Term Information

Effective Term	Autumn 2022
Previous Value	*Spring 2017*

Course Change Information

What change is being proposed? (If more than one, what changes are being proposed?)

Increase credit hours from 3 to 4

What is the rationale for the proposed change(s)?

This request is made for 2 reasons: 1) There is a need to provide additional content related to diet and disease prevention in this course and 2) an increase from 3 to 4 credit hours will align with the new GEC structure with the new credit hour structure for the natural science GEC

What are the programmatic implications of the proposed change(s)?

(e.g. program requirements to be added or removed, changes to be made in available resources, effect on other programs that use the course)?

There are no programmatic implications for this proposed change

Is approval of the requrest contingent upon the approval of other course or curricular program request? No

Is this a request to withdraw the course? No

General Information

Course Bulletin Listing/Subject Area	Human Nutrition
Fiscal Unit/Academic Org	Department of Human Sciences - D1251
College/Academic Group	Education & Human Ecology
Level/Career	Undergraduate
Course Number/Catalog	2210
Course Title	Science of Human Nutrition
Transcript Abbreviation	Sci Hum Nutrition
Course Description	Basic principles of biological science, emphasizing the interaction between nutrients and physiological (including cellular) processes.
Semester Credit Hours/Units	Fixed: 4
Previous Value	*Fixed: 3*

Offering Information

Length Of Course	14 Week, 12 Week
Flexibly Scheduled Course	Never
Does any section of this course have a distance education component?	Yes
Is any section of the course offered	100% at a distance
Grading Basis	Letter Grade
Repeatable	No
Course Components	Lecture
Grade Roster Component	Lecture
Credit Available by Exam	No
Admission Condition Course	No
Off Campus	Never
Campus of Offering	Columbus, Lima, Mansfield, Marion, Newark

Prerequisites and Exclusions

Prerequisites/Corequisites

Exclusions

Previous Value Not open to students with credit for 210.

Electronically Enforced No

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code 30.1901

Subsidy Level Baccalaureate Course

Intended Rank Sophomore

Requirement/Elective Designation

General Education course:
Biological Science

Course Details

Course goals or learning objectives/outcomes

- Examine and describe the basic biological aspects of nutrient requirements of humans.
- Describe the complex interactions between various nutrients upon physiological and cellular processes.
- Recognize the linkages between nutrients and disease processes, body size, mental ability, and performance.
- Examine key events in the history of nutritional science from the early discovery of the essential nutrients to the current discovery of the effects of nutrients on the human genome.
- Determine how nutritional information is derived from the scientific method of investigation.
- Evaluate reputable versus non-reputable sources of nutrition information
- Describe how methods of modern science are used in the assessment of nutritional status.
- Examine the diverse social and cultural patterns that influence food preferences and their implications to nutrient status.

Previous Value

- *Understand basic biological aspects of nutrient requirements of humans*
- *Appreciate the complex interactions and synergism of nutrients upon physiological and cellular processes*
- *Evaluate reputable versus non-reputable sources of nutrition information*
- *Determine how nutritional information is derived from the scientific method of investigation*
- *Understand the linkages between nutrients and disease processes, body size, mental ability and performance*
- *Understand the diverse cultural patterns that influence both food preferences and nutrient status*
- *Evaluate controversial topics related to food and nutrition*

Content Topic List

- Explore and examine how of modern science and technology can address nutritional problems of the contemporary world.
- Utilize computer technology to assess dietary intake and activity levels compared to national recommendations
- Identify the links between nutrients and disease processes, body size, mental ability and labor effectiveness (sport).
- Explain how nutrition requirements change throughout the lifespan (pregnancy to adulthood)

Previous Value

- *What you eat and why*
- *Nutrition and health/nutrients*
- *Using scientific research to determine nutrient needs*
- *Guidelines for designing a healthy diet*
- *Methods of nutritional assessment*
- *Dietary guidelines*
- *MyPyramid*
- *DRIs*
- *Food labels*
- *Healthy web sites*
- *The human body: A nutrition perspective*
- *Human physiology: Digestive system*
- *Nutrients: Carbohydrates simple, complex carbohydrates/fiber digestion, absorption, energy use lactose intolerance, diabetes*
- *Nutrients: Lipids (fat) digestion, absorption, function, heart disease, fat intake & replacement strategies*
- *Nutrients: Protein amino acids; putting proteins to work; vegetarianism*
- *Energy: Energy balance: Intake vs. use*
- *Weight Control: Healthy Weight/Obesity*
- *Energy Balance: Obesity treatment*
- *Controlling energy intake/physical activity*
- *Nutrients: Fat soluble vitamins, A, D, E, K*
- *Vitamin Supplements: Who needs them?*
- *Nutrients: Water soluble vitamins*
  thiamin, riboflavin, niacin, B-6, folate, B-12, C
- *Nutrients: Water*
- *Nutrients: major minerals: sodium, potassium, chloride, fluoride*
  high blood pressure
  calcium, phosphorus/osteoporosis
- *Nutrients: Trace minerals*
- *Fitness and sports*
- *Energy sources, fluids/ergogenic aids?*
- *Eating Disorders, anorexia nervosa & bulimia nervosa*
- *Alcohol*

Sought Concurrence

No

Attachments

- Response Letter 2210.pdf: Response and Rationale Letter

  (Cover Letter. Owner: Bomser,Joshua A)
- 2210 4 Credit Syllabus.pdf: New 4 Credit 2210 Syllabus

  (Syllabus. Owner: Bomser,Joshua A)
- 2210 3 Credit Syllabus.pdf: Old 3 Credit 2210 Syllabus

  (Syllabus. Owner: Bomser,Joshua A)
- 2210 4 Credit Assessment Plan.pdf: Assessment Plan

  (GEC Course Assessment Plan. Owner: Bomser,Joshua A)
- 2210 4 Credit ELO Mapping.pdf: ELO Mapping 4 Credit 2210

  (Other Supporting Documentation. Owner: Bomser,Joshua A)

Comments

- We have included a more detailed rationale letter for the proposed 1 credit increase for HN2210. An updated 4 credit syllabus for 2210 has been uploaded as well as a 3 credit 2210 syllabus for comparison. An assessment plan and ELO mapping is also included for this new 4 credit course *(by Bomser,Joshua A on 01/22/2021 03:20 PM)*
- See 1-20-21 email to J. Bomser and G. Folden *(by Oldroyd,Shelby Quinn on 01/20/2021 02:05 PM)*
- - The form has not been changed to 4 credits.

  - Please upload current 3-credit syllabus so that the panel can see the difference between the 3 and 4 credit versions.

  - Since this is a change to a current GE course, please upload GE assessment plan.

  (Though the following does not need to be done now, you might like to bear in mind that under the new GE an experiential component (laboratory or other) will need to be part of a 4credit natural science GE.) *(by Vankeerbergen,Bernadette Chantal on 11/16/2020 02:13 PM)*

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Bomser,Joshua A	10/13/2020 08:00 AM	Submitted for Approval
Approved	Folden Jr.,H Eugene	10/13/2020 09:24 AM	Unit Approval
Approved	Brown,Danielle Marie	11/06/2020 09:11 AM	College Approval
Revision Requested	Vankeerbergen,Bernadette Chantal	11/16/2020 02:13 PM	ASCCAO Approval
Submitted	Bomser,Joshua A	11/20/2020 01:14 PM	Submitted for Approval
Approved	Folden Jr.,H Eugene	11/21/2020 11:12 AM	Unit Approval
Approved	Brown,Danielle Marie	12/10/2020 11:45 PM	College Approval
Revision Requested	Oldroyd,Shelby Quinn	01/20/2021 02:05 PM	ASCCAO Approval
Submitted	Bomser,Joshua A	01/22/2021 03:21 PM	Submitted for Approval
Approved	Folden Jr.,H Eugene	01/26/2021 09:47 AM	Unit Approval
Approved	Brown,Danielle Marie	02/11/2021 09:56 PM	College Approval
Pending Approval	Jenkins,Mary Ellen Bigler Hanlin,Deborah Kay Oldroyd,Shelby Quinn Hilty,Michael Vankeerbergen,Bernadette Chantal	02/11/2021 09:56 PM	ASCCAO Approval

THE OHIO STATE UNIVERSITY

College of Education and Human Ecology
Department of Human Sciences

PAES Building, First Floor
305 West 17th Avenue
Columbus, OH 43210

614-688-1444 Phone
614-292-7229 Fax

ehe.osu.edu/human-sciences

January 22, 2021

Dear NMS Panel:

Thank you for your January 11th, 2021 feedback regarding our proposal to increase Human Nutrition 2210 from 3 credits to 4 credit. The review panel "*did not see the justification for the credit hour change. There did not seem to be significant changes in the syllabi. The Panel recommends providing additional information on what is being changed about the course in order to add the additional credit hour, such as added course topics or materials*."

We apologize for not providing adequate explanation of our justification for the credit hour change. The purpose of this response is to better highlight the changes that are being proposed for 2210 and provide an example of the additional course topics and materials that justify the 1 credit hour increase to 2210.

Human Nutrition 2210 is an introductory human nutrition course designed for non-majors and fulfills the natural science GE. For several years, our faculty have wanted to incorporate additional content in this course that covers, in greater detail, the impact of diet on disease risk/progression. In order to do this, we will need to increase the credit hours from 3 to 4.

The additional content in 2210 will be called "Beyond the Basics" and consists of 14 stand-alone modules that students will complete each week during the semester. It is estimated that each of these modules will take students approximately 55 minutes to successfully complete. For comparison, in the 3-credit HUMN NTR 2210 course, we had tested some sample Beyond the Basics activities, but only required students to complete 5 of these modules per semester. For the proposed 4-credit course, we have increased the quantity of these modules. In addition, the new activities will be largely clinical in nature and require students to think critically about current and clinical topics in nutrition and evaluate dietary patterns in case scenarios.

We apologize that our first submission did not outline these modules more clearly. In order to correct this we have provided sample content from one Beyond the Basics module that has already been developed.. We encourage members of the NMS panel to review (and perhaps complete) this module so they can get a better understanding of what we are trying to teach our students and our rationale for the credit hour increase. Please find an example of one of the 14 "Beyond the Basics" module on the following pages.

If you would like to see an example of the online layout for the proposed 4-credit HUMN NTR 2210, I have added Drs. Panero, Haddad and Vankeerbergen as instructors for the 2210 master course shell in Carmen. A few of the Beyond the Basics activities are published and ready to preview. Some are still in development (where you'll see placeholders on the Modules page). Please note that the links to SmartBook and Check Point activities are not functional in this course shell because these assignments are built in the McGraw-Hill Connect platform, which students purchase via CarmenBooks when they register for the course. If you would like a virtual tour of these other digital materials, please contact the instructor for the online section, Angela Collene, MS, RDN, LD (collene.6@osu.edu).

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HN 2210
Beyond the Basics: Orthorexia

INTRODUCTION

Most of Chapter 15 focuses on the three major eating disorder diagnoses: anorexia nervosa, bulimia nervosa, and binge eating disorder. Although it is not yet officially recognized as an eating disorder in APA's *Diagnostic and Statistical Manual of Mental Disorders (DSM-5)*, many clinicians are noticing a new pattern of disordered eating. Orthorexia nervosa is described as an obsession with perfect or righteous eating. Additional research is required to establish diagnostic criteria and treatment recommendations, but I wanted to make you aware of this issue. Watch the video and respond to the questions below.

https://youtu.be/p3inpdB0J9c

I have included a few questions below. **Participate in two ways**:

1. Respond to at least **4 of the 7 questions** below. As you craft your responses to my questions, aim for about 50 to 100 words for each response and please remember to cite any outside sources (a link is fine). **4 points x 4 = 16 points**

2. Comment on at least two of your classmates' posts within this topic. (Your comments do not have to be associated with the same questions you responded to originally.) Aim for about 10 to 20 words in your comments (i.e., say something more constructive than "I agree"). **2 points x 2 = 4 points**

This activity is worth 20 points. Points for late submissions will be reduced by 10% per day late.

QUESTION 1 (4 points)

If you suspect that someone you know is struggling with an eating disorder or disordered eating, what local resources are available to help?

QUESTION 2 (4 points)

How may social media contribute to the development of eating disorders and disordered eating behaviors?

QUESTION 3 (4 points)

Are eating disorders really about food? Why or why not?

QUESTION 4 (4 points)

Provide one example of the ways in which orthorexic behaviors could negatively affect physical health.

QUESTION 5 (4 points)

What are some other mental disorders that are correlated with orthorexia?

QUESTION 6 (4 points)

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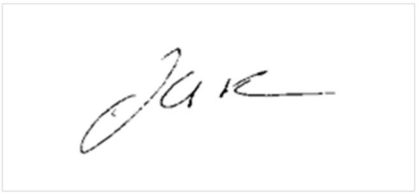
Where do you draw the line between "healthy eating" and orthorexia? In other words, how do you differentiate between normal and disordered eating behaviors?

QUESTION 7 (4 points)

How common is orthorexia nervosa among college students? Please cite your source. (Pasting the url after your response is sufficient.)

We hope this module clearly indicates the changes we would like to make to HN2210 and provides justification for the 1 credit hour increase in our course. Please let us know if you have any additional comments and or concerns.

Best Regards



Joshua Bomser, PhD
Associate Professor, Human Nutrition

THE OHIO STATE UNIVERSITY
COLLEGE OF
EDUCATION AND HUMAN ECOLOGY

College of Education & Human Ecology
Department of Human Sciences
Human Nutrition Program

HUMN NTR 2210 ONLINE

Science of Human Nutrition

AUTUMN 2022: 4 credit hours, undergraduate

Course Syllabus

INSTRUCTOR

Angela Collene
385 Campbell Hall
collene.6@osu.edu

OFFICE HOURS

Tu/Th 8:00 AM – 12:00 PM
Fri 8:00 AM – 11:00 AM
or by request

GRADUATE TEACHING ASSISTANTS

Student Last Names A – H
GTA 1
Campbell Hall
name.##@osu.edu

Wed 1:00 PM – 2:30 PM
or by request

Student Last Names I – P
GTA 2
Campbell Hall
name.##@osu.edu

Wed 12:00 – 1:30 PM
or by request

Student Last Names Q – Z
GTA 3
Campbell Hall
name.##@osu.edu

Tu/Th 9:30 AM – 11:00 AM
or by request

COURSE DESCRIPTION

This course will address the basic principles of the biological science involving interactions between nutrients and physiological processes with emphasis on implications for human health.

PREREQUISITES

None

GENERAL EDUCATION (GE) GOALS AND EXPECTED LEARNING OUTCOMES

This course meets the goals of the Natural Science Component of the GE at The Ohio State University. Courses in Natural Sciences foster an understanding of the principles, theories, and methods of modern science; the relationship between science and technology; the implications of scientific discoveries; and the potential of science and technology to address problems of the contemporary world.

The specific Learning Outcomes below stem from the Natural Science Learning Outcomes.

LEARNING OUTCOMES

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

1. Examine and describe the basic biological aspects of nutrient requirements of humans.
2. Describe the complex interactions between various nutrients upon physiological and cellular processes.
3. Recognize the linkages between nutrients and disease processes, body size, mental ability, and performance.
4. Examine key events in the history of nutritional science from the early discovery of the essential nutrients to the current discovery of the effects of nutrients on the human genome.
5. Determine how nutritional information is derived from the scientific method of investigation.
6. Evaluate reputable versus non-reputable sources of nutrition information.
7. Describe how methods of modern science are used in the assessment of nutritional status.
8. Examine the diverse social and cultural patterns that influence food preferences and their implications to nutrient status.
9. Explore and examine how modern science and technology can be used to address nutritional problems of the contemporary world.
10. Utilize computer technology to assess dietary intake and activity levels compared to national recommendations.
11. Identify the influences of nutrients on disease processes, mental ability, and labor effectiveness (sport).
12. Explain how nutrition requirements change throughout the lifespan (e.g., pregnancy, older adulthood).

COURSE MATERIALS

The eBook and courseware for this course are being provided via CarmenBooks. Through CarmenBooks, students obtain publisher materials electronically through Carmen, saving them up to 80% per title. The fee for this material is included as part of tuition and is listed as *CarmenBooks fee* on your Statement of Account. In addition to cost-savings, materials provided through CarmenBooks are available immediately on or before the first day of class. There is no need to wait for financial aid or scholarship money to purchase your textbook.

Unless you choose to opt out of the program, you do NOT need to purchase any materials for this course at the bookstore. For more information on the program or information on how to opt out, please visit the CarmenBooks website.

Smith, A.M., Collene, A.L., and Spees, C.K. (2021). *Wardlaw's Contemporary Nutrition: A Functional Approach* (6th ed.). New York, NY: McGraw-Hill Education.

Access the courseware for this title through the **McGraw-Hill Connect** link in the course navigation.

There is an option to add a printed (loose-leaf) version of the textbook for an additional $30.00 after you create your Connect account through our course Carmen page.

Additional resources (e.g., articles, videos, audio files) will be provided via Carmen.

COURSE TECHNOLOGIES

Technical Skills Required for this Online Course

- Basic computer and web-browsing skills
- Navigating Carmen (For questions about Carmen, see the Canvas Student Guide.
- CarmenZoom virtual meetings
- Navigating McGraw-Hill Connect (tutorials available in Course Orientation)

Required Equipment

- Computer: current Mac (OS X) or PC (Windows 7+) with high-speed internet connection
- Webcam: built-in or external webcam, fully installed and tested
- Microphone: built-in or external
- Other: a mobile device (smartphone or tablet) or landline to use for BuckeyePass authentication

Accessing Carmen

You will need to use BuckeyePass multifactor authentication to access your courses in Carmen. To ensure that you are able to connect to Carmen at all times, it is recommended that you take the following steps:

- Register multiple devices in case something happens to your primary device. Visit the BuckeyePass – Adding a Device help article for step-by-step instructions.
- Request passcodes to keep as a backup authentication option. When you see the Duo login screen on your computer, click Enter a Passcode and then click the Text me new codes button that appears. This will text you ten passcodes good for 365 days that can each be used once.
- Download the Duo Mobile application to all of your registered devices for the ability to generate one-time codes in the event that you lose cell, data, or Wi-Fi service.

If none of these options will meet the needs of your situation, you can contact the IT Service Desk at (614) 688-4357 (HELP) and IT support staff will work out a solution for you.

Accessing McGraw-Hill Connect

The course materials (eBook, many assignments, and dietary analysis software) were included as your course fee when you registered for the course. When you log into Carmen, you will see a link to McGraw-Hill Connect in the navigation menu. The first time you click on this link or try to access an assignment, you will be prompted to create an account and register your course materials. Please use your OSU email address to create your account. If you are using (or have used) Connect for other courses, you may use the same account. On subsequent visits, you should be logged into Connect automatically and will be able to access your assignments via links in our Carmen course page.

Getting Help

For help with your password, university e-mail, Carmen, or any other OSU technology issues, contact the **OSU IT Service Desk**. Standard support hours are Monday – Thursday 9 AM – 6 PM, Friday 9 AM – 5 PM, and Saturday 11 AM – 5 PM. Support for urgent issues is available 24/7.

- **Self-Service and Chat support**: https://osuitsm.service-now.com/selfservice/
- **Phone**: (614) 688-HELP (4357)
- **Email**: 8help@osu.edu
- **TDD**: (614) 688-8743

For technical help with McGraw-Hill Connect, contact **McGraw-Hill Customer Support**. Standard support hours are Sunday 12 PM – 12 AM, Monday – Thursday 24 hours, Friday 12 AM- 9 PM, and Saturday 10 AM – 8 PM.

- **Phone**: (800) 331-5094 (RECOMMENDED)
- **Email or Live Chat**: click the **Help (?)** icon in the navigation menu on the left side of the screen in Connect

For technical help with Proctorio, contact **Proctorio Support**. Agents are available 24/7.

- **Online Support**: https://proctorio.com/support
- **Phone**: (866)-948-9087

COMMUNICATION

E-Mail

All students must have an active OSU email account and reliable access to the Internet. Emails sent from hotmail, yahoo, google, etc. may go to the spam boxes of your instructor or teaching assistants. It is best to send communication through your OSU account.

Please feel comfortable emailing your instructor and teaching assistants throughout the semester. This is the main form of communication between students and instructing staff. Students should use email rather than discussion boards in Carmen to ask questions about personal concerns (e.g., grades). Our policy is to respond to emails within 1 business day (i.e., excluding weekends and university holidays). When authoring emails, please type "2210" at the beginning of the subject line of your email. If you do not receive a response to an email within 24 hours, please resend your email.

Your instructor will post weekly updates using the announcements feature in Carmen to answer common questions and remind you of upcoming tasks. Be sure to read these announcements to stay informed, engaged, and on schedule. To ensure that you are alerted when new announcements are posted, you can adjust your settings and notification preferences within Carmen. Go to Account (on the left side of the screen in Carmen) and select Settings to add your preferred email address; select Notifications to change how you are alerted when new announcements are posted. As the semester goes on, weekly updates will be archived in the Getting Started module on Carmen. If you do not receive weekly updates from your instructor (collene.6@osu.edu), please contact OSU IT to resolve the problem (see above).

Carmen (https://carmen.osu.edu/)

All students are required to use Carmen, OSU's learning management system, which is based on the Canvas platform. Students should plan to access Carmen frequently throughout the week for announcements, discussions, learning resources, assignments, and grades. If you are new to Carmen, please see the guide to getting started at https://resourcecenter.odee.osu.edu/carmencanvas/getting-started-canvas-students.

Carmen's Discussion Board

If you have general questions about the course that do not contain personal information and are likely to be relevant to other students in the course, post your questions on the discussion board in Carmen. Examples of general questions include clarifications of assignment instructions, questions about course content, or technical concerns. In a large, online course, it is very common for students to have similar questions. To avoid redundancy, please review recent questions and answers before posting a new question.

ONE-ON-ONE MEETINGS

Meeting with the Instructor

If course content, assignment, or technology struggles arise, please join your instructor during scheduled Zoom drop-in hours or contact the instructor via email for an individual appointment. Due to recent public health recommendations from the state of Ohio and the university to limit social contact to prevent the spread of coronavirus (COVID-19), we will rely on virtual meetings (see page 1 of the syllabus).

Meeting with the Graduate Teaching Assistants

The graduate teaching assistants (GTAs) are graduate students in nutrition who are available to help you master the course content and excel in the course. Please email your GTAs directly (see page 1) to ask questions or schedule a web conference or phone call.

COURSE EXPECTATIONS

This is a 4-credit online course. You should expect to spend *at least* the same amount of time reading the text, engaging with online content, completing assignments, and reviewing course notes as you would spend for a face-to-face course (about 12 hours per week).

It can be very easy to fall behind in an online course. Any online course requires self-discipline to stay on track with readings and assignments. This course is designed in weekly increments, such that new material is released each Monday and assignments based on that material are due the following Monday at 11:59 PM. This layout is flexible enough to allow you to work wherever and whenever you choose, yet structured enough to encourage efficient accumulation and retention of knowledge. The instructor and GTAs will support your learning with organized materials, weekly email updates, thoughtful feedback, and clear instructions throughout the semester. Please do your part by reading emails, maintaining a record of all due dates in your own calendar, and regularly visiting our course page in Carmen for news and assignments.

NETIQUETTE

As a member of a community of online learners, it is your responsibility to exhibit professional behavior and decorum in all modes of communication. Following the rules of etiquette on the Internet (netiquette) helps to improve the readability of your messages, keeps conversations focused, increases trust, and creates a more positive experience for all participants. Netiquette includes, but it not limited to, the following guidelines:

- Honor people's rights to their opinions; respect the right for people to disagree.
- Be professional; use language that is not considered foul or abusive.
- Respond to peers honestly, thoughtfully, respectfully, and constructively.
- Avoid writing in all caps; it conveys shouting and anger.
- Avoid colors like red and green for accessibility reasons; avoid font styles, colors, and sizes that are difficult to read.
- Address the ideas, not the person, when responding to messages or discussions.

- Be careful when using humor or sarcasm; without social cues like facial expressions or body language, a remark meant to be humorous could come across as offensive or hurtful.
- Do not distribute copyrighted materials, such as articles and images (most things online are not licensed as "fair use"). Share links to those materials (instead of copying/pasting them) and be sure to properly cite all sources to avoid unintentional plagiarism.

ASSIGNMENTS

Assignment due dates are all set from the beginning of the semester and are listed in multiple locations for your benefit.

1. Syllabus
2. Carmen calendar
3. Weekly emails

With all these resources at your fingertips, you can find an effective way to stay on schedule. Stating that you "were not aware" of an assignment due date is not a valid excuse for an extension.

This course uses a variety of digital tools, including Carmen (OSU's learning management system) and Connect (a digital learning platform from McGraw-Hill that accompanies our eBook for the course). Whether the assignments are built in Carmen or Connect, you will be able to access them by simply clicking on the name of the assignment from our course page in Carmen.

SmartBook

SmartBook activities will be how you encounter the chapters of our text, *Wardlaw's Contemporary Nutrition: A Functional Approach*. SmartBook is an adaptive reading tool. As you read the pages of the eBook, you will notice that some text is highlighted. The highlighted text represents core content you will need to pass the course. I recommend that you read the chapters completely (including the non-highlighted material) the first time through. You can focus on the highlighted material when you go back and study for exams.

As you read each chapter, you will be prompted to stop and answer questions based on what you have read. If you answer the questions correctly, you will move on quickly. If you get some questions wrong, SmartBook will give you additional questions and resources to help you master the content. SmartBook will also remember where you struggled with the content and present you with additional questions when you return to a chapter to review. Expect the SmartBook activities (including reading and practice questions) to take about 2 to 3 hours per week. Start SmartBook activities early in the week and plan to spend 20 to 30 minutes per day to optimize retention.

SmartBook activities are graded based on completion; an assignment is considered complete when you have demonstrated mastery of the concepts selected by your instructor. If you read the section first, you will move through the practice questions quickly. However, if you decide to skip the reading and just do the practice questions, it may take a longer time because

SmartBook will present you with more and more questions until you demonstrate mastery of the selected concepts.

SmartBook activities are worth **10 points** per chapter. Full credit is awarded once you have mastered the concepts your instructor has selected. If you start a SmartBook activity and make some progress, you will receive partial credit based on the number of concepts you have mastered by the due date. If you do not start an assigned SmartBook activity by the due date, you will receive a score of 0 for that activity. You may return to any SmartBook activity to read and recharge, but your score for that activity is based on what you have achieved by the due date. There are 17 SmartBook activities; your **15 best scores** will be counted toward your final grade. If you complete all of the assigned SmartBook activities on time, you can be assured of 150 points (of 1000 total points for the course).

Check Point

Complete Check Point activities to review and apply the material in preparation for exams. The first Check Point activity (Course Orientation) is meant to orient you to the online course. For the second Check Point activity (All Daily Reports), you will track and analyze your food and beverage intake for three days using NutritionCalc Plus, a dietary analysis program that is included in your course materials through Connect (detailed instructions are available on our course Carmen page). The remaining Check Point activities will give you an opportunity to practice the most important concepts from the chapters. Besides traditional multiple choice and true/false questions, Check Point activities consist of a variety of interactive question types, such as labeling, classification, matching, and sentence completion activities. Some questions will be based on the analysis of your dietary intake (All Daily Reports, described above).

For most Check Point activities, you will have one attempt (no time limit). Exceptions include Check Point: Course Orientation (unlimited attempts) and Check Point: All Daily Reports (revisions allowed). You are welcome to reference your eBook and other course materials as you complete these activities (most items provide a link to the relevant section in the eBook). You can also save your progress, close the browser, and resume at a later time. Please be aware that each student receives a set of questions that is randomly drawn from a pool of many questions, so your assignment may be different from that of your classmates. Points for late submissions will be reduced by 10% per day late. There are 6 Check Point activities, worth **50 points** each; your **5 best scores** (always including Check Point: All Daily Reports) will be counted toward your final grade.

HELPFUL TIP: To be assured of proper credit, make certain to click SUBMIT before the due date when you have completed your Check Point activities. After you complete any assignment, verify that your score has posted to the Carmen grade book.

Beyond the Basics

Throughout the semester, you will participate in several critical thinking activities that encourage you to explore clinical applications and other timely, relevant nutrition topics. A few of these activities also provide an opportunity to interact with other students in the course. Typically, Beyond the Basics activities require you to read an article, watch a video, or listen to a podcast and then answer some questions or participate in a discussion about the topic. You will find links to Beyond the Basics activities from our Carmen course page.

Here are some tips for productive online discussions:

1. Adhere to the netiquette guidelines described on pages 6 and 7 of the syllabus.
2. Read the instructions and stay on topic.
3. Elaborate! Instead of simply writing "I agree," state why you agree, give an example, or refer to a thought-provoking resource.
4. Be mindful of proper spelling and grammar; proofread your posts before submitting them.
5. Support your opinions with credible, scientific evidence. Choose your sources wisely. The internet is a bottomless pit of health information—some is reliable, some is suspicious, and some is downright dangerous. In Chapter 2, you will learn how to identify reliable nutrition information. As you search online for health information, consider the credibility of the source and how current the information is. For more information on evaluating health information, see https://medlineplus.gov/evaluatinghealthinformation.html.
6. It is not acceptable to copy and paste content that has been written by someone else. To avoid plagiarism, even if you are paraphrasing, *always* cite your sources.

Points for late submissions will be reduced by 10% per day late. There are 15 options for Beyond the Basics activities, worth **20 points** each; your **14best scores** will be counted toward your final grade.

Extra Credit

Optional extra credit assignments will be available. All extra credit assignments must be submitted by 11:59 PM on the due dates listed in the course calendar if you would like them to be counted toward your grade. No extensions will be available for extra credit assignments and no additional individual requests for extra credit will be granted. Although extra credit assignments are optional, it is in your best interest to complete all of these assignments; they can only boost your grade (i.e., scores will be counted out of 0).

Please note that the Carmen grade book does not provide a simple way to award extra credit points. Therefore, your overall grade may not improve immediately after you complete an extra credit assignment. However, within a week after the due date for each extra credit assignment, the instructor will convert scores from up to 10/10 to up to 10/0 in the grade book.

EXAMS

There are four online proctored exams. Each exam will be available for five days and will be administered via Carmen. Exam questions are drawn from a bank of many questions, so your exam will not be exactly like any of your classmates' exams, although it will cover the same content. Exams are timed. You may use a basic, non-graphing calculator and scratch paper during exams; these tools are available on-screen during remotely proctored exams. All exams are closed book/closed note.

EXAM	TIME LIMIT	POINTS	CONTENT
Unit 1	60 minutes	100	1, 2, 3, and part of 17
Unit 2	60 minutes	100	4, 5, and 6
Unit 3	60 minutes	100	8, 9, 10, 11, 12, and 13
Unit 4/Final	90 minutes	150	Cumulative; mostly 7, 14, 15, and 16

You have several options for taking exams:

Remotely Proctored Exams with Proctorio

The most flexible exam option is Proctorio, an online proctoring tool available through OSU (at no cost to you). Proctorio offers you flexibility to take your exams at the time and in the location of your choosing. Students are required to have a webcam (USB or internal) with a microphone and a strong and stable internet connection. During each exam, Proctorio will record the testing environment. At this time, Proctorio only works in the Chrome browser. *If you intend to use Proctorio, you must use a desktop or laptop computer with a webcam, microphone, reliable internet connection, and Chrome browser and you should select a private space for each exam session where disruptions are unlikely and where recording devices can be enabled.*

Prior to the first exam, you will receive instructions to use Proctorio. To use Proctorio, you must be **over 18 years of age**. Additionally, the tool has **limitations in its accessibility** for students reliant upon screen readers and keyboard navigation. For more information about remote exam proctoring with Proctorio, see https://resourcecenter.odee.osu.edu/carmencanvas/getting-started-proctorio-students.

Proctored Exams at an Approved Testing Center

If you have concerns about using an online proctoring tool for any reason, you may make an appointment to take your exam at an approved testing center at any time during the available dates. Testing centers are available at all OSU campuses. All OSU testing centers except Mansfield are free of charge for students enrolled in this course.

On the Columbus campus, the OSU Testing Center is located on the fifth floor of the Student Academic Services Building at 281 West Lane Avenue, Columbus, OH 43210. The OSU Testing Center schedules exams between 8:00 AM and 5:00 PM on weekdays.

Schedule an appointment online (at least one day before your desired testing date) at https://www2.registerblast.com/theosu/Exam/List. From the drop-down menus on the registration page, choose 1.) Online Course Exams (Ohio State Courses Only), 2.) the appropriate

exam (e.g., HUMN NTR 2210 Unit 1 Exam), 3.) a date within the range of available dates, and 4.) a time. Then, indicate 5.) your name and email address, 6.) your acknowledgement of the testing center's guidelines, and 7.) your phone number.

On the date you choose, go to the testing center, check in at the desk, stash your belongings in a locker, and a staff member will set you up to take your exam at a computer and will monitor your testing session. At the testing center, most students use computer-based testing, but you may request a paper version of the exam. For more information about taking exams at the OSU Testing Center, see https://registrar.osu.edu/testing/policies_and_procedures.pdf.

Please note that the testing centers will have limited capacity this semester due to public health recommendations from the State of Ohio and the university to limit social contact to prevent the spread of coronavirus (COVID-19). It is best to schedule at least one week in advance.

If you need to schedule your exam at a branch campus or another approved testing center, please contact your instructor at least one week before the exam date to set this up. Check the Getting Started module on our Carmen course page for updates about testing center availability.

Proctored Exams with SLDS-Approved Accommodations

If you have special exam accommodations approved through the Office of Student Life Disability Services, you may schedule your exams with SLDS in Baker Hall during the range of available dates. At the beginning of the semester, please provide proper documentation of your accommodations through the SLDS portal. Communicate with the instructor via email or virtual meeting to determine how you will take exams.

Please note, if you only need extended time for exams, the instructor can set the extension within Carmen so that you can still use Proctorio for remotely proctored exams.

Due to recent public health recommendations from the state of Ohio and the university to limit social contact to prevent the spread of coronavirus (COVID-19), the Office of Student Life Disability Services has limited hours and space for in-person testing. Please use the AIM portal (https://sierra.accessiblelearning.com/OSU/) and/or contact your assigned access specialist if you have questions about your testing environment.

Whatever testing environment you choose, it is your responsibility to make arrangements to take exams within the range of available dates. Make up exams or alternative exam accommodations can be requested for medical or equivalent excuses with appropriate documentation. If needed, please contact your instructor via email *prior to* the scheduled exam date. All exam dates are all set from the beginning of the semester and are listed in multiple locations for your benefit. Failure to responsibly manage your schedule is *not* a valid reason for a make-up attempt. If you do not take an exam or make arrangements for a make-up exam by 11:59 PM on the due date, late exam submissions will be allowed with a 20% penalty for each day that it is late. If you miss an exam, you will receive a 0 for the exam.

There are 4 exams, worth a **total of 450 points**; **all scores** will be counted toward your final grade.

GRADING POLICIES

Progress will be regularly evaluated by student performance on assignments and exams. Dates for all assignments and exams are clearly indicated in the course calendar portion of the syllabus, on the Carmen calendar feature, and in email communications from the instructor. Detailed instructions will be provided for each assignment. For SmartBook activities and Extra Credit activities, no credit will be awarded for late submissions. Points earned for Check Point and Beyond the Basics activities will be reduced by 10% per day late. . Points earned for exams will be reduced by 20% per day late. Students requesting an extension for any assignment should provide appropriate documentation and discuss the matter with the instructor *prior to* the due date.

Grading Point Distribution

The weights of each form of student evaluation are shown below. For a spreadsheet version of the point distribution that will accurately calculate your grade, see "How to Calculate Your Grade" in the Getting Started module.

EXAMS (400 points = 40% of grade)	***Points***
Unit 1 Exam (Chapters 1, 2, 3, part of 17)	100
Unit 2 Exam (Chapters 4, 5, 6)	100
Unit 3 Exam (Chapters 8, 9, 10, 11, 12, 13)	100
Unit 4/Final Exam (cumulative; focus on Chapters 7, 14, 15, 16)	100
SMARTBOOK ACTIVITIES (best 15 of 17; 150 points = 15% of grade)	
SB Ch01: Nutrition, Food Choices, & Health	10
SB Ch02: Designing a Healthy Dietary Pattern	10
SB Ch17: Safety of Our Food Supply	10
SB Ch03: The Human Body: A Nutrition Perspective	10
SB Ch04: Carbohydrates	10
SB Ch05: Lipids	10
SB Ch06: Proteins	10
SB Ch08: Overview of Micronutrients & Phytochemicals	10
SB Ch09: Fluid & Electrolyte Balance	10
SB Ch10: Nutrients Involved in Body Defenses	10
SB Ch11: Nutrients Involved in Bone Health	10
SB Ch12: Micronutrient Function in Energy Metabolism	10
SB Ch13: Nutrients that Support Blood & Brain Health	10
SB Ch07: Energy Balance & Weight Control	10
SB Ch14: Nutrition: Fitness & Sports	10
SB Ch15: Eating Disorders	10
SB Ch16: Undernutrition Throughout the World	10

CHECK POINT ACTIVITIES (best 5 of 6; 250 points = 25% of grade)	
Check Point: Course Orientation	50
Check Point: All Daily Reports *(cannot be dropped)*	50
Check Point: Nutrition Basics	50
Check Point: Macronutrients	50
Check Point: Micronutrients	50
Check Point: Energy Balance	50
BEYOND THE BASICS (best 14 of 16; 200 points = 20% of grade)	
Beyond the Basics: Alcohol & Binge Drinking	20
Beyond the Basics: Nutrition Assessment*	20
Beyond the Basics: Digestive Disorders*	20
Beyond the Basics: Diabetes Management*	20
Beyond the Basics: Cardiovascular Disease*	20
Beyond the Basics: Food Allergies & Intolerances*	20
Beyond the Basics: Hypertension & Kidney Disease*	20
Beyond the Basics: Cancer*	20
Beyond the Basics: Bone and Joint Health*	20
Beyond the Basics: Caffeine	20
Beyond the Basics: Nutrition & Mental Health*	20
Beyond the Basics: Fad Diets	20
Beyond the Basics: Bariatric Surgery*	20
Beyond the Basics: Orthorexia	20
Beyond the Basics: Malnutrition*	20
Beyond the Basics: Food Insecurity on Campus	20
EXTRA CREDIT ACTIVITIES	
Gastrointestinal Health	+10
Mediterranean Diet	+10
Cancer Research	+10
Sleep & Weight Management	+10
Course Feedback Request	+5
Detect an Error	+unlimited
	1000

*Denotes clinical nutrition topics. Students enrolled in a nursing program or who plan to apply for a nursing program MUST complete 10 of the clinical nutrition options.

HELPFUL TIP: Using the default settings, Carmen calculates your grade based on the assignments and exams you have completed to date. Missed assignments may not be factored into the calculation. Periodically throughout the semester, your instructor or GTA will review the gradebook and manually enter "0" for missing assignments. To see your total grade (including any incomplete assignments) using the Carmen grade book, be sure to uncheck the option for "Calculate based only on graded assignments."

Grading Scale

A	=	930 – 1000 points
A-	=	900 – 929 points
B+	=	870 – 899 points
B	=	830 – 869 points
B-	=	800 – 829 points
C+	=	770 – 799 points
C	=	730 – 769 points
C-	=	700 – 729 points
D+	=	670 – 699 points
D	=	600 – 669 points
E	=	0 – 599 points

HELPFUL TIP: At the end of the semester, many students ask if their grades will be rounded up. Your grade will be rounded to the nearest *whole point* out of 1000 points and assigned a letter grade according to the scale shown above. This is not the same as rounding to the nearest percent. For example, if your total points for the semester are 929.5 out of 1000, this would be rounded up to 930 and you would earn an A for the course. However, if your total points are 925 out of 1000, this falls into the range of scores for A-. To maximize your points, turn in all assignments on time and take advantage of extra credit opportunities.

ACADEMIC INTEGRITY

Policies for this Online Course

- **Exams:** You must complete all exams yourself, using remote proctoring software, without any external help or communication.
- **Assignments:** You are expected to do your own work on all assignments (e.g. SmartBook, Check Point, Beyond the Basics, and Extra Credit activities), without external collaboration.
- **Reusing past work:** In general, you are prohibited in university courses from turning in work from a past course to your current course, even if you modify it. If you have specific questions about this, please ask the instructor.
- **Collaboration and informal peer-review:** This course includes several discussion-based Beyond the Basics activities that provide opportunities for collaboration with your classmates. While study groups are encouraged, remember that comparing answers on exams and assignments is not permitted. If you are unsure about a particular situation, please ask your instructor ahead of time.

OSU's Academic Integrity Policy

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the university's *Code of Student Conduct*, and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must

recognize that failure to follow the rules and guidelines established in the university's *Code of Student Conduct* and this syllabus may constitute "Academic Misconduct."

The Ohio State University's *Code of Student Conduct* (Section 3335-23-04) defines academic misconduct as: "Any activity that tends to compromise the academic integrity of the university or subvert the educational process." Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the university's *Code of Student Conduct* is never considered an excuse for academic misconduct, so I recommend that you review the *Code of Student Conduct* and, specifically, the sections dealing with academic misconduct.

If the instructor or GTAs suspect that a student has committed academic misconduct in this course, we are obligated by university rules to report our suspicions to the Committee on Academic Misconduct. If COAM determines that you have violated the university's *Code of Student Conduct* (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the university.

If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact your instructor.

Other sources of information on academic misconduct (integrity) to which you can refer include:

- The Committee on Academic Misconduct web pages (COAM Home)
- *Ten Suggestions for Preserving Academic Integrity (Ten Suggestions)*
- *Eight Cardinal Rules of Academic Integrity* (www.northwestern.edu/uacc/8cards.htm)

COPYRIGHT DISCLAIMER

The materials used in connection with this course may be subject to copyright protection and are only for the use of students officially enrolled in the course for the educational purposes associated with the course. Copyright law must be considered before copying, retaining, or disseminating materials outside of the course.

ACCESSIBILITY ACCOMODATIONS FOR STUDENTS WITH DISABILITIES

Requesting Accommodations

The university strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability, including mental health, chronic, or temporary medical condition, please contact your instructor to discuss your specific needs. To establish accommodations, you may need to register with Student Life Disability Services. After registration, make arrangements with your instructor as soon as possible to discuss the timely implementation of your accommodations for this course. You may contact the Office of Student Life Disability Services (http://slds.osu.edu/) at (614) 292-3307 or visit 098 Baker Hall at 113 West 12th Avenue to coordinate reasonable accommodations.

Accessibility of Course Technology

This online course requires use of Carmen (Ohio State's learning management system) and other online communication and multimedia tools. If you need additional services to use these technologies, please request accommodations with your instructor.

- CarmenCanvas accessibility
- CarmenZoom accessibility
- McGraw-Hill Connect accessibility

COVID-RELATED ACCOMMODATIONS

The university strives to make all learning experiences as accessible as possible. In light of the current pandemic, students seeking to request COVID-related accommodations may do so through the university's request process, managed by Student Life Disability Services. If you anticipate or experience academic barriers based on your disability (including mental health, chronic, or temporary medical conditions), please let your instructor know immediately so that you can set up a meeting to discuss options for completing your coursework. To establish reasonable accommodations, the instructor may request that you register with Student Life Disability Services (https://slds.osu.edu/). After registration, make arrangements with your instructor as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion.

MENTAL HEALTH

College students may experience mental health concerns impacted by a variety of factors. As a result, it is important for students to keep in mind that there are supports available. While individual counseling, group counseling, and psychiatric care are good options, it is important for students to consider all the resources available based on the situation/need, timeliness, and availability. More information about university support may be found here https://ccs.osu.edu/mental-health-support-options/

At the College of Nursing, a mental health counselor is available for individual counseling appointments. More information may be found on the website (https://nursing.osu.edu/students/student-resources/counseling-services) or reach out to schedule an appointment via email woith.3@osu.edu or by calling (614) 292-6952.

Students are also welcome to use Ohio State's primary counseling center, Counseling Consultation Services (CCS), which offers appointments 8:00 a.m. – 8:00 p.m. Monday-Thursday and 8:00 a.m. – 5:00 p.m. on Fridays. Students can schedule an appointment with CCS by calling (614) 292-5766.

DIVERSITY

The Ohio State University affirms the importance and value of diversity in the student body. Our programs and curricula reflect our multicultural society and global economy and seek to provide opportunities for students to learn more about persons who are different from them. We are committed to maintaining a community that recognizes and values the inherent worth and dignity of every person; fosters sensitivity, understanding, and mutual respect among each member of our community; and encourages each individual to strive to reach his or her own potential. Discrimination against any individual based upon protected status, which is defined as age, color, disability, gender identity or expression, national origin, race, religion, sex, sexual orientation, or veteran status, is prohibited.

TITLE IX

All students and employees at Ohio State have the right to work and learn in an environment free from harassment and discrimination based on sex or gender, and the university can arrange interim measures, provide support resources, and explain investigation options, including referral to confidential resources.

If you or someone you know has been harassed or discriminated against based on your sex or gender, including sexual harassment, sexual assault, relationship violence, stalking, or sexual exploitation, you may find information about your rights and options at titleix.osu.edu or by contacting the Ohio State Title IX Coordinator at titleix@osu.edu. Title IX is part of the Office of Institutional Equity (OIE) at Ohio State, which responds to all bias-motivated incidents of harassment and discrimination, such as race, religion, national origin, and disability. For more information on OIE, visit equity.osu.edu or email equity@osu.edu.

GRIEVANCES AND SOLVING PROBLEMS

According to University Policies, available from the Division of Student Affairs, if you have a problem with this class, "You should seek to resolve a grievance concerning a grade or academic practice by ***speaking first with the instructor or professor***: Then, if necessary, with the department chairperson, college dean, and provost, in that order. Specific procedures are outlined in Faculty Rule 3335-7-23, which is available from the Office of Student Life, 208 Ohio Union." "Grievances against graduate, research, and teaching assistants should be submitted first ***to the supervising instructor***, then to the chairperson of the assistant's department."

COURSE EVALUATIONS

It is critical to the continued success of this course to have your honest and valued feedback. Near the end of the semester, you will have the opportunity to fill out the standard institutional SEI on the instructor (online submission). The instructor will also send you a separate course feedback survey via Carmen to gather more course-specific information.

August/September 2022 HUMN NTR 2210D

SUN	MON	TUE	WED	THU	FRI	SAT
21	22 **Course Materials Available**	23	24	25	26	27
28	29 **Check Point:** Course Orientation **SmartBook:** Ch01 Nutrition, Food Choices, Health **Beyond the Basics:** Alcohol & Binge Drinking	30	31	1	2	3
4	5 LABOR DAY **SmartBook:** Ch02 Designing a Healthy Dietary Pattern **SmartBook:** Ch17 N&YH: Preventing Foodborne Illness **Check Point:** All Daily Reports **Beyond the Basics:** Nutrition Assessment*	6	7	8	9	10
11	12 **SmartBook:** Ch03 The Human Body: A Nutrition Perspective **Check Point:** Nutrition Basics **Beyond the Basics:** Digestive Disorders* **Extra Credit:** Gastrointestinal Health	13	14	15	16	17
18	19 **SmartBook:** Ch04 Carbohydrates **Beyond the Basics:** Diabetes Management*	20	21	22	23	24
25	26 **SmartBook:** Ch05 Lipids **Beyond the Basics:** Cardiovascular Disease* **Extra Credit:** Mediterranean Diet	27	28	29	30	1

Unit 1 Exam
(Chapters 1, 2, 3, and 17)

October 2022

HUMN NTR 2210D

SUN	MON	TUE	WED	THU	FRI	SAT
2	3 **SmartBook:** Ch06 Proteins **Check Point:** Macronutrients **Beyond the Basics:** Food Allergies & Intolerances*	4	5	6 **Unit 2 Exam** (Chapters 4, 5, and 6)	7	8
9	10 **SmartBook:** Ch08 Overview of Micronutrients **SmartBook:** Ch09 Fluid & Electrolyte Balance **Beyond the Basics:** Hypertension & Kidney Disease*	11	12	13 AUTUMN BREAK	14	15
16	17 **SmartBook:** Ch10 Body Defenses **Beyond the Basics:** Cancer* **Extra Credit:** Cancer Research	18	19	20	21	22
23	24 **SmartBook:** Ch11 Bone Health **Beyond the Basics:** Bone & Joint Health*	25	26	27	28	29
30	31 **SmartBook**: Ch12 Energy Metabolism **Beyond the Basics:** Caffeine	1 NOV	2	3	4	5

November/December 2022 HUMN NTR 2210D

SUN	MON	TUE	WED	THU	FRI	SAT
6	7 **SmartBook:** Ch13 Blood & Brain Health **Check Point:** Micronutrients **Beyond the Basics:** Nutrition & Mental Health*	8	9	10	11	12 **Unit 3 Exam** (Chapters 8, 9, 10, 11, 12, and 13)
13	14 **SmartBook:** Ch07 Energy Balance & Weight Control **Beyond the Basics:** Bariatric Surgery* **Extra Credit:** Sleep & Weight Management	15	16	17	18	19
20	21 **SmartBook:** Ch14 Sports Nutrition **Beyond the Basics:** Fad Diets	22	23	24	25	26 THANKSGIVING BREAK
27	28 **SmartBook:** Ch15 Eating Disorders **Beyond the Basics:** Orthorexia	29	30	1	2	3
4	5 **SmartBook:** Ch16 Undernutrition **Check Point:** Energy Balance **Beyond the Basics:** Malnutrition* **Beyond the Basics:** Food Insecurity on Campus **Extra Credit:** Detect an Error **Extra Credit:** Course Feedback	6	7	8	9	10 **Unit 4/Final Exam** (Cumulative, focus on Chapters 7, 14, 15, and 16)

HUMN NTR 2210 (19982) ONLINE

Science of Human Nutrition

Autumn 2018: 3 credit hours, undergraduate

Course Syllabus

INSTRUCTOR

Angela Collene, MS, RDN, LD
385 Campbell Hall
collene.6@osu.edu

OFFICE HOURS

Tue/Thu/Fri 9:30 AM – 10:30 AM and
1:00 PM – 3:00 PM
or by request

GRADUATE TEACHING ASSISTANTS

Student Last Names A – O
Katie Stock
301 Campbell Hall
stock.117@osu.edu

Mon 3:00 PM – 4:00 PM
or by request

Student Last Names P – Z
Amy Sharn
265-T Campbell Hall
sharn.3@osu.edu

Mon 12:30 PM – 1:30 PM
or by request

COURSE DESCRIPTION

This course will address the basic principles of the biological science involving interactions between nutrients and physiological processes with emphasis on implications for human health.

PREREQUISITES

None

GENERAL EDUCATION (GE) GOALS AND EXPECTED LEARNING OUTCOMES

This course meets the goals of the Natural Science Component of the GE at The Ohio State University. Courses in Natural Sciences foster an understanding of the principles, theories, and methods of modern science; the relationship between science and technology; the implications of scientific discoveries; and the potential of science and technology to address problems of the contemporary world.

The specific Learning Outcomes below stem from the Natural Science Learning Outcomes.

LEARNING OUTCOMES

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

1. Understand the basic biological aspects of nutrient requirements of humans.
2. Appreciate the complex interactions and synergism of nutrients upon physiological and cellular processes.
3. Recognize the linkages between nutrients and disease processes, body size, mental ability, and performance.
4. Understand key events in the history of nutritional science from the early discovery of the essential nutrients to the current discovery of the effects of nutrients on the human genome.
5. Determine how nutritional information is derived from the scientific method of investigation.
6. Evaluate reputable versus non-reputable sources of nutrition information.
7. Understand how methods of modern science are used in the assessment of nutritional status.
8. Understand the diverse social and cultural patterns that influence food preferences and their implications to nutrient status.
9. Understand the potential of modern science and technology to address nutritional problems of the contemporary world.
10. Utilize computer technology to assess dietary intake and activity levels compared to national recommendations.

MATERIALS & RESOURCES

Connect access code for Smith, A.M., Collene, A.L., and Spees, C.K. (2018). *Wardlaw's Contemporary Nutrition: A Functional Approach* (5th ed.). New York, NY: McGraw-Hill Education.

Students will use this access code to register for an online account with Connect, McGraw-Hill Education's digital learning platform. Connect includes access to the eBook and the digital learning tools (assignments, dietary analysis software) that are required for this course. Each student will need a unique access code; accounts cannot be shared.

There are **two options** for purchasing a Connect access code for this course:

a. **From the university bookstore:** The access code will be printed on a card (ISBN 9781260252019). The cost is $105.35.

   OR

b. **Directly from the publisher's website:** Purchase online with a credit card using the link from our course page on Carmen. The cost is $79.00.

There is an option to add a printed (loose-leaf) version of the textbook for an additional $30.00 after you register your account on the Connect website.

Additional resources (e.g., articles, videos, audio files) will be provided via Carmen.

COMMUNICATION

All students must have an active OSU email account and reliable access to the Internet. Emails sent from hotmail, yahoo, google, etc. may go to the spam boxes of your instructor or teaching assistants. It is best to send communication through your OSU account.

Carmen (https://carmen.osu.edu/)

All students are required to use Carmen, OSU's learning management system, which is based on the Canvas platform. Students should plan to access Carmen frequently throughout the week for announcements, discussions, learning resources, assignments, and grades. If you are new to Carmen, please see the guide to getting started at https://resourcecenter.odee.osu.edu/carmencanvas/getting-started-canvas-students.

E-Mail

Please feel comfortable emailing your instructor and teaching assistants throughout the semester. This is the main form of communication between students and instructing staff. Students should use email rather than discussion boards on Carmen to ask questions about personal concerns (e.g., grades). Our policy is to respond to emails within 1 business day (i.e., excluding weekends and university holidays). When authoring emails, please type "2210" at the beginning of the subject line of your email. If you do not receive a response to an email within 24 hours, please resend your email.

Your instructor will send weekly emails to summarize course progress, answer common questions, and remind you of upcoming tasks. Be sure to read these emails to stay informed, engaged, and on schedule. Weekly emails will typically be sent using Carmen's inbox. You can change your account settings in Carmen if you would like to forward course-related emails to another email address. Go to Account (on the left side of the screen in Carmen), select Settings, then add an email address (under Ways to Contact, on the right side of the page). As the semester goes on, weekly emails will be archived in the Getting Started module on Carmen. If you do not receive weekly emails from your instructor (collene.6@osu.edu), please contact OSU IT to resolve the problem (see below).

Carmen's Discussion Board

If you have general questions about the course that do not contain personal information and are likely to be relevant to other students in the course, post your questions on the discussion board in Carmen. Examples of general questions include clarifications of assignment instructions, questions about course content, or technical concerns. In a large, online course, it is very common for students to have similar questions. To avoid redundancy, please review recent questions and answers before posting a new question.

Getting Help with OSU Technology

For help with your password, university e-mail, Carmen, or any other OSU technology issues, contact the OSU IT Service Desk. Standard support hours are available at https://ocio.osu.edu/help/hours, and support for urgent issues is available 24/7.

- **Self-Service and Chat support**: http://ocio.osu.edu/selfservice
- **Phone**: (614) 688-HELP (4357)
- **Email**: 8help@osu.edu
- **TDD**: (614) 688-8743

FACE-TO-FACE MEETINGS

Meeting with the Instructor

If course content, assignment, or technology struggles arise, please contact the instructor via email for an appointment. Face-to-face meetings with the instructor can usually be accommodated on a walk-in basis during office hours (see page 1 of the syllabus). Office hours may vary due to faculty meetings, travel, or exam schedules, but will be posted weekly using the Calendar feature of Carmen. If scheduled office hours are not convenient for you, virtual meetings can be scheduled throughout the week with the aid of the Conferences tool available on Carmen.

Meeting with the Teaching Assistants

The teaching assistants are graduate students in nutrition who are available to help you master the course content and excel in the course. The TAs will post their office hours on the Carmen calendar each week. Visit the TAs during their scheduled office hours or email your assigned TA directly (see page 1) to schedule a meeting.

COURSE EXPECTATIONS

This is a 3-credit online course. You should expect to spend *at least* the same amount of time reading the text, engaging with online content, completing assignments, and reviewing course notes as you would spend for a face-to-face course (about 9 hours per week).

It can be very easy to fall behind in an online course. Any online course requires self-discipline to stay on track with readings and assignments. This course is designed in weekly increments, such that new material is released each Monday morning and assignments based on that material are due the following Monday at 11:59 PM. This layout is flexible enough to allow you to work wherever and whenever you choose, yet structured enough to encourage efficient accumulation and retention of knowledge. The instructor and TAs will support your learning with organized materials, weekly email updates, thoughtful feedback, and clear instructions throughout the semester. Please do your part by reading emails, maintaining a record of all due dates in your own calendar, and regularly visiting our course page on Carmen for news and assignments.

NETIQUETTE

As a member of a community of online learners, it is your responsibility to exhibit professional behavior and decorum in all modes of communication. Following the rules of etiquette on the Internet (netiquette) helps to improve the readability of your messages, keeps conversations focused, increases trust, and creates a more positive experience for all participants. Netiquette includes, but it not limited to, the following guidelines:

- Honor people's rights to their opinions; respect the right for people to disagree.
- Be professional; use language that is not considered foul or abusive.
- Respond to peers honestly, thoughtfully, respectfully, and constructively.
- Avoid writing in all caps; it conveys shouting and anger.
- Avoid colors like red and green for accessibility reasons; avoid font styles, colors, and sizes that are difficult to read.
- Address the ideas, not the person, when responding to messages or discussions.
- Be careful when using humor or sarcasm; without social cues like facial expressions or body language, a remark meant to be humorous could come across as offensive or hurtful.
- Don't distribute copyrighted materials, such as articles and images (most things online are not licensed as "fair use"). Share links to those materials (instead of copying/pasting them) and be sure to properly cite all sources to avoid unintentional plagiarism.

ASSIGNMENTS

Assignment due dates are all set from the beginning of the semester and are listed in multiple locations for your benefit.

1. Syllabus (last three pages)
2. Carmen calendar (see our course page)
3. Weekly emails

With all of these resources at your fingertips, you can find an effective way to stay on schedule. Stating that you "were not aware" of an assignment due date is not a valid excuse for an extension.

This course uses a variety of digital tools, including Carmen (OSU's learning management system) and Connect (a digital learning platform from McGraw-Hill that accompanies our eBook for the course). Whether the assignments are built in Carmen or Connect, you will be able to access them by simply clicking on the name of the assignment from our course page in Carmen. (The first time you access a Connect assignment, you will be prompted to register your course materials. On subsequent visits, you should be logged into Connect automatically.)

LearnSmart

LearnSmart activities will be how you encounter the chapters of our text, *Wardlaw's Contemporary Nutrition: A Functional Approach*. LearnSmart is an adaptive reading tool. As you read the pages of the eBook, you will notice that some text is highlighted. The highlighted text represents core content you will need to pass the course. I recommend that you read the chapters completely (i.e., turn off the highlighting feature) the first time through. You can turn the highlighting back on when you go back and study for exams.

As you read each chapter, you will be prompted to stop and answer questions based on what you have read. If you answer the questions correctly, you will move on quickly. If you get some questions wrong, LearnSmart will give you additional questions and resources to help you master the content. LearnSmart will also remember where you struggled with the content and present you with additional questions when you return to a chapter to review. The LearnSmart activities are set to take an average of 1 to 2 hours per week to work through those practice questions. Start LearnSmart activities early in the week and plan to spend 15 to 20 minutes per day to optimize retention.

LearnSmart activities are graded based on completion; an assignment is considered complete when you have answered a certain number of questions correctly. If you read the section first, you will move through the practice questions quickly. However, if you decide to skip the reading and just do the practice questions, it may take a longer time because LearnSmart will present you with more and more questions until you get a certain number correct.

LearnSmart activities are worth 5 to 10 points per chapter. Full credit is awarded once you have answered a set number of questions correctly. If you start a LearnSmart activity and make some progress, you will receive partial credit based on the number of correct questions you have achieved by the due date. If you do not start an assigned LearnSmart activity by the due date, you will receive a score of 0 for that activity. You may return to any LearnSmart activity to read and recharge, but your score for that activity is based on what you have achieved by the due date. If you complete all of the assigned LearnSmart activities on time, you can be assured of 150 points (of 1000 total points for the course).

Quizzes

After you complete your LearnSmart activities each week, work through the quiz (if one is assigned). Besides the traditional multiple choice and true/false questions, quizzes consist of a variety of interactive question types, such as labeling, classification, matching, and sentence completion activities. Quizzes will be scored based on the accuracy of your best of two attempts, so utilize the LearnSmart activities to familiarize yourself with the material *before* you take a quiz. There is no time limit for quizzes and you are welcome to reference your eBook and other course materials as you complete the quizzes (most items even provide a link to the relevant section in the eBook). You can also save your progress, close the browser, and resume at a later time. Please be aware that each student receives a set of questions that is randomly drawn from a pool of many questions, so your assignment may be different from that of your classmates. Points for late quiz submissions will be reduced by 10% per day late. When your final grade for the course is calculated, your two lowest quiz scores will be dropped.

HELPFUL TIP: To be assured of proper credit, make certain to click SUBMIT before the due date when you have completed your assignment.

Dietary Analysis

Within the first few weeks of the course, you will track and analyze your food and beverage intake for three days using NutritionCalc Plus, a dietary analysis program that is included in your course materials through Connect. Later, as you move through the chapters, you will complete three sets of questions to evaluate your dietary pattern according to what you have learned. Detailed instructions for dietary analysis assignments will be provided on Carmen. Late submissions are subject to a point deduction of 10% per day late.

Collaborative Learning Activities

Throughout the semester, you will participate in several critical thinking activities that encourage you to explore timely, relevant nutrition topics. These activities also provide an opportunity to interact with other students in the course. Typically, collaborative learning activities require you to read an article, watch a video, or listen to a podcast and then answer some questions or participate in a discussion about the topic. You will find links to collaborative learning activities from our Carmen course page.

Here are some tips for productive online discussions:

1. Adhere to the netiquette guidelines described on page 5 of the syllabus.
2. Read the instructions and stay on topic.
3. Elaborate! Instead of simply writing "I agree," state why you agree, give an example, or refer to a thought-provoking resource.
4. Be mindful of proper spelling and grammar; proofread your posts before submitting them.
5. Support your opinions with credible, scientific evidence. Choose your sources wisely. The internet is a bottomless pit of health information—some is reliable, some is suspicious, and some is downright dangerous. In Chapter 2, you will learn how to identify reliable nutrition information. As you search online for health information, consider the credibility of the source and how current the information is. For more information on evaluating health information, see https://medlineplus.gov/evaluatinghealthinformation.html.
6. It is not acceptable to copy and paste content that has been written by someone else. To avoid plagiarism, even if you are paraphrasing, *always* cite your sources.

Extra Credit

Optional extra credit assignments will be available. All extra credit assignments must be submitted by 11:59 PM on the due dates listed in the course calendar if you would like them to be counted toward your grade. No extensions will be available for extra credit assignments and no additional individual requests for extra credit will be granted. Although extra credit assignments are optional, it is in your best interest to complete all of these assignments; they can only boost your grade (i.e., scores are counted out of 0).

Please note that the Carmen grade book does not provide a simple way to award extra credit points. Therefore, your overall grade may not change immediately after you complete an extra credit assignment. However, within a week after the due date for each extra credit assignment, the instructor will convert scores from up to 10/10 to up to 10/0 in the grade book.

EXAMS

There are five online proctored exams:

- Unit 1 Exam (available 09/11/18 – 09/15/18) covers Chapters 1 – 3
- Unit 2 Exam (available 10/02/18 – 10/06/18) covers Chapters 4 – 6
- Unit 3 Exam (available 10/23/18 – 10/27/18) covers Chapters 8 – 13
- Unit 4 Exam (available 11/13/18 – 11/17/18) covers Chapters 7, 14, and 16
- Unit 5 Exam (available 12/04/18 – 12/08/18) covers Chapters 18 – 20

Each exam will be available for five days and will be administered via Carmen using Proctorio, an online proctoring tool. Proctorio offers you flexibility to take your exams at the time and in the location of your choosing. Students are required to have a webcam (USB or internal) with a microphone and a strong and stable internet connection. During the course of an exam, Proctorio will record the testing environment. At this time, Proctorio only works in the Chrome browser. *If you intend to use Proctorio, you must use a device with a webcam, microphone, reliable internet connection, and Chrome browser and you should select a private space for each exam session where disruptions are unlikely and where recording devices can be enabled.*

Prior to the first exam, you will receive detailed instructions to download and use Proctorio. You will also have an opportunity to practice using it before the exam. To use Proctorio, you must be **over 18 years of age**. Additionally, the tool has **limitations in its accessibility** for students reliant upon screen readers and keyboard navigation. For more information about remote exam proctoring with Proctorio, see https://resourcecenter.odee.osu.edu/carmencanvas/getting-started-proctorio-students. If you have concerns about using an online proctoring tool for any reason, please work with your instructor to find an equivalent alternative.

Exam questions are drawn from a bank of many questions, so your exam will not be exactly like any of your classmates' exams, although it will cover the same content. Exams are timed and most are closed book/closed note. You may use a "cheat sheet" (one 8.5" x 11" piece of paper, front and back) for the Unit 3 exam (on vitamins and minerals) only.

Students are expected to take all exams within the scheduled dates, using remote proctoring software. If you require a make-up exam or alternative exam accommodations for any reason, please contact your instructor via email *prior to* the scheduled exam date. All exam dates are all set from the beginning of the semester and are listed in multiple locations for your benefit. Failure to responsibly manage your schedule is *not* a valid reason for a make-up attempt. If you do not take an exam or make arrangements for a make-up exam by 11:59 PM on the last day the exam is available, you will receive a 0 for the exam.

GRADING POLICIES

Progress will be regularly evaluated by student performance on assignments and exams. Dates for all assignments and exams are clearly indicated in the course calendar portion of the syllabus, on the Carmen calendar feature, and in email communications from the instructor. Detailed instructions will be provided for each assignment. For LearnSmart activities, no credit will be awarded for late submissions. Points earned for quizzes and the Dietary Analysis assignments will be reduced by 10% per day late. Students requesting an extension for any assignment should provide appropriate documentation and discuss the matter with the instructor *prior to* the due date.

Grading Point Distribution

The weights of each form of student evaluation are shown below. For a spreadsheet version of the point distribution that will accurately calculate your grade, see "How to Calculate Your Grade" in the Getting Started module.

EXAMS (drop lowest score; 400 points = 40% of grade)	
Unit 1 Exam	100
Unit 2 Exam	100
Unit 3 Exam	100
Unit 4 Exam	100
Unit 5 Exam	100
LEARNSMART ACTIVITIES (150 points = 15% of grade)	
LS Ch01: Nutrition, Food Choices, & Health	5
LS Ch02: Designing a Healthy Dietary Pattern	5
LS Ch03: The Human Body: A Nutrition Perspective	10
LS Ch04: Carbohydrates	10
LS Ch05: Lipids	10
LS Ch06: Proteins	10
LS Ch08: Overview of Micronutrients & Phytochemicals	5
LS Ch09: Fluid & Electrolyte Balance	5
LS Ch10: Nutrients Involved in Body Defenses	10
LS Ch11: Nutrients Involved in Bone Health	10
LS Ch12: Micronutrient Function in Energy Metabolism	5
LS Ch13: Nutrients that Support Blood & Brain Health	10
LS Ch07: Energy Balance & Weight Control	10
LS Ch14: Nutrition: Fitness & Sports	10
LS Ch16: Undernutrition Throughout the World	5
LS Ch18: Nutrition During Pregnancy & Breastfeeding	10
LS Ch19: Nutrition From Infancy Through Adolescence	10
LS Ch20: Nutrition During Adulthood	10

QUIZZES (drop 2 lowest scores; 200 points = 20% of grade)	
Digital Learning Orientation	20
Nutrition Basics	20
Carbohydrates	20
Lipids	20
Proteins	20
Micronutrients I	20
Micronutrients II	20
Weight Management	20
Sports Nutrition	20
Pregnancy & Breastfeeding	20
Child Nutrition	20
Adult Nutrition	20
DIETARY ANALYSIS (200 points = 20% of grade)	
All Daily Reports	50
Macronutrients	50
Micronutrients	70
Energy Balance	30
COLLABORATIVE LEARNING ACTIVITIES (50 points = 5% of grade)	
MyPlate	10
Whole vs. Refined Grains	10
Saturated Fats and Heart Health	10
Ergogenic Aids	10
Fertility Diet	10
EXTRA CREDIT ACTIVITIES	
Mediterranean Diet	+10
Cancer Research	+10
Fad Diet	+10
LS Ch15: Eating Disorders	+5
LS Ch17: Safety of Our Food Supply	+5
LEAP Trial	+10
Detect an Error	+unlimited
Course Feedback Request	+2
	1000

HELPFUL TIP: Throughout the semester, Carmen calculates your grade based on the assignments and exams you have completed to date. Missed assignments may not be factored into the calculation. To see your actual grade (including any missed assignments) using the Carmen grade book, be sure to uncheck the option for "Calculate based only on graded assignments."

Grading Scale

A	=	930 – 1000 points
A-	=	900 – 929 points
B+	=	870 – 899 points
B	=	830 – 869 points
B-	=	800 – 829 points
C+	=	770 – 799 points
C	=	730 – 769 points
C-	=	700 – 729 points
D+	=	670 – 699 points
D	=	600 – 669 points
E	=	0 – 599 points

HELPFUL TIP: At the end of the semester, many students ask if their grades will be rounded up. Your grade will be rounded to the nearest whole point out of 1000 points and assigned a letter grade according to the scale shown above. This is not the same as rounding to the nearest percent. For example, if your total points for the semester are 929.5 out of 1000, this would be rounded up to 930 and you would earn an A for the course. However, if your total points are 925 out of 1000, this falls into the range of scores for A-. To maximize your points, turn in all assignments on time and take advantage of extra credit opportunities.

ACADEMIC INTEGRITY

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the University's *Code of Student Conduct*, and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in the University's *Code of Student Conduct* and this syllabus may constitute "Academic Misconduct."

The Ohio State University's *Code of Student Conduct* (Section 3335-23-04) defines academic misconduct as: "Any activity that tends to compromise the academic integrity of the University, or subvert the educational process." Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the University's *Code of Student Conduct* is never considered an "excuse" for academic misconduct; be sure to review the *Code of Student Conduct* and, specifically, the sections dealing with academic misconduct.

If the instructional staff suspects that a student has committed academic misconduct in this course, the instructor is obligated by University Rules to report these suspicions to the Committee on Academic Misconduct. If COAM determines that you have violated the University's *Code of Student Conduct* (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the University.

If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact the instructor.

For additional information about academic misconduct (integrity), refer to *Academic Misconduct Information for Students* (https://oaa.osu.edu/academic-integrity-and-misconduct/student-misconduct).

SPECIAL ACCOMODATIONS/DISABILITIES

The teaching team wishes to fully include persons with disabilities in this course. Please let your instructor know if you have a disability and require accommodations in the curriculum, instruction, or assessments of this course to enable you to fully participate. You may contact your instructor to discuss any specific needs. For students with documented disabilities, please contact the Office of Student Life Disability Services (http://ods.osu.edu) at (614) 292-3307 or visit Baker Hall to coordinate reasonable accommodations.

This course requires use of Carmen and other online communication and multimedia tools. If you need additional services to use these technologies, please request accommodations with your instructor. See Carmen (Canvas) accessibility documentation.

MENTAL HEALTH STATEMENT

As a student, you may experience of range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating, and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing. If you or someone you know are suffering from one of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting ccs.osu.edu or calling (614) 292-5766. CCS is located on the 4th floor of the Younkin Success Center and 10th floor of Lincoln Tower. When CCS is closed, you can reach an on-call counselor at (614) 292-5766. 24-hour emergency help is also available through the 24/7 National Suicide Prevention Hotline at (800) 273-TALK or suicidepreventionlifeline.org.

STATEMENT ON DIVERSITY

The Ohio State University affirms the importance and value of diversity in the student body. Our programs and curricula reflect our multicultural society and global economy and seek to provide opportunities for students to learn more about persons who are different from them. We are committed to maintaining a community that recognizes and values the inherent worth and dignity of every person; fosters sensitivity, understanding, and mutual respect among each member of our community; and encourages each individual to strive to reach his or her own potential. Discrimination against any individual based upon protected status, which is defined as age, color, disability, gender identity or expression, national origin, race, religion, sex, sexual orientation, or veteran status, is prohibited.

GRIEVANCES AND SOLVING PROBLEMS

According to University Policies, available from the Division of Student Affairs, if you have a problem with this class, "You should seek to resolve a grievance concerning a grade or academic practice by ***speaking first with the instructor or professor***: Then, if necessary, with the department chairperson, college dean, and provost, in that order. Specific procedures are outlined in Faculty Rule 3335-7-23, which is available from the Office of Student Life, 208 Ohio Union." "Grievances against graduate, research, and teaching assistants should be submitted first ***to the supervising instructor***, then to the chairperson of the assistant's department."

COURSE EVALUATIONS

It is critical to the continued success of this course to have your honest and valued feedback. Near the end of the semester, you will have the opportunity to fill out the standard institutional SEI on the instructor (online submission). The instructor will also send you a separate course feedback survey via Carmen to gather more course-specific information.

August/September 2018 HUMN NTR 2210

SUN	MON	TUE	WED	THU	FRI	SAT
19	20	21 Course Materials Available	22	23	24	25
26	27 Quiz: Digital Learning Orientation LS Ch01: Nutrition, Food Choices, and Health	28	29	30	31	1
2	3 LABOR DAY LS Ch02: Designing a Healthy Dietary Pattern Dietary Analysis: All Daily Reports Collaborative Learning: MyPlate	4	5	6	7	8
9	10 LS Ch03: The Human Body: A Nutrition Perspective Quiz: Nutrition Basics	11	12	13	14 Unit 1 Exam Available (Chapters 1 – 3)	15
16	17 LS Ch04: Carbohydrates Quiz: Carbohydrates Collaborative Learning: Whole vs. Refined Grains	18	19	20	21	22
23	24 LS Ch05: Lipids Quiz: Lipids Collaborative Learning: Saturated Fats & Heart Health Extra Credit: Mediterranean Diet	25	26	27	28	29

October 2018

HUMN NTR 2210

SUN	MON	TUE	WED	THU	FRI	SAT
30	1 LS Ch06: Proteins Quiz: Proteins Dietary Analysis: Macronutrients	2	3	4	5 Unit 2 Exam Available (Chapters 4 – 6)	6
7	8 LS Ch08: Overview of Micronutrients & Phytochemicals LS Ch09: Fluid and Electrolyte Balance Quiz: Micronutrients I	9	10	11 AUTUMN BREAK	12	13
14	15 LS Ch10: Nutrients Involved in Body Defenses LS Ch11: Nutrients Involved in Bone Health Quiz: Micronutrients II Extra Credit: Cancer Research	16	17	18	19	20
21	22 LS Ch12: Micronutrient Function in Energy Metabolism LS Ch13: Nutrients That Support Blood & Brain Health Dietary Analysis: Micronutrients	23	24	25	26 Unit 3 Exam Available (Chapters 8 – 13)	27
28	29 LS Ch07: Energy Balance & Weight Control Quiz: Weight Management Extra Credit: Fad Diet	30	31	1	2	3

November/December 2018 HUMN NTR 2210

SUN	MON	TUE	WED	THU	FRI	SAT
4	5 LS Ch14: Nutrition: Fitness & Sports Quiz: Sports Nutrition Collaborative Learning: Ergogenic Aids	6	7	8	9	10
11	12 VETERAN'S DAY LS Ch16: Undernutrition Throughout the World Dietary Analysis: Energy Balance Extra Credit: LS Ch15: Eating Disorders Extra Credit: LS Ch17: Safety of Our Food Supply	13	14	15	16 Unit 4 Exam Available (Chapters 7, 14, and 16)	17
18	19 LS Ch18: Nutrition During Pregnancy & Breastfeeding Quiz: Pregnancy & Breastfeeding Collaborative Learning: Fertility Diet	20	21	22 THANKSGIVING BREAK	23	24
25	26 LS Ch19: Nutrition from Infancy Through Adolescence Quiz: Child Nutrition Extra Credit: LEAP Trial	27	28	29	30	1
2	3 LS Ch20: Nutrition During Adulthood Quiz: Adult Nutrition Extra Credit: Detect an Error Extra Credit: Course Feedback Request	4	5	6	7 Unit 5 Exam Available (Chapters 18 – 20)	8

	ELO 1.1 Explain basic facts, principles, theories, and m
	1. Examine and describe the basic biological aspects o
	Capstone (4)
General language	Demonstrates superior ability to describe the basic biological aspects of nutrient requirements of humans.
Specific language	Demonstrates ability to modify dietary patterns to meet nutrient requirements.
Assessment item	DIETARY ANALYSIS ITEM: Many people fall short of the Recommended Dietary Allowance (RDA) for calcium. Which of the following would be the most effective way to increase calcium intake? [Drink milk instead of soft drinks.]
	2. Describe the complex interactions between various
	Capstone (4)
General language	Demonstrates superior ability to describe the complex interactions between nutrients and cellular processes.
Specific language	Demonstrates ability to modify dietary patterns to address nutrient deficiencies or toxicities.
Assessment item	DIETARY ANALYSIS ITEM: Which of the following would be an effective way to improve iron status? [Consume plant sources of iron (e.g., legumes) with a source of vitamin C (e.g., tomatoes).; Occasionally choose lean red meats (e.g., sirloin steak) as part of meals.; At breakfast, choose an iron-fortified cereal.]
	3. Recognize the linkages between nutrients and *dise*
General language	Demonstrates superior ability to recognize linkages between nutrients and disease processes, body size, mental ability, and performance.
Specific language	Demonstrates ability to modify dietary patterns to mitigate risk for the leading noncommunicable diseases in the United States.

Assessment item	FINAL EXAM ITEM: To prevent bone loss, a post-menopausal woman at risk for osteoporosis could [increase dietary intake of calcium and vitamin D.; add some strength-training to her exercise routine.; limit alcohol intake to one drink per day.]
	11. Identify the links between nutrients on disease pr
General language	Demonstrates superior ability to identify the links between nutrients on disease processes, mental ability and labor effectiveness.
Specific language	Demonstrates ability to modify dietary patterns to improve/optimize physical performance.
Assessment item	UNIT 4 EXAM ITEM: Think about the nutrients that are important for muscle recovery. Which of the following snacks would be best to promote muscle recovery after a strength-training workout? [1 peanut butter sandwich with 1 cup of low-fat milk.]
	12. Explain how nutrition requirements change throu
General language	Demonstrates superior ability to explain how nutrient requirements change throughout the lifespan.
Specific language	Demonstrates ability to modify dietary patterns to meet the specific nutrient needs of individuals throughout the lifespan.
Assessment item	UNIT 3 HOMEWORK ITEM: Adequate folate intake during pregnancy is imperative for the prevention of neural tube defects like spina bifida. Which of the following dietary sources would provide the greatest amount of bioavailable vitamin for a pregnant woman? [Prenatal vitamin with 400 micrograms of folic acid]
	ELO 1.2 Identify how key events in the development o
	4. Examine key events in the history of nutritional sci
General language	Demonstrates superior ability to examine key events in the history of nutritional science, from the early discovery of the essential nutrients to the current discovery of the effects of nutrients on the human genome.
Specific language	Modify dietary patterns to prevent or treat nutrition-related diseases with a genetic component.

Assessment item	UNIT 2 HOMEWORK ITEM: Individuals with phenylketonuria (PKU) should avoid [aspartame.]

	5. Determine how nutritional information is derived f
General language	Demonstrates superior ability to determine how nutritional information is derived from the scientific method of investigation.
Specific language	Interpret the results and conclusions of a current, peer-reviewed, scientific journal article about nutrition.
Assessment item	UNIT 1 EXAM ITEM: The results of an observational study show that women who regularly take multivitamins tend to have healthier body weight. From this study, we can conclude that taking multivitamins causes weight loss. [False]

	ELO 1.3 Employ the processes of science through expl
Experiential Learning	**10. Utilize computer technology to assess dietary inta**
General language	Demonstrates superior ability to utilize computer technology to assess dietary intake and activity levels compared to national recommendations.
Specific language	Modify dietary patterns to meet nutrient needs and adhere to public health recommendations.

Assessment item	DIETARY ANALYSIS ITEM: Describe one way you could change your usual dietary pattern to reduce your intake of added sugars. Be specific! For example, "Instead of choosing x for breakfast, I could choose y."
	7. Describe how methods of modern science are used
General language	Demonstrates superior ability to describe how methods of modern science are used in the assessment of nutritional status.
Specific language	Use data from nutritional assessments to inform dietary choices to correct nutrition-releated health problems.
Assessment item	FINAL EXAM ITEM: Jorge's blood pressure measurement of 160/90 mmHg indicates hypertension. Which of the following dietary patterns may be used to lower his blood pressure? [DASH Diet]
	ELO 2.1 Analyze the inter-dependence and potential i
	9. Explore and examine how modern science and tech
General language	Demonstrates superior ability to explore and examine how modern science and technology can be used to address nutritional problems of the contemporary world.
Specific language	Discuss the pros and cons of the use of biotechnology in food production.

Assessment item	UNIT 4 HOMEWORK ITEM: Benefits of genetic engineering in agriculture include [reduced food costs.; increased crop yield.; enhanced food safety and food security.; reductions in soil erosion and environmental stress.]
	ELO 2.2 Evaluate social and ethical implications of na
	8. Examine the diverse social and cultural patterns th
General language	Demonstrates superior ability to examine the diverse social and cultural patterns that influence food preferences and their implications to nutrient status.
Specific language	Describe the impact of food insecurity on human health and wellbeing.health impact of a public health nutrition program in the United States.
Assessment item	BEYOND THE BASICS (discussion-based activity): Food Insecurity on College Campuses
	ELO 2.3 Critically evaluate and responsibly use inform
	6. Evaluate reputable versus non-reputable sources o
General language	Demonstrates superior ability to evaluate reputable versus non-reputable sources of nutrition information.
Specific language	Evaluate the risks and benefits of a popular diet.
Assessment item	BEYOND THE BASICS (quiz): Keto Diet

ıethods of modern natural sciences; describe and analyze the process of scientific inquiry.

ȯf nutrient requirements of humans.

Milestone (3)	Milestone (2)
Demonstrates adequate ability to describe the basic biological aspects of nutrient requirements of humans. Demonstrates ability to use nutrient standards to evaluate the adequacy of dietary patterns. DIETARY ANALYSIS ITEM: Was your calcium intake at least as much as your recommendation?	Demonstrates partial ability to describe the basic biological aspects of nutrient requirements of humans. Demonstrates ability to define various nutrient intake standards used in the United States. UNIT 1 EXAM ITEM: The RDAs for nutrients are set [to cover the needs of 97% to 98% of the population.]

ș nutrients upon physiological and cellular processes.

Milestone (3)	Milestone (2)
Demonstrates adequate ability to describe the complex interactions between nutrients and cellular processes. Demonstrates ability to describe nutrient/nutrient interactions that support cellular processes. UNIT 3 EXAM ITEM: Consumption of vitamin C [enhances absorption of iron.]	Demonstrates partial ability to describe the complex interactions between nutrients and cellular processes. Identify signs of nutrient deficiencies. UNIT 3 EXAM ITEM: A Disease characterized by poor mineralization of newly synthesized bones due to low calcium content and caused by vitamin D deficiency [Rickets]

***ase processes* , body size, mental ability, and performance.**

Demonstrates adequate ability to recognize linkages between nutrients and disease processes, body size, mental ability, and performance. Demonstrates ability to recall the recommendations of major public health authorities (e.g., American Heart Association, American Institute for Cancer Research) to mitigate the risk for the leading noncommunicable diseases in the United States.	Demonstrates partial ability to recognize linkages between nutrients and disease processes, body size, mental ability, and performance. Demonstrates ability to recall the recommendations of the Dietary Guidelines of Americans to reduce risk for the leading noncommunicable diseases in the United States.

UNIT 3 EXAM ITEM:For cancer prevention, most Americans would benefit from reducing their intakes of [red and processed meats.]	UNIT 1 EXAM ITEM: Which of the following statements is consistent with the 2010 Dietary Guidelines for Americans? [Balance the calories you eat with physical activity.]
ocesses, mental ability, and *labor effectiveness (sport).*	
Demonstrates adequate ability to identify the links between nutrients on disease processes, mental ability and labor effectiveness. Recalls nutrition recommendations to support optimal physical performance.	Demonstrates partial ability to identify the links between nutrients on disease processes, mental ability and labor effectiveness. Demonstrates ability to describe the negative impact of nutrient deficiencies on physical performance.
UNIT 4 EXAM ITEM: Amanda loses 3 pounds of fluid by sweating during a soccer game. How many cups of fluid would be appropriate to replenish her body fluids? [8 cups]	UNIT 4 EXAM ITEM: To decrease the risk of developing heat-related injuries, [watch for rapid body-weight changes of 2% or more of body weight.]
ghout the lifespan (e.g., pregnancy to adulthood).	
Demonstrates adequate ability to explain how nutrient requirements change throughout the lifespan. Explains how the physiological changes of human development affect nutrient requirements throughout the lifespan.	Demonstrates partial ability to explain how nutrient requirements change throughout the lifespan. Describes an example of a nutrient requirement that changes throughout the lifespan.
UNIT 3 EXAM ITEM: To promote bone health, all infants should receive supplemental _____ until dietary intake from formula and/or other foods meets their needs. [vitamin D]	UNIT 3 EXAM ITEM: Older adults may require a supplemental source of vitamin B-12 because [decreased production of intrinsic factor decreases vitamin B-12 absorption.]
of science contribute to the ongoing and changing nature of scientific knowledge and methods.	
ence from the early discovery of the essential nutrients to the current discovery of the effects of nutrients o	
Demonstrates adequate ability to examine key events in the history of nutritional science, from the early discovery of the essential nutrients to the current discovery of the effects of nutrients on the human genome.	Demonstrates partial ability to examine key events in the history of nutritional science, from the early discovery of the essential nutrients to the current discovery of the effects of nutrients on the human genome.
Differentiate between nutrigenetics and nutrigenomics.	Define nutritional genomics.

UNIT 2 HOMEWORK ITEM: Match each term with its definition. Nutrigenetics = Study of the effect of genes on nutritional health; Nutrigenomics = Study of how food impacts health through its interactions with genes; Epigenetics = Heritable changes in gene function that are independent of DNA sequence	UNIT 2 EXAM ITEM: The study of how a person's genes interact with nutrients is called [nutritional genomics.]

rom the scientific method of investigation.	
Demonstrates adequate ability to determine how nutritional information is derived from the scientific method of investigation. Identify the elements of the scientific method of investigation in a current peer-reviewed, scientific journal article about nutrition. UNIT 1 EXAM ITEM: In the experimental design, neither the participants nor the researchers are aware of each participant's assignment (test or placebo) or the outcome of the study until it is completed.[double -blinded	Demonstrates partial ability to determine how nutritional information is derived from the scientific method of investigation. Differentiate among different types of nutrition research methods. UNIT 1 HOMEWORK ITEM: The scientific method is important for determining relationships between dietary patterns and health. Classify each of the following studies according to its study design. Randomized, placebo-controlled, human study = Men with high blood pressure are randomized . . . ; Case-control study = Scientists studying middle-aged women . . . ; Laboratory animal experiements = Rats receive a high-fat diet . . . ; Observational study = Nurses report that patients . . .

oration, discovery, and collaboration to interact directly with the natural world when feasible, using approp **ke and activity levels compared to national recommendations. (EXPERENTIAL LEARNING COMPONENT)**	
Demonstrates adequate ability to utilize computer technology to assess dietary intake and activity levels compared to national recommendations. Use reports from dietary analysis software to identify food sources of nutrients.	Demonstrates partial ability to utilize computer technology to assess dietary intake and activity levels compared to national recommendations. Use reports from dietary analysis software to evaluate dietary patterns compared to nutrient standards.

DIETARY ANALYSIS ITEM: On your Spreadsheet Report (part of your All Daily Reports), closely examine the column that indicates the dietary fiber content of each food you recorded. List two sources of dietary fiber from the foods included in your Spreadsheet Report.	DIETARY ANALYSIS ITEM: Look at your MyPlate Report and enter your intakes and recommendations for each of the MyPlate food groups. Then answer the questions below. Was your grains intake at least as much as your recommendation? [YES/NO] Was your vegetable intake at least as much as your recommendation? [YES/NO] Was your fruit intake at least as much as your recommendation? [YES/NO] Was your dairy intake at least as much as your recommendation? [YES/NO] Was your protein foods intake at least as much as your recommendation? [YES/NO]
in the assessment of nutritional status.	
Demonstrates adequate ability to describe how methods of modern science are used in the assessment of nutritional status. Use data from nutirtional assessments to assess nutritional status of individuals.	Demonstrates partial ability to describe how methods of modern science are used in the assessment of nutritional status. Describe modern methods of body composition assessment.
UNIT 4 EXAM ITEM: A woman who is 5 feet 2 inches tall and weighs 98 pounds is classified as [underweight.]	UNIT 4 HOMEWORK ITEM: If you were a subject in a scientific study measuring body fatness, the scientists might assess your body composition using any of a variety of anthropometric measurements. Click and drag to match each measurement technique to its description. Underwater weighing = You are weighed on a standard scale . . . ; Air displacement = You are placed in a chamber . . .; Bioelectric impedance analysis = You lie down and a clinician places electrode patches . . . ; Skinfold thickness = A clinician uses calipers . . . ; Dual-energy X-ray absorptiometry = You lie down and a machine emitting . . .
mpacts of scientific and technological developments.	
nology can be used to address nutritional problems of the contemporary world.	
Demonstrates adequate ability to explore and examine how modern science and technology can be used to address nutritional problems of the contemporary world. Describe an example of the use of modern science to address the global problem of undernutrition.	Demonstrates partial ability to explore and examine how modern science and technology can be used to address nutritional problems of the contemporary world. Define sustainable agriculture.

UNIT 4 EXAM ITEM: Which of the following is an example of genetic engineering? [Changing DNA inside grape seeds so they produce their own pesticide to prevent attack by insects]	UNIT 4 HOMEWORK ITEM: Which of the following is not true about sustainable agriculture? [Sustainable agricultural practices have a promising role in developed nations, but would not benefit farmers and consumers in developing nations.]

tural scientific discoveries.

at influence food preferences and their implications to nutrient status.

Demonstrates adequate ability to examine the diverse social and cultural patterns that influence food preferences and their implications to nutrient status.	Demonstrates partial ability to examine the diverse social and cultural patterns that influence food preferences and their implications to nutrient status.
Describe nutrition assistance programs that are available in the United States to address the problem of food insecurity.	Identify social determinants of health that may influence nutritional status.
UNIT 4 EXAM ITEM: The food assistance program developed in the 1960s to help low-income families purchase healthy foods is the [Supplemental Nutrition Assistance Program.]	BEYOND THE BASICS (discussion-based activity): Food Insecurity on College Campuses

ıation from the natural sciences.

f nutrition information.

Demonstrates adequate ability to evaluate reputable versus non-reputable sources of nutrition information.	Demonstrates partial ability to evaluate reputable versus non-reputable sources of nutrition information.
Differentiate reputable versus nonreputable examples of nutrition information.	List three "red flags" that can be used to identify nutrition misinformaton.
UNIT 4 HOMEWORK ITEM: There are a number of criteria for identifying an unreliable diet. Click and drag to explain why each diet claim represents an unreliable, fad diet. [Promoting quick weight loss; Limiting food selections; Celebrity testimonials; No need to exercise; Expensive supplements]	UNIT 1 HOMEWORK ITEM: Recently, major nutrition organizations put together a list of red flags that they consider signals for poor nutrition advice. Drag the product's claim to the red flag that it most likely represents. [Promises of a quick fix; Recommendations based on a single study; Bias against traditional therapies; Claims that sound too good to be true]

Benchmark (1)

Demonstrates superficial ability to describe the basic biological aspects of nutrient requirements of humans.
Demonstrates ability to identify the six classes of essential nutrients.

UNIT 1 EXAM ITEM: Which of the following is an essential nutrient? [Carbohydrates]

Benchmark (1)

Demonstrates superficial ability to describe the complex interactions between nutrients and cellular processes.
Demonstrates ability to identify the three main functions of the six classes of essential nutrients.

UNIT 1 EXAM ITEM: Which of the following is a function of water? [Transports nutrients and wastes]

Demonstrates superficial ability to recognize linkages between nutrients and disease processes, body size, mental ability, and performance.

Demonstrates ability to identify correlations between dietary patterns and the leading noncommunicable diseases in the United States.

UNIT 2 EXAM ITEM: The major dietary factor to be concerned about in relation to heart disease is [saturated fat]

Demonstrates superficial ability to identify the links between nutrients on disease processes, mental ability and labor effectiveness.
Demonstrates ability to describe the roles of specific nutrients in supporting optimal physical performance.
UNIT 4 EXAM ITEM: Strength-trained athletes have higher protein needs than non-athletes because [amino acids are used to repair and rebuild muscle tissue after workouts.]

Demonstrates superficial ability to explain how nutrient requirements change throughout the lifespan.
Demonstrates knowledge that nutrient requirements change throughout the lifespan.

UNIT 3 EXAM ITEM: A 21-year-old woman has _____ iron requirements than a 21-year-old man. [higher]

n the human genome.
Demonstrates superficial ability to examine key events in the history of nutritional science, from the early discovery of the essential nutrients to the current discovery of the effects of nutrients on the human genome.

Differentiate between modifiable and nonmodifiable risk factors for noncommunicable diseases.

UNIT 2 HOMEWORK ITEM: Several of Linda's family members have died from heart disease-related complications. She realizes she is at high risk for cardiovascular disease, and some of this risk is attributable to her genetic makeup. Click and drag the following risk factors to show whether each is primarily due to genetics or lifestyle. Genetic risk factors: Defective gene that delays blood cholesterol removal; hereditary trait that causes high blood homocysteine. Lifestyle risk factors: Dietary pattern high in saturated and trans fat; Sedentary pattern of daily physical activity.

Demonstrates superficial ability to determine how nutritional information is derived from the scientific method of investigation.
Outline the steps of the scientific method of investigation.

UNIT 1 EXAM ITEM: A possible explanation for a natural phenomenon is a [hypothesis.]

ɔriate tools, models, and analysis of data.

Demonstrates superficial ability to utilize computer technology to assess dietary intake and activity levels compared to national recommendations.

Use dietary analysis software to enter dietary data and generate reports.

DIETARY ANALYSIS ITEM: Upload All Daily Reports

Demonstrates superficial ability to describe how methods of modern science are used in the assessment of nutritional status.
Recall the ABCDEs of nutrition assessment.

UNIT 1 EXAM ITEM: Jeff, a world-class triathlete, visits a dietitian to obtain sports nutrition advice. During his visit, Jeff is asked to recall what he ate for the past 24 hours. Which part of a nutritional assessment is this?[dietary assessment]

Demonstrates superficial ability to explore and examine how modern science and technology can be used to address nutritional problems of the contemporary world.
Define biotechnology.

UNIT 4 EXAM ITEM: A collection of processes that involves the use of biological systems for altering and, ideally, improving the characteristics of plants, animals, and other forms of life is termed [biotechnology.]

Demonstrates superficial ability to examine the diverse social and cultural patterns that influence food preferences and their implications to nutrient status.
Define food insecurity.

UNIT 4 EXAM ITEM: A condition in which a family does not have access to safe and nutritious food and water is called [food insecurity.]

Demonstrates superficial ability to evaluate reputable versus non-reputable sources of nutrition information.
List three credible sources of nutrition information.

UNIT 1 HOMEWORK ITEM: Justine has a full-time job and three small children. She is interested in learning more about preparing healthy meals for her kids and asks her primary care provider for a referral to a nutrition professional. What is the credential of the nutrition professional who has completed a baccalaureate degree program approved by the Accreditation Council for Education in Nutrition and Dietetics, performed at least 1200 hours of supervised professional practice, passed a national registration examination, and meets continuing education requirements? [Registered Dietitian Nutritionist]

Mapping HN2210 learning objectives to University ELOs for Natural Science foundation courses. Below are the 5 learning objectives outlined for the natural science foundation GEs at OSU. In red , we include specific learning objectives for HN2210 that align with the natural science GE courses. .

ELO#1 Explain basic facts, principles, theories and methods of modern science;

Examine and describe the basic biological aspects of nutrient requirements of humans.

Describe the complex interactions between various nutrients upon physiological and cellular processes.

Recognize the linkages between nutrients and disease processes, body size, mental ability, and performance.

Identify the links between nutrients and disease processes, body size, mental ability and labor effectiveness (sport).

Describe how methods of modern science are used in the assessment of nutritional status

Determine how nutritional information is derived from the scientific method of investigation.

Explain how nutrition requirements change throughout the lifespan (pregnancy to adulthood)

ELO#2 Describe key events in the development of science and recognize that science is an evolving body of knowledge;

Examine key events in the history of nutritional science from the early discovery of the essential nutrients to the current discovery of the effects of nutrients on the human genome.

Evaluate reputable versus non-reputable sources of nutrition information.

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ELO #3 Examine the inter-dependence of scientific and technological developments;

Explore and examine how of modern science and technology can address nutritional problems of the contemporary world.

Describe how methods of modern science are used in the assessment of nutritional status

ELO #4 Recognize social, ethical, and philosophical implications of scientific discoveries and analyze the potential of science and technology to address problems of the contemporary world;

Examine the diverse social and cultural patterns that influence food preferences and their implications to nutrient status.

ELO #5 Collect data and analyze that data during a significant laboratory or field experience; describe the process of doing science; and describe the power and limits of this process.

Utilize computer technology to assess and analyze dietary intake and activity levels compared to national recommendations.