Animal Nutrition – BIOL/BIMS 3300
Department of Biology/Biomedical Sciences
Spring 2019

A. COURSE INFORMATION

Course number/section: BIOL/BIMS 3300.001
Class meeting time: TR 02:00 pm-03:15 pm
Class location: CS 115
Course Website: (Island Online/Blackboard Portal) https://bb9.tamucc.edu/

B. INSTRUCTOR INFORMATION

Instructor: Oleksandr Kondrachuk, MD
Office location: ECMS 208
Office hours: TR 3:30 pm-5:30 pm or by appointment
Telephone: (361) 825-2841
e-mail: oleksandr.kondrachuk@tamucc.edu
Appointments: Preferred method is by e-mail

C. COURSE DESCRIPTION

Catalog Course Description
Examines the dietary requirements of both companion animals and livestock. Includes the anatomy, physiology and biochemistry of the gastrointestinal system, nutrient procurement and use, feed additives, growth stimulants, metabolic diseases, and diet therapy.

Extended Course Description
This course examines the dietary requirements of both companion animals and livestock. It includes the anatomy, physiology and biochemistry of the gastrointestinal system, nutrient acquisition and use, feed additives, metabolic diseases and diet therapy. I will take a comparative approach focusing on companion animals and livestock but will also discuss nutrient requirements and health of reptiles (alligators, lizards, turtles) and fish. I will use the human body as an example to discuss the general physiology of the digestive system in mammals. Activities that characterize animal nutrition include: a) molecular mechanisms of nutrient absorption, transport, storage and metabolism and the control of these processes; b) the relationship of diet, animal health and performance; c) means of improving the quality of animal feeds; d) assessment of nutrient status of animals.

D. PREREQUISITES AND COREQUISITES

Prerequisites
BIOL 1407 and CHEM 3411

Corequisites
CHEM 3412
E. REQUIRED TEXTBOOK(S), READINGS AND SUPPLIES

None. Materials will be provided in class.

F. STUDENT LEARNING OUTCOMES AND ASSESSMENT

This course seeks to give students an understanding of comparative animal nutrition focusing on companion animals such as dogs, cats, fish and birds as well as horses, cows and sheep. Although the main emphasis of this course is an understanding of the structure and function of the digestive system, we will also discuss how abnormal conditions serve as natural experiments that help to elucidate normal structure and function. To do well in the course, students must attend and participate in lectures, read the assigned material and mentally organize information from their instructor and their readings. By the end of this course, the student should be able to:

- Understand and correctly use scientific terminology.
- Recognize and identify structures in the animal digestive systems.
- Understand and explain how structures and their components interact to perform one or more functions.
- Understand the basic anatomy of digestion as it relates to nutrition.
- Understand molecular mechanisms of nutrient absorption, transport, storage and metabolism and the control of these processes.
- Be able to identify what constitutes a complete diet and why.
- Understand the relationship of diet, animal health and performance.

G. INSTRUCTIONAL METHODS AND ACTIVITIES

Class lectures will be delivered through PowerPoint presentations. Presentations will contain embedded videos and pictures (where appropriate) to enhance learning opportunities. Students are expected to participate in class discussions.

H. MAJOR COURSE REQUIREMENTS AND GRADING

Your final letter grade will be based on the percentage you earn out of a possible 1000 points. Lecture Examinations: In this course, I will give four regular lecture examinations. The four regular examinations are worth 200 points each and are sequential (i.e., each examination covers material from one specific section of the course); your lowest regular exam grade will be dropped.

The final (lecture) examination is worth 400 points and is comprehensive (i.e., covers material from the entire course).
Letter grades:
A ≥ 90% > B ≥ 80% > C ≥ 70% > D ≥ 60% > F

I. COURSE CONTENT/SCHEDULE

<table>
<thead>
<tr>
<th>DATE</th>
<th>TOPIC</th>
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<tbody>
<tr>
<td>Jan 15</td>
<td>Introduction, Syllabus, Blackboard etc.</td>
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<tr>
<td>Jan. 17</td>
<td>The Components of Foods</td>
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<td>Jan. 22</td>
<td>The Components of Foods</td>
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<td>Jan. 24</td>
<td>The Components of Foods</td>
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<td>Jan. 29</td>
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<td>Jan. 31</td>
<td>The Components of Foods</td>
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<tr>
<td>Feb. 5</td>
<td>Lecture Examination I</td>
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<td>Feb. 7</td>
<td>Digestive Systems</td>
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<td>Feb. 12</td>
<td>Digestive Systems</td>
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<td>Feb. 14</td>
<td>Digestive Systems</td>
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<tr>
<td>Feb. 19</td>
<td>The Digestion and Metabolism of Nutrients</td>
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<td>Feb. 21</td>
<td>The Digestion and Metabolism of Nutrients</td>
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<td>Feb. 26</td>
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<td>Feb. 28</td>
<td>The Digestion and Metabolism of Nutrients</td>
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<td>Mar. 5</td>
<td>Lecture Examination II</td>
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<tr>
<td>Mar. 7</td>
<td>Nutritional and Metabolic Diseases</td>
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<td>Mar. 12</td>
<td>Spring Break (No Class)</td>
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<td>Mar. 14</td>
<td>Spring Break (No Class)</td>
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<tr>
<td>Mar. 19</td>
<td>Nutritional and Metabolic Diseases</td>
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<td>Nutritional and Metabolic Diseases</td>
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<td>Mar. 26</td>
<td>Nutritional and Metabolic Diseases</td>
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<tr>
<td>Mar. 28</td>
<td>Nutritional and Metabolic Diseases</td>
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<td>Apr. 2</td>
<td>Lecture Examination III</td>
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<td>Date</td>
<td>Event</td>
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<td>Apr. 4</td>
<td>Nutrition of Companion Animals</td>
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<td>Apr. 9</td>
<td>Nutrition of Companion Animals</td>
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<td>Apr. 11</td>
<td>Nutrition of Companion Animals</td>
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<td>Apr. 16</td>
<td>Nutrition of Farm Animals</td>
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<td>Apr. 18</td>
<td>Nutrition of Farm Animals</td>
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<tr>
<td>Apr. 23</td>
<td>Nutrition of Exotic Animals</td>
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<td>Apr. 25</td>
<td>Nutrition of Exotic Animals</td>
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<td>Apr. 30</td>
<td>Lecture Examination IV</td>
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<td>May 7</td>
<td>Final Exam (1:45 pm-4:15 pm)</td>
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Note: Changes in this course schedule may be necessary and will be announced to the class by the Instructor. The assignments and exams shown are directly related to the Student Learning Outcomes described in Section F.

J. **COURSE POLICIES**

**Attendance/Tardiness**
Attendance is mandatory. Students are expected to attend all classes. Should you miss a lecture, it is your responsibility to find out what you missed, get notes, learn about changes in the syllabus, etc. Failure to attend more than two class lectures without the instructor’s prior consent will constitute a loss of 10 points from the student’s final grade. It is the student’s responsibility to check their own personal schedules to insure class attendance.

**Late Work and Make-up Exams**
There are no excused absences. A missed grade will result in a score of ‘0’ for that assignment. Students with a university approved scheduled absence (athletics, military duty, etc.) must contact the lecture instructor well in advance of a scheduled absence. Exams may be taken early in those specific cases. Students who do not arrange to take exams ahead of time will not be eligible for this special consideration. A written excuse from the university department involved is required.

**Extra Credit**
Students should perform at their best effort throughout the semester. Individual extra credit will not be given to single students. Instructor may give unannounced pop quizzes to the class as extra credit if students do not understand material (lecture or lab). NO make-ups will be allowed.

**Cell Phone Use**
No cell phone use is permitted in class. Please silence your phones prior to the start of class.
Laptop Use
Laptop and tablets may be used to take notes and follow provided PowerPoint presentations.

Food in Class
No food and drinks are permitted in class.

Missed Exam
A missed grade will result in a score of ‘0’ for that assignment. Students with a university approved scheduled absence (athletics, military duty, etc.) must contact the lecture instructor well in advance of a scheduled absence. Exams may be taken early in those specific cases. Students who do not arrange to take exams ahead of time will not be eligible for this special consideration. A written excuse from the university department involved is required.

Participation
Class participation is expected during lectures.

Others
None

K. COLLEGE AND UNIVERSITY POLICIES
• Academic Integrity (University)
University students are expected to conduct themselves in accordance with the highest standards of academic honesty. Academic misconduct for which a student is subject to penalty includes all forms of cheating, such as illicit possession of examinations or examination materials, falsification, forgery, complicity or plagiarism. (Plagiarism is the presentation of the work of another as one’s own work.) In this class, academic misconduct or complicity in an act of academic misconduct on an assignment or test will result in a failing grade.

• Classroom/Professional Behavior
Texas A&M University-Corpus Christi, as an academic community, requires that each individual respect the needs of others to study and learn in a peaceful atmosphere. Under Article III of the Student Code of Conduct, classroom behavior that interferes with either (a) the instructor’s ability to conduct the class or (b) the ability of other students to profit from the instructional program may be considered a breach of the peace and is subject to disciplinary sanction outlined in article VII of the Student Code of Conduct. Students engaging in unacceptable behavior may be instructed to leave the classroom. This prohibition applies to all instructional forums, including classrooms, electronic classrooms, labs, discussion groups, field trips, etc.

• Statement of Civility
Texas A&M University-Corpus Christi has a diverse student population that represents the population of the state. Our goal is to provide you with a high quality educational
experience that is free from repression. You are responsible for following the rules of the University, city, state and federal government. We expect that you will behave in a manner that is dignified, respectful and courteous to all people, regardless of sex, ethnic/racial origin, religious background, sexual orientation or disability. Behaviors that infringe on the rights of another individual will not be tolerated.

- **Deadline for Dropping a Course with a Grade of W (University)**
  I hope that you never find it necessary to drop this or any other class. However, events can sometimes occur that make dropping a course necessary or wise. **Please consult with your academic advisor, the Financial Aid Office, and me, before you decide to drop this course.** Should dropping the course be the best course of action, you must initiate the process to drop the course by going to the Student Services Center and filling out a course drop form. Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class. Please consult the Academic Calendar (http://www.tamucc.edu/academics/calendar/) for the last day to drop a course.

- **Grade Appeals (College of Science and Engineering)**
  As stated in University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules website at http://www.tamucc.edu/provost/university_rules/index.html, and the College of Science and Engineering Grade Appeals webpage at http://sci.tamucc.edu/students/GradeAppeal.html. For assistance and/or guidance in the grade appeal process, students may contact the chair or director of the appropriate department or school, the Office of the College of Science and Engineering Dean, or the Office of the Provost.

- **Disability Services**
  The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please call (361) 825-5816 or visit Disability Services in Corpus Christi Hall 116.

If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office.
for assistance at (361) 825-5816.

http://disabilityservices.tamucc.edu/

- **Statement of Academic Continuity**
  
  In the event of an unforeseen adverse event, such as a major hurricane and classes could not be held on the campus of Texas A&M University–Corpus Christi; this course would continue through the use of Blackboard and/or email. In addition, the syllabus and class activities may be modified to allow continuation of the course. Ideally, University facilities (i.e., emails, web sites, and Blackboard) will be operational within two days of the closing of the physical campus. However, students need to make certain that the course instructor has a primary and a secondary means of contacting each student.

L. **OTHER INFORMATION**

- **Academic Advising**
  
  The College of Science & Engineering requires that students meet with an Academic Advisor as soon as they are ready to declare a major. The Academic Advisor will set up a degree plan, which must be signed by the student, a faculty mentor, and the department chair. Meetings are by appointment only; advisors do not take walk-ins. Please call or stop by the Advising Center to check availability and schedule an appointment. The College’s Academic Advising Center is located in Center for Instruction 350 or can be reached at (361) 825-3928.

**GENERAL DISCLAIMER**

I reserve the right to modify the information, schedule, assignments, deadlines, and course policies in this syllabus if and when necessary. I will announce such changes in a timely manner during regularly scheduled lecture periods.