MURRAY STATE UNIVERSITY  
COURSE SYLLABUS OUTLINE  

SCHOOL OF AGRICULTURE  

COURSE NUMBER:  AGR 502  
CREDIT HOURS:  3  

I.  TITLE:  

Advanced Nutrition  

II.  CATALOG DESCRIPTION:  

A study of physical and chemical properties of feeds. Digestion, absorption, and metabolism of nutrients and factors affecting these functions are emphasized. The nutrient requirements of farm animals and effects of nutrient deficiencies are also studied.  

*To receive graduate credit for this course, a student must be admitted to graduate studies prior to registering for the course.*  

III.  PURPOSE:  

To acquaint the student with digestion, absorption, and metabolism of nutrients and factors influencing these functions. Nutrient requirements of farm animals and nutrient deficiencies will be discussed.  

IV.  COURSE OBJECTIVES:  

A. To study major metabolic pathways involved in energy and protein metabolism.  
B. To study functions, requirements, deficiencies and sources of water, protein, fat, carbohydrates, minerals, and vitamins.  
C. Nutrients value of foodstuffs.  

V.  CONTENT OUTLINE:  

A. Biochemical composition of animal’s body  
B. The role of water in the body  
C. Digestive processes in various species  
D. Carbohydrates and their metabolism  
E. Lipids and their metabolism  
F. Proteins and their metabolism  
G. Minerals: functions, deficiencies, sources, and requirements  
H. Vitamins: functions, deficiencies, sources, and requirements  
I. Assessing nutritional requirements of animals
J. Special topics in nutrition

VI. INSTRUCTIONAL ACTIVITIES:

A. Lecture
B. Class Discussion
C. Audio-visual
D. Homework

VII. FIELD AND CLINICAL EXPERIENCES:

None

VIII. RESOURCES:

A. Textbooks
B. Research journals
C. Resource personnel

IX. GRADING PROCEDURES:

A. Letter Grades:
   90 – 100 = A
   80 – 89 = B
   70 – 79 = C
   60 – 69 = D
   Below 60 = E

B. Exams
   4 exams 400 points
   Total 400 points
   *Students may do additional work to improve their grades.

C. Make-up exams and homework will be permitted with a reasonable excuse for the absence.

X. ATTENDANCE POLICY:

Please refer to the most current copy of the Murray State University’s Undergraduate Bulletin and Graduate Bulletin.

XI. ACADEMIC HONESTY POLICY:

Please refer to the most current copy of the Murray State University’s Undergraduate Bulletin and Graduate Bulletin.
NOTE: The School of Agriculture Faculty have adopted and implemented an Academic Honesty Policy in addition to the University Honesty Policy, which can be found in the current Undergraduate Bulletin and Graduate Bulletin. The policy sets guidelines regarding acts of dishonesty and the procedure to follow should an event occur. It is each Agriculture student’s responsibility to obtain and read a copy of this document. The School’s Academic Honesty Policy can be obtained by asking for a copy from any Agriculture Faculty member or the Secretary.

XII. TEXT AND REFERENCES:

None

XIII. PREREQUISITES:

None

XIV. STATEMENT OF AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY:

Murray State University endorses the intent of all federal and state laws created to prohibit discrimination. Murray State University does not discriminate on the basis of race, color, national origin, gender, sexual orientation, religion, age, veteran status, or disability in employment, admissions, or the provision of services and provides, upon request, reasonable accommodation including auxiliary aids and services necessary to afford individuals with disabilities equal access to participate in all programs and activities. For more information, contact Director of Equal Opportunity, Murray State University, 103 Wells Hall, Murray, KY 42071-3318. Telephone: 270-809-3155 (voice), 270-809-3361 (TDD).

XV. MSU SCHOOL OF AGRICULTURE CELL PHONE POLICY

The School of Agriculture recognizes that in today’s world cell phones are a familiar and often necessary form of communication for students.

It shall be the policy of the School that no cell phone usage shall be allowed in class and/or labs without the prior consent of the course instructor. This shall include verbal calling, incoming calls, email, text messaging, and use of cell phone calculators on tests and quizzes.

Cell phones must be kept off and out of sight (i.e. secured to a person’s belt or kept in a bag or purse away from desks and lab counters).
Should a student’s cell phone be visible, ring, or other form of unauthorized usage that is interruptive to the class or lab, the student may be asked to leave class and not return for that class/lab period.

Upon prior consent of the instructor, a student may obtain permission to have their phone on in case of an emergency or in critical family situations.

This policy also includes pagers and other electronic equipment such as blackberries and/or computers/laptops.