**TRINITY VALLEY COMMUNITY COLLEGE**
**COURSE SYLLABUS**

- **FALL** ✒   **SPRING** ☐   **SUM ☐**   **MINI ☐**   **OTHER ☐**   **YEAR 2020**
- **ONLINE COURSE** ☐   **FACE TO FACE COURSE** ☒   **HYBRID COURSE** *☐

This Course ✒ DOES ☐ DOES NOT Require Cengage Unlimited
This Course ☐ DOES ✒ DOES NOT Use Open Education Resources (OERs)
This Course ☐ DOES ✒ DOES NOT Require Exams to be Proctored**
This Course ✒ DOES ☐ DOES NOT Require a Lab (Approx. ___ hours per week)
This Course ✒ DOES ☐ DOES NOT Require the Purchase of Textbook(s)
This Course ✒ DOES ☐ DOES NOT Require the Purchase of Other/Lab Materials(s)

<table>
<thead>
<tr>
<th>Course Rubric &amp; Title</th>
<th>CHEM 1405</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor Name</td>
<td>Lisa Covington</td>
</tr>
<tr>
<td>Office Hours</td>
<td>It is best to e-mail instructor.</td>
</tr>
<tr>
<td>Campus</td>
<td>Athens/Palestine</td>
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<tr>
<td>Office Location</td>
<td>It is best to e-mail instructor</td>
</tr>
<tr>
<td>Instructor E-mail Address</td>
<td><a href="mailto:lisa.covington@tvcc.edu">lisa.covington@tvcc.edu</a></td>
</tr>
<tr>
<td>Instructor Office Phone</td>
<td>903-731-8005, ext. 2071</td>
</tr>
<tr>
<td>Other/Misc.</td>
<td>Students may contact the instructor through Canvas.</td>
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</table>

**Course Description:**
This course is a survey course introducing chemistry. Topics may include inorganic, organic, biochemistry, food/physiological chemistry and environmental/consumer chemistry. This course is designed for a variety of students including those who are majoring in professional nursing and profession agriculture. A laboratory component is included that gives practical experience to material covered in class.

**Course Co- or Pre-Requisites:** Co-requisite: Laboratory for CHEM 1405 Introductory Chemistry

**Textbook(s) & ISBN:** Please visit the [TVCC bookstore online](http://tvcc.edu/bookstore)

**Required/Recommended Reading(s):** Please visit the [TVCC bookstore online](http://tvcc.edu/bookstore)

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Syllabus may be changed during the course of the semester. Please check with your instructor periodically.
Required Materials: Please visit the TVCC bookstore online

Learning Outcomes: Upon completion of this course, the student should demonstrate a mastery of the following learning outcomes:

Chapter 1
Understand the importance of learning chemistry.
Define chemistry.
Understand scientific thinking.
Describe the method scientists use to study nature.
Develop successful strategies for learning chemistry.

Chapter 2
Show how very large or very small numbers can be expressed as the product of a number between 1 and 10 and a power of 10.
Learn the English, metric, and SI systems of measurements.
Use the metric system for measuring length, volume, and mass.
Understand how uncertainty in a measurement arises.
Learn to indicate a measurement’s uncertainty by using significant figures.
Learn to determine the number of significant figures in a calculated result.
Learn how dimensional analysis can be used to solve various types of problems.
Learn the three temperature scales.
Learn to convert from one scale to another.
Continue to develop problem-solving skills.
Define density and its units.

Chapter 3
Learn about matter and its three states.
Learn to distinguish between physical and chemical properties.
Learn to distinguish between physical and chemical changes.
Understand the definitions of elements and compounds.
Learn to distinguish between mixtures and pure substances.
Learn two methods of separating mixtures.

Chapter 4
Learn about the relative abundances of the elements.
Learn the names of some elements.
Learn the symbols of some elements.
Learn about Dalton’s theory of atoms.
Understand and illustrate the law of constant composition.
Learn how a formula describes a compound’s composition.
Learn about the internal parts of an atom.
Understand Rutherford’s experiment to characterize the atom’s structure.
Understand some important features of subatomic particles. Learn about the terms isotope, atomic number, and mass number.
Understand the use of the symbol \( X \ Z \ A \) to describe a given atom.
Learn about various features of the periodic table.
Learn some of the properties of metals, nonmetals, and metalloids.
Learn the natures of the common elements.
Understand the formation of ions from their parent atoms, and learn to name them.
Learn how the periodic table can help predict which ion a given element forms.
Learn how ions combine to form neutral compounds.

Chapter 5
Learn two broad classes of binary compounds.
Learn to name binary compounds of a metal and a nonmetal.
Learn to name binary compounds containing only nonmetals.
Review the naming of Type I, Type II, and Type III binary compounds.
Learn the names of common polyatomic ions and how to use them in naming compounds.
Learn how the anion composition determines the acid’s name.
Learn names for common acids.
Learn to write the formula of a compound, given its name.

Chapter 6
Learn the signals that show a chemical reaction has occurred.
Learn to identify the characteristics of a chemical reaction and the information given by a chemical equation.
Learn how to write a balanced equation for a chemical reaction.

Chapter 7
Learn about some of the factors that cause reactions to occur.
Learn to identify the solid that forms in a precipitation reaction.
Learn to describe reactions in solutions by writing molecular, complete ionic, and net ionic equations.
Learn the key characteristics of the reactions between strong acids and strong bases.
Learn the general characteristics of a reactions between a metal and a nonmetal.
Understand electron transfer as a driving force for a chemical reaction.
Learn various classification schemes for reactions.
Consider additional classes of chemical reactions.

Chapter 8
Understand the concept of average mass and explore how counting can be done by weighing.
Understand atomic mass and its experimental determination.
Understand the mole concept and Avogadro’s number.
Learn to convert among moles, mass, and number of atoms in a given sample.
Understand how to solve problems by asking a answering a series of questions.
Understand the definition of molar mass.
Learn to convert between moles and mass of a given sample of a chemical compound.
Learn to find the mass percent of an element in a given compound.
Understand the meaning of empirical formulas of compounds.
Learn to calculate empirical formulas.
Learn to calculate the molecular formula of a compound if given its empirical formula and molar mass.

Chapter 9
Understand the molecular and mass information given in a balanced equation.
Learn to use a balanced equation to determine the relationships between moles of reactants and moles of products.

Syllabus may be changed during the course of the semester. Please check with your instructor periodically.
Learn to relate masses of reactants and products in a chemical reaction.
Understand what is meant by the term limiting reactant.
Learn to recognize the limiting reactant in a reaction.
Learn to use the limiting reactant to do stoichiometric calculations.
Learn to calculate actual yield as a percentage of theoretical yield.

**Chapter 10**
Understand the general properties of energy
Understand the concepts of temperature and heat.
Consider the direction of energy flow as heat.
Understand how energy flow affects internal energy.
Understand how heat is measured.
Consider the heat (enthalpy) of chemical reactions.
Understand Hess’s law.
See how the quality of energy changes as it is used.
Consider the energy resources of our world.
Understand energy as a driving force for natural processes.

**Course Requirements:** The course requirements will include online homework (25%), exams (40%), lab assignments (25%), and final exam (10%). Exams will cover 1-2 chapters and the final exam is comprehensive. A course average of 90% is needed for an A, 80% for a B, 70% for a C, 60% for a D. A grade lower than 50% will have earned an F.

**Expected Time Requirement for this Course:** Approximately 10-15 hours per week of time spent reading, reviewing, and completing assignments is recommended to complete this course.

**Expected Instructor Response Time Mon-Fri:** Students should expect responses to student inquiries from the instructor within 72 hours Monday-Friday.

**Expected Instructor Response Time Sat-Sun and holidays:** Students should expect responses to student inquiries within 72 hours if submitted over the weekend or student holiday.

**HYBRID AND ONLINE*:** Non-Attendance and Financial Aid: If you are receiving financial aid, federal regulations require you to have begun attending the courses for which you are enrolled on or before the census date (e.g., 12th day of each fall and spring semester and 6th day of class each abbreviated semester). Attendance in an online course is verified by substantial participation in the course on or before the census date. TVCC defines substantial participation in online courses as logging in to the online course AND completing/participating in at least one requirement of the course. **NOTE:** Logging in to your online course does not warrant “attending”. For this course, you will be required to complete the getting started module and
safety training **before the census** (**12th class for fall/spring or 6th class day for abbreviated semesters**) date in order to be marked as **“attending”** for purposes of financial aid. Students documented as “not attending” a course upon the census date are assumed (for financial aid purposes) to have NOT begun attendance for that course, negatively affecting their financial aid disbursements.

☐ **FACE TO FACE: Non-Attendance and Financial Aid**: If you are receiving financial aid, federal regulations require you to have begun attending the courses for which you are enrolled on or before the census date (e.g., 12th day of each fall and spring semester and 6th day of class each abbreviated semester). Students documented as “not attending” a course upon the census date are assumed (for financial aid purposes) to have NOT begun attendance for that course, negatively affecting their financial aid disbursements.

Attendance in online course at TVCC is verified by students logging in to the course and substantially participating in the course on or before the census date. Students documented as “not attending” an online course upon the census date are assumed (for financial aid purposes) to have NOT begun attendance for that course, and this may negatively affect financial aid disbursements.

***PROCTORED TESTING INFORMATION ☐ DOES ☒ DOES NOT APPLY TO THIS COURSE***

☐ **Proctored Testing Information**: If exams must be proctored, describe the options your students; these include taking the exam at a testing center or using a web cam in conjunction with the Respondus lockdown browser, utilizing the service offered by Kryterion, etc.)

- **Athens** – The Testing Center, located in the Administration Building, is open during regular business hours. In the event that the testing center is closed (visit [http://www.tvcc.edu/testing/](http://www.tvcc.edu/testing/) for scheduled closings), you can test at the LRC. Please visit the Athens testing site to determine the LRC hours of operation and closures due to class instruction.
- **Palestine** – Students are allowed to test at the LRC of the respective satellite campuses. Please visit the Palestine testing site to determine their hours of operation. **NOTE**: You MUST arrive at the testing center(s) at least 1 hour prior to closing so that you COMPLETE your testing before they close.
- **Terrell** – Students are allowed to test at the A101 computer lab during designated hours. Please visit the Terrell testing site to determine their hours of operation. **NOTE**: You MUST arrive at the testing center(s) at least 1 hour prior to closing so that you COMPLETE your testing before they close.

Syllabus may be changed during the course of the semester. Please check with your instructor periodically.
Outline of Course Schedule: The following is a tentative schedule and is subject to change. Any changes will be noted in the announcements and well in advance of due dates.

Week 1. Getting started module and Chapter 1 Module/Lab Safety
Week 2. Chapter 1 and 2 Modules/Lab 1
Week 3. Chapter 3 Module/Lab 2
Week 4. Chapter 4 Module/Lab 3
Week 5. Chapter 5 Module/Lab 4
Week 6. Chapter 6 Module/Lab 5
Week 7. Chapter 7 Module/Lab 6
Week 8. Chapter 7 Module continued/Lab 7
Week 9. Spring Break
Week 10. Chapter 8 Module/Lab 8
Week 11. Chapter 8 Module continued /Lab 9
Week 12. Chapter 9 Module/Lab 10
Week 13. Chapter 9 Module continued/Lab 11
Week 14. Chapter 10 Module/Lab 12
Week 15. Review for Final
Week 16. Final Exam

Classroom Policies: This class meets online, as such there is no make-up work. If any assignment is missed you will receive a zero. It is expected that students act in a professional manner and follow all instructions. Any variance from this and the student may be dismissed/dropped from the class. Do not get behind on your reading.

Late assignments: Generally late assignments will NOT be accepted; however, I will make exceptions depending on the situation.

Cheating/Plagiarism: Scholastic dishonesty shall include, but not be limited to, cheating on a test, plagiarism, and collusion. “Cheating on a test” shall include

- Copying from another student’s test paper
- Using test materials not authorized by the person administering the test
- Collaborating with or seeking aid from another student during a test without permission from the test administrator – **NOTE: an instructor using non-proctored exams is NOT providing permission to collaborate with or seek aid from another student**
- Knowingly using, buying, selling, stealing, or soliciting, in whole or in part, the contents of an un-administered test
- The unauthorized transporting or removal, in whole or in part, of the contents of the un-administered test

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- Substituting for another student, or permitting another student to substitute for oneself, to take a test, and
- Bringing another person to obtain an un-administered test or information about an un-administered test.
- Accessing web content or online resources to provide support in answering questions on exams, proctored or not

“Plagiarism” shall be defined as the appropriating, buying, receiving as a gift, or obtaining by any means another’s work and the unacknowledged submission or incorporation of it in one’s own written work. “Collusion” shall be defined as the unauthorized collaboration with another person in preparing written work for fulfillment of course requirements.

The punishment for cheating or collusion in this class is a failing grade on that particular assignment or dismissal from class. Dismissal will result in a failing grade. The student may receive an F for the entire course (laboratory and lecture) if the misconduct is severe.

Drop Policy: It is your responsibility to drop a course. I may drop a student for nonattendance. I may, at my discretion, drop a student if their behavior is disruptive to the learning environment. A student may withdraw (drop) from a course and receive a grade of “W” at any time during a given semester subject to the last day to receive a “W” deadline specified in the TVCC schedule or catalog.

Additional Information: You should develop a backup plan should your computer system or your Internet provider fail. Computer or internet connectivity issues are not valid excuses for missing a deadline. The college provides many opportunities for using computer equipment as do many public libraries.

Advocacy Information: Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is encouraged to contact the advising office for guidance on how to identify possible resources. Please notify the instructor of your circumstance if you are comfortable doing so.

Affirmative Action: TVCC is an affirmative action/equal opportunity institution which provides educational and employment opportunities on the basis of merit and without discrimination or harassment in full compliance with the Civil Rights Act of 1964, as amended; the Rehabilitation Act of 1973 (Section 503,504); Americans with Disabilities Act, as amended, Title IX of the Educational Amendments

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of 1972; the Vietnam Era Veterans Assistance Act of 1974; Article 522lk V.A.C.S.; and Executive Orders 11246 and 11758.

**American with Disabilities Act (ADA):** Trinity Valley Community College provides equal opportunities for academically qualified students with disabilities and ensures access to a wide variety of resources and programs. The passage of Section 504, Federal Rehabilitation Act of 1973, and the Americans with Disabilities Act of 1990 requires that the college make certain special arrangements for students with disabilities such as moving classes to accessible locations when necessary, allowing the use of tape recorders, sign language interpreters, or other educational auxiliary aids, making special test arrangements, and other accommodations. The college will make reasonable accommodations for qualified students with a diagnosed physical and/or learning disability who have been admitted to the college and request accommodations.

Students with disabilities who wish to request accommodations should notify the Disability Services Office on their campus. In accordance with federal law, a student requesting accommodations must provide documentation of his/her disability to the Disability Services counselor. For more information, please visit the Disability Service Office on your campus or contact Melinda Berry at 903-675-6224 and email disability@tvcc.edu.

**Campus Carry:** The College District prohibits the use, possession, or display of a firearm on College District property or at a College District-sponsored or -related activity in violation of law and College District regulations. This policy does not apply to commissioned peace officers in accordance with law. All persons, including license holders, are prohibited from openly carrying a handgun on all College District campuses and premises. License holders may carry a concealed handgun on or about their person while on College District campuses and premises. License holders are responsible for complying with applicable federal and state law and this policy and associated regulations.

**Criminal History:** TVCC awards some certificates and degrees in which a criminal history **MAY** disqualify candidates from becoming licensed upon degree/certificate completion. Students **with** a criminal background enrolling in courses leading to a degree/certificate in criminal justice, cosmetology, nail technician, Heating/Ventilation/Air Conditioning (HVAC), Emergency Medical Technology (EMT), Nurse Aide, Vocational Nursing (VN), Associate Degree Nursing (ADN), Surgical Technology, Patient Care Technology, or Pharmacy Technician program are STRONGLY ENCOURAGED to discuss the licensing regulations with the TVCC program director listed in the current catalog and learn about the current guidelines related to criminal history as well as the right of individuals to request a criminal history evaluation letter.

**Electronic communication:** TVCC students are **REQUIRED** to use either their TVCC Canvas account or their TVCC email account for all electronic communication. In order to ensure the identity of the student communicating via electronic methods, TVCC faculty will not reply to student communication that is sent through an email account other than their TVCC issued email account or Canvas account.
Logging on to E-Courses: To access your online courses, visit https://ecourses.tvcc.edu. Use your Cardinal ID and Cardinal Password to log in. If you are unsure of your Cardinal ID, visit https://webapps.tvcc.edu/GetIDs1/. TVCC Password guidelines are set as follows:

Lowercase first initial + last four digits of your Social Security number + uppercase last initial + 4 digit year of birth. If your name is Jane Doe, and you were born in the year 1998, and your social security number ends in 1234, your new password would be j1234D1998.

Research Resources: The student is encouraged to use the TVCC Libraries as research resources for this course. Students can search the TVCC Library Resource Center holdings through the on-line catalog. Electronic library resources provide access to full-text and abstract articles as well as links to a variety of remote research tools. The physical library contains a specialized collection of research materials specifically chosen to support the degrees and courses offered at TVCC. Students with research questions or questions about library services are encouraged to email their question to lrc@tvcc.edu.

Student’s Responsibility: This syllabus contains information, policies and procedures for a specific course. By enrolling, the student agrees to read, understand, and abide by the rules, policies, regulations, and ethical standards of Trinity Valley Community College as contained in the current catalog and schedule of classes.

Student Evaluation of Courses/Faculty: Evaluation is an important component in promoting continuous improvement, enhancing student learning, and achieving excellence in the educational process. Therefore, TVCC administers student course evaluations every semester. Students are encouraged to complete the course evaluations for all of their courses. Notification of evaluation availability and details on how to access and complete the course evaluation will be delivered to all students through the TVCC email accounts.

When completing the evaluation, students will rate the course by responding to the following prompts:

- The instructor relates the importance of the subject matter to real life.
- The instructor is very knowledgeable of the subject matter.
- The instructor encourages questions and discussions from students.
- The instructor makes class requirements clear.
- The instructor gives class assignments (tests, projects, presentations, etc.) that measure what was covered.
- The instructor’s teaching methods are effective in helping me learn.
- The instructor expects students to take responsibility for their learning.
- The instructor establishes a climate of respect.
- The instructor is well organized and prepared for each class.
- The instructor is available to me on matters pertaining to the class.
- The instructor is reliable in meeting class (leave blank for online courses).
- The instructor normally starts class on time (leave blank for online courses).
- The instructor has challenged me to think.

Technology Resources/Access: Each student, employee, or guest with an information technology (IT) account shall be responsible for all use of the account. All accounts shall be for use by a single individual.
Syllabus may be changed during the course of the semester. Please check with your instructor periodically.

Title IX of the Education Amendments: TVCC prohibits discrimination, including sexual harassment and retaliation, against any student on the basis of race, color, religion, gender, national origin, disability, or any other basis prohibited by law. Any student who believes that he or she has experienced prohibited conduct or believes that another student has experienced prohibited conduct should immediately report the alleged acts to an instructor, counselor, administrator, or the Title IX Coordinator.

TVCC has designated the Director of Human Resources/Title IX Coordinator as the individual who is responsible for coordinating its efforts to comply with Title IX of the Education Amendments of 1972, as amended. Contact information is:

- Director of Human Resource/Title IX Coordinator;
- humanresources@tvcc.edu
- Office Phone: 903-675-6215