

# Biology 45

## Introduction to Human Nutrition

Summer 2024



### INSTRUCTOR

ANNA MILLER, MS, RD

### EMAIL

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Please write "BIO45" in the subject. I try to respond to e-mail within 24-48 hours

### FOLLOW ME ON INSTAGRAM

"DeAnzaNutrition"

### OFFICE HOURS

On Zoom: Mondays and Fridays 11 am – 1 pm.  
Other days/times, by appointment

Welcome to Biology 45. My hope is you will be able to apply what you learn in this course to your professional and personal life. This class will undoubtedly affect how you think about food, diets and health. We often have complex relationships with food and may approach the topic of nutrition with trepidation and bias. I invite you to have an open, nonjudgmental mind as you explore this dynamic and powerful topic.

Cheers,

*Anna*

**COURSE DESCRIPTION** Biological function and chemical classification of nutrients. Effects of nutritional deficiencies and excesses. Recommended nutrient intakes and the role of diet in the development of chronic disease.

**CANVAS:** This course resides on the course management system called Canvas. It is accessible from MyPortal. The course will open the Thursday before the first day of the quarter for those who want to get a head start.

⇒ **IMPORTANT:** Faculty are required **by law** to clear their rosters of "no shows" during the first week. To keep your spot in this class and not be identified as a "no show" and dropped, **log onto the course on Canvas** and complete these **2 quick and easy tasks** by **midnight Wednesday** night of the first week (7/3):

1. Fill out a short questionnaire (*Welcome to Bio 45 Survey*). Doing so will earn you 5 points.
2. Take a short quiz (*What Do You Know...*). This will also earn you 5 points regardless of your answers.

(Students who add the class after registration closed will have 2 days to do these tasks, after they register)

⇒ **Not doing these 2 tasks by the deadline will get you dropped as a "no show"**. Get in touch with me in the first few days of the quarter if there is a hardship that prevents your completing these 2 tasks.

### STUDENT LEARNING OBJECTIVES:

1. Evaluate a meal plan or a diet for meeting the criteria of a healthy diet.
2. Demonstrate a coherent understanding of the relationship between diet and the major chronic diseases.

**PREREQUISITES:** Biology 40 A, B and C (Human Anatomy and Physiology). **Advisory:** EWRT 1A or ESL5

**REQUIRED TEXTBOOK:** *Understanding Nutrition* by Whitney and Rolfes, 16<sup>th</sup> edition 2020. This textbook can be rented from the DeAnza bookstore. E-versions can be found on the internet.

## COMMUNICATION

I communicate with you in a variety of ways:

- **Announcements.** *Read all announcements. You are responsible for the information in all announcements.*
- **Comments and Feedback** on Canvas with exam and assignment scores. *Read all comments*
- Private messages and group chats on **Pronto**.
  - **Pronto is the fastest and easiest way to communicate with me.** *I usually reply within the hour.*
- Messages through the **Canvas Inbox**. I do my very best to respond to messages within 24- 48 hours

## GRADING PROCEDURE

Orientation Quiz	10 points
Tasks #1 & 2 (5 points each)	10 points
Participating on Pronto	10 points
Feedback Survey (10 points each)	20 points
4 Exams*	320 points
Diet Assignment	<u>100 points</u>
Total Possible Points	470 points

### Get ready for Online Learning!

Watch this video:

<https://apps.3cm mediasolutions.org/oei/modules/intro/story/>

**Watch even if you've taken an online course before**

\*5 exams are given. The lowest exam score is dropped from your cumulative score.

## GRADING SCALE

<b>A+</b> = 456-470 points	<b>B+</b> = 409-420 points	<b>C+</b> = 362-373 points	<b>D+</b> = 315-326 points	<b>F</b> = <282 points
<b>A</b> = 437-455	<b>B</b> = 390-408	<b>C</b> = 327-361	<b>D</b> = 296-314	
<b>A-</b> = 421-436	<b>B-</b> = 374-389	<b>C-</b> = <i>there is no C-</i>	<b>D-</b> = 282-295	

✓ *Be aware of the last day to drop with a "W"*. If you realize after this date that you are not getting the grade that you desire, please do not ask me to drop you—college procedures do not allow me to do so. Monitor your grade throughout the course so there are no surprises in the last weeks of the quarter.

⇒ If you need accommodations or services due to a **disability**, register with the **Disability Support Services**: <https://www.deanza.edu/dsps/dss/>

## ORIENTATION QUIZ

This quiz will consist of 10 True/False and Multiple choice questions, taken from the information found in the Orientation Module and this syllabus. **It will be open from Monday--the first day of the quarter--at 6 am until the following Sunday night at 11:55 pm.** You will have 2 tries to take it. The higher score is kept.

### ↪ Know This

The Summer quarter progresses at "double speed": 2 weeks of content of a non-summer quarter are compressed into 1 week of summer quarter.

This means you'll put in twice the time, work and effort in 1 week of summer compared to fall, winter or spring quarter.

## PRONTO PARTICIPATION

We will be using Pronto, a real-time communication tool where you can ask questions, send direct messages to me or a classmate, participate on group chats and form private group study sessions. I will share resources, tips and send reminders. Downloading the Pronto app and participating on a Pronto group chat during the first week of the quarter earns 10 easy points 😊. **These are NOT extra credit point** - they are points built into the course. Instructions for downloading and using Pronto will be shared on Canvas.

## FEEDBACK SURVEYS

There will be 2 Feedback Surveys. Each will take just a few minutes to complete and earns 10 points each 😊. **These are not extra credit points.** They are part of the total points for the course. Each survey will be open for 1 week only and must be submitted within that time frame.

## PRACTICE QUIZZES AND WORKSHEETS

There will be many practice quizzes and some worksheets offered throughout the quarter. They are designed and offered **to help you in your process of learning**. Take them and be sure to check the answers once they are posted. This will help you to do well on the corresponding exam.

## BONUS POINT OPPORTUNITIES! 😊

10 Bonus Points are offered in this class.

If you submit Part 1 of the Diet Assignment early, by the date listed on the course schedule, you'll earn 5 Bonus Points. If you submit Part 2 of the Diet Assignment early, by the date listed you will earn 5 more Bonus Points. These points can REALLY boost your grade on the Diet Assignment 😊. **Partial submissions will not earn Bonus Points**--submissions must be complete to receive them. **NOTE:** Bonus Points for Part 2 submission can only be earned if Part 1 has been submitted prior to your Part 2 submission (or the same time)

## EXAMS

- There will be 5 Exams, all taken online. The lowest score will be dropped from your cumulative score. If you're happy with your scores on Exams 1, 2, 3 & 4 **you don't have to take Exam 5**.
- There are no make-up exams.** If you miss an exam, that is the one that is dropped
- The exams will consist of 40 True/False, Multiple Choice and Short Answer questions
- You may use **one 4"x 6" index card with notes on both sides** during an exam (or a 4x6" piece of paper)
- You will have 50 minutes to take the exams
- You MUST have a simple calculator** to use during some exams. **The calculator on a phone or computer is not permitted.** A scientific calculator is also not permitted. Plan ahead to get one in time for the exams.  
⇒ All exams are taken on Canvas **WHILE you are on ZOOM with your VIDEO turned ON**. This is a requirement. Check the dates and times below and make sure you are or can be available to take the exams. Exams taken while not visible on Zoom will not be accepted: The score will be 0.

### WHAT WILL BE ON EACH EXAM?

**Exam 1** All of the topics from Week 1 [Virtual Lectures #1 & 2]: Introduction through (including) Digestion

**Exam 2** Topics from Week 2 [Virtual Lectures #3 & 4]: Carbohydrates and Lipids

**Exam 3** Topics from Week 3 [Virtual Lectures #5 & 6]: Protein and Energy Metabolism

**Exam 4** The topics from Week 4 and half of Week 5 [Virtual Lectures #7, 8 & 9]

- Diet and Chronic diseases + Phytochemicals
- Body Weight
- Overview of the Micronutrients
- Dietary Supplements

**Exam 5** Topics from second half of Week 5 and Week 6 [Virtual Lectures #10 & 11]: Water, Vitamins and Minerals

### WHEN ARE THE EXAMS?

- All exams take place on Thursdays. There is an exam every week starting in Week 2

**Exam 1:** July 11

**Exam 2:** July 18

**Exam 3:** July 25

**Exam 4:** Aug 1

**Exam 5:** Aug 8

You will have 3 choices of times to take Exams 1-4:

- 4 pm, 5 pm or 6 pm

You will have 2 choices of times to take Exam 5

- 4 pm
- 5 pm

## OPTIONAL EXAM REVIEW SESSIONS

A 1 hour exam review session will take place on Zoom from 8-9 pm the night before Exams 1-4. The sessions will be recorded and posted on Canvas. **PLAN to be there in real time or watch the recording**. It WILL help you to score higher on the exam. A pre-recorded Exam 5 review will be posted (ie. it will not take place live)

## THE DIET ASSIGNMENT

- The Diet Assignment is divided into 3 parts:
  - Keeping a Food Record for 3 days and collecting labels/nutrition information about foods eaten out
  - Analyzing the foods on a nutrient analysis program and getting reports with data about your food intake
  - Evaluating and assessing your diet
- The assignment—all 3 parts—is graded once towards the end of the quarter. **All 3 parts must be submitted to receive a Diet Assignment score.**
- You are strongly encouraged to complete Parts 1 and 2 of the Diet Assignment **early** in the quarter and not wait to do all 3 parts right before it's due. This will increase the likelihood that you'll earn a high score 😊
- To encourage early submissions, IF you submit Parts 1 & 2 by the deadlines listed on the course schedule and your submissions are complete (ie nothing is missing, each component of Parts 1 & 2 is complete), each submission will earn 5 Bonus Points. 😊 **10 Bonus Points can REALLY make a difference in your grade.**
- In order to receive Bonus Points for Part 2 submission, your Part 1 must have been submitted by the time you submit Part 2
- The assignment can be **submitted late**, up to 4 days past the due date and not later.
  - **BUT....10 points will be deducted from your score**
  - This drops your grade 1 full grade
  - This heavy late penalty is an **incentive** for you to submit it **on time**
  - The point deduction is the same regardless of when it is submitted within those 4 days late
  - **ADVICE:** If getting an A is your goal, plan to finish the Diet Assignment by the due date.
- Students repeating Bio 45 must keep a *current* Food Record--**they may not use a Food Record from before**

This assignment is a big part of your grade and requires significant effort and time in order to do well on it

It also has the potential to be more than an assignment:

***It can be personally relevant to you and your family***

## ACADEMIC INTEGRITY

Any student found taking part in any form of **academic dishonesty** will receive no points or grade for the academic task (ie exam or assignment) that was completed without academic honesty.

A few examples of academic dishonesty are:

- *Looking at material (books, papers, websites) other than what is permitted during an exam*
- ***Navigating away from Canvas while taking an exam (except Zoom)***
- *Communicating with anyone other than your instructor during an exam: Talking, text message, e-mail, etc.*
- *Reproducing any part of the exam*
- *Sharing your answers to exam questions to another student or prospective student*
- *Having someone other than yourself take an exam*
- *Any form of plagiarism*
- *Giving your academic work to another student to plagiarize*
- *Turning in another person's Diet Assignment (or any part of it), representing it as your own*
- *Copying parts of the Diet Assignment from another person's work*
- *For students who are repeating Bio 45: Turning in your Diet Assignment from a previous quarter*
- *Lying to an instructor or college official to improve your grade*

**NOTE:** The Office of the Dean of Student Affairs & Activities maintains a record of students who have engaged in academic dishonesty.

## ✓ Know This!

- Sometimes the process of learning is frustrating and difficult. Oftentimes it is satisfying. Learning requires considerable effort and patience. With appropriate strategies, that effort brings you results: **mastering the material**.
- If you need to receive an “A” or a “B” in this class read the **Strategies for Doing Well in Biology 45**, on Canvas. (You’ll see it when you go through the **Orientation Module**). Plan to put the time and effort to help you to succeed. Do not wait until the end of the quarter to act if it becomes evident that you are not earning the grade that you need or want.
- **Doing well in this class requires TIME**, ~25 hours a week. Remember, you are not sitting in class for nearly 8 hours a week (what you would be if you were taking this class in person in the summer) *in addition* to out-of-class time studying. **You’re doing it all on your own time**. Make that time happen. Remember – 1 week of Bio 45 in summer = 2 weeks of Bio 45 in other quarters.
- **Time Management Skills are essential for staying on top of the material in this course**. Evaluate your priorities. **It’s not ideal to take this class at a time that if you are stretched too thin**. Be realistic as to what you can accomplish with what time and energy you have to devote to this class. Countless students have reported to me – at the end of the quarter – “I didn’t believe what you said at the beginning of the quarter, *but...you were right!*” **Don’t make that mistake!**
- BE SURE you check out the **DeAnza Online Education Website**: <https://www.deanza.edu/online-ed/index.html>. Bookmark the **Student Resource Hub**: <https://www.deanza.edu/online-ed/students/remoteteaching.html>. If you have questions or run into online-related problems, start here for finding answers.
- Read the **Biology/Chemistry Review** on Canvas (You’ll see it when you go through the Orientation Module). You should be comfortable with this material. If not, update your knowledge in those areas at the beginning of the quarter.

***Learning takes TIME. There are no shortcuts to learning and mastering skills.***

### OTHER IMPORTANT INFORMATION

- **Tom Nguyen** is the **Biology Division counselor**. He is a great resource available to you. He can be reached through e-mail: [nguyentom@fhda.edu](mailto:nguyentom@fhda.edu)
- Check out the **Student Success Center** on campus: <https://www.deanza.edu/studentsuccess/> It offers many resources to help students succeed in their academic pursuits.
- If you are or have ever battled an **eating disorder** and this course/the diet assignment has the potential of setting you back in your recovery process, please feel free to discuss your situation with me. Some accommodations are possible.

## FREQUENTLY ASKED QUESTIONS

### Can I use an earlier edition of the textbook?

A. It is ideal to use the current edition. **You will be at a disadvantage if you use an older edition.** That said, it's acceptable to use an edition one earlier, but be aware that there are changes from edition to edition. I'm sorry the textbook is very expensive. There are more budget-friendly options: The textbook is available for rent and can be found in an e-format on the internet.

### Q. How do I get in touch with the instructor?

A. The BEST (and fastest) way is to **message me on Pronto.**

You can also drop in during the 4 hours of office hours on Zoom: Every Friday and Monday from 11 am until 1 pm. Not free then? I'll be happy to make an appointment to speak with you on another day and/or time.

Please send a private message ONLY for private/personal questions. All questions about the course itself – exams, the diet assignment, quizzes, about nutrition, etc. should be posted to the **whole class**, in a **Pronto Chat** or on Canvas on the **Have a Question** Discussion (That way, others benefit from your question and my answer).

### Q. What happens if I can't take or miss an exam?

A. One exam score is dropped (the lowest of the 5) so that will be the one that is dropped. If something unavoidable prevents you from taking a second exam, contact me **before** the exam, or in the case of an emergency, as soon as possible after the exam.

### Q. Do I have to take Exam 5 if I took and am happy with my scores on Exams 1, 2, 3 & 4?

A. No, you do not.

### Q. Do I have to eat a healthy diet to do well in this class?

A. No! Your grade in this class is not at all based on how well you eat. You don't need to change your diet while taking this course. (But many students do, as a result of things they learn 😊 )

### Q. Are there ways I can boost my points in this class?

A. Yes! You can earn up to **10 Bonus Points**. Read about this on Page 2 of this syllabus. There are **other ways** I help you out:

- You can take the Orientation Quiz twice – the higher score is kept (and you have 60 minutes per try)
- The lowest exam score gets dropped 😊
- **There are 50 “easy points” to earn. Earn them all!**
  - The Orientation Quiz (10 pts)
  - Tasks #1 & 2 in the first few days of the quarter (10 pts)
  - Downloading the Pronto App and participating on Pronto (10 pts)
  - Filling out 2 Feedback Surveys (10 pts each; 20 pts total)
  - **Getting 50/50 points (100%) REALLY helps your standing in the class at the end of the quarter**

### SYLLABUS CHANGE POLICY

Information contained in this course syllabus may be subject to change with reasonable advance notice, as deemed appropriate by the instructor. Updates to the syllabus will be posted on Canvas.

Follow this advice  
from Bio 45 students  
who got As:

✓ Create a schedule for yourself: Dedicate certain days/hours each week for Bio 45 and commit to that schedule ✓ USE Anna's Friday and Monday TO DO lists. ✓ If you fall behind, catch up as soon as possible ✓ Read all of the Announcements ✓ Get Parts 1 & 2 of the diet assignment done early to receive **10 Bonus Points** ✓ Spend more time studying for the exams than you think you'll need ✓ Read the **VLs** more than once ✓ **Use the exam study guides** ✓ Attend the Exam Review Sessions ✓ **Make your notes** to use during exams ✓ Ask Anna when you have questions ✓ Watch the recorded Mini-Lectures ✓ Do the practice quizzes/worksheets ✓ Read the instructions for the diet assignment more than once – they're long but they're super helpful ✓ Ask questions when you're confused 😊



\*HL means "Highlight", the section that follows a chapter. HL 1 is the highlight after chapter 1

\*\*E refers to Appendix E, C refers to Appendix C; F refers to Appendix F. Pages in an appendix are numbered

	Topic	Reading Assignments	Exams/Due Dates
<b>Week 1</b> July 1-7	Introduction Where do we get our information about nutrition? Research	<b>VL #1</b> (Virtual Lecture, on Canvas) Textbook: p. 3-17, 25-26 ; HL#1*	<b>Wednesday:</b> <ul style="list-style-type: none"> <li>Deadline to complete the 2 tasks is 11:55 pm</li> <li>Last day to drop <i>without a W</i></li> </ul>
	Nutrition Assessment Energy Calculations Dietary Assessment Digestion	<b>VL #2</b> p. 22-25, 55 (The How To Box) E1-6** E11-14** 17-21, 35-39, 46-47, Chapter 3, HL#3	<b>Sunday:</b> <ul style="list-style-type: none"> <li><b>Orientation Quiz</b> Closes at 11:55 pm</li> <li>Deadline to earn Pronto Points</li> </ul>
<b>Week 2</b> July 8-14	Carbohydrates	<b>VL #3</b> Chapter 4, HL#4; p. 50	<b>Thursday: EXAM 1</b>
	Lipids	<b>VL #4</b> Chapter 5, HL#5	<b>Saturday: Deadline</b> to submit <b>Part 1 of the Diet Assign</b> to earn Bonus Points is 11:55 pm
<b>Week 3</b> July 15-21	Protein	<b>VL #5</b> Chapter 6; p. 638 HL#2	<b>Thursday: EXAM 2</b>
	Energy Metabolism	<b>VL #6</b> Chapter 7; C10-C14**	<b>Saturday: Deadline</b> to submit <b>Part 2 of the Diet Assign</b> to earn Bonus Points is 11:55 pm
<b>Week 4</b> July 22-28	Diet and Chronic Diseases and Phytochemicals	<b>VL #7</b> p. 522-524; 560-569 p. 576-580, HL 13 p. 564; 570-576;521-522; p. 244-245	
	Energy Balance, Obesity, Weight Management	<b>VL #8</b> Chapter 8 & 9; HL#9; E11-13; F0-F1**	<b>Thursday: EXAM 3</b>
<b>Week 5</b> July 29 - Aug 4	Overview of the micronutrients Dietary Supplements	<b>VL #9</b> (this VL is extra short!) p. 289-292; 363; 387-9; HL 11 HL 10, HL 18, p. 57-8	<b>Wednesday:</b> Last day to drop (will receive a W) <b>Thursday: EXAM 4</b>
	Vitamins	<b>VL #10</b> Chapter 10 & 11	<b>Saturday: Diet Assignment is Due 11:55 pm:</b>
<b>Week 6</b> Aug 5-9	Water The Minerals: Sodium, Calcium & Iron (and Potassium)	<b>VL #11</b> p. 353-362 p. 364-367; 368-9 (fig 12.12) p. 370-374; HL12; p.389-398	<b>Wednesday:</b> Last day to submit Diet Assignment LATE <b>Thursday: EXAM 5</b>

Have a Good Summer Quarter!



## Summer Quarter at a Glance

Here is a calendar of the 6 weeks of Biology 45. Use it to help you stay on top of the tasks

Sun	Mon	Tue	Wed	Thu	Fri	Sat
June 30	<b>July 1</b> <b>WEEK 1</b> Orientation Quiz opens	2	3 11:55 pm Deadline to complete the 2 tasks  Last day to drop <i>without a W</i>	4  <b>4<sup>th</sup> of July!</b>	5	6
July 7 Orientation Quiz closes at 11:55pm Deadline to earn <b>Pronto Points</b>	8 <b>WEEK 2</b>	9	10 Exam 1 Review on Zoom 8-9 pm	11  <b>Exam 1</b>	12	13 Deadline to submit <b>Part 1</b> to earn Bonus Points
July 14 Feedback Survey #1 opens	15 <b>WEEK 3</b>	16	17 Exam 2 Review on Zoom 8-9 pm	18  <b>Exam 2</b>	19	20 Deadline to submit <b>Part 2</b> to earn Bonus Points
July 21 Feedback Survey #1 closes	22 <b>WEEK 4</b>	23	24 Exam 3 Review on Zoom 8-9 pm	25  <b>Exam 3</b>	26	27
July 28 Feedback Survey #2 opens	29 <b>WEEK 5</b>	30	31 Exam 4 Review on Zoom 8-9 pm  Last day to drop ( <b>will receive a W</b> )	<b>Aug 1</b>  <b>Exam 4</b>	2	3 Diet Assignment Due 11:55 pm
Aug 4 Feedback Survey #2 closes	5 <b>WEEK 6</b>	6	7 Last day to submit Diet Assignment late (will lose 10 points)	8  <b>Exam 5</b>	9 End of Summer Quarter  Course grades will be submitted	10

*Have a TERRIFIC Summer Break!*