I. INTRODUCTION

A. Nutrition is a study of the chemical, physical, and sensory properties of food. This course will examine the essential nutrients (including their functions, food sources, and deficiency and toxicity symptoms), nutritional quality, nutrition requirements throughout the life cycle, and food use and diet applications. Students may expect to conduct an evaluation of personal eating habits.

B. This course satisfies the Biology requirement in most non-science curricula.

C. This course is occupationally related and serves as introductory course for careers in teaching, biological sciences, health sciences and allied health professions.

D. Prerequisite(s): None

II. LEARNING OUTCOMES

Upon successful completion of this course, the student will be able to:

A. Identify the nutrients required by the body, their food sources, functions, deficiencies and toxicities.
B. Describe the digestion, absorption and transport of nutrients in the body.
C. Describe the metabolism of carbohydrates, lipids and proteins in the body.
D. Discuss the RDA, DRI, Food Guide Pyramid and food labeling.
E. Discuss energy balance, weight control, and the needs of special populations.
F. Discuss nutrition as it relates to the life cycle and disease prevention.
G. Evaluate personal caloric and nutrient intake and make appropriate changes to meet dietary goals.
H. Discuss diet supplementation and the use of ergogenic aids in enhancing body composition and performance.
I. Distinguish between nutritional myths vs. facts.
J. Understand the differences among the various energy systems and fiber types within the body and how each relates to nutritional intake.
K. Design diets for individuals with special needs (vegetarians, diabetics,
heart patients, etc.)
L. Understand eating disorders and their effects upon nutritional requirements.

III. INSTRUCTIONAL MATERIALS

A. The instructional materials identified for this course are viewable through www.ctcd.edu/books.
B. As of 07/01/2015, the book is “Understanding Nutrition”, 14th edition, by Whitney and Rolfes.

IV. COURSE REQUIREMENTS

To receive transferable credit for this course, you must earn a grade of “C” or better.

V. EXAMINATIONS AND SEMESTER GRADE COMPUTATIONS

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly Wikis (7)</td>
<td>70</td>
</tr>
<tr>
<td>Discussions (4)</td>
<td>160</td>
</tr>
<tr>
<td>Weekly Quizzes (8)</td>
<td>160</td>
</tr>
<tr>
<td>Project</td>
<td>100</td>
</tr>
<tr>
<td>Midterm Exam</td>
<td>250</td>
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<tr>
<td>Final Exam</td>
<td>260</td>
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1000 Total possible points

All assignments will be due on the date indicated and will be considered late if submitted after the due date with ten percent deducted (this includes weekends). There is a 7 day grace period, meaning that late assignments will be accepted for 7 days. In other words, if an assignment is due on Sunday, you may submit it late through the following Saturday night, but not later.

Cheating in any form will not be tolerated. The midterm and final exams are closed book. Absolutely no external sources many be used. This includes all internet sites, notes, and books. Students observed cheating will have their papers/exams graded with a zero. A formal charge against the student may be made to the College Disciplinary Board.

If you find that you are having a difficult time in this course, please discuss the problem with the instructor. Please do not withdraw from the course without first discussing this with the instructor and completing an official drop through the records office.

If you do not participate in the course by turning in work for the first 2 weeks of the course, and do not contact me to explain this lack of participation, you will be dropped from the course at the end of the second week. It is essential that you hit the ground running, and participate immediately in the class. For
more details, see the absentee policy in your College Handbook.

VI. SEMESTER GRADE COMPUTATIONS

Your final grade will be assigned as follows:
- A = 90% or above
- B = 80% to 89%
- C = 70% to 79%
- D = 60% to 69%
- F = less than 60%

VII. NOTES AND ADDITIONAL INSTRUCTIONS FROM COURSE INSTRUCTOR

A. Course Withdrawal: (Consistent with CTC policy)

B. Administrative Withdrawal: (Consistent with CTC policy)

C. Incomplete Grade: (Consistent with CTC policy)

D. American’s with Disabilities Act (ADA): Disability Support Services provide services to students who have appropriate documentation of a disability. Students requiring accommodations for class are responsible for contacting the Office of Disability Support Services (DSS) located on the central campus. This service is available to all students, regardless of location. Explore the website at www.ctcd.edu/disability-support for further information. Reasonable accommodations will be given in accordance with the federal and state laws through the DSS office.

E. Instructor Discretion: The instructor reserves the right of final decision in course requirements.

G. Civility: Individuals are expected to be cognizant of what a constructive educational experience is and respectful of those participating in a learning environment. Failure to do so can result in disciplinary action up to and including expulsion.

VIII. COURSE OUTLINE

A. Unit One: Introduction to Nutrition
   1. Learning Outcomes: Upon successful completion of this unit, the student will be able to identify:
      a. Six classes of nutrients
      b. The importance of
water c. The science of nutrition

d. Methods for nutritional assessment

e. Issues relating to diet and health

f. Dietary guidelines
g. Food labels

2. Learning Activities:
   a. Wiki 1, discussion 1, and quiz 1 due
   b. Reading assignment: Chapter 1, 2

B. **Unit Two:** Digestion, Absorption and Transport of Food/Nutrients.
   1. Learning Outcomes: Upon successful completion of this unit, the student will understand:
      a. The digestive system.
      b. Absorption of nutrients.
      c. The circulatory system.
      d. Regulation of digestion and absorption.

   2. Learning Activities:
      a. Wiki 2, discussion 1 comments, and quiz 2 due
      b. Reading assignment: Chapter 3

C. **Unit Three:** Energy-Yielding Nutrients and Energy Transformation
   1. Learning Outcomes: Upon successful completion of this unit, the student will be able to identify and understand:
      a. Simple and complex carbohydrates.
      b. Triglycerides, fatty acids, and sterols.
      c. Amino acids, proteins, and protein synthesis.
      d. The metabolism of carbohydrates, proteins, and fats within the body.

   2. Learning Activities:
      a. Wiki 3, discussion 3, and quiz 3 due
      b. Reading assignment: Chapters 4, 5, and 6

D. **Unit Four:** Energy Utilization
   1. Learning Outcomes: Upon successful completion of this unit, the student will be able to assess:
      a. Energy balance and body composition
      b. Food composition and necessary food intake levels/energy requirements.
      c. Healthy body weight.
      d. Health risks.
e. Obesity and weight control methods.
f. Eating disorders.

2. Learning Activities:
   a. Wiki 4, discussion 3 comments, and quiz 4 due
   b. Reading assignment: Chapter 7, 8, and 9
   c. Midterm available

E. **Unit Five: Regulatory nutrients I**
   1. Learning Outcomes: Upon successful completion of this unit, the student will distinguish between:
      a. Water-soluble vitamins
      b. Fat-soluble vitamins
      c. Antioxidants

   2. Learning Activities:
      a. Wiki 5, discussion 5, and quiz 5 due
      b. Reading assignment: Chapters 10 and 11

F. **Unit Six: Regulatory Nutrients II**
   1. Learning Outcomes: Upon successful completion of this unit, the student will be able to distinguish between major and trace minerals.

   2. Learning Activities:
      a. Wiki 6, discussion 5 comments, midterm exam, and quiz 6 due
      b. Reading assignment: Chapters 12 and 13
      c. Start of Diet and Fitness Project

G. **Unit Seven: Physical Activity, Nutrients, and Body Adaptations**
   1. Learning Outcomes: Upon successful completion of this unit, the student will understand and be able to:
      a. Define the benefits of fitness
      b. Define the components of physical fitness
      c. Define the energy system, fuels, and nutrients that support activity
      d. Define special dietary needs of active people
      e. Define supplements and ergogenic aids

   2. Learning Activities:
      a. Wiki 7, discussion 7, quiz 7, and Diet and Fitness Project due
      b. Reading assignment: Chapters 14
      c. Final exam available
H. **Unit Eight:** Life Cycle Nutrition/Special Populations

1. Learning Outcomes: Upon successful completion of this unit, the student will understand the nutritional needs of:
   a. Pregnancy and lactation.
   b. Infancy, childhood and adolescence.
   c. Older adults.
   d. Nutrition and chronic disease.

2. Learning Activities:
   a. Discussion 7 comments, quiz 7, and final exam due
   b. Reading assignment: Chapters 15, 16, 17, 18