

11:709:481 Nutrition Seminar (Metabolism)

2.00-3.20pm Monday

Davison Hall 216A

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1. Introduction. History, Metabolism	Jan 23
2. Ethics & the scientific method: ideal and real	Jan 30
3. Energy expenditure/BAT	Feb 6
4. Protein leverage/Ultra-processed foods?	Feb 13
5. Leptin/Epigenetics	Feb 20 (HW 1 due)
6. Metabolomics	Feb 27
7. Microbes and you	Mar 6
March 11-19 SPRING BREAK	
8. SEMINAR	Mar 20 (HW 2 due)
9. Gene therapy	Mar 27
10. Metabolic Myths	April 3
11. Student presentations	April 10
12. Student presentations	April 17 (HW 3 due)
13. Student presentations	April 24
14. Outro	May 1

Grading: Participation: 25 points (5 of which are for Seminar week 8)
Home work: 30 points (10 points each for three home works)
(let me know if you have exams the week they are due)
Final presentation 20 points and final paper 25 points

The course covers the comprehensive study of research into metabolism, both at the whole body and intermediary levels. The course will typically involve weekly readings prior to class followed by a short lecture from the instructor and extensive discussion of the subject matter.

The topics listed above are not final. Some topics may change, often in response to suggestions and discussions from the student participants.

Home work will be short (400-500 word) summaries of a topic discussed in the class. (full details of home work, SEMINAR, student presentations and final papers will be provided in class)

<https://www.ncbi.nlm.nih.gov/books/NBK278963/?report=printable>

STUDENT LEARNING GOALS

Through lectures, readings, homework, and class discussions students will gain:

1. A comprehensive understanding of the physiological and molecular basis of macronutrient metabolism.
2. An understanding of macronutrient metabolism during different physiological and pathological conditions (e.g. exercise, obesity, undernutrition, different types of diabetes mellitus, inborn errors of metabolism and dyslipidemias).
3. An understanding of how science is conducted from the bench to the final published article with reference to nutrient metabolism.

DIVERSITY, EQUITY AND INCLUSION

It is our intention that students of all backgrounds will be well served by this course. We will work to create an environment of inclusion which respects and affirms the inherent dignity, value, and uniqueness of all individuals, communities and perspectives. We are lucky to have a diverse university. Diverse voices and life experiences enhance the learning process and welcome students to share their personal experiences. We will not tolerate disrespectful language or behavior against any individual or group. If you feel as though you have been disrespected or treated unfairly by the instructors or any other individual please let us know. You may speak with the instructors in person, over email or report anonymously via the Office of Academic Programs. In addition, you may also report bias to the Rutgers Diversity and Inclusion initiative using this link: <http://inclusion.rutgers.edu/report-bias-incident/>

ACADEMIC INTEGRITY POLICY

Each student is responsible for understanding the RU Academic Integrity Policy. This policy will be strongly enforced. For all examinations and assignments, the students will be required to uphold the RU Honor Pledge, which states, "On my honor, I have neither received nor given any unauthorized assistance on this examination or assignment". All written assignments may be screened by an automated plagiarism detection service that compares student work against a large data base of past work (including not only published work but also previous student submissions).

The RU Academic Integrity Policy and code of student conduct are available at:

<http://nbacademicintegrity.rutgers.edu/home/academic-integrity-policy/>

<https://studentconduct.rutgers.edu/processes/university-code-student>