Nashville State Community College
Computer and Engineering Technologies Division
Industrial Process Control Technology

Master Course Syllabus

PTEC 1010 Technical Chemistry
5 Credits
4 Class Hours, 3 Lab Hours

Study of basic chemistry concepts and equipment to instruct prospective process control technicians and chemical operators in proper sampling methods, laboratory techniques, and process monitoring. This applications-based course emphasizes hands-on, practical exercises and experiences both in the laboratory and in an industrial environment. Prerequisite(s): Completion of all Learning Support competencies in writing, reading, and math. Level 2 placement or higher in writing, reading and math. Completion of MATH 1630 HIGHLY RECOMMENDED.

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

Textbook and Other Materials:
ISBN: 9780321908445

Lab materials: Provided
Supplies: Appropriate dress for labs
NSCC System log-in account (access to NSOnline)
Scientific Calculator (TI-83+ or TI-84)

Course Outcomes:
Upon successful completion of this course, students should be able to:
• Employ basic chemical laboratory concepts and methods to complete and analyze laboratory exercises
• Demonstrate the fundamental concepts, processes and calculations of General and Organic Chemistry
• Apply chemical concepts to industrial applications while working individually and/or in teams
• Evaluate accuracy and precision of results by performing basic statistical analysis
• Assess scientific principles and results in writing

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

• Students will complete lab experiments which demonstrate their individual competency in the employment of basic chemical laboratory concepts and methods to complete and analyze laboratory exercises. The responses to questions generated by the students from these exercises will demonstrate their assessment of scientific principles and results in writing, including a statistical analysis where applicable. Specific criteria for evaluation of these labs are included in the grading policy shown below.

• Students will perform as team members in the completion of case project exercises (Discussions) that require individual contributions to the team’s solution. Criteria for performance will be based on established criteria that include all necessary components used in the solution of the exercise, as detailed in the grading policy below.

• Students’ ability to demonstrate the fundamental concepts, processes and calculations of General and Organic Chemistry will be evaluated through their responses to questions on Chapter Quizzes and Tests. Specific criteria for evaluation of these labs are included in the grading policy shown below.

**Grading Policy**
Please note that grades will be posted under “Grades” on the D2L site within 48 hours after completion of the Assessment. There are strictly enforced end dates for all of these. Be sure you are aware of when something is due and monitor on-line in the “Calendar” on D2L. Make provisions for times when you will be unable to meet a deadline by working ahead. Your grade will be determined by the following:

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 Quizzes</td>
<td>100</td>
</tr>
<tr>
<td>17 Lab Assignments</td>
<td>340</td>
</tr>
<tr>
<td>10 Homework</td>
<td>100</td>
</tr>
<tr>
<td>5 Tests</td>
<td>250</td>
</tr>
<tr>
<td>Student Project</td>
<td>150</td>
</tr>
<tr>
<td>Attendance</td>
<td>60</td>
</tr>
</tbody>
</table>

Total points 1000

- Quizzes (100 pts) will consist of short answer, multiple choice or essay questions about module topics and/or Laboratory Experiments to ensure comprehension and preparation.
- Lab Assignments (340 pts) will consist of worksheets, lab activity sheets or others as assigned from lab exercises and other sources provided, such as on-line Discussions.
- Homework (100 pts) will consist of Learning Check completion in class and problems from the book.
- Tests (250 pts) any combination of multiple choice, matching, short answer, labeling and fill-in-the-blank. Short essay questions may also be included to assess critical thinking.
Material will come from lectures and lab exercises. There are 5 tests, a mid-term and a final exam.

Student Project (150 pts) is an exercise testing the ability of each student to perform each laboratory task and ensure mastery of each concept presented in the class.

Attendance grade will be calculated by dividing the number of class periods the student is present by the total number of class periods, then using that percentage multiplied by 60.

**Grading Scale:**
Grades will be determined as follows (Average = Total points earned / Total points):

<table>
<thead>
<tr>
<th>Grade</th>
<th>Average</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90.0 – 100.0</td>
<td>&gt;900</td>
</tr>
<tr>
<td>B</td>
<td>80.0 -- 89.9</td>
<td>800-899</td>
</tr>
<tr>
<td>C</td>
<td>70.0 -- 79.9</td>
<td>700-799</td>
</tr>
<tr>
<td>D</td>
<td>60.0 -- 69.9</td>
<td>600-699</td>
</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.