



**CP4490 Biochemistry for Life Sciences (Synchronous REMOTE)**  
**MTWR 9:00am-11:30am via Zoom**

**Instructor:** Youngjoo Kim, Ph.D.

**Email:** [kimy@oldwestbury.edu](mailto:kimy@oldwestbury.edu)

Email is the best form of communication. Please allow me 24 hours to respond.

**Office Hours:** Tue/Thu 11:30am-12:30pm via Zoom (Please email me to request a meeting)

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**Course description**

One semester survey course designed for life science majors. Topics will include molecular structures and functions of biological macromolecules such as proteins, lipids, carbohydrates, and nucleic acids, and metabolism of glucose, lipid, and nitrogen and regulation of metabolism.

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**Prerequisites**

CP3310 Organic Chemistry II with a grade of C or higher.

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**Course objectives and student outcomes**

Students who apply themselves and master the material covered in CP4490 will:

- Recognize the basic structures of biological molecules and understand how general structures contribute to their functions in the cell.
- Recognize many of the metabolic pathways of the cell and understand how they are regulated and integrated in the cell.
- Apply the general principles of the Central Dogma of biology to the investigation and understanding of cellular processes.
- Communicate in the language of biochemistry.
- Demonstrate an understanding of core knowledge in biochemistry.
- Acquire and synthesize scientific information from a variety of sources.

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**Textbook(s)**

Essential Biochemistry 4th Ed. Pratt & Cornely (ISBN: 978-1-119-31933-7)

You will need access to **WileyPLUS**. Please find an instruction on how to access WileyPLUS here. [WileyPLUS Access Code](#)

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**Course Website**

<https://mylearning.suny.edu>

[Brightspace Guide](#)

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**Grading**

A	93.0-100 %	B-	80.0-82.9 %	D+	67.0-69.9 %
A-	90.0-92.9 %	C+	77.0-79.9 %	D	63.0-66.9 %
B+	87.0-89.9 %	C	73.0-76.9 %	D-	60.0-62.9 %
B	83.0-86.9 %	C-	70.0-72.9 %	F	< 60.0 %

A grade of Incomplete (I) may be assigned by the instructor when:

- extenuating circumstances, such as accident or illness, make it impossible for the student to complete the course work by the end of the semester;

- the student has completed most of the course work at a passing level;
- the instructor expects that the student will be able to complete the remainder of the course requirements by the end of the following semester.

A grade of I remains in effect for one semester. A student must make appropriate arrangements with his/her instructor to complete the course requirements. The instructor will inform the student concerning the specific scope and nature of the work that must be completed. To certify fulfillment of course requirements, the instructor is expected to submit a letter grade by the end of the following semester. If the instructor does not submit a grade, the Registrar will automatically assign a grade of F. Students who are completing an incomplete should not re-register for that course in the semester that they are completing the incomplete.

### **Course requirements**

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Attendance	50 points
Exams (2)	200 points
Final	100 points
Quizzes/Assignments	50 points
WileyPLUS	50 points
Metabolic Pathway Project	50 points
Total	500 points

### **Exams and dates**

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Exam 1: Jun 7, Wednesday

Exam 2: Jun 19, Monday

Final Exam: Jun 29, Thursday

### **Accommodations for Students with Disabilities**

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If you have or suspect you may have a physical, psychological, medical or learning disability that may impact your course work, please contact

Stacey DeFelice, Director

The Office of Services for Students with Disabilities (OSSD),  
NAB 2065

Phone: 516-628-5666, Fax (516) 876-3005, TTD: (516) 876-3083.

E-mail: [defelices@oldwestbury.edu](mailto:defelices@oldwestbury.edu)

The office will help you determine if you qualify for accommodations and assist you with the process of accessing them. All support services are free and all contacts with the OSSD are strictly confidential. SUNY/Old Westbury is committed to assuring that all students have equal access to all learning and social activities on campus. More information about the OSSD can be found at their webpage: <https://www.oldwestbury.edu/academics/support/OSSD>

### **Course Withdrawal**

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<https://www.oldwestbury.edu/academics/registrar/withdrawals>

The deadline to withdraw from classes is published in the Fall or Spring Semester *Dates, Deadlines and General Information*.

#### **Summer 2022 Dates**

Nonattendance in classes does not constitute withdrawal.

**SUNY COLLEGE AT OLD WESTBURY POLICY ON ACADEMIC INTEGRITY**

The College's Academic Integrity Policy is available at <https://www.oldwestbury.edu/policies/academic-integrity>

**Administered by the Office of Academic Affairs:** Students are expected to maintain the highest standards of honesty in their college work. Any act which attempts to misrepresent to an instructor or College official the academic work of the student or another student, or an act that is intended to alter any record of a student's academic performance by unauthorized means, constitutes academic dishonesty. Cheating, forgery and plagiarism are considered serious offenses and are subject to disciplinary action. Sanctions for a breach of academic integrity may include academic sanctions decided by the instructor, including failing the course for any violation, to disciplinary sanctions ranging from probation to expulsion. When in doubt about plagiarism, paraphrasing, quoting, collaboration, or any other form of cheating, consult the course instructor. Ignorance of the Academic Integrity Policy is never an acceptable excuse.

**Cheating:** Cheating is defined as giving or obtaining information by improper means in meeting any academic requirements. Examples of cheating, although not inclusive, include: unauthorized giving or receiving of information for an examination, paper, laboratory procedure, or computer assignment (file or printout); taking an examination for another student or allowing another student to take an examination for you; altering or attempting to alter a grade either on graded work or in an instructor's records or on any College form or record.

**Forgery:** Forgery is defined as the alteration of college forms, documents, records, or the signing of such forms or documents by someone other than the proper authority.

**Plagiarism:** Plagiarism is defined as the use of material from another author whether intentional or unintentional, without referencing or identifying the source of the material. If students have any questions as to what constitutes plagiarism, it is their responsibility to get clarification by consulting with the appropriate instructor.

**Summer 2023 Course Calendar**

<b><i>Date</i></b>	<b><i>Topic</i></b>
May 30	Introduction Chapter 1 The Chemical Basis of Life
May 31	Chapter 2 Aqueous Chemistry Chapter 3 From Genes to Proteins
Jun 1	Chapter 3 From Genes to Proteins Chapter 4 Protein Structure
Jun 5	<b>Quiz on Amino Acids</b> Chapter 4 Protein Structure Chapter 5 Protein Function
Jun 6	Chapter 6 How Enzymes Work <a href="#">Review</a>
Jun 7	<b>Exam 1 (Chapters 1-5)</b>
Jun 8	Chapter 7 Enzyme Kinetics and Inhibition
Jun 12	Chapter 8 Lipids and Membranes Chapter 9 Membrane Transport
Jun 13	<b>Quiz on Enzymes</b> Chapter 9 Membrane Transport Chapter 10 Signaling
Jun 14	Chapter 10 Signaling Chapter 11 Carbohydrates
Jun 15	Chapter 12 Metabolism and Bioenergetics <a href="#">Review</a>
Jun 19	<b>Exam 2 (Chapters 6-11)</b>
Jun 20	Chapter 13 Glucose Metabolism
Jun 21	Chapter 13 Glucose Metabolism Chapter 14 The Citric Acid Cycle
Jun 22	<b>Quiz on Glycolysis</b> Chapter 14 The Citric Acid Cycle Chapter 15 Oxidative Phosphorylation
Jun 26	Chapter 15 Oxidative Phosphorylation Chapter 17 Lipid Metabolism
Jun 27	Chapter 17 Lipid Metabolism Chapter 18 Nitrogen Metabolism
Jun 28	<a href="#">Review</a>
Jun 29	<b>Final (Chapters 12-15, 17-18)</b>

*The course calendar is subject to change. The instructor will notify students via email if any changes are made. Students are responsible for those changes.*