NUTR 4339-301: Advanced Human Nutrition
Syllabus – Spring 2024

Instructor: Sarah Drake MS, RD, LD
Office: Human Science North Room 101D
Office Phone: 936-468-5560
Office Hours: Face-to-face: M 10am-1pm, T/Th 11am-12pm

Course Time & Location: fully online, full-term
Credits: 3
Email: drakes@sfasu.edu

**Other times are available by appointment; office hours subject to change with written notification.**

Prerequisites: NUTR 3339 and pre-/co-requisite of CHEM 4352

Note: Emails and phone calls will be responded to within 24-48 hours, Monday-Friday. The preferred method of communication is through email.

**SYLLABUS IS SUBJECT TO CHANGE***

I. Course Description: Metabolic processes which involve essential dietary components; methods of evaluating nutrition status.

Please be aware that this is a fully online course! That is, this course does not meet in a physical classroom.

Attendance Policy: As this is an online course, physical attendance in a classroom is not required. The entirety of this course will be completed online. However, there are firm deadlines for the course outlined on the Semester Calendar. I strongly encourage you to log into the course at least every other day. Refer to the Course Assignments, Activities, Instructional Strategies, use of Technology section of the syllabus, beginning on page 3, for a bit more information.

Technology Requirement: As you have elected to enroll in an online course, it is your responsibility to acquire a consistent, stable, dependable computer and internet connection with which to complete the assignments for the course by the deadlines indicated on the Course Calendar (page 5 of the syllabus). It is not the responsibility of the instructor to provide additional time for assignments or exams or an alternative means of completing the course due to technological issues on your part. Just as it is your responsibility to acquire and maintain adequate transportation to attend a face-to-face course, it is your responsibility to secure the technological means to participate in and complete this course.

Students in this course receive extensive course content information via online content modules equivalent to 150 minutes per week for 15 weeks and includes a final exam on week 16. Students in the course will engage in a variety of assignments that can include, but are not limited to, proctored exams, quizzes, presentations, discussion posts and academic papers. For every hour a student spends engaging with the course content, they spend at least two hours completing associated activities and assessments.
## II. Intended Learning Outcomes/Goals/Objectives

<table>
<thead>
<tr>
<th>PCOE Mission</th>
<th>Relation to learning experiences in NUTR 4339</th>
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<tbody>
<tr>
<td><em>The mission of the Perkins College of Education is to prepare competent, successful, caring and enthusiastic professionals from diverse backgrounds dedicated to responsible service, leadership, social justice and continued professional and intellectual development in an interconnected global society.</em></td>
<td>This course will afford the student the opportunity to develop competence in the scientific foundation of nutrition and dietetics practice.</td>
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<thead>
<tr>
<th>PCOE Core Values</th>
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<tbody>
<tr>
<td><strong>Academic excellence through critical, reflective and creative thinking</strong></td>
<td>Students will use critical, reflective and creative thinking skills in using the Academy of Nutrition and Dietetics Analysis Worksheet when evaluating current nutrition research.</td>
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<tr>
<td><strong>Life-long learning</strong></td>
<td>Students will utilize the process of learning to develop and/or expand interests in key nutrition and food science concepts taught in the course.</td>
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<tr>
<td><strong>Collaboration and shared decision making</strong></td>
<td>Students will work together during class discussions and exercises.</td>
</tr>
<tr>
<td><strong>Openness to new ideas, culturally diverse people and innovation and change.</strong></td>
<td>Students will recognize the integration of scientific principles to the practice of nutrition and dietetics.</td>
</tr>
<tr>
<td><strong>Integrity, responsibility, diligence and ethical behavior and</strong></td>
<td>Students will be responsible for professional conduct that fosters individual and collaborative learning.</td>
</tr>
<tr>
<td><strong>Service that enriches the community</strong></td>
<td>Students will understand that changing role of nutrition and health and how it impacts the lives of those in communities across the state, country, and globe.</td>
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### Program Learning Outcomes:

<table>
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<tr>
<th>Program Learning Outcomes</th>
<th>Student Learning Outcomes</th>
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<tbody>
<tr>
<td>Describe concepts of nutritional genomics and how they relate to medical nutrition therapy, health, and disease. (ACEND KRDN 3.5)</td>
<td>Students will complete a presentation and research paper related to nutrigenomics concepts.</td>
</tr>
</tbody>
</table>
| The program’s curriculum must be designed to ensure the breadth and depth of requisite knowledge needed for entry to supervised practice to become a registered dietitian | Students will be exposed to the following elements of ACEND Standard 3.1 in this course curriculum:  
  - 3.1.a.1 – Research methodology, interpretation of research literature, and integration of research principles into |
| Nutritionist. (ACEND Standard 3.1) | Evidence-based practice.  
• 3.1.a.2 – Communication skills sufficient for entry into professional practice  
• 3.1.a.15 – Organic chemistry, biochemistry, anatomy, physiology, genetics, microbiology, pharmacology, statistics, logic, nutrient metabolism, integrative and functional nutrition, and nutrition across the lifespan |

### Student Learning Outcomes:

After successful completion of this course, students will be able to:

1. Relate human nutrition to the maintenance of health and the prevention of disease.
2. Cite functions of physiological systems as related to nutrition.
3. Explain nutrient metabolism at the cellular level.
4. Describe the metabolic role of nutrients and their complex interrelationships.
5. Identify the relationship between physiological structure, biochemical status and nutrient availability.
7. Specify fluid and electrolyte requirements.
8. Understand the basic concepts of pure and applied nutrition research.
9. Utilize current scientific literature to investigate nutrition.
10. Explain the basic principles of nutrigenomics and integrative and functional nutrition.
11. Apply knowledge of vitamin and minerals in determining possible deficiencies in a nutrition-focused physical exam.

### III. Course Assignments, Activities, Instructional Strategies, use of Technology:

**This is a fully online course.** Technology will be utilized for all quizzes, assignments, exams, and presentations. We will be using Brightspace by D2L, an online learning platform, for this course. To access Brightspace, use your secure username and password to log into your MySFA account ([sfasu.edu/mysfa](https://sfasu.edu/mysfa)) and click on the “Brightspace by D2L“ icon.

**Using technology in online testing**  
If you choose to take an exam at a computer that is not supported by the University you will do so at your own risk. Inability to access the exam, finish the exam, or submit an exam during the designated exam time due to unreliable internet connections or other technical problems at an off-campus computer will not be accepted as a valid excuse. Your exam will be graded “as is.” Using a campus computer does not guarantee that connections may not be lost, however it does guarantee a reliable way to verify interruptions of service. This alone could save your grade. If you need technical assistance during an exam, please call Brightspace Support at (936) 468-1919. There will be no make-up quizzes or exams. In the event that you miss a quiz, the final exam score will count as your quiz score (example, if you received an 80% on the final exam, you will receive an 80% on the missed quiz) for **SPECIAL CIRCUMSTANCES ONLY, WITH PRIOR APPROVAL, AND**
PROPER DOCUMENTATION. PROPER DOCUMENTATIONS MUST BE SUBMITTED WITHIN 3 DAYS OF MISSING AN ASSESSMENT (see more under “Student Ethics”).

Proctored Unit Exams and Final Exam (3 exams @ 50 points = 150 points): ALL exams will be comprehensive in nature (meaning they can pull from prior units) but will focus primarily on the current unit of study. Test items may include but are not limited to short discussion, true/false, multiple choice, and matching. Exams are timed. Dates are provided on the syllabus course outline/calendar (See “V. Tentative Course Outline/Calendar”)

The exams will be proctored using Honorlock, which is a proctoring service embedded into Brightspace by D2L. There is no additional cost to you. Otherwise, just enter the exam you normally would and the proctoring will automatically begin.

Failure to attend the proctored exams due to other commitments will result in a grade of 0. Failure to secure a proctor if taking the exam at the SFA testing center or off campus is not a valid excuse.

_Quizzes (100 points total):_ Quizzes are conducted throughout the semester. Points will vary. See course timeline for specific due dates and Brightspace for discussion descriptions. **All quizzes are online to be completed through Brightspace.** Quizzes are timed.

Assignments (60 points) There will be 4 assignments that take place during the semester in addition to the Nutrigenomics assignment detailed below. These assignments will cover content related to a brief introduction, carbohydrates/diabetes, integrated metabolism, vitamins and minerals and their relationship to metabolism. Further detail will be posted to Brightspace. **All assignment will be due via Discussions in Brightspace.**

Nutrigenomics Assignment (75 points) This assignment is related to nutrigenomics – the study of nutrition and genetics. It includes choosing a topic related to nutrigenomics and disease, locating two research articles related to this topic, summarizing the research articles, and formally presenting the research you found. This assignment is due via Dropbox in Brightspace.

IV. Evaluation and Assessments (Grading):

See above for specific details about course assignments. How assignments are evaluated varies. For the nutrigenomics assignment there is a detailed assessment rubric available in the course.

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points</th>
<th>Grade Range</th>
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<tbody>
<tr>
<td>Exams</td>
<td>150</td>
<td>A 90% - 100%</td>
</tr>
<tr>
<td>Quizzes</td>
<td>100</td>
<td>B 80% - 89.99%</td>
</tr>
<tr>
<td>Assignments</td>
<td>60</td>
<td>C 70% - 79.99%</td>
</tr>
<tr>
<td>Nutrigenomics Assignment</td>
<td>75</td>
<td>D 60% - 69.99%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>385</strong></td>
<td><strong>F Less than 60%</strong></td>
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V. Tentative Course Outline/Calendar:
**All assignments and module quizzes are due on Sundays except for assignments/ quizzes/ exams due on Friday, 3/8 and Friday, 5/10.**

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Chapter(s)</th>
<th>Topic</th>
<th>Due Dates</th>
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<tbody>
<tr>
<td>Week 1 &amp; 2</td>
<td>W-Sun</td>
<td>Ch. 1 &amp; 2</td>
<td>Introduction to Course</td>
<td>Cell quiz and Digestive System quiz due Sunday, 1/28 by 11:59pm</td>
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<tr>
<td>1/18-1/28</td>
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<td></td>
<td>The Cell and The Digestive System</td>
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<td>Introduce Yourself</td>
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<td>Discussion due Sunday, 1/28, by 11:59pm</td>
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<td>Weeks 3 &amp; 4</td>
<td>M-Sun</td>
<td>Ch. 3</td>
<td>Carbohydrates; Diabetes and Carbohydrate Metabolism</td>
<td>Carbohydrates quiz due Sunday, 2/11, by 11:59pm</td>
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<tr>
<td>1/29-2/11</td>
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<td></td>
<td></td>
<td>Diabetes Medications – Mechanism of Action</td>
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<td>Discussion due Sunday, 2/11, by 11:59pm via D2L</td>
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<tr>
<td>Week 5</td>
<td>M-Sun</td>
<td>Ch. 4</td>
<td>Fiber</td>
<td>Fiber quiz due Sunday, 2/18, by 11:59pm</td>
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<tr>
<td>2/12-2/18</td>
<td></td>
<td>Ch. 1-4</td>
<td></td>
<td>EXAM ONE: Exam must be completed by Sunday, 2/18, before 11:59pm. Proctorio – a proctoring service embedded within Brightspace- will be utilized.</td>
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<td>Exam 1 due by 11:59pm on Sunday, 2/18</td>
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<tr>
<td>Week 6-8</td>
<td>M-Fri</td>
<td>Ch. 5</td>
<td>Lipids</td>
<td>Lipids quiz due Friday, 3/8, by 11:59pm</td>
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<tr>
<td>2/19 – 3/8</td>
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<td>Ch. 6</td>
<td>Proteins</td>
<td>Protein quiz due Friday, 3/8, by 11:59pm</td>
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<td></td>
<td></td>
<td>Ch. 5 &amp; 6</td>
<td></td>
<td>EXAM TWO: Exam must be</td>
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completed by Friday, 3/8, before 11:59pm. Proctorio – a proctoring service embedded within Brightspace- will be utilized.

<table>
<thead>
<tr>
<th>3/9-3/17</th>
<th>Sat-Sun</th>
<th>SPRING BREAK</th>
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<tbody>
<tr>
<td>Week 9 3/18-3/24</td>
<td>M-Sun</td>
<td>Ch. 7 &amp; 8</td>
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<tr>
<td>Week 10 &amp; 11 3/25-4/7</td>
<td>M-Sun</td>
<td>N/A</td>
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<tr>
<td>Weeks 12-14 4/8 – 4/28</td>
<td>M-Sun</td>
<td>Ch. 9 &amp; 11 (confirm)</td>
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* There will be no make-up assignments. Late quizzes will not be accepted. Late assignments will be deducted 25% of total points available for each day late, beginning immediately following the due date/time.

VI. Readings (Required and recommended—including texts, websites, articles, etc.):

**Required Text:**
*Advanced Nutrition and Human Metabolism, 8th edition*
SS Gropper, JL Smith & TP Carr
Wadsworth/Cengage
ISBN hardcover: 9780357449813
ISBN eBook: 9780357709320

VII. Course Evaluations:

Near the conclusion of each semester, students in the Perkins College of Education electronically evaluate courses taken within the PCOE. Evaluation data is used for a variety of important purposes including: 1. Course and program improvement, planning, and accreditation; 2. Instruction evaluation purposes; and 3. Making decisions on faculty tenure, promotion, pay, and retention. As you evaluate this course, please be thoughtful, thorough, and accurate in completing the evaluation. Please know that the PCOE faculty is committed to excellence in teaching and continued improvement. Therefore, your response is critical!

In the Perkins College of Education, the course evaluation process has been simplified and is completed electronically through MySFA. Although the instructor will be able to view the names of students who complete the survey, all ratings and comments are confidential and anonymous, and will not be available to the instructor until after final grades are posted.

VIII. Student Ethics and Other Policy Information

**Institutional Absences (HOP 04-110):** An Institutional Absence may be granted to a student who participates as a representative of the University in academic (including research), extra- or cocurricular,
or athletic activities. Students will be excused for institutional purposes from otherwise required academic activity only when a valid Institutional Absence is approved by the appropriate administrative unit or official and the documentation of approval is provided to the faculty member at least five (5) days in advance.

Institutional absences will not be approved for keystone events, defined as: a special or unique assignment, test, project, experience, or other academic exercise identified by the Faculty member as critical for successful completion of standards of the class and unable to be missed. These events must be identified on the syllabus at the beginning of the semester and communicated to the students. Events added to the syllabus at a later date will not qualify for Keystone Event status. Keystone Events where the date/time is changed will no longer be considered a Keystone Event. Students should make themselves aware of any Keystone Events identified in the syllabus to ensure there are no conflicts.

For keystone events where the assignment dates vary, it is incumbent upon the students to work with their faculty member to not select a conflicting date.

More information on Institutional Absences, including how to apply, can be found at https://www.sfasu.edu/deanofstudents/student-resources/institutional-absences.

**Code of Student Conduct and Academic Integrity (HOP 04-106):** The Code of Student Conduct and Academic Integrity (HOP 04-106) outlines the prohibited conduct by any student enrolled in a course at SFA. It is the responsibility of all members of all faculty, staff, and students to adhere to and uphold this policy.

Articles IV, VI, and VII of the new Code of Student Conduct and Academic Integrity outline the violations and procedures concerning academic conduct, including cheating, plagiarism, collusion, and misrepresentation. Cheating includes, but is not limited to: (1) Copying from the test paper (or other assignment) of another student, (2) Possession and/or use during a test of materials that are not authorized by the person giving the test, (3) Using, obtaining, or attempting to obtain by any means the whole or any part of a non-administered test, test key, homework solution, or computer program, or using a test that has been administered in prior classes or semesters without permission of the Faculty member, (4) Substituting for another person, or permitting another person to substitute for one’s self, to take a test, (5) Falsifying research data, laboratory reports, and/or other records or academic work offered for credit, (6) Using any sort of unauthorized resources or technology in completion of educational activities.

Plagiarism is the appropriation of material that is attributable in whole or in part to another source or the use of one’s own previous work in another context without citing that it was used previously, without any indication of the original source, including words, ideas, illustrations, structure, computer code, and other expression or media, and presenting that material as one’s own academic work being offered for credit or in conjunction with a program course or degree requirements.

Collusion is the unauthorized collaboration with another person in preparing academic assignments offered for credit or collaboration with another person to commit a violation of any provision of the rules on academic dishonesty, including disclosing and/or distributing the contents of an exam.
Misrepresentation is providing false grades or résumés; providing false or misleading information in an effort to receive a postponement or an extension on a test, quiz, or other assignment for the purpose of obtaining an academic or financial benefit for oneself or another individual or to injure another student academically or financially. For additional information, go to https://www.sfasu.edu/docs/hops/04-106.pdf.

**Withheld Grades/Semester Grades Policy (HOP 02-206):** Ordinarily, at the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only if the student cannot complete the coursework because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in future terms the WH will automatically become an F and will be counted as a repeated course to compute the grade point average. For additional information, go to https://www.sfasu.edu/docs/hops/02-206.pdf.

**Students with Disabilities:** To obtain disability-related accommodations, alternate formats, and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 / 468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services promptly may delay your accommodations. For additional information, go to http://www.sfasu.edu/disabilityservices/.

**Student Wellness and Well-Being:** SFA values students’ overall well-being, mental health and the role it plays in academic and overall student success. Students may experience stressors that can impact both their academic experience and their personal well-being. These may include academic pressure and challenges associated with relationships, emotional well-being, alcohol and other drugs, identities, finances, etc.

If you are experiencing concerns, seeking help, SFA provides a variety of resources to support students’ mental health and wellness. Many of these resources are free, and all of them are confidential.

**Other important course-related policies:** Other SFA policy information is found in the Handbook of Operating Procedures (HOP)

**IX: Resources**

**On-campus Resources:**
- The Dean of Students Office (Rusk Building, 3rd floor lobby)
  - www.sfasu.edu/deanofstudents
  - 936.468.7249
  - dos@sfasu.edu
- SFASU Counseling Services • www.sfasu.edu/counselingservices
  - Health and Wellness Hub (corner of E. College and Raguet) • 936-468-2401
- **SFASU Human Services Counseling Clinic** • [www.sfasu.edu/humanservices/139.asp](http://www.sfasu.edu/humanservices/139.asp)
  Human Services Room 202 • 936-468-1041
- **The Health and Wellness Hub** “The Hub”
  Location: corner of E. College and Raguet St.
  - To support the health and well-being of every Lumberjack, the Health and Wellness Hub offers comprehensive services that treat the whole person – mind, body and spirit. Services include:
    - Health Services
    - Counseling Services
    - Student Outreach and Support
    - Food Pantry
    - Wellness Coaching
    - Alcohol and Other Drug Education
  - [www.sfasu.edu/thehub](http://www.sfasu.edu/thehub)
  - 936.468.4008
  - thehub@sfasu.edu

  - **Crisis Resources:**
    - Burke 24-hour crisis line 1(800) 392-8343
    - National Suicide Crisis Prevention: 9-8-8
    - Suicide Prevention Lifeline 1(800) 273-TALK (8255)
    - Crisis Text Line: Text HELLO to 741-741

Disclaimer: This syllabus represents a “best” plan for this course; however, plans can change when circumstances necessitate change. Any changes to this syllabus will be announced to the class in a timely manner. Your feedback is greatly appreciated to aid in the development of this class for future semesters.