ANGELO STATE UNIVERSITY

GENERIC BACHELOR of SCIENCE in HEALTH SCIENCE PROFESSIONS

HSP 4315
Human Nutrition and Dietary Supplementation
Summer II 2020
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FACULTY
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*or By Appointment

COURSE INFORMATION
Title: Human Nutrition and Dietary Supplementation
Number: HSP 4315
Time and Location: TBD/ Online Course
Credits: Three Semester Credit Hours (3-0-0)
Pre-requisites/Co-requisites: None

COURSE DESCRIPTION
This course provides an understanding of basic nutrition science. Students will learn the biological functions and food sources of each nutrient, the role of nutrition in diet planning and weight management, and the relationship between nutrition, health promotion and chronic disease prevention.

HSP PROGRAM MISSION & GOALS
Mission Statement
The Bachelor of Science in Health Science Professions prepares students to enter health science professions either directly upon graduation or to enter advanced graduate study in healthcare. Students gain knowledge in ethics, policy, epidemiology, organization and leadership, research and evidence based practice, and communication skills that span multiple health science disciplines.

Goals
The Bachelor of Science in Health Science Professions strives to enhance multidisciplinary healthcare education and evidence-based principles to provide patient-centered care. Students will develop communication, decision-making, social, analytical thinking, and personal development skills necessary for professional practice as a healthcare professional.

STUDENT LEARNING OUTCOMES

<table>
<thead>
<tr>
<th>Student Learning Outcome</th>
<th>Assignment(s) or activity(ies) validating outcome achievement:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Discuss and define diet planning principles and their application to individual dietary needs.</td>
<td>Lectures, Quizzes, Exams, Dietary Analysis and Food Label Activity</td>
</tr>
<tr>
<td>2. Identify cultural, environmental and biological factors that influence individual eating habits.</td>
<td>Lectures, Quizzes, Exams, Dietary Analysis</td>
</tr>
<tr>
<td>3. Analyze the role of food labels, dietary guidelines and institutional resources in building a healthful lifestyle.</td>
<td>Lectures, Quizzes, Exams, Dietary Analysis and Food Label Activity</td>
</tr>
<tr>
<td>4. Define and discuss the six major classes of nutrients, where they are found, their primary role/ function and how they are utilized by the body.</td>
<td>Lectures, Quizzes, Exams</td>
</tr>
<tr>
<td>5. Discuss theories of weight management including metabolic pathways, energy balance, and the insulin hypothesis.</td>
<td>Lectures, Quizzes, Exams</td>
</tr>
</tbody>
</table>
This course is an online course offering and will NOT meet on campus. Most content will be delivered via class Lecture/Video, Discussion and Course Assignments. The course will also use the Blackboard Learning Management System for online components. The course site can be accessed at [http://blackboard.angelo.edu](http://blackboard.angelo.edu)

**REQUIRED TEXTS AND MATERIALS**
- Additional reading assignments noted in the syllabus or that are required for homework assignments will be posted to the course site in Blackboard.

**OTHER REQUIRED MATERIALS**
- Computer with MAC or Windows Operating System
- High Speed Internet Access
- Ethernet Cable

**TECHNICAL ASSISTANCE**
- Technical Assistance: If you have any technical problems associated with assignments or quizzes (i.e. webcam problems, lock down browser problems) you should contact the IT Department. The IT Service Department is open M-F from 8-5 and the number is (325) 942-2911. If you call any time after 5 or on the weekend, most likely you will not be able to get assistance until the following week day, so please plan accordingly.

**TOPIC OUTLINE**
- Food Choices: Nutrients and Nourishment
- Nutrition Guidelines and Assessment
- Digestion and Absorption
- Macronutrients: Carbohydrates, Lipids and Proteins/Amino Acids
- Alcohol
- Metabolism
- Energy Balance and Weight Management
- Micronutrients: Vitamins, Minerals and Water
- Sports Nutrition
- Diet and Health
- Life Cycle: Maternal and Infant Nutrition
- Life Cycle: From Childhood to Adulthood
- Food Safety and Technology
- World View of Nutrition

<table>
<thead>
<tr>
<th>Course Outcomes</th>
<th>Assessment Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Investigate the relationship between nutrition, the human immune system and infectious disease.</td>
<td>Lectures, Quizzes, Exams</td>
</tr>
<tr>
<td>7. Discuss the relationship between nutrition, lifestyle patterns and chronic disease.</td>
<td>Dietary Analysis</td>
</tr>
<tr>
<td>8. Understand nutritional challenges for individuals and groups across the lifespan, in diverse cultures and religions, and across different income levels. (SR1.1)</td>
<td>Course Lectures, Homework, Quizzes &amp; Exams</td>
</tr>
<tr>
<td>9. Demonstrate community engagement through community action and reflection in relation to health promotion. (SR3.1 &amp; 3.2)</td>
<td>CONNECT! Assignment</td>
</tr>
</tbody>
</table>
GRADING SYSTEM
Course grades will be dependent upon completing course requirements and meeting the student learning outcomes.

The following grading scale is in use for this course:

- A = 450-500 points
- B = 400-449 points
- C = 350-399 points
- D = 300-349
- F = 0-299 (Grades are not rounded up under ANY circumstances)

EVALUATION AND GRADES
Graded assignments, activities and percent of the overall course grade:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>PERCENT OF TOTAL GRADE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Discussion Board Assignments</td>
<td>100 Points (4 Posts)</td>
</tr>
<tr>
<td>2. Quizzes</td>
<td>85 Points (8 Quizzes)</td>
</tr>
<tr>
<td>3. Exams</td>
<td>150 Points (2 Exams)</td>
</tr>
<tr>
<td>4. Food Label Activity</td>
<td>65 points</td>
</tr>
<tr>
<td>5. Dietary Analysis</td>
<td>100 points</td>
</tr>
<tr>
<td>TOTAL COURSE GRADE</td>
<td>500 points total</td>
</tr>
</tbody>
</table>

ASSIGNMENT/ACTIVITY DESCRIPTIONS
*Please note: Instructions for all assignments and activities are located at the end of this syllabus & in Blackboard.
*No extra credit assignments are provided.

1. **Discussion Board Assignments**: (100 points) Students will be assigned to a group and given discussion board questions addressing course content each week. Participation in group discussion is vital to your success in the course! Discussion Boards provide an avenue for synthesis of material / information. A Discussion Board is provided in this course as a way to help students' process course materials, express thoughts, and engage others opinions and ideas in a healthy and productive learning environment. To receive full credit, students should post an initial response to the question and then respond to at least three peers.

2. **Quizzes**: (85 points) Students will have *eight weekly* quizzes to assess course knowledge. Quizzes are timed (2-3 minutes per question) and will consist of 10 to 30 multiple choice questions, True/False or Fill in the Blank Questions. Access to quizzes will be through Respondus™ Lockdown Browser [See Other Required Materials for a list of needed equipment]. Students may use written materials as well as their textbook; However, use of another electronic device is prohibited. There is a short 10 question practice quiz over ASU trivia that is not graded to make sure your Respondus™ Lockdown Browser works. These tools will be available to the student to assure accessibility. Students are highly encouraged to go through the practice quiz in advance of taking a graded quiz. This process will allow you to become familiar with the technology associated with testing and improve testing environment.

3. **Exams**: (75 points each) The Midterm and Final Exams account for 150 pts of the total course grade. The exams are designed to test understanding of textbook material and the application of the material covered in both the textbook and lectures.

4. **Food Label Activity**: (65 points) The Food Label Activity is an application based assignment allowing students to analyze the food products they consume most frequently in light of standard nutrient guidelines and dietary recommendations.

5. **Dietary Analysis**: (100 points) The Dietary Analysis assignment is a “real world” application allowing you to apply knowledge learned in class. For this assignment, you will (1) evaluate your personal dietary habits and (2) create a healthier dietary plan based on your findings. Attached at the end of the syllabus are detailed
instructions and a grading rubric for this assignment. Note that you will be tracking your food intake for seven days. This requires planning ahead!

GENERAL POLICIES RELATED TO THIS COURSE
All students are required to follow the policies and procedures presented in the following documents:
- ASU Undergraduate Catalog located on the ASU website [https://www.angelo.edu/content/files/16795-201213-undergraduate-catalog](https://www.angelo.edu/content/files/16795-201213-undergraduate-catalog)

STUDENT RESPONSIBILITY & ATTENDANCE
Class attendance is necessary and required for successful and satisfactory completion of all course objectives; therefore, students must attend all course sessions. If a situation arises that prevents the student from attending, he or she should contact the instructor.

According to the undergraduate handbook, a week’s worth of cumulative absences (regardless of the nature of the absence) in any one course will result in faculty evaluation of the student’s ability to meet course objectives and may result in failure of the course. Three tardies (over 5 minutes late for lecture, campus laboratory, or clinical) will equal 1 hour of absence. Failure to meet these requirements hinders the student's ability to complete the course. Attendance will be checked for each lecture.

Students are expected to engage in course activities and submit work by due dates and times. The hope is that students will make substantive contributions which reflect integration of assigned materials as well as any outside readings as appropriate. Scholarly contribution is an expectation. For planning purposes, this class will probably require a minimum of 6-9 study hours per week on average.

COMMUNICATION
Faculty will respond to email and/or telephone messages within 24 hours during working hours Monday through Friday. Weekend messages may not be returned until Monday.

*Written communication via Blackboard:* It is an expectation of this class that you use formal writing skills giving appropriate credit to the source for your ideas. Follow APA (2010) 6th edition (2nd Printing or higher only) guidelines for referencing.

*Written communication via email:* All private communication will be done exclusively through your ASU email address. Check frequently for announcements and policy changes.

*Virtual communication:* Office hours and/or advising may be done with the assistance of the telephone, Skype, Join.me, Google Hangouts, etc.

PRE-REQUISITE SKILLS
Accessing internet web sites, use of ASU Library resources, and proficiency with Microsoft Word and/or PowerPoint are expectations of the Health Science Professions Program. Computer access requirements are further delineated in the Undergraduate Handbook. Tutorials for ASU Library and for Blackboard are available through RamPort. The ASU Undergraduate/Graduate Student Handbook should be reviewed before taking this course.

BROWSER COMPATIBILITY CHECK
It is the student’s responsibility to ensure that the browser used to access course material on his/her computer is compatible with ASU’s Blackboard Learning System. The faculty reserve the right to deny additional access to course assignments lost due to compatibility issues. Students are responsible for reviewing the guidelines posted in this course regarding accessing Blackboard assignments. Problems in this area need to be discussed with faculty at the time of occurrence, either via a phone call (preferred) during posted acceptable hours for calling, or via email notification during times outside those posted for calls.
ASSIGNMENT SUBMISSION
In this class, all assignments need to be submitted through the Assignments link in the Blackboard course site. This is for grading purposes. Issues with technology use arise from time to time. If a technology issue does occur regarding an assignment submission, email me at Dinah.harriger@angelo.edu and attach a copy of what you are trying to submit. This lets your faculty know you completed the assignment on time and are just having problems with the online submission feature in Blackboard. Once the problem is resolved, submit your assignment through the appropriate link. This process will document the problem and establish a timeline. Be sure to keep a backup of all work.

LATE WORK OR MISSED ASSIGNMENTS POLICY
The course is set up in weekly modules. The week begins on Tuesday and ends on Monday. Assignment due dates are shown on the calendar/schedule or posted within Blackboard. Late assignments are not accepted without prior approval of faculty. Faculty reserve the right to deduct points for late assignments that are accepted past the original due date.

ACADEMIC HONESTY
Academic honesty is expected on all work. Students are expected to maintain complete honesty and integrity in their online experiences. Any student found guilty of any form of dishonesty in academic work is subject of disciplinary action and possible expulsion from ASU.

The Department of Physical Therapy adheres to the academic honesty statement as set forth in the Angelo State University Student Handbook (2011-2012) http://www.angelo.edu/student-handbook/code-of-student-conduct/misconduct.php. The University "faculty expects all students to engage in all academic pursuits in a manner that is above reproach and to maintain complete honesty and integrity in the academic experience both in and out of the classroom setting and may initiate disciplinary proceedings against a student accused of any form of academic dishonesty, including but not limited to, cheating on an examination or other academic work, plagiarism, collusion, and the abuse of resource materials."

PLAGIARISM
Plagiarism at ASU is a serious topic. The Angelo State University’s Honor Code gives specific details on plagiarism and what it encompasses. Plagiarism is the action or practice of taking someone else’s work, idea, etc., and passing it off as one’s own. Plagiarism is literary theft.

In your discussions and/or your papers, it is unacceptable to copy word for word without quotation marks and the source of the quotation. We use the APA Style Manual of the American Psychological Association as a guide for all writing assignments. Quotes should be used sparingly. It is expected that you will summarize or paraphrase ideas giving appropriate credit to the source both in the body of your paper and the reference list. Papers are subject to be evaluated for originality via Bb Safe Assignment or Turnitin. Resources to help you understand this policy better are available at the ASU Writing Center http://www.angelo.edu/dept/writing_center/academic_honesty.php.

STUDENTS WITH DISABILITIES
1. “Angelo State University is committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of the university, or be subjected to discrimination by the university, as provided by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments Act of 2008 (ADAAA), and subsequent legislation.”

2. The Office of Student Affairs is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability, and it is the student’s responsibility to initiate such a request by contacting the Office of Student Affairs, University Center, Room 112 at (325) 942-2047 or (325) 942-2211(TDD/FAX) or by e-mail at studentservices@angelo.edu to begin the process. The Office of Student Affairs will establish the particular documentation requirements necessary for the various types of disabilities.
Reasonable accommodations will be made for students determined to be disabled or who have documented disabilities.

INCOMPLETE GRADE POLICY (OP 10.11 Grading Procedures)
It is policy that incomplete grades be reserved for student illness or personal misfortune. Please contact faculty if you have serious illness or a personal misfortune that would keep you from completing course work. Documentation may be required.

STUDENT ABSENCE FOR OBSERVANCE OF RELIGIOUS HOLY DAYS
“A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence.” Please see ASU Operating Policy 10.19.

COPYRIGHT POLICY
Students officially enrolled in this course should make only one printed copy of the given articles and/or chapters. You are expressly prohibited from distributing or reproducing any portion of course readings in printed or electronic form without written permission from the copyright holders or publishers.

SYLLABUS CHANGES
The faculty member reserves the option to make changes as necessary to this syllabus and the course content. If changes become necessary during this course, the faculty will notify students of such changes by email, course announcements and/or via a discussion board announcement. It is the student’s responsibility to look for such communications about the course on a daily basis.

COURSE EVALUATION
Students are provided the opportunity, and are strongly encouraged to participate in a course evaluation at the end of the semester. Areas on the IDEA evaluation include:

1. Gaining factual knowledge (terminology, classifications, methods, trends). Important
2. Learning fundamental principles, generalizations, or theories. Important
3. Learning to apply course material (to improve thinking, problem solving, and decisions). Essential
4. Developing specific skills, competencies, and points of view needed by professionals in the field most closely related to this course. Important
5. Learning to analyze and critically evaluate ideas, arguments, and points of view. Important
Food Label Activity Instructions

**Due Date:** July 24th posted to Blackboard by 11:59pm.

**Worth:** 65 points

**Objective:** The Food Label Activity is an application based assignment allowing students to analyze the food products they consume most frequently in light of standard nutrient guidelines and dietary recommendations.

**Step 1.** Select THREE packaged foods that you eat on a consistent basis that either have a food label or accessible nutritional information. For example, you can look up the nutritional information of items from most restaurants such as Chik-fil-a or Starbucks. (Examples of items include: soda, energy drink, chips, granola bars. . . anything with a label!)

**Step 2.** Answer the following questions for EACH item IN COMPLETE SENTENCES:

- List the items that you selected and explain why you selected each item.
  - “I selected Diet Dr. Pepper as one of my five items because I drink one on the way to class every day.”
- Are there any Health, Nutrient Content or Structure/Function Claims on the package?
  - What is the claim and identify which type of claim it is (see Chapter 2 of your text).
    - Examples: Diet, Fat Free, Sugar Free, Low Calorie, Multigrain, No Sugar Added, Light, Gluten Free, Made with Real Fruit, Organic, 2%, No Trans Fat, etc.
  - What does the claim mean? (You may need to look it up! It may not be in your textbook).
- In your opinion, how is the food manufacturer making the item appealing to customers?
  - Packaging? Appealing to health in some way?
- What are the first five ingredients listed on the package? Do you know what each of the ingredients means?
- Select an ingredient from the ingredient list that you are unfamiliar with and look it up. What is the ingredient? What is the ingredient’s purpose in the food product?
- Looking at the Nutrition Facts Label. . .
  - What is the serving size?
  - How many servings per container?
  - Is there a difference in the Total Sugar vs. Added Sugar content?
  - How many grams of fat, carbs and protein?
  - How does this product fit into a healthy diet? What are the nutritional pros and cons of consuming the product?

**Step 3.** After analyzing the three products you selected, what is the benefit of reading nutrition labels? Why is it important to assess the nutritional data of the foods we are consuming most regularly?

*Your responses should be TYPED, 11 or 12-point font and written in complete sentences. You will submit your typed responses online in Blackboard on January 30th.*
Dietary Analysis Assignment Instructions

Due Date: August 9th posted to Blackboard by 11:59pm (Plan ahead and start tracking your diet and exercise NOW).

Objective: The dietary analysis assignment is a “real world” application allowing you to apply knowledge learned in class. For this assignment, you will (1) evaluate your personal dietary habits and (2) create a healthier dietary plan based on your findings.

Grade: This assignment is worth 100 points of your overall course grade. Note: Your grade is NOT dependent on: 1) your ability to follow the “recommendations” provided, 2) how much you weigh, 3) how much you exercise, etc. Your grade is determined by how well you analyze your diet and provide insight into your dietary habits and patterns. Embedded in the instructions are questions.

NOTE* IT IS VERY IMPORTANT THAT YOU FOLLOW THE STEPS IN ORDER!

Step 1. Create a MyFitnessPal Account (http://www.myfitnesspal.com/account/create)

Step 2. Fill out the Questionnaire AND RECORD your answers for ME!

  o Current Weight
  o Goal Weight
  o Height
  o Gender
  o Date of Birth
  o Activity Level (sedentary, lightly active, active, very active)
    Explain your choice.
  o How many times a week do you plan on exercising? (# of workouts and duration)
  o What is your goal? (amount of weight loss/gain per week)
    Why did you select the goal that you did?
  o How are these variables relevant to the analysis?

Step 3. Record the nutritional goals/recommendations from MyFitnessPal BEFORE you begin tracking your nutrient intake.

  o Net calories, carbs, proteins, fats, ect.
  o BEFORE you begin logging your 7 day intake, analyze the recommendations given by MyFitnessPal based on the information you provided. Once you have created your profile, you will see the screen “Suggested Fitness and Nutrition Goals”. Analyze the recommendations provided by answering the following questions:
    o What was the recommended daily intake for each of the following: calories, protein, carbohydrates, & fat.
    o Change your food diary settings (Go to Settings > Diary Settings > In the Five categories under “Nutrients Tracked” you should have Carbs, Fats, Protein, Fiber and Sugar > Click Save Changes)
    o What were the fitness/physical activity goals?
    o On Day 1, BEFORE you log in your food intake, form a hypothesis based on the recommendations provided by MyFitness Pal: How closely do you think your daily dietary intake and fitness goals match the recommendations provided? Are you closer to some recommendations than others? Please explain.

Step 4. Record your food intake for at least 7 consecutive days (you will get better results if you record more days).
Note: Record EVERYTHING you eat and drink (even one m&m, every sip, every crumb!).
Create a table of the aggregate data for the 7 days of the assignment and include at the end of your paper.
See Example

Step 5. After you have tracked your food intake and exercise for seven days, click on the “reports” tab and then click on the drop down menu. Look at the charts for the Nutrients you tracked in your diary (Calories, Carbs, Fat, Protein, Fiber, Sugar & Vitamin A, etc.) Answer the following questions thoroughly!

- How did your 7 day intake match the MyFitnessPal recommendations?
- How do your results compare to your initial hypothesis (See Step 3)?
- Name three nutritional habits/behaviors you could change or modify. Please explain your selections and how changing/modifying the habit would benefit you. Include citations if needed.
- Name three positive nutritional habits/behaviors you currently doing very well. Please explain your selections and the health benefits of each. Include citations if needed.

Step 6. Write your answers in paragraph form, all of your responses (together) should total 3-5 pages. Follow APA formatting guidelines (double spaced, 12 point font, cite resources! Use subheadings, No cover page or abstract is necessary). (see the Purdue Online Writing Lab for help: [http://owl.english.purdue.edu/owl/resource/560/01/](http://owl.english.purdue.edu/owl/resource/560/01/))

Step 7. After following the directions listed above, please upload a Word document (.doc or .docx file) in the Dietary Analysis Assignment. Include your name at the top of the paper itself AND in the file name. (example: janedoeDA.doc)

Table Example

<table>
<thead>
<tr>
<th>MyFitnessPal Recommendation</th>
<th>Total Calories</th>
<th>Fat g</th>
<th>Carbs g</th>
<th>Protein g</th>
<th>Fiber g</th>
<th>Sugar g</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 1</td>
<td>2100</td>
<td>80</td>
<td>340</td>
<td>110</td>
<td>15</td>
<td>70</td>
</tr>
<tr>
<td>Day 2</td>
<td>2000</td>
<td>81</td>
<td>270</td>
<td>125</td>
<td>16</td>
<td>60</td>
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<tr>
<td>Day 3</td>
<td>2500</td>
<td>67</td>
<td>300</td>
<td>113</td>
<td>25</td>
<td>85</td>
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<tr>
<td>Day 4</td>
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<td>66</td>
<td>360</td>
<td>119</td>
<td>30</td>
<td>92</td>
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<tr>
<td>Day 5</td>
<td>1900</td>
<td>75</td>
<td>250</td>
<td>105</td>
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<td>Day 6</td>
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<td>275</td>
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<td>Day 7</td>
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<td>280</td>
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<tr>
<td>Average</td>
<td>2200 C</td>
<td>74.5 g</td>
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<td>113.85 g</td>
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<td>65.8 g</td>
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</table>