COLLIN COLLEGE FACULTY COURSE SYLLABUS – Spring 2012

COURSE NUMBER: BIOL 1322 COURSE TITLE: General Nutrition

COURSE DESCRIPTION:

BIOL 1322 General Nutrition

Study of nutrients and nutritional processes including functions, food sources, digestion, absorption and metabolism with

application to normal and therapeutic human nutritional needs.

CREDIT HOURS: 3 LECTURE HOURS: 3 LAB HOURS: 0

COLLEGE REPEAT POLICY: A student may repeat this course only once after receiving a grade, including "W".

COURSE DELIVERY METHOD: Classroom lecture

INSTRUCTOR'S INFORMATION:

Dr. Mary Weis

Office: B342 or B331 @ CPC; K244 @ SCC Office Hours: T/R 2:30-3:30 pm or by appointment

Email: mweis@collin.edu

In case of emergency: Office of Academic Affairs: 214-491-6270 or campus police at 972-578-5555

CLASS INFORMATION:

BIOL 1322-C01; Tuesday and Thursday, 1:00-2:15 pm

Room #B316 @ CPC

Class website: iws.collin.edu/mweis

COURSE RESOURCES:

TEXTBOOK

Required: The Science of Nutrition, **2nd** edition, Janice Thompson, Melinda Manore, Linda Vaughan **Additional reading:** Krause's Food and Nutrition Therapy, L Kathleen Mahan, Sylvia Escott-Stump.

SUPPLIES: Notebook for the course and min-blue book Scantrons for exams-required. If a student forgets to bring their mini-blue book scantron on the day of the exam they may purchase them on campus. However, no extra time will be given to complete the exam. The entire class will receive the same start and stop time regardless of when the student arrives to class.

STUDENT LEARNING OUTCOMES:

The objective of this course is to facilitate the understanding of the basic concepts of nutrition. Students will gain knowledge of the different nutrients and their functions and sources, with emphasis on the relationship of nutrition to human physiology.

The student will be able to:

- 1. Plan nutritious daily meals using nationally established criteria to meet desired recommended goals.
- 2. Trace the pathways and processes that occur in the body to handle food through consumption, digestion, absorption, transport, metabolism, storage and waste excretion.
- 3. Discuss the macro and micronutrients, their functions, sources, deficiencies, and toxicities.
- 4. Apply the concept of energy balance and its influences on the physical, emotional, societal, and cellular level, understanding the advantages and disadvantages of different methods to correct the imbalances.
- 5. Utilize concepts of energy systems to maximize physical fitness and performance, using knowledge about foods, vitamins/minerals, ergogenics and supplements.
- 6. Choose optimal nutrition throughout the lifecycle, knowing the problems in obtaining it, and the consequences of improper nutrition and eating habits.
- 7. Select correct dietary intake to reduce disease risk, enhance prevention, health and wellness using knowledge of ideal intake and influences of various components of food on the diseases.

COURSE REQUIREMENTS:

Students will be required to complete three lecture exams (two in class, one take home) covering the material presented in the classroom, notes, nutrition articles, and in the textbook. There will be no make-up exams administered in this class; if an exam is missed for any reason, the student must complete a comprehensive final exam at the end of the semester. The comprehensive final exam can be taken by any student to replace a low exam grade. This final exam grade may only be used once in the calculation of the final overall course grade.

There will also be several other activities administered in this class to engage students in concepts related to nutrition and health.

There will be three assignment projects. These should be completed and turned in by the assigned due date. Format for each assignment project can be found on the instructor's website under the nutrition course. Due dates will be announced during class and normally coincide around or near exam dates and cover material and concepts discussed in class.

In addition, various homework/Discussions/Participation activities will be made available throughout the semester at various point values totaling no more than 50 points. Late work will not be accepted for any reason for these activities. The homework/discussion/participation will be announced in class regarding project and due date. This may include activities such as reading an article, writing a summary, having group discussions, taking an online quiz, writing up mini reports, etc.

LATE ASSIGNMENT PROJECTS:

The three Assignment Projects are due as assigned and specific unique dates and times will be announced in class. Each day late will result in a 10 point deduction. Each time 12:01 am passes will count as 1 day. Assignments are only accepted up to 3 days late and penalty points will be assessed. As a reminder: Homework/Discussion/Participation activities may not be turned in late.

It is imperative you allow yourself ample time to submit your assignments/homework if online work is required. "My computer didn't work", "my computer said I submitted it", "the computer logged me off before I could submit" are not acceptable excuses for any assignment project or other activity such as homework and discussions.

CLASS EXPECTATIONS AND STUDENT CONDUCT:

Attendance is mandatory and will be noted during the semester. Late arrivals and early departures are not an acceptable classroom etiquette and if are excessive will be reported to the Dean of Student's Office. Students arriving late on the day of the exam will not receive extra time. The class will start and stop the exam at the same time.

The use of any technological devices (e.g. iPods, cell phones, laptops, recorders, etc.) is prohibited during class. Any violations will be considered disruptive behavior resulting in disciplinary action through the Dean of Student's Office. Students are to speak and act in a respectful manner toward their fellow students and the professor. Those who participate in inappropriate behavior such as, excessive talking, cell phone or pager use, verbal altercations, or blatantly disregarding the instructor's directions will be asked to leave the class. Continuance of such behavior can result in permanent removal.

METHOD OF EVALUATION:

| Three Highest Lecture Exam Grades (100 points each) | 300 points |
|---|------------|
| Assignment Projects (3 at 50 points each) | 150 points |
| Homework/Discussion/Participation Activities | 50 points |
| Total | 500 points |

Grading Scale

450-500.00 = A

400-449.99 = B

350-399.99 = C

300-349.99 = D

<300 = F

There will be no curve at the end of the course, so plan to study according.

Attendance Policy:

Regular attendance is required of all students; excused absences, including illnesses, should be cleared with the instructor.

Please see the Registration Guide for the last day to withdraw. Religious Holy Days: refer to the current Collin Student Handbook.

While attendance is not part of the final grade, there is a direct correlation with attendance and a student's grade. Students arriving late on the day of the exams will not receive extra time. Do not schedule work, appointments, and interviews during the assigned class time. Attendance, tardiness and early departures are noted and will be reported to the Dean of Students if they become excessive.

Withdraw Policy: Please see the current Collin Registration Guide for the last day to withdraw. For Spring 2012, the date is March 9th.

ADA Statement:

Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to contact the ACCESS office, SCC-G200 or 972.881.5898, (V/TTD: 972.881.5950) in a timely manner to arrange for appropriate accommodations.

COLLIN COLLEGE ACADEMIC POLICIES: See the current Collin Student Handbook.

Academic Ethics:

Every member of the Collin College community is expected to maintain the highest standards of academic integrity.

Collin College may initiate disciplinary proceedings against a student accused of scholastic dishonesty. Scholastic dishonesty includes, but is not limited to, statements, acts, or omissions related to applications for enrollment or the award of a degree, and/or the submission as one's own work material that is not one's own. Scholastic dishonesty may involve, but is not limited to, one or more of the following acts: cheating, plagiarism, collusion, use of annotated texts or teacher's editions, use of information about exams posted on the Internet or electronic medium, and/or falsifying academic records. While specific examples are listed below, this is not an exhaustive list and scholastic dishonesty may encompass other conduct, including any conduct through electronic or computerized means:

Plagiarism is the use of an author's words or ideas as if they were one's own without giving credit to the source, including, but not limited to, failure to acknowledge a direct quotation.

Cheating is the willful giving or receiving of information in an unauthorized manner during an examination; collaborating with another student during an examination without authority; using, buying, selling, soliciting, stealing, or otherwise obtaining course assignments and/or examination questions in advance; copying computer or Internet files; using someone else's work for assignments as if it were one's own; or any other dishonest means of attempting to fulfill the requirements of a course.

Collusion is intentionally or unintentionally aiding or attempting to aid another in an act of scholastic dishonesty, including but not limited to, failing to secure academic work; providing a paper or project to another student; providing an inappropriate level of assistance; communicating answers to a classmate about an examination or any other course assignment; removing tests or answer sheets from a test site; and allowing a classmate to copy answers.

In cases where an incident report has been filed for alleged violation of scholastic dishonesty, faculty are requested to delay posting a grade, for the academic work in question, until the Dean of Students Office renders an administrative decision of the case. Students found responsible for scholastic dishonesty offenses will receive an authorized disciplinary penalty from the Dean of Students Office. The student may also receive an academic penalty in the course where the scholastic dishonesty took place. The professor will determine the appropriate academic penalty. This may result in the strongest academic penalty possible which is a failing grade in the course, no matter how much work was accomplished.

New first time students may not withdraw from more than six courses. Under section 51.907 of the Texas Education Code, an institute of higher education may not permit a student to withdraw from more than six courses, including any course a transfer student has withdrawn from at another institute of higher education. For more information about this withdrawal policy, please visit http://www.collin.edu/gettingstarted/register/withdrawal.html

CLASS ETIQUETTE:

- Respect is given and expected in return. Please refrain from personal discussions, comments under your breath and verbal disrespect to fellow students or the instructor. Failure to comply will result in dismissal from that day's class.
- 2. If you have to leave class early or arrive late <u>do it quietly!</u> Regular late arrival or departure should be discussed with the instructor.
- 3. When you miss class you must follow the <u>Study Buddy Rule</u>. It is your responsibility to contact a classmate from your section to ascertain what you missed in class (includes class announcements, exam dates etc.) and to arrange to copy notes. Do not contact me for material missed in class without following the <u>Study Buddy Rule</u> first. You can contact me for specific clarifications after you have completely followed the study buddy rule.
- 4. No cellular phone, pager, or noise making devise will be allowed in class. If you carry a pager it must be a vibrating pager. If you carry a cellular phone I don't ever want to hear it ring in class and should be out of site in a purse or backpack. It is inappropriate to use it during class and if done, the device will be confiscated for the duration of class. Continued disruption is a violation of the Student Code of conduct and will be handled as outlined in this handbook.
- 5. Use of any electronic devices is PROHIBITED without prior approval of the instructor. Devices will only be allowed for specific class use such as typing class notes or recording lectures. If other window/mac/android/email/etc. applications (apps) are being used, the student(s) will loose this privilege for the remainder of the semester.
- 6. Electronic devices capable of recording audio or video are prohibited without prior approval of the instructor. When allowed for note taking or recording of lectures, no authorization is granted for redistribution by students to any social media outlet.

Class Preparation and Student Success

A minimum of three (3) hours of preparation outside is typically expected for every hour of lecture work each week. Any assignments, homework, research, reading, review, or studying is in addition to this preparation time. Each student is expected to have read the assigned text material (listed on the class schedule for that week) prior to class. Biology courses usually require more study time than the minimum hours previously discussed. Review and study daily. Learn the material so that you can apply it. Critical thinking is the goal for any biology course.

Take notes as you read, take notes in class and then compare and summarize them based on the lecture notes, textbook, and other available resources and materials within 24 hours of lecture. Know what will be discussed so that you can participate and be active using your particular style of learning. Use the VARK link (on the website) to test your primary learning style.

Ask questions early. Do not wait until a few days before an exam (or assignment project / homework type activity) to get information clarified or verified.

Good study habits are important. The ACCESS office and other college organizations offer workshops to help you stay organized, learn, take notes, and test taking skills as well as tutors. All of these resources are designed to help you succeed.

If you are in need of a tutor, please submit a tutor request form which is available on the Collin College Website or in room D117 at CPC (G121 at SCC or F109 at PRC). It is recommended that you ask for a BIOL 1408 tutor if you are having trouble with the chemistry concepts or a BIOL 2402 tutor if you are having problems with the anatomy and physiology related topics of this course.

The internet is a good resource for medical information, but be wary of the source and especially personal blogs. The author should possess a recognized academic degree, credentials, and research knowledge to be considered an expert in their field.

| BIOL 1322 - Course Outline: Chapters | Topics | Pages |
|---|---|---------|
| Chapter 1: The Role of Nutrition in Our Health | What is Nutrition?, why is it important?, what are nutrients?, nutrition assessment; individual's need and nutritional status, where to get nutrition advice? | 3-37 |
| Chapter 2: Designing a Healthful Diet | What is a healthful diet? Designing tools. | 39-71 |
| Chapter 3: The Human Body: Are We Really What We Eat? | Why do we eat?, What happens to ingested food?, Food Digestion, Absorption and transportation of the nutrients, Digestive diseases | 73-109 |
| Chapter 4: Carbohydrates: Plant- Derived Energy Nutrients | What are Carbohydrates and their classifications? Digestion of Carbs, why and how much do we need Carbs? | 111-165 |
| Chapter 5: Lipids: Essential Energy- Supplying Nutrients | What are lipids and their classifications?, Digestion of lipids, why and how much do we need fat? How much fat is harmful? | 167-207 |
| Chapter 6: Proteins: Crucial Components of All Body Tissues | What are proteins and their classifications?, Digestion of proteins, why and how much do we need proteins? | 209-245 |
| Chapter 7: Metabolism: From Food to Life | Definition of Metabolism and its different chemical reactions, anabolism and catabolism of macronutrients, storage of energy and regulation of metabolism | 247-291 |
| Chapter 8: Nutrients Involved in Energy Metabolism | Functions of B-complex vitamins, Cr, I, Mn, S and their food sources, deficiencies and toxicities | 293-321 |
| Chapter 9: Nutrients Involved in Fluid and Electrolyte Balance | Functions and importance of water and electrolytes (Na, K, Cl, P), their food sources, deficiencies and toxicities, regulation of body fluids. | 323-355 |
| Chapter 10: Nutrient Involved in Antioxidant Function | What are antioxidants? How the body uses them?, Functions of Vitamins E, C, A, Betacarotene, and Se, their food sources, deficiencies and toxicities. Additional antioxidants, phytochemicals | 357-407 |
| Chapter 11: Nutrients Involved in Bone Health | Bone health, Functions of Ca, P, Mg, F and vitamins D, K, their food sources, deficiencies and toxicities. | 409-443 |
| Chapter 12: Nutrients Involved in Blood Health and Immunity | Blood components, Functions of Fe, Zn, Cu, Vitamin K and Folate; their food sources, deficiencies and toxicities, Immunity | 445-483 |
| Chapter 13: Achieving and Maintaining a Healthful Body Weight | Physical activity, Exercise, Physical fitness, A sound PA, The fuels for our activity. | 485-520 |
| Special Topic: | Disordered Eating | 528-541 |
| Chapter 14: Nutrition and Physical Activity: Keys to Good Health | What is a healthful body weight and its evaluation, Energy balance | 543-572 |
| Chapter 16: Nutrition Through the Lifecycle: | Pregnancy and the First Year of Life | 620-655 |
| Chapter 17: Nutrition Through the Lifecycle: | Childhood and Adolescence | 666-690 |
| Chapter 18: Nutrition Through the Lifecycle: | The later years | 700-720 |

Week One

Orientation

Chapter 1

- Read chapter 1 textbook
- Study chapter 1 lecture notes and review
- 20 Worst Foods in America Activity

Week Two

Chapter 2

- Read chapter 2 textbook
- Study chapter 2 lecture notes and review

Chapter 3

- Read chapter 3 textbook
- Study chapter 3 lecture notes and review

Week Three

Chapter 3: continued

Chapter 4

- Read chapter 4 textbook
- Study chapter 4 lecture notes and review

Week Four

Chapter 5

- Read chapter 5 textbook
- Study chapter 5 lecture notes and review
- Assignment #1- Due

Week Five

Chapter 6

- Read chapter 6 textbook
- Study chapter 6 lecture notes and review
- Disease paper topic sign up
- Exam #1 Chapters 1-6

Week Six

Chapter 7

- Read chapter 7 textbook
- Study chapter 7 lecture notes and review

Week Seven

Vitamins and Minerals Overview

Chapter 8

- Read chapter 8 textbook
- Study chapter 8 lecture notes and review

Week Eight

Chapter 9

- Read chapter 9 textbook
- Study chapter 9 lecture notes and review

Chapter 10

- Read chapter 10 textbook
- Study chapter 10 lecture notes and review

SPRING BREAK

Week Nine

Chapter 10 continued

Chapter 11

- Read chapter 11 textbook
- Study chapter 11 lecture notes and review

Week Ten

Chapter 12

- Read chapter 12 textbook
- Study chapter 12 lecture notes and review

Week Eleven

Chapter 13

- Read chapter 13 textbook
- Study chapter 13 lecture notes and review
- Exam #2 Chapters 7-12

Week Twelve

- Nervous System Discussion
- Special Topic: Disordered Eating
- Assignment #2 Due

Week Thirteen

Chapter 14

- Read chapter 14 textbook
- Study chapter 14 lecture notes and review

Week Fourteen

Chapter 16

- Read chapter 16 textbook
- Study chapter 16- lecture notes and review

Chapter 17

- Read chapter 17 textbook
- Study chapter 17- lecture notes and review

Week Fifteen

Chapter 18

- Read chapter 18 textbook
- Study chapter 18 lecture notes and review
- Assignment #3 Due on Tuesday
- Exam #3 Take Home Exam Due over Chapters 13, 14, 16, 17, 18 on Thursday

Week Sixteen

 Optional comprehensive final exam during final week (Tuesday, May 8th)