BIOL 1322 – Nutrition & Diet Therapy Syllabus
Brookhaven Community College

Instructor Information
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Office Hours: To be announced
Division Office and Phone: T315 – Physical Education, Athletics, and Nutrition

Course Information
Course Title: Nutrition & Diet Therapy
Course Number: BIOL 1322
Section Number: 21001/21002/21003/21080/21081
Semester/Year: 2019FA
Credit Hours: 3.0
Class Meeting Time/Location:
Bldg T – (room varies per section)
M/W (9-10:20 / 10:30-11:50 / 1:30-2:40)
T/R  (10:30-11:50 / 3-4:20)
Certification Date: 10/10/19
Last Day to Withdraw: 11/14/19

Course Prerequisites
College level ready in Reading

Course Description
This course introduces general nutritional concepts in health and disease and includes practical applications of that knowledge. Special emphasis is given to nutrients and nutritional processes including functions, food sources, digestion, absorption, and
metabolism. Food safety, availability, and nutritional information including food labels, advertising, and nationally established guidelines are addressed. (3 Lec.)

Coordinating Board Academic Approval Number 1905015109

Student Learning Outcomes

- Apply nutritional knowledge to analyze personal dietary intakes, to plan nutritious meals using nationally established criteria to meet recommended goals, and to evaluate food labels and the validity of nutritional claims.
- Trace the pathways and processes that occur in the body to handle nutrients and alcohol through consumption, digestion, absorption, transport, metabolism, storage, and waste excretion.
- Discuss functions, sources, deficiencies, and toxicities of macro- and micronutrients, including carbohydrates, lipids, proteins, water, vitamins, and minerals.
- Apply the concept of energy balance and its influences at the physical, emotional, societal, and cellular level to evaluate advantages and disadvantages of various methods used to correct energy imbalances.
- Utilize concepts of aerobic and anaerobic energy systems, and knowledge about macronutrients, vitamins, minerals, ergogenics, and supplements and relate them to fitness and health.
- Describe health and disease issues related to nutrition throughout the life cycle, including food safety, corrective dietary modifications, and the influence of specific nutrients on diseases.

Texas Core Objectives
The College defines essential knowledge and skills that students need to develop during their college experience. These general education competencies parallel the Texas Core Objectives for Student Learning. In this course, the activities you engage in will give you the opportunity to practice two or more of the following core competencies:

1. **Critical Thinking Skills** - to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
2. **Communication Skills** - to include effective development, interpretation, and expression of ideas through written, oral, and visual communication
3. **Empirical and Quantitative Skills** - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions
4. **Teamwork** - to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal
5. **Personal Responsibility** - to include the ability to connect choices, actions, and consequences to ethical decision-making

6. **Social Responsibility** - to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities

**Required Course Materials**


Note: A student of this institution is not under any obligation to purchase a textbook from a university-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

**Graded Work**

The tables below provide a summary of the graded work in this course and an explanation of how your final course grade will be calculated.

**Summary of Graded Work**

<table>
<thead>
<tr>
<th>Graded Work</th>
<th>Points</th>
<th>Percentage</th>
<th>Letter Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading/Lecture examinations (4)</td>
<td>400 points</td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td>Final Exam</td>
<td>200 points</td>
<td>12.5%</td>
<td></td>
</tr>
<tr>
<td>Project- TBA (2)</td>
<td>400 points</td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td>Assignments (3)</td>
<td>200 points</td>
<td>12.5%</td>
<td></td>
</tr>
<tr>
<td>Unit quizzes/class participation/in-class work</td>
<td>400 points</td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1600 points</strong></td>
<td><strong>100%</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Final Grade**

<table>
<thead>
<tr>
<th>Points</th>
<th>Percentages</th>
<th>Letter Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>1440-1600</td>
<td>90-100%</td>
<td>A</td>
</tr>
<tr>
<td>1280-1439</td>
<td>80-89%</td>
<td>B</td>
</tr>
<tr>
<td>Points</td>
<td>Percentages</td>
<td>Letter Grade</td>
</tr>
<tr>
<td>------------------</td>
<td>-------------</td>
<td>--------------</td>
</tr>
<tr>
<td>1120-1279</td>
<td>70-79%</td>
<td>C</td>
</tr>
<tr>
<td>960-1119</td>
<td>60-69%</td>
<td>D</td>
</tr>
<tr>
<td>959 and below</td>
<td>0-59%</td>
<td>F</td>
</tr>
</tbody>
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**Description of Graded Work**

Lecture exams are primarily multiple choice, true/false, fill in the blank, matching and essay type questions. Cheating will not be tolerated and violates DCCCD institutional policies. Students should have high ethical standards and conduct themselves in an appropriate manner. Academic honesty is expected of all students. Cheating and/or plagiarism may include: using unauthorized assistance on any exam, paper or project; presenting the work of someone else as your own without acknowledging the source; taking exams or course material from an instructor or student; or submitting the same academic work for credit more than once without consent.

Violations will result in receiving a "zero" on the assignment or exam, even if cheating is suspected by the professor. Students flagrantly cheating will receive a failing grade.

As a general rule, **make-up exams will not be given**. All exams will be administered online.

Grades will not be curved. Grades are not given; they are a mark of the student’s performance.

**Student project and assignments**

Project and assignments may include, but not limited to, in-class quizzes/worksheets, Magazine article poster/PowerPoint presentation, personal diet analysis and calorie counting, Recipe Modification, Restaurant Critique, Five A Day Project, Food and Advertising Project, Product Label Project, Diet preparation for use by patients with specific conditions, term paper concerning popular diets or nutritional deficiencies.

**Attendance and Your Final Grade**

Class attendance is required and the student is responsible for all material covered. During the first week of class, exchange phone numbers with several members of the class and sign up for REMIND so that if you are absent, you will be able to obtain the class notes you miss. Check eCampus OFTEN!

**It is the student’s responsibility to drop or withdrawal from the class. The instructor will NOT assume the student has dropped the class due to lack of attendance.**
Late Work Policy
Late work will be accepted for regularly scheduled assignments with a 20% grade reduction. Assignments must be submitted as per instruction (eCampus, in-class). No assignments will be accepted via email. No extra credit will be accepted late.

Other Course Policies
Please also note that cell phones need to be turned "off"/silent during lecture. Should you need to be on stand-by for a phone call, please let your instructor know before class, and you may keep the phone on "vibrate" and then simply dismiss yourself from the class. Laptop computers and other learning aids may be used, but please seek prior approval from the instructor.

Institutional Policies
Institutional Policies relating to this course can be accessed using the link below. These policies include information about tutoring, Disabilities Services, class drop and repeat options, Title IX, and more.

Brookhaven Institutional Policies (http://www.brookhavencollege.edu/syllabipolicies)

Course Schedule
The following is tentative and subject to change with prior notice. This is a brief statement of the materials covered and not intended to be all inclusive.

<table>
<thead>
<tr>
<th>WEEK</th>
<th>LECTURE</th>
<th>TEXT RDG</th>
</tr>
</thead>
</table>
| 1    | Overview of Nutrition  
six classes of nutrients, calculating kcal values from food, using the RDA, nutritional assessment of individuals and populations, dietary recommendations; research methods in nutrition | Chapter 1 |
| 2    | Planning a Healthy Diet  
diet planning principles, the food guide pyramid, exchange lists, personal diet analysis; food labels: serving sizes, nutrition facts, daily values, descriptive terms, health claims, eating out | Chapter 2 |
| 3    | Digestion, Absorption, and Transport  
anatomy and physiology of the digestive tract, mechanical and chemical digestion, absorption of nutrients, overview of circulatory and lymphatic systems for transport, related disorders | Chapter 3 |
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Section</th>
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</thead>
</table>
| 4       | Carbohydrates  
  simple and complex carbohydrates, digestion and absorption of carbohydrates, lactose intolerance, blood glucose regulation, alternative sweeteners, recommendations of sugar intake for health, health effects of fiber and starch intake, complications of diabetes mellitus | Chapter 4 |
| 5       | Proteins  
  chemistry and functions of the proteins; amino acids; digestion and absorption of proteins; protein quality, protein energy malnutrition, recommended intakes of proteins; protein and amino acid supplements, risks of high-protein diets | Chapter 6 |
| 6       | The Lipids  
  chemistry and functions of the triglycerides; essential fatty acids; phospholipid and sterol chemistry and function; lipid digestion, absorption and transport; health effects and recommended intakes of lipids | Chapter 5 |
| 7       | Energy Metabolism  
  chemical reactions in the body, catabolic and anabolic pathways of glucose, fats and amino acids; the body's energy budget, energy from each food group, energy storage, hormonal regulation, alcohol metabolism and health effects | Chapter 7 |
| 8       | Energy Balance and Body Composition  
  energy balance; body weight and body composition; health implications; obesity; fat cell development; dangers of weight loss; how to identify unsafe weight loss schemes; treatment of obesity; attitudes and behaviors toward weight control | Chapter 8 |
| 9       | Weight Management / Fitness | Chapter 9/14 |
| 10      | Water Soluble Vitamins  
  Particular emphasis on the B vitamins | Chapter 10 |
| 11      | Fat Soluble Vitamins  
  Vitamins A, D, E, and K | Chapter 11 |
| 12      | Water and Major Minerals  
  Absorption and regulation of major minerals in the body; toxicity results; sources | Chapter 12 |
| 13      | Trace Minerals  
  Absorption and regulation of trace minerals in the body; toxicity results; sources | Chapters 13 |
| 14      | Life Cycle Nutrition  
  Health and nutritional aspects during all stages of life | Chapters 15, 16, 17 |
| 15      | Diet and Health | Chapter 18 |
| 16      | Review and Comprehensive Final Exam |