

KINE 354 Nutrition in Health & Disease

Online – Second Summer Session 2020

Course Outline & Syllabus

Course Overview

This course is an introductory-level course for students who may be interested in learning more about how the use of nutrition therapy can decrease risk of chronic disease, treat incurrent disease conditions, and modify diets to reduce risk of the disease recurrence. Students will also earn COLL 200 credit (CSI Domain-reaching out to the NQR Domain) upon successful completion of the course.

This introductory course will introduce many topics related to Nutrition in Health & Disease in a relatively short period of time, therefore, you will gain an overview of topics. This course will stimulate thoughtful inquiry into the effects of nutrition on health from cultural, individual, and public health perspectives.

Numerous discoveries in nutrition science over the past few years have continued to benefit the field of health care. A major objective of this course is to present core nutrition information and guidelines about the prevention of, and care during, illness. In addition, the course aims to help nutrition students evaluate information and products available from the media, colleagues, and the marketplace in accomplishing its objectives. Hopefully, this course will spark a lifetime interest in nutrition science and its effects on health.

Your Commitment

As an asynchronous course, students are responsible for managing their own study of the material assigned. The course proceeds rapidly during a summer session as we are addressing an entire semester in 5 weeks, so be prepared to devote an equivalent amount of time to this course. There are strict deadlines for each assignment that must be met (see also "Assignments" area for additional assignment submission sites and deadlines), so please plan accordingly. I will be holding "virtual office hours" between 5PM and 6PM EST (all times are EST), Tuesday-Thursday of each week and can be reached via E-mail (kwkamb@wm.edu), Cell phone: 757-990-9650, or Zoom.

The course is divided into five, one-week units of study. The presentation of subsequent units will be available on Friday of the preceding week. For example, in week one, on Friday, the unit of study for week two (Unit 2) will be made available. Any summer session course provides an entire semester of work condensed into five weeks. Therefore, plan to devote an equivalent amount of time that you would spend on a 14-week course to our plan of study that lasts only five weeks.

Overall Course Learning Objectives

Upon completion of this course, the student should be able to: (1) identify core nutrition information; (2) clearly define and apply information regarding the six classes of nutrients; (3) describe how to identify nutrition misinformation and reliable nutrition information; (4) categorize the early history of nutrition science; (5) identify nutrition therapy for specific disease conditions; and (6) apply the acquired knowledge in practice clinical settings.

More specific student learning objectives will be listed within each individual module.

Following is an outline of the material covered during the five units of study:

Unit 1: Monday, July 6 - Sunday, July 12:

- Overview (Tuesday quiz)
- Digestion & Absorption (Wednesday quiz)
- Carbohydrates (Thursday quiz)
- Lipids (Friday quiz)
- Record all foods and beverages consumed on Wednesday, July 3 on the Food Record Form for eaTracker analysis. Each section topic has an accompanying "Chapter Basics Quiz" which is ungraded and can be taken repeatedly. Each section is followed by a short **graded** "post-learning assessment," (chapter test) which is available 5PM-

midnight on the day of the section topic. Chapter tests are **NOT OPEN BOOK!** Only Unit 1 will have four graded chapter tests -- one each day beginning on Tuesday (7/7). Other Unit assignments include a Discussion Forum post, due on Fridays, a reply to another student's post, due on Sunday evenings, and other assignments due at specified times during the unit week.

Each week, students will record everything they eat and drink during one 24-hour period on the provided Food Record Form (see Assignments). Students will then enter the foods and beverages consumed and recorded on the diet diary food record form into a designated diet analysis software program (see Assignments). Each week's day for the diet diary will be a different day of the week. At the end of **each** week, students will follow Blackboard (Bb) instructions to provide a report (to be graded) consisting of an analysis of the week's one-day diet diary. Your diet is not critiqued. This exercise is to insure your competence in utilizing this free program for future monitoring of your eating pattern.

Unit 2: Monday, July 13 - Sunday, July 19

- Proteins (Monday quiz)
- Metabolism, Energy Balance, & Body Composition (Tuesday quiz)
- Weight Management (Wednesday quiz)
- Vitamins (Thursday quiz)
- Water & Minerals (Friday quiz)
- Record all foods and beverages consumed on Thursday, July 16 on a Food Record Form for eaTracker analysis.

Unit 3: Monday, July 20 - Sunday, July 26

- Illness & Nutrition Care (Monday quiz)
- Diet-Drug Interactions & Herbal Supplementation (Tuesday quiz)
- Enteral & Parenteral Nutrition (Wednesday quiz)
- Upper GI Disorders (Thursday quiz)
- Lower GI Disorders (Friday quiz)
- Record all foods and beverages consumed on Friday, July 24 on a Food Record Form for eaTracker analysis.

Unit 4: Monday, July 27 - Sunday, August 2

- Malabsorption Disorders (Monday quiz)
- Liver & Gallbladder Diseases (Tuesday quiz)
- Carbohydrate-controlled Diets for Diabetes Mellitus (Wednesday quiz)
- Controlled Diets for Cardiovascular Diseases (Thursday quiz)
- Modified Diets for Kidney Diseases (Friday quiz)
- Record all foods and beverages consumed on Saturday, August 1 on a Food Record Form for eaTracker analysis.

Unit 5: Monday, August 3 - Friday, August 7

- Modified Diets for Metabolic & Respiratory Stress (Monday quiz)
- Modified Diets for Cancer & HIV (Tuesday quiz)
- Record all foods and beverages consumed on Sunday, August 2 on a Food Record Form for eaTracker analysis.
- Final Summary & Discussion Post for the course. Course Evaluations.

Course Structure

As an asynchronous online course, students can work on various readings, assignments, and writings at their own pace with adherence to deadlines for submission of completed works. Obviously, it is advantageous for students to apply their study time throughout the week and not delay work on assignments until just prior to submission deadlines. **Plan on approximately 25 hours per week dedicated to this class.** Deadlines are timed and assignments submitted late will be graded down the equivalent of one letter grade each day late.

Students will have the following weekly assignments:

- a discussion forum post
- a reply to one (1) other peer's discussion forum post
- weekly 1-day diet diary analyses report (to be graded) submitted confidentially to the instructor
- tests administered after each chapter that will be graded
- multiple reading/viewing assignments that require locating and reading peer-reviewed articles and specific text chapters in addition to viewing relevant videos

Course Schedule

Unit 1 begins on Monday, July 6, 2020. The next unit will become available on Friday of each week. Therefore, students cannot "jump ahead" to work on future assignments. Weekly unit work can be done only during the given week. Assignments will be due, unless otherwise specified, no later than Friday at 11:59PM or Sunday at 11:59PM, respectively.

Resources

There is one required text for this course and it **MUST** include its accompanying MindTap software learning system:

1. *Nutrition & Diet Therapy*, 10th Edition by DeBruyne & Pinna. Students can purchase a 6-month E-edition rental with the **required** access to Cengage MindTap **or** purchase a loose-leaf shrink-wrapped copy along with the required access code to MindTap. This purchase can be made via the [College Bookstore](#) or directly from Cengage.com (for instant access to MindTap and the e-book) via the MindTap links in this Blackboard course. The hardback 10th edition alone of this text costs more than \$200 so I am trying to hold costs down as much as possible.

KINE 354 Nutrition in Health & Disease Textbook Requirement *Nutrition & Diet Therapy 10th Edition*

W&M Bookstore ISBN's
&
Cengage.com ISBN's

NOTE: MindTap purchase includes the e-book rental for 6 months.

If you want a hard copy of the textbook, buy the bundle. Either way, you need MindTap

Purchase the MindTap access code which includes an E-book or purchase the loose-leaf book that is bundled with a MindTap access code. **Do not buy both.** Used books do **NOT** include MindTap

You can access your MindTap as soon as the course Unit 1 becomes available and begin working through MindTap assignments. Once you disable your computer's pop-up blocker, click on any MindTap assignment. You will be directed to login or enter you access code which will then grant you access to MindTap which you will be required to use extensively throughout the course.

Other assignments will be posted in Blackboard (Bb) in the specific unit under study. **Important:** Our systems seem to work best with either Firefox or Google Chrome (Firefox may work better for some) as your browser. Please make the necessary adjustments as other browsers may substantially impede your progress through *Nutrition in Health & Disease*. Access MindTap as soon as possible to work through a tutorial.

REMEMBER: You must disable your pop-up blocker to use MindTap.

ISBN Information for the bookstore:

Print/loose-leaf and MindTap/digital (**which always comes with the ebook**):

DeBruyne - Bundle: *Nutrition and Diet Therapy*, Loose-leaf Version, 10th + MindTap, 1 term Printed Access Card
9780357325308

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10th Edition

MindTap/digital only (**which always comes with the ebook**):

DeBruyne/Pinna/Whitney - MindTap for DeBruyne/Pinna/Whitney's *Nutrition and Diet Therapy*, 1 Term Printed Access Card

9780357039885

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10th Edition

1 term Subscription to all Cengage materials (which includes MindTap/ebook and can add on a print rental for an additional \$7.99):

Cengage Unlimited, 1 term (4 months) Printed Access Card **9780357700037**

Information if students want to purchase directly from CENGAGE:

Students will see purchase options when clicking in to your MindTap course from Blackboard. This is the best way to ensure that they are purchasing the correct product. Their pricing options will be:

Print/loose-leaf and Mindtap/digital (which always comes with the ebook):

\$119.75

MindTap/digital only (which always comes with the ebook):

\$113.00

1 term Cengage Unlimited Subscription to all Cengage materials (which includes Mindtap/ebook and can add on a print rental for an additional \$7.99):

\$119.99

Prerequisites and/or Course Requirements

Although this course is designed for nutrition in a clinical setting, there are no prerequisites. A background in Biology would be helpful but is not essential as this is an introductory-level course. Enrolled students must be able to access Cengage MindTap, to be purchased along with the required text *Nutrition & Diet Therapy 10th Ed.*

Remember: The required text is available either as a loose-leaf text bundled with MindTap or via purchase of MindTap alone which has the E-book version of our text embedded within. **Do not purchase both!** A reliable Internet connection is also required.

Course Grading Policy: Ratio of Your Total Points to 360 Possible Points

Final grades for this course will be the composite of graded assignments (100%).

Graded Chapter Tests/Assignments = 360 points maximum possible

- Chapter tests (21, 10-point chapter tests that will be graded) = **210 points test points possible**
- Note: Practice Tests are not graded
- Three graded assignments per unit = **150 assignment points possible**

For example, if you earn a chapter test total of 185 points and unit graded assignments total of 125 points, then your final grade would be $310/360 = 86\%$, or a "B."

Final grades are based on a standard 10-point scale with the upper two points being “+’s” and the lower two points being “-’s”.

Feedback of weekly assignments will generally be within 2 days of their required submission.

*****Grades will be lowered 1 point per day for any assignment submitted after its deadline*****

Students may contact me via e-mail at kwkamb@wm.edu. I try to reply to all e-mails within 24 hours of receipt. I can also be reached in an emergency via office phone, 757-221-2779, or cell phone, 757-990-9605. I will hold office hours Tuesday through Thursday from 5-6PM EST, at which time I will be available via Zoom by scheduled appointment so make sure you have the Zoom app installed on your computer and/or smartphone. If you are not available during my scheduled office hours, you may make an appointment with me at another time that is convenient to us both. Additional TBA Zoom meetings will be required. If you fail to attend your required Zoom meeting, 5 points will be deducted from your final grade.

About the Professor

As Professor of Health Sciences, I teach KINE352 *Nutrition and the Brain* and KINE354 *Nutrition in Health & Disease*. After receiving my PhD from UNC-Chapel Hill, I remained at UNC where I conducted research with Dr. Lloyd Yonce and Dr. Carl Blyth and taught various undergraduate and graduate courses in the Department of Exercise Science. Following UNC, I relocated to UC Santa Barbara to teach and develop the Wellness Institute in conjunction with Jon Spaventa and Art Gilbert. Thereafter I moved to Williamsburg to take a position with W&M where I have taught and conducted research for more than 30 years returning frequently to UC Santa Barbara to work with Dr. Steven Horvath in the UCSB-Neuroscience Research Institute.

My research is in high altitude physiology, and I Co-direct, with Dr. Brennan Harris, the Jack Borgenicht Altitude Physiology Research Facility (Hypoxia Lab) in the W&M Department of Health Sciences. For years my research has focused on nutritional interventions to reduce risk of Acute Mountain Sickness (AMS) frequently collaborating with the U.S. Army Research Institute of Environmental Medicine, Natick, MA.

I have always been fascinated with the relationship between nutrition and health and developed the first W&M nutrition course (KINE350) more than 20 years ago. As we all know now, two of the most important keys to optimum health are nutrition and exercise, with more convincing good science published daily. Since neither of these factors can guarantee good health because so many other factors out of our control play roles (heredity, race, age, gender, etc.), it is important to realize that we can control how much of what kind of exercise we do and we determine how much and what kinds of foods we consume. These two very important aspects of public health are almost totally within our control. For those who are at increased risk of disease conditions because of factors out of their control, it is even more important to focus on the things that can be controlled, e.g., *nutrition* and *exercise*.

Accommodations

It is the policy of William & Mary to accommodate students with disabilities and qualifying diagnosed conditions in accordance with federal and state laws. Any student who feels s/he may need an accommodation based on the impact of a learning, psychiatric, physical, or chronic health diagnosis should contact the [Student Accessibility Services](#) staff at 757-221-2509 or at sas@wm.edu. SAS staff will work with you to determine if accommodations are warranted and, if so, to help you obtain an official letter of accommodation.

The College Honor System

The College of William & Mary has had an honor code since at least 1779. Academic integrity is at the heart of the College, and we all are responsible for upholding the ideals of honor and integrity. The student-led honor system is responsible for resolving any suspected violations of the Honor Code, and I will report all suspected instances of academic dishonesty to the honor system. The Student Handbook (www.wm.edu/studenthandbook) includes your responsibilities as a student and the full Code. Your full participation and observance of the Honor Code is expected. To read the Honor Code, see www.wm.edu/honor