

CHEM 323 Section 001, Fall 2021 Course Syllabus

Instructor: Dr. Nicholas Grosseohme
Office: Sims 302C
Office Hours: Monday 12:30 – 2:30; Tuesday 9 – 11. Unofficially, I'm in my office or around 3rd floor Sims a lot. Come find me anytime.
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Meeting Times: Monday and Wednesday 11 – 12:30 Sims 113B

Credit Hours: 3

Course Website: [Blackboard](#) is the primary site.

Textbook: Biochemistry, T.A. Brown (ISBN 978 1 907904 28 8)

Web Resources: Information (e.g. lecture notes, videos, problem sets) will be distributed through [Blackboard](#).

Course Objectives and Student Learning Outcomes *Upon completion of this course, the successful student will be able to:*

- Understand and appreciate the chemical properties of biological molecules including amino acids, nucleotides, lipids and carbohydrates.
- Understand and apply basic chemical concepts to biological systems.
- Understand protein, lipid, DNA/RNA and polysaccharide structure on a basic level.
- Understand the general relationship between structure and function of biological molecules.
- Understand basic principles of enzyme chemistry.
- Understand the biochemistry behind the transfer of genetic information.
- Understand the overarching physical principles of metabolism.
- Appreciate the complexity of the individual metabolic pathways.
- Understand the general chemical transformations that occur in carbohydrate, lipid, and nitrogen metabolism.

University Level Competencies Winthrop's University-Level Competencies (ULCs) identify learning outcomes that apply across all undergraduate programs and that all Winthrop graduates attain. These capacities are essential preparation for working productively and living meaningfully in the contemporary and emerging world. The ULCs were approved by Faculty Conference in October 2010.

Competency 1: Winthrop graduates think critically and solve problems. Winthrop University graduates reason logically, evaluate and use evidence, and solve problems. They seek out and assess relevant information from multiple viewpoints to form well-reasoned conclusions. Winthrop graduates consider the full context and consequences of their decisions and continually reexamine their own critical thinking process, including the strengths and weaknesses of their arguments.

Competency 2: Winthrop graduates are personally and socially responsible. Winthrop University graduates value integrity, perceive moral dimensions, and achieve excellence. They take seriously the perspectives of others, practice ethical reasoning, and reflect on experiences. Winthrop graduates have a sense of responsibility to the broader community and contribute to the greater good.

Competency 3: Winthrop graduates understand the interconnected nature of the world and the time in which they live. Winthrop University graduates comprehend the historical, social, and global contexts of their disciplines and their lives. They also recognize how their chosen area of study is inextricably linked to other fields. Winthrop graduates collaborate with members of diverse academic, professional, and cultural communities as informed and engaged citizens.

Competency 4: Winthrop graduates communicate effectively. Winthrop University graduates communicate in a manner appropriate to the subject, occasion, and audience. They create texts – including but not limited to written, oral, and visual presentations – that convey content effectively. Mindful of their voice and the impact of their communication, Winthrop graduates successfully express and exchange ideas.

Grading for the Course:

Class Preparation Quiz (5%): You will be expected to prepare for each class period by watching videos and/or reading the textbook chapter(s). Books are meant to be read and this book is a heck of a good read – you should definitely read it. In fact, I want to make sure you're reading it, so I'll be giving you an opportunity to earn really easy points. 5% of your grade will come from completing questions about the appropriate section of the book. Let me be clear, if you do not read the assigned material and answer the questions, you will not be prepared for class. It will be very common for the professor to give a 15-20 minute recap of the reading assignment with special emphasis on important concepts followed by group activities for the rest of the class period (see below).

Homework (15%): Homework problems are assigned regularly and will be available on the course website. While group work on these problems is largely encouraged, remember that the point is to help **you** master the material. Therefore, make sure that you understand the important concepts and thought process behind each question. It is fully expected that you complete the homework and provide thorough and thoughtful answers. Your work will not be graded for correctness, so it is your responsibility to ensure that you have completed everything correctly.

Class Activities (5%): The data is clear ([click here to see the article](#)) – if I stand up in front of the room and talk at you for 150 minutes each week, I am hurting your potential to learn. Alternatively, by encouraging you to think through problems related to the course content and to seek extra information to course content, you will learn more. Consequently, we will regularly be breaking up into small groups to work on activities related to the content – some days, this will take up the entire class period. **If you are not prepared to contribute (preparation means completing the reading assignment and watching the videos), your group may abandon you for the day and you forfeit all points associated with the activity.**

Working with Biomolecules Project (15%): At the end of the term, you will be asked to work with one of your classmates to investigate, learn about, and present one technique commonly used in a biochemistry laboratory. You will be evaluated based on your understanding of the technique – this will be assessed during your 5-10 minute "poster" presentation.

Tests (60%): Four exams are given throughout the term (including the final). Each will count equally and collectively make up 60% of the course grade.

Grading for the Course:

A: > 90% B+: > 87% B: > 80% C+: > 77% C: > 70% D: > 60% F < 60%

Attendance: I will not take attendance, however I will notice if you are consistently absent. You will be responsible for anything covered during the lectures. **Absence from a test without a verifiable excuse is inexcusable and the student will receive a zero for that test.** Absence from a test with a doctor's excuse will be accepted and a makeup exam will be arranged. Please be on time. I find tardiness disrespectful and chronic tardiness will not be tolerated.

Technology in the Classroom: Out of respect for everyone in the room, please turn your cellular telephones to 'Silent' and (if applicable) mute your laptop computers. Laptop computers or tablet computers (e.g. I-pads) may only be used for taking notes during the class period or interactive activities. Students failing to adhere to these rules will be asked to leave should their behavior prove disruptive to the class. No telephones or laptops may be used during exams or quizzes.

Drop Policy: As described in the Winthrop University Undergraduate catalog

Student code of conduct: As noted in the Student Conduct Code: "Responsibility for good conduct rests with students as adult individuals." The policy on student academic misconduct is outlined in the "Student Conduct Code Academic Misconduct Policy" in the online *Student Handbook* (<http://www2.winthrop.edu/studentaffairs/handbook/StudentHandbook.pdf>).

Accessibility Statement: Winthrop University is committed to providing accessible learning experiences and equal access to education for all students. The syllabus is available in alternate formats upon request.

If you are a student with a disability (including mental health concerns, chronic or temporary medical conditions, learning disabilities, etc.) and you anticipate or experience academic barriers due to the condition, please contact The Office of Accessibility (OA) for information on accommodations, registration, and procedures. After receiving approval for accommodations through OA, please make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely manner. OA contact information: accessibility@winthrop.edu; 803-323-3290; 307 Bancroft Hall Annex

COVID-19 Statement: During this pandemic period each student is expected to act in the best interest of the WU community by behaving responsibly to limit the spread of the COVID-19 virus. All students, faculty, and staff must wear masks inside buildings and classrooms, unless alone in a private office. All members of the campus community must follow campus guidance on masking. Please do not attend class if you have fever or any signs of the COVID virus; do not attend class if your roommate or someone you have close contact with acquires the virus and be respectful of others' desire to remain COVID-free. Use the Patient Portal COVID-19 Health Tracker daily. Students who violate WU guidelines will be asked to comply. Continued failure to comply may result in referral to the Dean of Students Office as a student conduct violation.

COVID-Related Absence Students should contact Health Services regarding a positive test, close contact, or enhanced COVID-like symptoms. Any student who has either tested positive, has COVID-like symptoms, or has close contact with someone who has COVID, must contact Health Services. Students should log in to the Patient Portal to schedule a TELEPHONE TRIAGE Appointment w/ COVID as the reason and upload the positive test result if applicable. Health Services will communicate with the student on what steps to take next, and if need be, the Dean of Students Office will get absence verification for required isolation and quarantine. Students who verify their absences through the Dean of Students Office often minimize any academic impact caused by missed class time. Health Services will only provide dates of absence, not medical information. Please note, residential students who test positive should also follow their personal COVID Quarantine and Isolation Plan.

Study Tips:

- Ask questions.
- Prepare for the lectures. Know what we will talk about.
- Attend class, take good notes and ask questions
- Read all assigned material before and after hearing a lecture on it.
- Review other sources of information (textbooks, online, etc). Ask for extra material.
- Regularly review lecture notes. Think you understand...review the notes one more time.