



North Central State College  
MASTER SYLLABUS  
2020-2021

- A. Academic Division: Health Sciences
- B. Discipline: Science
- C. Course Number and Title: BIOL1101 Nutrition
- D. Course Coordinator: Dr. Janet Boechman  
Assistant Dean: Melinda Roepke, MSN, RN

Instructor Information:

- Name: Click here to enter text.
- Office Location: Click here to enter text.
- Office Hours: Click here to enter text.
- Phone Number: Click here to enter text.
- E-Mail Address: Click here to enter text.

- E. Credit Hours: 2
- F. Prerequisites: None
- G. Syllabus Effective Date: Fall, 2020
- H. Textbook(s) Title:

*Essentials of Nutrition and Diet Therapy*

- Authors: Schlenker and Gilbert
- Copyright Year: 2018
- Edition: 12<sup>th</sup>
- ISBN: 9780323529716

- I. Workbook(s) and/or Lab Manual: None
- J. Course Description: This is an introductory course to the principles of nutrition and its relationship to health. Included are practical applications in daily life as well as nutritional assessments of individuals. Emphasis is on essential nutrients, their supply and function, as related to an individual's well-being. Health promotion and chronic disease are explored in relation to today's society. (TAG # OHL016)
- K. College-Wide Learning Outcomes

College-Wide Learning Outcomes	Assessments - - How it is met & When it is met
Communication – Written	
Communication – Speech	
Intercultural Knowledge and Competence	
Critical Thinking	
Information Literacy	
Quantitative Literacy	

L. Course Outcomes and Assessment Methods:

Upon successful completion of this course, the student shall:

Outcomes	Assessments – How it is met & When it is met
1. Explain the importance of nutrition in maintaining a state of wellness throughout the life cycle.	Class Assignments & Discussion(*), Exam Questions(*) Week 8
2. Identify the basic physiology, dietary requirements and food sources of carbohydrates, proteins, fats, vitamins and minerals. Also identify functions of water.	Class Assignments & Discussion(*), Oral Presentations, Exam Questions(*) Week 8
3. Explain how food intake has a significant relationship to health and the role of diet in health promotion, chronic diseases and disease prevention.	Class Assignments, Projects & Discussion(*), Exam Questions(*) Week 15
4. Evaluate diet patterns and health risks associated with an excess or deficiency of nutrients.	Class Assignments, Projects & Discussion(*), Exam Questions(*) Week 15
5. Discuss the influence of social, cultural, religious and psychological factors on food intake.	Class Assignments & Discussion(*), Exam Questions(*) Week 15

M. Topical Timeline (Subject to Change):

1. Nutrition
  - a. Basic nutrition
  - b. Physiological functions of nutrients
  - c. Basic concepts of nutrition
  - d. Nutritional concerns, food fads and misinformation
  - e. Food information systems
  - f. Recommended Dietary Allowances (RDAs)
  - g. Basic food groups
  - h. Dietary guidelines for Americans
  - i. Nutrition labeling
  - j. Complimentary therapies and dietary supplements
2. Digestion and Metabolism
  - a. The human body as a dynamic whole
  - b. The gastrointestinal tract
  - c. Basic principles of digestion
  - d. Mouth & esophagus: preparation & delivery
  - e. Stomach: storage & initial digestive process
  - f. Small intestine: major digestion, absorption and transport
  - g. Colon (large intestine): final absorption and waste elimination
  - h. Gastrointestinal function & clinical applications
  - i. Metabolism
3. Carbohydrates
  - a. Classification of carbohydrates
  - b. The nature of carbohydrates
  - c. Requirements
  - d. Functions of carbohydrates
  - e. Digestion-absorption-metabolism summary
4. Lipids
  - a. Lipids in nutrition and health
  - b. Classification
  - c. The physical and chemical nature of lipids
  - d. Basic lipids: fatty acids and triglycerides
  - e. Digestion-absorption-metabolism summary

- f. Omega 3 - fatty acids
- 5. Proteins
  - a. Physical & chemical nature of proteins
  - b. The nature of amino acids
  - c. The building of proteins
  - d. Functions of proteins
  - e. Digestion-absorption-metabolism summary
  - f. Protein requirements
- 6. Fat Soluble Vitamins – Essential Nutrients
  - a. Vitamin A
  - b. Vitamin D
  - c. Vitamin E
  - d. Vitamin K
- 7. Water-Soluble Vitamins
  - a. Characteristics of water-soluble vitamins
  - b. Vitamin C
  - c. The B vitamins
    - b. Thiamin
    - c. Riboflavin
    - d. Niacin
    - e. Vitamin B6
    - f. Pantothenic acid
    - g. Biotin
    - h. Folate
    - i. Vitamin B12
  - j. Phytochemicals
- 8. Minerals
  - a. Minerals in human nutrition
  - b. Calcium
  - c. Phosphorus
  - d. Magnesium
  - e. Sulfur
  - f. Iron
  - g. Other major minerals
  - h. Trace elements: concept of essentiality
  - i. Fluid and electrolytes
    - b. Fluids
    - c. Electrolytes
    - d. Sodium
    - e. Potassium
    - f. Acid-base balance
- 9. Nutrition assessment as it relates to health promotion, obesity, chronic diseases and disease prevention.
- 10. Nutritional considerations for ethnic, religious, socioeconomic and psychological influences.
- 11. Nutritional requirements for different age groups and developmental levels.

N. Course Assignments:

The face-to-face course follows a lecture format:

- 1. Group discussion
- 2. Question and answer periods
- 3. Assigned readings
- 4. Projects
- 5. Presentations
- 6. In-class assignments
- 7. Homework assignments.

On-line course:

1. Blackboard
2. e-Education
3. Discussion board
4. Weekly assignments
5. Research
6. Papers
7. Video
8. Reading assignments
9. Projects

O. Recommended Grading Scale:

NUMERIC	GRADE	POINTS	DEFINITION
93–100	A	4.00	Superior
90–92	A-	3.67	Superior
87–89	B+	3.33	Above Average
83–86	B	3.00	Above Average
80–82	B-	2.67	Above Average
77–79	C+	2.33	Average
73–76	C	2.00	Average
70–72	C-	1.67	Below Average
67–69	D+	1.33	Below Average
63–66	D	1.00	Below Average
60–62	D-	0.67	Poor
00–59	F	0.00	Failure

P. Grading and Testing Guidelines:

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Q. Examination Policy:

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R. Class Attendance and Homework Make-Up Policy:

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S. Classroom Expectations:

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T. College Procedures/Policies:

**Important information regarding College Procedures and Policies can be found on the [syllabus supplement](#) located at**

**<http://catalog.ncstatecollege.edu/mime/download.pdf?catoid=5&ftype=2&foid=3>**