

Section II: Nitrogen Metabolism

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Office Hours: Monday and Friday 1:30-2:30PM, or by appointment

Lectures: Feb 26 – April 4, MWF 12:30-1:20 PM, BT 114

Text: “Fundamentals of Biochemistry” by Voet, Voet and Pratt, 4th Edition.

Notes: Redacted versions of the PowerPoint slides will be available on KSOL under: \Course Content\Modules\Module II – Nitrogen Metabolism\Lecture Notes

Tentative Topics (approximate # of lectures in parentheses) (total: 14 lectures)

Part 1: Amino Acid Metabolism (Chapter 21)

- Introduction to amino acids and proteins (1)
- Protein degradation (1)
- Amino acid deamination (1)
- The urea cycle (1)
- Breakdown of amino acids (2)
- Amino acid synthesis (1)
- Nitrogen fixation (1)

Part 2: Nucleotide Metabolism (Chapter 23)

- Introduction to nucleotides and nucleic acids (1)
- Purin ribonucleotide synthesis (1)
- Pyrimidine ribonucleotide synthesis (1)
- Deoxyribonucleotide synthesis (1)
- Nucleotide degradation (1)

Quizzes: Three quizzes on Fridays of **March 7, March 14, and March 28**. Quizzes will occur at the beginning of the lectures and take up to 10 minutes. Each quiz will cover the materials since the previous one (or since the first lecture for the first quiz).

Exam: A one-hour exam will occur on Monday of **April 7** in class. It will cover all the material discussed during Section II.

*Quiz and exam dates are fixed. Please plan your schedule ahead accordingly. **NO make-up exam/quiz** will be offered. In the event of a serious illness (certified by an attending physician) or other unavoidable reasons reported to the instructor in advance, special arrangement may be made at the instructor's discretion*

Grading: 100 total points = Three quizzes (10 point each) + one exam (70 points)

The overall grade for the entire course will be determined by adding the scores from the three sections and grading on a curve.

Plagiarism: "Plagiarism is taking credit for someone else's ideas, work, or words. In a university setting, it means submitting academic, scholarly, or literary work in which you either claim or imply the material to be your own, when that is not the case." - Kansas State University Handbook, Appendix F.

In an academic setting, plagiarized work is considered theft and represents a violation of the Honor Pledge (see below). Please take care to distinguish your thoughts and ideas from those of others (this includes the internet and your text book).

Academic Honesty: Kansas State University has an Honor System based on personal integrity, which is presumed to be sufficient assurance that, in academic matters, one's work is performed honestly and without unauthorized assistance. Undergraduate and graduate students, by registration, acknowledge the jurisdiction of the Honor System. The policies and procedures of the Honor System apply to all full and part-time students enrolled in undergraduate and graduate courses on-campus, off-campus, and via distance learning. The honor system website can be reached via the following URL: www.k-state.edu/honor. A component vital to the Honor System is the inclusion of the Honor Pledge which applies to all assignments, examinations, or other course work undertaken by students. The Honor Pledge is implied, whether or not it is stated: "On my honor, as a student, I have neither given nor received unauthorized aid on this academic work." A grade of XF can result from a breach of academic honesty. The F indicates failure in the course; the X indicates the reason is an Honor Pledge violation.

Academic Accommodations for Students with Disabilities: Students with disabilities who need classroom accommodations, access to technology, or information about emergency building/campus evacuation processes should contact the Student Access Center and/or their instructor. Services are available to students with a wide range of disabilities including, but not limited to, physical disabilities, medical conditions, learning disabilities, attention deficit disorder, depression, and anxiety. If you are a student enrolled in campus/online courses through the Manhattan or Olathe campuses, contact the Student Access Center at accesscenter@k-state.edu, 785-532-6441.

Expectations for Classroom Conduct: All student activities in the University, including this course, are governed by the Student Judicial Conduct Code as outlined in the Student Governing Association By Laws, Article V, Section 3, number 2. Students who engage in behavior that disrupts the learning environment may be asked to leave the class.