Syllabus for CHEMISTRY 111 Sections 21, 22, 23, 24 (PAVLIK)
Ball State University, Fall 2026

Lectures: Tues. & Thur. 12:30 PM – 1:45 PM in FB-340

Instructor: Dr. Jeffrey W. Pavlik Office: FB-322

Phone: 765-285-8068 E-mail: jwpavlik@bsu.edu

Drop-in Office Hours: Mon. 1:30 PM – 3:00 PM, Wed. 2:30 PM–4:00 PM, FB-322 unless other-specified.

Scheduled Appointments:
Virtual or in-person. Please request by e-mail and wait for confirmation.
Best appointment times: Mon. 10:00 AM–1:00 PM, Thur. & 2:30 PM–4:00PM. If these times do not work, please e-mail me, I can suggest other days/times when I am available for scheduled appointments.

Grading Scale:

850 – 786 points	A	100 – 93 %
785 – 761 points	A-	92 – 90 %
760 – 735 points	B+	89 – 87 %
734 – 701 points	B	86 – 83 %
700 – 676 points	B-	82 – 80 %
675 – 650 points	C+	79 – 77 %
649 – 608 points	C	76 – 73 %
607 – 591 points	C-	72 – 70 %
590 – 565 points	D+	69 – 67 %
564 – 523 points	D	66 – 63 %
522 – 506 points	D-	62 – 60 %
505 – 0 points	F	59 – 0 %

Your CHEM 111 Score Tally Sheet:

Item	**Points Earned**	**Points Possible**
Quiz 1 _____ Quiz 2 _____ Quiz 3 _____ Quiz 4 _____ Quiz 5 _____ Sum of best four quizzes →		100
Exam 1		100
Exam 2		100
Exam 3		100
ALEKS		60
Paper homework 14×5 pts. ea.		70
Attendance Work		40
Completed Notes		30
Final Exam		150
Lab % × 100		100
Grand Sum		**850**

Required Items

1. *ALEKS 360 access code for online homework (synced with Chemistry, 15th Edition, Chang & Overby, McGraw-Hill, 2025, ISBN 13: 8220142552843). Gives access to digital textbook (included with access code purchase) and information about looseleaf textbook purchase (optional). Digital textbook available once logged in to ALEKS. 9NRRT-TVYGJ

   IMPORTANT NOTE: Do not open course materials until you are certain of course continuance; if in doubt of course continuance, free 2-week trial access can be used.

2. *111 Lab Manual, 9th Edition, Van-Griner, 2027 (ISBN 13: 978-164565-880-1).

   ***These items are included in the First Day books program, If you are using BSU First Day, please also see the separate handout "111-1st-day-info".**

3. Calculator: TI-30X SERIES scientific calculator: **THIS IS THE ONLY CALCULATOR TYPE ALLOWED FOR USE ON EXAMS AND QUIZZES.**

4. Knee-length lab coat. To better ensure compliance, purchase from BSU bookstores. Further details will be supplied in the first laboratory session.

5. UVEX Classic Safety Goggles ***OR*** UVEX Stealth Goggle Hydroshield.

Examinations:

The three midterm examinations and the final exam will be held in room FB-340 on the dates and times shown below. The chapter coverage of the midterm exams is approximate.

Exam Dates:

Exam 1 (100 pts): Thur. Sept. 24, 12:30 PM, Ch. 1,2,3

Exam 2 (100 pts): Thur. Oct. 22, 12:30 PM, Ch. 4,7

Exam 3 (100 pts): Thur. Nov. 19, 12:30 PM, Ch. 8,9,10

Final Exam (150 pts): Tues. Dec. 8, 12:00 Noon, Ch. 1-10

Exam/Quiz Policy:
Questions will focus on fundamental concepts and problem-solving skills. You should focus your exam and quiz studies on the lecture notes, in-class example problems, exam-prep worksheets, and paper homework. Exams and quizzes will consist of short answer questions, problem solving and some recall. Exams and quizzes will be graded by myself and a small group of trained graders under my direct supervision.

1. To earn any partial credit, **YOU MUST SHOW ALL OF YOUR WORK**! To clarify, this means that all steps of problems must be shown. Final answers without any work shown may receive minimal or no credit.
2. Electronic devices are to be kept in backpacks or face-down on desk during exams/quizzes.
3. Point deductions may be made if short answer responses are not made in the form of sentences.
4. **THERE WILL BE NO SET MAKE-UP EXAMINATIONS OR QUIZZES.**
5. Known conflicts (i.e. school related activities and religious holy day observations) must be handled in advance. In these cases you must inform the professor and receive confirmation two weeks before the scheduled exam or quiz so alternate plans can be made.
6. Unexcused-missed* exams and quizzes will receive a grade of zero.
7. If you have two or more unexcused absences on midterm exam days, then you will receive an **F** for the course.
8. The final exam is MANDATORY. If you do not take the final exam, you will receive an **F** in the course, regardless of your point total.

*If you miss an examination or quiz for a valid verified reason (i.e. emergency medical issues, death in the family), the absence may be considered excused. For an absence to be considered excused, you must notify me as soon as possible by e-mail and provide valid documentation of the reason within one week of the missed exam or quiz. Alternate plans for the missed quiz or exam will be completely at my discretion and must be discussed in person. Make an appointment to see me!

Ball State Canvas:
The Ball State Canvas website will be used extensively in this class. It can be accessed with your Ball State username and password. You may access Canvas at https://www.bsu.edu/gateways/current-students Typical postings include the following:

- General Announcements
- Course Notes Templates
- Homework Assignments
- Lists of test and quiz content coverage
- Answer keys to selected items
- Grade Posting

***ALEKS* Homework:** The *ALEKS* online homework system will be used to supplement paper homework. Questions will be primarily conceptual in nature as extensive calculations are better suited for paper homework. *ALEKS* homework assignments will be due a few days before each exam, including the final exam. It will be ideal for students to complete portions of assignments related to current lecture work close-in-time to when covered in the lecture. The achieved percentage grade in *ALEKS* for each due date will be multiplied by 15 to determine the number of course points achieved. There are four *ALEKS* due dates so the total of course points from *ALEKS* assignments is 60.

Paper Homework:
Approx. 16 *graded* paper homework assignments (HW) will be given through Canvas or in class. These assignments must be completed, handwritten either with pencil/pen (if on hard copy printout) or by stylus (if on write-over pdf). Completed hard copies need to be uploaded to your Chem. 111 Canvas page in the specified portal by the specified date and time. Tablet-completed write-over pdf's can be directly uploaded to Canvas. Late homework is subject to point deductions at the instructor's discretion.. Each HW is worth 5 pts. And there are 70 total pts. possible for HWs as a whole, a perfect score on all HWs would result in 10 pts. extra credit. This is the only opportunity for extra credit. There will also be self-check (SC) worksheets to provide written practice on material not on HWs that will be just as relevant to each upcoming quiz and exam. Self Check assignments are <u>just as important</u> as the graded assignments, although SCs will not be collected, every effort should be made to complete them before related upcoming tests and quizzes.

Attendance Work:
Attendance each class period is mandatory and is critical to success in the course. Attendance will be taken by way of full or half-page worksheets that will be distributed at some point during non-quiz, non-exam class day. They will always require name (first and last name), date and signature. Usually there will be a very short quiz or some type of written activity which will also go on the attendance worksheet. Attendance worksheets will be worth 2 pts. each

Grade Finalization Policy:
Students are responsible for checking the consistency of their posted grades. **GRADES ARE FINAL TWO WEEKS AFTER POSTING.** If a student has concerns with any grading, this must be discussed during an appointment with the professor within two weeks of posting. After that time, changes will not be made.

Quizzes:
There will be five quizzes (25 pts each) given throughout the semester, over material covered in class and homework assignments. The material covered on a given quiz will be clearly indicated in class and on Canvas at least one day prior to quiz. Your lowest quiz score will be dropped, so a total of 100 points is possible for quizzes. Quizzes will normally be in-class, however if circumstances dictate, online format may be used outside of class meeting times.

CHEM 111L Lab
You are required to attend all scheduled laboratory sessions and complete all pre–lab exercises and lab reports. The Laboratory portion of the course is worth up to 100 points toward your final CHEM 111 course grade. Additionally **YOU MUST RECEIVE A SCORE OF <u>75% OR GREATER</u> IN THE CHEM 111L LAB OR YOU WILL RECEIVE A LETTER GRADE OF "F" IN THE CHEM 111 COURSE.** The lab portion of your course score is determined by multiplying your percentage of lab points obtained by 100.

Lecture Format and Note Taking:
Course notes will be delivered by document projection or projected via tablet. The course will be portioned into about 30 sets of notes denoted as "lessons", each roughly 3-6 pages in length. The note templates will be accessible on Canvas, usually no later than 18 hours before class. **Arriving with a printed or pdf copy of the note templates is mandatory**. Completed or "filled-in" notes must be uploaded to your Chem. 111 Canvas page in the specified portal for points to be earned. Extra examples will be done on board or by doc-cam. You are responsible for copying down all notes and problem solutions as they are performed. Some sets of notes (lessons) and extra examples may be delivered by video, to be completed by students outside of class. This may be to ensure coverage of all topics prior to a test or quiz, or to allow for in-class assignments, extra examples or special interest topics.

Notes delivered by video are just as important towards exam/quiz items as the ones delivered in class, and need to be filled in as the videos are watched. Scanned images of the filled-in notes from these video-delivered selections will be submitted to Canvas by specified strict due dates.

Learning Objectives

Upon completion of the course, students will be able to:

1. Differentiate materials as substances, compounds and mixtures and also between states of matter.
2. Demonstrate a spatial and quantitative understanding of atomic structure.
3. Interconvert between names and formulas of simple compounds, acids and bases.
4. Perform mathematical manipulations such as unit analysis with proper attention to units and significant figures.
5. Demonstrate an understanding of the mole concept and perform related stoichiometric calculations.
6. Categorize reactions single replacement, double replacement, decomposition, synthesis, combustion and acid-base neutralization.
7. Write and balance chemical equations based on written descriptions of the reaction.
8. Perform stoichiometry calculations involving amounts of products and reactants.
9. Calculate and utilize solution concentration units such as molarity.
10. Use and understand the gas laws, ideal, Boyle's, Charles's, Gay-Lussac's and the combined gas law.
11. Write and interpret electron configurations of elements and ions, and relate them to quantum numbers.
12. Explain periodic trends based on atomic structure and electron configurations.

13. Differentiate between types of chemical bonds and be able to construct and interpret Lewis structures.

14. Convert Lewis structures of simple molecules to VSEPR molecular shapes.

Academic Integrity:
Academic misconduct will not be tolerated under any circumstances. In all instances of cheating, the harshest penalties available will be pursued. Please read the Code of Student Conduct in the Code of Student Rights and Responsibilities. If you do not have a copy, please access it online at:

https://www.bsu.edu/about/administrativeoffices/student-conduct/policiesandprocedures

For information about academic integrity, please follow the link:

https://www.bsu.edu/about/administrativeoffices/vice-provost/student-services/academic-integrity

---

Sensitive Medical Conditions:
Students enrolling in this course will be working with a variety of chemicals, some of which could be irritating or hazardous. Proper and accepted good laboratory practice will always be utilized to minimize or eliminate any adverse contact. However, individuals with sensitive medical conditions, including pregnancy, should take precautions such as wearing additional protective garments, delaying enrollment, or not enrolling in this course. Information about how to obtain Material Safety Data Sheets (MSDS) for chemicals used in this course is available in the Chemistry department office, FB-417. Please consult with your instructor and health care professional if you have any concerns.

Use of Electronic Devices:

The only electronic devices allowed are tablets that lie flat on desks. Cell phones and laptop computers should not be taken out in class. For certain special circumstances, permission to use restricted devices might be granted by instructor upon request. If you need to use a special device due to a handicap, please let me know ASAP.

UNIVERSITY POLICIES AND STATEMENTS

Diversity Statement
We are committed to ensuring that all members of the community are welcome, through valuing the various experiences and worldviews represented at Ball State and among those we serve. We promote a culture of respect and civil discourse. If you need course adaptations or accommodations because of a disability, please contact the instructor of record as soon as possible. Ball State's Disability Services Office coordinates services for students with disabilities; documentation of a disability needs to be on file in that office before any accommodations can be provided. Disability Services can be contacted at 765-285-5293 or dsd@bsu.edu. We promote a culture of respect and civil discourse as expressed in our *Beneficence Pledge* and through university resources found *here*.

Freedom of Expression
In this course, we are committed to fostering a learning environment that values intellectual diversity, encourages free expression, and promotes open inquiry. As members of the Ball State Community, we treat each person in the Ball State community with civility, courtesy, compassion, and dignity and respect and learn from differences in people, ideas, and opinions. Please review Ball State University's Statement on Freedom of Expression, the resources on Ball State's Freedom of Expression webpage, and Ball State's Beneficence Pledge.

Title IX
Ball State University is committed to maintaining an educational environment free from sex discrimination, including sexual harassment, sexual misconduct, dating and domestic violence, and stalking. Students who experience or witness conduct that may violate University policy are encouraged to seek support and assistance. The Title IX Office can provide information about reporting options, supportive measures, and available resources. Contact the Title IX Office at 765-285-1545 or titleix@bsu.edu.

Please Note: As your instructor, I am a mandatory reporter. If you disclose information to me about conduct that may constitute sex discrimination or sexual misconduct, I am required to notify the Title IX Coordinator. The Title IX Office will reach out to discuss available resources, supportive measures, and reporting options. If you wish to speak with someone confidentially, you may contact the Counseling Center or the Center for Survivor Support.

Pregnancy and Related Conditions
Ball State University provides reasonable modifications for students affected by pregnancy, childbirth, or related medical conditions. Students seeking academic, housing, or other modifications are encouraged to contact the Title IX Office as early as possible to discuss available options and support. For assistance, contact the Title IX Office at 765-285-1545 or titleix@bsu.edu.

University Grade Appeal Policy
If you believe you received a final course grade that does not reflect your performance due to fairness or a procedural issue, you have the right to file an appeal within 5 school days after final grades are posted by the Office of the Registrar. Review the University Grade Appeal Policy and Process.]

Student Academic Ethics Policy
Honesty, trust, and personal responsibility are fundamental attributes of the university community. Academic dishonesty and other forms of academic misconduct threaten the foundation of an institution dedicated to the pursuit of knowledge and will not be tolerated. To maintain its credibility and reputation, and to equitably assign evaluations of scholastic and creative performance, Ball State University is

committed to maintaining a climate that upholds and values the highest standards of academic integrity. Visit the VPAA's academic integrity website (Students tab) for resources on understanding academic integrity, citing sources properly, and avoiding inadvertent academic dishonesty. To learn about BSU's academic integrity expectations and students' rights, please read the University Student Academic Ethics Policy.

Academic integrity violations include giving or receiving an unfair academic advantage (cheating), presenting someone else's ideas or work as your own (plagiarism), and falsifying academic records. Unless otherwise indicated, you must work independently by yourself. Check with me if you are unsure whether something constitutes academic dishonesty. Examples of academic integrity violations include but are not limited to:

- Using resources not authorized by the faculty member (including devices, AI tools, hidden notes, and open books)
- Using a generative AI system or a person to complete academic assignments such as response papers, discussion posts, essays, or any other assignment when such use is not explicitly permitted by the assignment instructions or the instructor.
- Utilizing another person or a generative AI system to take a quiz, examination, or similar evaluation in place of oneself.
- Using a generative AI system for research, creative work, theses/dissertations, grant proposals,
- IRB-regulated work, or publication-bound work in violation of university AI policies, funder/publisher rules, IRB requirements, or discipline-specific standards.
- Presenting as one's own work the ideas, representations or words of another person or of a GenAI system without customary and proper acknowledgment of sources or of the AI tool(s) used.
- Using generative AI systems to analyze data, conduct research, or generate content that is included in an assignment (images, graphs, charts, tables, etc.) without proper documentation, citation, and attribution of this AI use.
- Using commercial study websites to find answers to graded assignments (Chegg, Course Hero, StudyPool, OneClass, etc.).
- Without the instructor's written permission, giving away, buying, or selling graded assignments class notes, exams, study guides, or other course materials to other students or to third-party vendors (Course Hero, Chegg, 24HourAnswers, etc.).
- Working with another person on any assignment other than authorized group projects.
- Sharing or allowing others to access your files, whether done with permission or not.
- Reusing your own work from another semester, course, or section.
- Sharing answers with others during exams (passing notes, texting, whispering, gesturing)
- Discussing exam questions and answers with students who have not taken the exam.
- Soliciting others to complete work for you.

Generative AI Statement

You may use AI programs e.g. ChatGPT to help generate ideas, brainstorm, or get started on assignments. However, you should note that the material generated by these programs may be inaccurate, incomplete, or otherwise problematic. Beware that use may also stifle your own independent thinking and creativity. All work submitted in this course should reflect your own ideas and demonstrate your current knowledge, abilities, and skills. Therefore, GenAI should not be used to fully complete assignment(s). Doing so constitutes a violation of Ball State University's Student Academic Ethics Policy.