Course Syllabus of Nutrition for Health & Fitness

Faculty : Medicine and Health sciences

Department: Health Sciences

Program : Bachelor in Clinical Nutrition and Dietetic

I. General information about the course instructor :

Name	Dr. Sadeq Hasan	Office Hours(3 Hours Weekly)					
Location & phone number	0096774726464	Sat	Sun	Mon	Tue	Wed	Thu
Email	Sadek_975@yahoo.co					✓	

II. General information about the course :

1.	Course Title:	Nutrition for Health & Fitness				
2.	Course Code and Number :	BND353				
3.	Credit Hours	Lecture	Seminar/Tutorial	Practical	Training	Total
		2	-	-	-	2
4.	Study Level and Semester:	3rd year / 1st semester				
5.	Pre-requisites :	BND234				
6.	Co-requisites :	None				
7.	Program in which the course is offered	Bachelor in Clinical Nutrition and Dietetic				
8.	Teaching Language:	English				
9.	Instruction Location	University of Science and Technology, Sana'a, Yemen.				

III. Course Description :

This course provides the student the basic knowledge about nutrition for health and fitness in order to understanding the nutrient needs, what happens when we exercise, the kind of food provides energy for activity, energy and nutrient needs of athletes, important of water and electrolytes to keeping cool, what should athletes eat ergogenic supplements and the course also provide the nutritional problems common among athletes which show student the interest in physical fitness is very high in all the age groups of populations to improve the quality of life. The teaching strategies will include lectures, self-learning and assignment. The student will be evaluated through report and written exam. Principle of Human Nutrition is a prerequisite

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عميد الكلية:
د.عبدالله المخلافي

رئيس القسم:
د.عبدالحبيب ردمان

المراجع :
د. فؤاد حسان
د.مجاهد نصار

APPROVED

الموصف :
د.صادق الشراجي

IV. Course aims: This course is aimed to:

1. Make the students aware about basic knowledge of nutrition for health and fitness.
2. Provide student the knowledge to explore the kind of food provides energy for activity and the important of water, electrolytes nutrient needs of athletes.
3. Enable the student to demonstrate the ergogenic supplements should athletes eat
4. Learn student to assess common nutritional problems among athletes.

V. Course Intended Learning Outcomes (CILOs) :

1. Identify concepts and principles of health and fitness.
2. Comprehend the interaction between fitness and nutrition.
3. Explain the nutrient needs and what happens when we exercise.
4. Demonstrate the ergogenic supplements should athletes eat.
5. Summarize the nutritional problems common among athletes.
6. Analyze the kind of food provides energy for activity and the important of nutrient needs of athletes.
7. Design nutritional programs for activity and athletes.
8. Use special diet to meet the nutritional requirements of athletes.
9. Give health & nutritional education and counseling to athletes .
10. Demonstrate practical proficiency and work with teamwork of athletes.

VI. Course Contents

First: Theoretical Aspects

No.	Course Topics/Units	Sub-topics	No. of Weeks	Contact Hours
1	Overview course of content Nutrition, fitness, and health	Concept of a healthy lifestyle, a Healthy Diet, Physical Fitness, Cardiovascular and Respiratory Endurance, Muscle Strength and Endurance, Flexibility, Body Composition, Benefits of Exercise and a Healthy Diet, A Healthy Body Weight, Heart Disease, High Blood Pressure and Stroke, Diabetes, Cancer, Osteoporosis and Arthritis, Much Exercise Should Get, Type of Exercise the Best and Much Should Children and Adolescents Exercise	1st	2
2	Understanding and meeting nutrient needs	Food provides nutrients, What Nutrients Do, Energy, Structure, Regulation, Getting Nutrients to Cells, How the body uses the six classes of nutrients, Much of each nutrient do the need, Dietary Reference Intakes (DRI s) and what happens if the nutrient intake too little or too much, tools for choosing a healthy diet.	2nd, 3rd	4

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3	Understanding what happens when we exercise	Energy for exercise, getting oxygen to muscle cells, the respiratory system: Take a Breath, the cardiovascular system: It keeps on pumping, How is oxygen delivery increased, Deeper, More frequent breaths, A faster heart, Changing blood flow, A Change in the muscle, How do muscles work, Muscles for strength, Power, and Endurance, The effects of exercise training, What does aerobic training do and what does resistance training do.	4th ,5th	4
4	Food provides energy for activity	Energy stores, How does exercise duration affect fuels, Energy right now: AT P and creatine phosphate, Fueling short-term exercise: Anaerobic metabolism, Energy for the long run: Aerobic metabolism, How does exercise intensity affect metabolism, How does training affect metabolism, Fueling exercise with carbohydrates, Fueling exercise with fat, What is the role of protein during exercise and exercise fatigue.	6th	2
5	Midterm exam		7th	2
6	Energy and nutrient needs of athletes	Getting enough energy, Estimating energy needs, The impact of activity, Weight loss and weight gain, Carbohydrate, Fat, and protein needs, How much carbohydrate intake is needed, How much fat, How much protein, Vitamin and mineral needs and water needs.	8th ,9th	4
7	Keeping cool: why are water and electrolytes so important	Water and electrolytes in the body, Electrolytes in body water, Water moves by osmosis, What does water do, Water transports substances, Water provides structure and protection, Water is needed for chemical reactions, Water regulates, Body temperature, Water intake, Water losses, Water and electrolyte balance, Thirst, Kidneys regulate water and electrolyte, Excretion, Problems with fluid and electrolyte balance, Dehydration, heat-related illnesses, Low sodium: Hyponatremia, Water and electrolyte needs and much drink during exercise.	10th ,11th	4
8	What should athletes eat	Athletes eat, Maximizing stored glycogen, The pre-exercise meal: Before competition, Eat on the Run and post-exercise meals.	12th	2

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9	Ergogenic supplements: are they safe	Weighing the risks and benefits, Are the supplement claims valid, Is the product safe at the recommended dose, Is taking the supplement legal and ethical, Are vitamin supplements ergogenic, Are mineral Supplements ergogenic, Do protein Supplements stimulate muscle growth, Are amino acid supplements Ergogenic, Does creatine give quick energy, Does bicarbonate boost high-intensity activity, Caffeine: Coffee to go longer and farther, Does carnitine help burn fat, Medium chain triglycerides, Ribose for energy, Can HM B protect muscles, Will ginseng keep people going, Ephedra: Banned by the FDA, Anabolic steroids: Illegal bulk are steroid precursors safer than anabolic steroids, Peptide hormones are by prescription only, Does growth hormone grow muscles, Erythropoietin (EPO): The blood booster other supplements	13th ,14th	4
10	Nutritional problems common among athletes	Losing and gaining weight, How to gain weight safely, How to lose weight safely, Eating disorders: Athletes at risk, Athletes with anorexia, Binging and purging: Bulimia, Compulsive exercising, The female athlete triad, More isn't always better: Overtraining syndrome, Low iron means poor performance and vegetarian diets for athletes.	15th	2
11	Final exam		16th	2
		Total number of weeks and hours	16	32

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