

KINGSBOROUGH COMMUNITY COLLEGE
of
THE CITY UNIVERSITY OF NEW YORK
Department of Nursing

NUR 44 DIET IN HEALTH AND ILLNESS
Pre or Corequisite: BIO 11

2009-2010
Course Syllabus
2 crs., 2 hrs.

Catalogue Description:

The nature of food and fluid intake in healthy and ill individuals, as well as cultural variations, and the influence of age and dietary modifications are examined.

Course Overview:

This course will address the nutritional needs of individuals across the lifespan in health and in illness. Lecture and discussion will be centered on the normal components of nutrition and the adaptation of these components to the ever changing needs of all individuals. The lecture component of the class will be presented online, and will be structured around a compilation of assignments, threaded discussion, and case study analysis. Examinations will be given face to face, on campus; attendance will be confirmed by participation in weekly threaded discussions and/or submission of weekly assignments. Failure to participate in weekly threaded discussions and/or submit weekly assignments by the required due date will result in an absence. This course requires access to Microsoft office programs: word and power point. These programs can be accessed at home, or on campus in the library and/or MAC 224 computer labs.

Course Objectives:

1. Identify the essential components and basic principles of nutrition.
2. Discuss the function and food sources of nutrients.
3. Explain the physiological process of metabolism, anabolism, and catabolism.
4. Recognize the nutritional requirements of individuals across the lifespan in health and in illness.
5. Demonstrate techniques to develop patterns of healthy eating.
6. Identify challenges related to modifying eating behaviors in health and in illness.
7. Identify contributing factors of eating disorders.
8. Acknowledge the influence of culture, religion, age, and economics on nutrition.
9. Identify resources of information on nutrition.
10. Develop a meal plan for individuals across the lifespan, for specific physiological disorders, and for specific cultural groups.

Teaching Strategies:

Lecture- Discussion/Blackboard

Case Studies

Multimedia

Topical Outline:

Unit I: Guidelines for Healthy Eating; Dietary Reference Intakes (DRIs); Food Guide Pyramid

Unit II: Carbohydrates, Proteins, and Lipids

Unit III: Energy Metabolism

Unit IV: Vitamins, Water, and Minerals

Unit V: Nutritional Requirements across the Lifespan

Unit VI: Nutrition for Patients with Gastrointestinal Disorders

Unit VII: Nutrition for Patients with Cardiovascular Disorders

Unit VIII: Nutrition for Patients with Diabetes Mellitus

Unit IX: Nutrition for Patients with Renal Disorders

Unit X: Nutrition for Patients with Cancer, HIV/AIDS

Unit XI: Obesity and Eating Disorders

Unit XII: Cultural, Ethnic, and Religious Influences on Food and Nutrition

Fatigue can certainly impair a health care worker's ability to provide safe, professional nursing care. Thus KCC's Nursing Department states: All students need to carefully assess his/her level of fatigue, school requirements in terms of lecture, on-campus labs and clinical experiences and own work schedules. This assessment should carefully consider the potential impact of excessive employment on his/her ability to provide safe, professional nursing care. Each student has an ethical responsibility to ensure that fatigue does not negatively impact student nurse responsibilities.

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Course Requirements

1. Textbook-

Required: Dudek, S. (2006). Nutrition Essentials for Nursing Practice 5th ed., Lippincott: Philadelphia

2. Attendance-

A student is deemed excessively absent when absent 15% of the number of contact hours a class meets during a semester.

This course requires weekly logons to Blackboard. Attendance is confirmed by participation in online weekly threaded discussions and/or submission of weekly assignments. Failure to participate in weekly threaded discussions and/or submit weekly assignments by the required due date will result in an absence. When a student is excessively absent, a grade of “WU” will be assigned as described in the college catalog.

3. Evaluation-

Grades will be calculated according to college policy as follows:

A+ 97 – 100	B+ 87 – 89	C+ 78 – 79	D+ 66 – 69	F <59
A 93 – 96	B 83 – 86	C 75 – 77	D 60 – 65	
A- 90 – 92	B- 80 – 82	C- 70 – 74		

W Withdrew without penalty

WU Unofficial withdrawal (counts as failure)

INC Term’s work incomplete; counts as an “F” grade unless work is completed within six months.

Nursing 44 grades will be determined as described below:

*Food Diary Assignment	20%
*Meal/Teaching Plan Assignment (Disease Process)	30%
*Meal Plan Assignment (Cultural Group)	20%
*Midterm Exam	30%

Students who do not take the midterm exam on the scheduled date are required to take a makeup exam at a time selected by the instructor. Students who fail to take the makeup exam will receive a zero grade for the test.

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Learner Objectives	Content/Lecture/Discussion	Related Learner Experiences
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Unit I: Guidelines for Healthy Eating; Dietary Reference Intakes (DRIs); The Food Guide Pyramid

Upon completion of Unit I the learner will:

1. Describe course requirements.	1.1 Course Orientation	Syllabus
2. Describe guidelines on how to choose a healthy diet.	2.1 Consumption of optimal levels of nutrients 2.2. Dietary Reference Intake (DRIs) 2.3 The Food Guide Pyramid	Chapter 8

Unit II: Carbohydrates, Proteins, and Lipids

Upon completion of Unit II the learner will:

1. Name the types of carbohydrates and sources of each.	1.1 Classifications of carbohydrates: a. Simple b. Complex 1.2 Sources of carbohydrates: a. Bread, Cereal, Rice, and Pasta b. Vegetables c. Fruits d. Milk, Yogurt, and Cheese e. Meat, Poultry, Fish, Dried Beans, Eggs, and Nuts f. Fats, Oils, and Sweets	Chapter 2
2. Discuss the function of carbohydrates.	2.1 Glucose for energy	

3. Explain how the body handles carbohydrates.

3.1 Digestion, absorption, and metabolism of carbohydrates

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Learner Objectives

Content/Lecture/Discussion

Related Learner Experiences

4. Identify intake recommendations.

4.1 Recommended daily intake

5. Describe the relationship between carbohydrates and health promotion.

5.1 Fiber and health

6. Name the different types of proteins and sources of each .

6.1 Classifications of proteins:
a. Complete
b. Incomplete
6.2 Sources of proteins:
a. Animal
b. Soy
c. Plant

Chapter 3

7. Discuss the function of proteins.

7.1 Energy
7.2 Fat

8. Explain how the body handles protein.

8.1 Digestion, absorption, and metabolism of proteins:
a. Protein synthesis
b. Nitrogen balance

9. Identify intake recommendations.

9.1 Recommended daily intake

10. Discuss the relationship between protein and health promotion.

10.1 Vegetarian Diets
a. Nutrients of concern:
1. Iron

2. Zinc
3. Calcium
4. Vitamin D

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Learner Objectives	Content/Lecture/Discussion	Related Learner Experiences
	<ol style="list-style-type: none"> 5. Omega-3 Fatty Acids 6. Vitamin B 12 	
11. Name the different types of lipids and sources of each .	11.1 Classifications of lipids: <ol style="list-style-type: none"> a. Triglycerides <ol style="list-style-type: none"> 1. Unsaturated Fats 2. Saturated Fats 3. Hydrogenated Fats b. Phospholipids <ol style="list-style-type: none"> 1. Lecithin c. Sterols <ol style="list-style-type: none"> 1. Cholesterol 11.2 Sources of lipids: <ol style="list-style-type: none"> a. Bread, Cereal, Rice, and Pasta b. Vegetable c. Fruit d. Milk, Yogurt, and Cheese e. Meat, Poultry, Fish, Dry Beans, Eggs, and Nuts f. Fats, Oils, and Sweets 	Chapter 4
12. Discuss the function of lipids.	12.1 Energy 12.2 Insulation	
13. Explain how the body handles lipids.	13.1 Digestion, absorption, and metabolism of lipids	

14. Identify intake recommendations.

14.1 Recommended daily intake

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Learner Objectives

Content/Lecture/Discussion

Related Learner Experiences

15. Discuss the relationship between lipids and health promotion.

15.1 Fat Replacers
15.2 Flaxseed
15.3 Oil

Unit III: Energy Metabolism

Upon completion of Unit III the learner will:

1. Describe the principles of energy metabolism.

1.1 Anabolism
1.2 Catabolism
1.3 Fasting and Exercise

Chapter 7

2. Discuss total energy requirements.

2.1 Basal metabolism (BMR)
2.2 Calorie expenditure
2.3 Thermic effect

3. Discuss the relationship between energy and health promotion.

3.1 Physical activity

Unit IV: Vitamins, Water, and Minerals

Upon completion of Unit IV the learner will:

1. Classify vitamins based on solubility; identify functions and food sources.

1.1 Fat-soluble vitamins
a. Vitamin A
b. Vitamin D
c. Vitamin E
d. Vitamin K
1.2 Water-soluble vitamins
a. Thiamin (Vitamin B1)

Chapter 5

- b. Riboflavin (Vitamin B2)
- c. Niacin (Vitamin B3)
- d. Vitamin B6

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Learner Objectives	Content/Lecture/Discussion	Related Learner Experiences
	<ul style="list-style-type: none"> e. Folate f. Vitamin B12 g. Vitamin C 	
2. Discuss the relationship between vitamins and health promotion.	2.1 Vitamin Supplements	
3. Describe functions of water as a body fluid.	<ul style="list-style-type: none"> 3.1 Intra/Extracellular Fluid 3.2 Regulation of body temperature 3.3 Digestion and absorption 3.4. Nutrient/Oxygen transport 3.5 Solvent 	Chapter 6
4. Discuss water intake and output.	4.1 Insensible and sensible water loss	
5. Explain general functions of minerals.	<ul style="list-style-type: none"> 5.1 Body structure 5.2 Fluid balance 5.3 Acid-base balance 5.4 Nerve cell transmission and muscle contraction 	
6. Identify the major minerals that are major electrolytes, and their functions.	<ul style="list-style-type: none"> 6.1 Sodium 6.2 Potassium 6.3 Chloride 	
7. Identify remaining major minerals, trace minerals, and their functions.	<ul style="list-style-type: none"> 7.1 Calcium 7.2 Phosphorus 	

- 7.3 Magnesium
- 7.4 Sulfur
- 7.5 Iron

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Learner Objectives	Content/Lecture/Discussion	Related Learner Experiences
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8. Discuss the relationship between fluids and health promotion.	8.1 Fluid intake 8.2 Bottle vs tap water	
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Unit V: Nutritional Requirements Across the Lifespan
Upon completion of Unit V the learner will:

1. Discuss how growth and development influence calorie and nutrient requirements in infancy - age 2.	1.1 Breast feeding vs. formula 1.2 Solid foods	Chapter 12
2. Describe nutritional concerns of children ages 2 through age 12.	2.1 Calorie and nutrient needs 2.2 Healthy eating habits 2.3 Childhood obesity	
3. Identify nutritional concerns of adolescents.	3.1 Calorie and nutrient needs 3.2 Healthy eating habits 3.3 Chronic disease risk	
4. Identify nutritional implications for adults and older adults.	4.1 Women's health issues 4.2 Men's health issues 4.3 Age-related changes a. changes in body composition b. changes in functional status c. changes in fine/gross motor skills d. dental and oral status e. sensory alterations f. social isolation	Chapter 13

- g. finances
- 4.4 Nutritional needs of older adults
 - a. calories

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Learner Objectives	Content/Lecture/Discussion	Related Learner Experiences
	<ul style="list-style-type: none"> b. protein c. fluids d. vitamins and minerals 	
5. Explain nutrition therapy for older adults with health issues.	<ul style="list-style-type: none"> 5.1 Osteoarthritis 5.2 Osteoporosis 5.3 Alzheimer's Disease 5.4 Obesity 5.5 Social isolation 	

Unit VI: Nutrition for Patients with Gastrointestinal Disorders

Upon completion of Unit VI the learner will:

1. Identify common gastrointestinal problems that affect nutritional status.	<ul style="list-style-type: none"> 1.1 Anorexia 1.2 Nausea and Vomiting 1.3 Diarrhea 1.4 Constipation 1.5 Dysphagia 1.6 Gastroesophageal Reflux Disease (GERD) 	Chapter 17
2. Identify appropriate nutrition therapy for patients with common gastrointestinal problems.	2.1 Problem-specific nutrition therapy	

Unit VII: Nutrition for Patients with Cardiovascular Disorders

Upon completion of Unit VII the learner will:

1. Identify risk factors for Coronary Heart Disease.

- 1.1 Cholesterol
 - a. Total cholesterol

Chapter 18

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Learner Objectives

Content/Lecture/Discussion

Related Learner Experiences

- b. HDL
- c. LDL
- 1.2 Cigarette smoking
- 1.3 Hypertension
- 1.4 Family history
- 1.5 Age
- 1.6 Metabolic Syndrome
- 1.7 Triglycerides
- 1.8 Physical inactivity

2. Discuss therapeutic lifestyle changes for patients at risk for/with cardiovascular disorders.

- 2.1 Fat intake
 - a. saturated fat
 - b. polyunsaturated fats
 - c. monosaturated fats
 - d. trans fat
- 2.2 Carbohydrates
- 2.3 Fiber
- 2.4 Protein
- 2.5 Cholesterol
- 2.6 Calories
- 2.7 Alcohol intake
- 2.8 Tobacco use
- 2.9 Sodium, Potassium, Calcium intake
- 2.10 DASH Diet

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Learner Objectives

Content/Lecture/Discussion

Related Learner Experiences

Unit VIII: Nutrition for Patients with Diabetes Mellitus

Upon completion of Unit VIII the learner will:

1. Differentiate between type 1 and type 2 diabetes.	1.1 Characteristics of type 1 and type 2 diabetes	Chapter 19
2. Discuss the goals of nutrition therapy for diabetes mellitus.	2.1 Diabetes management and nutrition recommendations a. Carbohydrates b. Fiber c. Protein d. Fats e. Alcohol f. Vitamin and mineral supplements g. Calories	
3. Describe transforming recommendations of nutrition therapy into meals.	3.1 Exchange lists for meal planning 3.2 Food guide pyramid 3.3 Changing behaviors	
4. Explain nutritional management of complications of diabetes.	4.1 Hyperglycemia 4.2 Hypoglycemia	
5. Identify lifespan considerations of the nutritional management of diabetes.	5.1 Children and adolescents 5.2 Pregnancy 5.3 Older adults	

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Learner Objectives	Content/Lecture/Discussion	Related Learner Experiences
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Unit IX: Nutrition for Patients with Renal Disorders

Upon completion of Unit IX the learner will:

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| 1. Differentiate between stages of renal disease. | 1.1 Pre-end stage renal disease
1.2 End-stage renal disease
1.3 Acute renal failure | Chapter 20 |
| 2. Describe nutritional recommendations for patients with renal disorders. | 2.1 Nutrition therapy
a. Protein
b. Calories
c. Phosphorus
d. Potassium
e. Sodium and fluids
f. Calcium
g. Vitamin D
h. Vitamins
i. Trace Minerals | |
| 3. Discuss meal planning for patients with renal disorders. | 3.1 National Renal Diet | |

Unit X: Nutrition for Patients with Cancer, HIV/AIDS

Upon completion of X the learner will:

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| 1. Discuss how cancer and related therapies can affect nutritional status. | 1.1 Local affects
1.2 Systemic affects | Chapter 21 |
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2. Describe nutrition therapy in cancer treatment.

- 2.1 Nutrient needs
- 2.2 Protein and calories

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<u>Learner Objectives</u>	<u>Content/Lecture/Discussion</u>	<u>Related Learner Experiences</u>
3. Identify measures to minimize the side effects of cancer treatment.	<ul style="list-style-type: none">3.1 Anorexia3.2 Nausea and vomiting3.3 Fatigue3.4 Taste changes3.5 Food aversions3.6 Stomatitis3.7 Dry mouth3.8 Diarrhea	
4. Explain alternative methods of feeding.	<ul style="list-style-type: none">4.1 Enteral nutrition4.2 Parenteral nutrition	
5. Discuss the relationship between nutrition and immunodeficiency.	<ul style="list-style-type: none">5.1 Effect of HIV nutritional status5.2 Changes in metabolism5.3 GI abnormalities	
6. Describe the goals of nutrition therapy for patients with HIV/AIDS.	<ul style="list-style-type: none">6.1 Forestall or reverse wasting<ul style="list-style-type: none">a. Caloriesb. Proteinc. Vitamins and minerals6.2 Treat or minimize symptoms<ul style="list-style-type: none">a. Malabsorptionb. Metabolic alterations6.3 Enhance effectiveness of drug therapy6.4 Prevent foodborne illness	

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Learner Objectives

Content/Lecture/Discussion

Related Learner Experiences

Unit XI: Obesity and Eating Disorders

Upon completion of Unit XI the learner will:

1. Describe the standards to evaluate weight.	1.1 Body Mass Index (BMI) 1.2 Waist circumference 1.3 Evaluating risk status	Chapter 14
2. Define the terms overweight and obesity.	2.1 Definitions r/t BMI	
3. List the etiologic factors of overweight and obesity.	3.1 Genetics 3.2 Nutrition 3.3 Activity 3.4 Psychological status 3.5 Medication 3.6 Sociocultural factors	
4. Discuss strategies for weight loss and maintenance.	4.1 Nutritional therapy a. Calorie-mediated diets b. Diets and lifestyle changes 4.2 Physical activity 4.3 Behavior therapy 4.4 Pharmacotherapy 4.5 Surgery	
5. Identify sample meal plans for weight loss and maintenance.	5.1 Reduced-calorie diets 5.2 Low-fat diets	

5.3 Low-carbohydrate diets

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Learner Objectives	Content/Lecture/Discussion	Related Learner Experiences
6. Differentiate between eating disorders.	6.1 Anorexia Nervosa (AN) 6.2 Bulimia Nervosa (BN) 6.3 Eating Disorders Not Otherwise Specified (EDNOS)	
7. Describe the etiology of eating disorders.	7.1 Psychological/Social Factors	
8. Discuss the goals of nutrition therapy for patients with Anorexia.	8.1 Restore normal nutritional status and eating behaviors 8.2 Prevent further weight loss 8.3 Maintain agreed-upon weight goals	
9. Discuss the goals of nutrition therapy for patients with Bulimia.	9.1 Identify and correct food misinformation/fears 9.2 Establish a normal pattern of eating 9.3 Weight maintenance	

Unit XII: Cultural, Ethnic, and Religious Influences on Food and Nutrition

Upon completion of Unit XII the learner will:

1. Describe the significance of culture on nutrition.	1.1 Socially standardized foods 1.2 Edible/inedible foods 1.3 Role of foods in the diet a. Core foods b. Secondary foods c. Occasional/peripheral foods 1.4 Food preparation 1.5 Use of foods	Chapter 10
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- a. Celebrations
- b. Comfort

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Learner Objectives	Content/Lecture/Discussion	Related Learner Experiences
	1.6 Number/Timing of Meals	
2. Discuss the traditional diets of select cultural subgroups.	2.1 African Americans 2.2 Mexican Americans 2.3 Asian Americans	
3. Discuss the traditional food practices of select religious groups.	3.1 Christianity 3.2 Judaism 3.3 Islam 3.4 Hinduism	
4. Identify the relationship between nutrition and changes in American society.	4.1 Societal changes 4.2 Ethnic diversity 4.3 Convenience foods	

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