whose class he/she is enrolled. If a student is absent from a class, he/she should give an advanced explanation to the instructor. 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.

Failure to attend class will result in a final course grade of “FA” or “FN” (see explanation below) depending on the individual instructor’s course policy.

- **FA** = failure, attendance-related (unofficial withdrawal) Last recorded date of attendance required.
- **FN** = failure, never attended class (unofficial withdrawal)

### Student Communication Channels

It is the student’s responsibility to check D2L and MyNSCC email on a regular basis. These are the official communication channels between the college and students. Students are responsible for the information communicated through those channels. D2L contains specific course information and MyNSCC contains information important for other purposes.

### Early Warning System

Nashville State Community College has implemented an Early Warning System to notify students via e-mail about academic problems such as poor classroom attendance, poor performance on assignments/tests, poor communication skills, late/missing assignments, and/or
lack of classroom participation. Please note that Early Warning Alerts do not affect a student’s academic standing.

**ADA Compliance Statement**
Nashville State complies with the Americans with Disabilities Act. Please contact the Access Services Coordinators at 615-353-3721 or 615-353-3741 if you would like to arrange ADA accommodations.

**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 sanctions. Please consult your Student Handbook for more specific details.
The instructor has primary responsibility for control over classroom behavior and maintenance of academic integrity. He/she can order temporary removal or exclusion from the classroom of any student engaged in disruptive conduct or in conduct which violates the general rules and regulations of the College.
Disruptive behavior in the classroom may be defined as, but is not limited to, behavior that obstructs or disrupts the learning environment (e.g., offensive language, harassment of students and professors, repeated outbursts from a student which disrupt the flow of instruction or prevent concentration on the subject taught, failure to cooperate in maintaining classroom decorum, etc.), the continued use of any electronic or other noise or light emitting device which disturbs others (e.g., disturbing noises from beepers, cell phones, palm pilots, lap-top computers, games, etc.).
Please be aware that children are not allowed in class or unattended on campus.

**Academic Dishonesty (Honor Code)**
Any form of academic dishonesty, cheating, plagiarizing, or other academic misconduct is prohibited. “Plagiarism may result from: (1) failing to cite quotations and borrowed ideas, (2) failing to enclose borrowed language in quotation marks, and (3) failing to put summaries and paraphrases in your own words (A Writer’s Reference 331). Academic dishonesty may be defined as, but is not limited to, intentionally trying to deceive by claiming credit for the work of another person, using information from a web page or source without citing the reference, fraudulently using someone else’s work on an exam, paper, or assignment, recycling your own work from another course, purchasing papers or materials from another source and presenting them as your own, attempting to obtain exams/materials/assignments in advance of the date of administration by the instructor, impersonating someone else in a testing situation, providing confidential test information to someone else, submitting the same assignment in two different classes without requesting both instructor’s permission, allowing someone else to copy or use your work, using someone else’s work to complete your own, altering documents, transcripts or grades, and forging a faculty/staff member’s signature.
In addition to other possible disciplinary sanctions that may be imposed 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.
Inclement Weather Policy

In the event of an inclement weather event, check the Nashville State web site home page at www.nscc.edu for announcements on campus closures. Campus closures will also be announced on local television stations (channels 2, 4, 5, and 17).

When classes are cancelled, an online assignment will be posted in NS Online. Check your NS Online email for a message from your instructor regarding your online assignment requirements. Even though classes may be cancelled, some areas, i.e. Testing Center, may be open. However, you should check before commuting to campus.

The Vice President for Academic Affairs and the Director of Security are responsible for cancellation decisions during an inclement weather event for the Nashville State main campus and the Southeast campus. Cookeville, Waverly, and Dickson Campus Directors will make class cancellation decisions based on conditions in their respective areas. Decisions about class cancellations are based on actual conditions, not forecasts. The perspective used for making decisions is that of the college as an employer, not as a K-12 institution. Students should use their own best judgment in determining whether to report to campus during inclement weather when classes are not cancelled.

NOTE: This syllabus is meant simply as a guide and overview of the course. Some items are subject to change or may be revised at the instructor’s discretion. Each instructor will further clarify their criteria for grading, classroom procedures, attendance, exams and dates, etc. on his/her course syllabus.