# **Bismarck State College**

Bismarck State College, an innovative community college, offers high quality education, workforce training, and enrichment programs reaching local and global communities.

**Current Semester:** Summer 2018

Course: CHEM 122, General Chemistry II

Credit Hours: 4

**Instructor Contact Information:** Scott Tschaekofske (chai-cough-ski)

301F Jack Science Center (phone 701-224-5628)

Office Hours: by appointment

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**Course Materials:** Chemistry: The Central Science (14<sup>th</sup> Edition) by Brown, LeMay, Bursten (Pearson)

The learning management system for this course is **Blackboard**. It can be accessed at the following link: https://bismarckstate.edu/bsc-online/

Regular homework assignments will be given using an online homework system known as MasteringChemistry. This homework system will be accessed through Blackboard. If you had access to MasteringChemistry in Chem 121, you do not need an access code. If you did not have access previously, you will have trial access for the first two weeks of the course. After this, you will need an access code. An access code may have been included in your textbook purchase. If you do not have an access code, you must purchase one.

Course Description: This course is the second of a two-semester sequence primarily intended for students majoring in science and science-related fields. Topics to be covered in this semester include: intermolecular forces, liquids, solids, kinetics, equilibria, acids, bases, solution chemistry, precipitation, thermodynamics, and electrochemistry. Concurrent registration in CHEM 122L is required.

Prerequisite: Completion of CHEM 121 with a grade of 'C' or higher.

### **Course Outcomes:**

Course Learning Outcomes	Institutional Essential Learning Outcomes (IELOs)
Students will develop a basic understanding of major chemical concepts including intermolecular forces, solutions, kinetics, equilibria, acids and bases, thermodynamics, and electrochemistry.	(discipline-specific)

Students will develop skills and knowledge which will enable them to take more advanced courses.	(discipline-specific)
Students will develop an understanding of the value of chemistry in various careers and everyday living.	(discipline-specific)
Students will solve problems competently by identifying the parts of a problem, developing and implementing a strategy to reach an answer, and evaluating the results.	Problem Solving

<sup>\*</sup> The BSC Institutional Essential Learning Outcomes can be found at https://bismarckstate.edu/uploads/0/BSCsInstitutionalEssentialLearningOutcomes.pdf

Unit Objectives: Individual chapter objectives are located in Blackboard

Active Learning: In addition to educational strategies such as reading, listening, and reflecting, when appropriate this class makes use of learning techniques commonly known as active learning. Students should expect to participate in active learning techniques such as discussions and presentations, small group activities, writing, problem-solving, movement, case studies, role-playing, etc. These activities promote analysis, synthesis, and evaluation of class content in order to improve student learning outcomes.

**Assessment Methods:** Student achievement in lecture will be primarily assessed using unit exams and a cumulative final exam. A portion of the grade will also be determined from inclass and online homework assignments and quizzes.

**Grading:** For each student, the lowest exam score (**excluding the final**) will be dropped. Students will be allowed **one pre-approved** makeup of a unit exam. The makeup exam must be completed before exams are turned back in class.

The final exam is not required for any student who earns an A on all five unit exams. In this case, all unit exams will count toward the final grade. Any student earning less than an A on any unit exam will be required to take the final.

There will be no makeup quizzes without prior arrangement.

Assignments must be turned in on the due date prior to the start of lecture. Late assignments will not be scored and will receive a zero.

Exams are handed back and discussed during class. If you are not able to attend, please make arrangements to view your exam. After the return of exams, students have one week to notify the instructor of any errors in grading.

The grading scale is as follows: A 90.0% - 100% D 60.0% - 69.9% B 80.0% - 89.9% F Below 60.0%

C 70.0% - 79.9%

## **Approximate** point distribution:

quizzes and in-class assignments → several with an approx. total of 50 pts online homework (MasteringChemistry) → 150 pts unit exams → 5 @ 100 pts each (minus 1 drop) = 400 pts

cumulative final exam → 1 @ 150 pts = 150 pts

**Attendance/Makeup:** Attendance may be taken. Students are expected to attend class. If you must be absent, you are responsible for anything that was discussed and/or assigned during the class period. If an assignment is due, make arrangements to submit it on or before the due date.

\*\*The summer session proceeds at an accelerated pace. One class day is roughly equivalent to 3 days during the fall/spring terms. We will only have 22 class periods. Therefore, it is imperative that you attend all class sessions. Most every class day will involve an exam, a HW assignment, or a quiz. The instructor must be notified via email of any absence (planned or unexpected) as soon as possible.!\*\*

#### **Policies and Procedures:**

**Academic Honor Code:** Students at BSC are expected to be honorable in behavior and above reproach in pursuit of their academic achievements. Cheating, plagiarism, or collusion in class work, laboratory performance, shop work, or test taking is unacceptable and subject to disciplinary action. More information can be found at

https://bismarckstate.edu/uploads/resources/356/studentacademichonorcode.pdf.

**Accessibility:** If you have a disability that may limit your ability to fully participate in this class, please contact the Student Accessibility Office (SAO) at 701-224-2575. Personnel from the SAO will work with you and your instructor to arrange for reasonable accommodations after you have completed the registration process and it has been determined that you qualify.

**Camera/Video Recording:** Photographic, audio, and video recording of this class and/or the instructor are prohibited unless specifically requested by a student and approved/authorized in writing by the instructor or the Student Accessibility Office.

**Email:** Please note that I will only correspond with students through their **BSC email account**. Student Email Policy states: "In an effort to protect student privacy and better ensure student authenticity, official email exchanged between registered students and BSC personnel requesting a response shall require the response be exchanged from the student's official email address (i.e., NDUS ID@bismarckstate.edu). This policy is for the protection of faculty, staff, and students." More information can be found at

https://bismarckstate.edu/uploads/resources/1197/studentemailpolicy.pdf.

**Military/Veteran Statement:** If you are currently or have served in the military, please contact the Veterans Services Office at 701-224-2576 regarding services/benefits to which you may be entitled.

**Drop/Withdrawal Deadlines:** Term dates can be found on Campus Connection in the class details. Drop and withdraw dates for each term can be found at <a href="https://bismarckstate.edu/academics/records/calendarsdeadlines/">https://bismarckstate.edu/academics/records/calendarsdeadlines/</a>.

**Student Rights and Responsibilities:** Student rights and responsibilities along with student policies can be found at

https://issuu.com/bismarckstatecollege/docs/bsc\_student\_rights\_and\_responsibili?e=19734813 /52188116.

**Title IX:** For more information on sexual misconduct/Title IX please go to the BSC home page (www.bismarckstate.edu), scroll to the bottom and click on Title IX.

**Course Outline:** Chapter 11 – Liquids and Intermolecular Forces

Chapter 12 – Solids and Modern Materials

Chapter 13 – Properties of Solutions

Chapter 14 – Chemical Kinetics

Chapter 15 – Chemical Equilibrium

Chapter 16 – Acid-Base Equilibria

Chapter 17 – Additional Aspects of Aqueous Equilibria

Chapter 19 – Chemical Thermodynamics

Chapter 20 – Electrochemistry

\*Unit exams will be given after Ch 12, 13, 15, 17 & 20.

## **Additional Information:**

**Cheating:** Academic honesty is expected in this class. Students caught cheating will get a zero on the assignment/quiz/exam (cannot be used as a dropped exam). Students will also forfeit any past and future extra-credit points in the course.

**Assistance/Tutors:** Tutors are available in the Sykes Student Success Center at the times posted. You also are encouraged to see me during my office hours or at other times when I am available.

**Classroom Behavior:** Please turn off all cell phones or put them on silent ring prior to class starting.

No cell phones, programmable calculators, or other portable electronics will be allowed during exam times *without instructor approval*. A simple scientific calculator is all that will be needed for this class.

Students are encouraged to ask questions. If you don't understand something, chances are others don't understand it as well. If you are uncomfortable asking questions in class, visit my office hours or drop me a note and I will address the issue in the next class.

**Expectations:** You are expected to put in 2 hours outside of class for every 1 hour in class. For this class that amounts to 8 hours outside the lecture time every week.

You are expected to review class notes and work problems in the textbook / homework system. You must determine whether or not you need to put in more than the expected time.

**Final Notes:** It is my goal to have every student succeed in this course. Chemistry is a very cumulative subject, so it is imperative that you keep up on the material. You **must** attend lecture, read the text, work problems, and seek help when needed to do well in this course. I will be in my office during most of the day when not in class. Please feel free to stop by. You can also reach me via phone or email. I will respond in a reasonable amount of time (don't expect me to check my email at 3am the night before an exam).

<sup>\*\*</sup>This syllabus is subject to change and/or rearrangement without prior announcement.\*\*