The Hashemite University

الجامعـــــة الهاشميـــــة

Deanship of Academic Development and International Outreach

عمادة التطوير الأكاديمي والتواصل الدولي

# Syllabus*: Sport Nutrition (1905021373)

## First Semester 2023 /2024

| COURSE INFORMATION | |
|---|---|
| **Course Name:** Sport Nutrition<br>**Semester:** First<br>**Department:** Department of Clinical Nutrition<br>**Faculty:** Applied Medical Sciences | **Course Code:** 1905021373<br>**Section:** 1<br>**Core Curriculum**: Specialization Requirments Elective |
| **Day(s) and Time(s):** Sun, Tue, Thur: 10:00-11:00<br>**Classroom:** Building of Medical Schools 311 | **Credit Hours:** 3<br>**Prerequisites**: |

**COURSE DESCRIPTION**

This course expands upon basic nutrition concepts by exploring the unique nutritional needs of athletes. Course topics include energy requirements for resistance and endurance athletes, principles of a balanced diet, timing and composition of pre– and post–activity meals, vitamins and minerals, ergogenic aids, hydration and unique needs for various athletic groups

**DELIVERY METHODS**

The course will be delivered through a combination of active learning strategies. These will include:

- PowerPoint lectures and active classroom-based discussion
- Collaborative learning through small groups acting in an interdisciplinary context.
- Relevant films and documentaries
- Video lectures
- E-learning resources: e-reading assignments and practice quizzes through Model and Microsoft Team

**FACULTY INFORMATION**



| | |
|---|---|
| **Name** | **Dr. Narmeen Al-Awwad** |
| **Academic Title:** | **Associated Prof.** |
| **Office Location:** | **Medical Sciences building- L1; office #:2163** |
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|---|---|---|
| **Office Hours:** | **Sun- Thu.: 11:00 to 12:00** *Please send an e-mail (narmeen@hu.edu.jo) to meet at any other time.* | |

## REFERENCES AND LEARNING RESOURCES

**Required Textbook:**

- **Dunford M and Doyle J. A. (2014). Nutrition for Sport and Exercise, 3rd Edition. CengageLearning, USA**
- **Position of the American Dietetic Association, Dietitians of Canada, and the American Collegeof Sports Medicine: Nutrition and Athletic Performance. J Am Diet Assoc. 2009;109:509-527.**
- **Horton,WB and Subauste JS. Care of the Athlete With Type 1 Diabetes Mellitus: A Clinical Review. Int J Endocrinol Metab. 2016 April; 14(2):e36091. doi: 10.5812/ijem.36091.**

## ACADEMIC SUPPORT

It is The Hashemite University policy to provide educational opportunities that ensure fair, appropriate and reasonable accommodation to students who have disabilities that may affect their ability to participate in course activities or meet course requirements. Students with disabilities are encouraged to contact their Instructor to ensure that their individual needs are met. The University through its Special Need section will exert all efforts to accommodate for individual's needs.

**Special Needs Section:**
**Tel:**
**Location:**
**Email**:

## STUDENT LEARNING OUTCOMES MATRIX*

| Core Curriculum Learning Outcomes | Program Learning Outcomes | Course Objectives | Course Student Learning Outcomes | Assessment Method |
|---|---|---|---|---|
| To provide students with the optimum educational standard in the field of clinical nutrition and general knowledge in food technology | **KP1:** Demonstrate a depth understanding of the basis of nutritional science and the nutrient composition of food and discover the links between diet and disease and health | 1. Describe the physiological and biochemical processes associated with the utilization of carbohydrate, lipid, and protein<br>2. Discuss the effect of carbohydrate, lipid, and protein intake on athletic performance<br>3. Understand how to assess energy expenditure and nutrient metabolism through indirect calorimetry<br>4. Evaluate nutrient intake and plan sound nutrition programs for optimum health and performance<br>5. Write guidelines for athletes describing optimum intake of nutrients prior to, during, and after exercise<br>6. Explain the need for selected vitamins, minerals, electrolytes, and fluids during physical activity<br>7. Summarize the current literature regarding the effects of several ergogenic aids<br>8. Describe the basic principles in the area of weight control<br>9. Identify causes, symptoms, and negative effects of limited energy availability<br>10. A proper understanding of the successful care plans for T1DM athletes. | K1. To understand the concept of sport nutrition, and recognize nutritional needs for athletes (energy, macro and micronutrients requirements).<br>K2. Gain a good knowledge of dietary and nutrient recommendations for different levels of exercise (e.g. intensity, duration, environmental conditions) and for various types of sports.<br>K3. Understand the metabolic basis underlying the dietary and nutrient recommendations for different levels of exercise and various types of sports. | Exam |
| To provide optimal educational and training opportunities for students during their professional preparation for careers in nutrition. | **KP2:** demonstrate an understanding of food chemistry, technology, preparation, safety and correlates nutrition with food technology and future challenges**.** | | S1. Gain experience critiquing information sources and research papers related to sports nutrition.<br>S2. To differentiate between the right and wrong sport nutrition information<br>S3. Learn to assess and plan diets designed to meet nutrient needs of people of different ages, physical states for different types and levels of physical activity | Exam |

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|---|---|---|---|---|
| To participate in community services for health promotion and disease prevention programs | **KP3:** Explain the principles of cellular metabolic processes, the structure and function of the various physiological systems, and the principles of biochemistry | | | |
| To encourage creativity and innovation in solving problems of emerging cases in the field of clinical nutrition | **KP4:** Providing students with high levels of educational quality based on training on specific pathological conditions in therapeutic nutrition. | | | |
| | **SP1:** Evaluate critically scientific research from a variety of sources in relation to nutrition and health through working with others, communication, self-management, and problem-solving and reflect on the various components | | | |
| To sustain the concept of collaboration to promote an appropriate diet solution in cases of health and disease | **SP2:** Communicate effectively with groups and individuals to promote the benefits of a balanced diet throughout the lifespan and demonstrate the ability to use scientific laboratory skills. | | | |
| | **SP3:** Assess diet, food and nutrient intake, and the consumption of food constituents in individuals and groups | | | |
| | **CP1:** Demonstrate consistent professional behavior in accordance with the legal and ethical boundaries of the dietetic profession | | | |
| | **CP2:** Critically apply knowledge of diet and health to evaluate and communicate and comment on dietary or health information both from scientific sources. | | | |
| | **CP3:** Utilize the methods of data analysis using computer software and apply these methods to analyze data obtained from a wide variety of sources and situations, and apply critical thinking, testing hypotheses, formulating suggestions in diet and health | | | |

## COURSE REGULATIONS

***Participation***

Class participation and attendance are important elements of every student's learning experience at The Hashemite University, and the student is expected to attend all classes. A student should not miss more than 15% of the classes during a semester. *Those exceeding this limit of 15% will receive a failing grade regardless of their performance*. It is a student's responsibility to monitor the frequency of their own absences. **Attendance record begins on the first day of class irrespective of the period allotted to drop/add and late registration. It is a student's responsibility to sign-in; failure to do so will result in a non-attendance being recorded.**

In exceptional cases, the student, with the instructor's prior permission, could be exempted from attending a class provided that the number of such occasions does not exceed the limit allowed by the University. The instructor will determine the acceptability of an absence for being absent. A student who misses more than 25% of classes and has a valid excuse for being absent will be allowed to withdraw from the course.

***Plagiarism***

Plagiarism is considered a serious academic offence and can result in your work losing marks or being failed. HU expects its students to adopt and abide by the highest standards of conduct in their interaction with their professors, peers, and the wider University community. As such, a student is expected not to engage in behaviours that compromise his/her own integrity as well as that of the Hashemite University.

Plagiarism includes the following examples and it applies to all student assignments or submitted work:

- **Use of the work, ideas, images or words of someone else without his/her permission or reference to them.**
- **Use of someone else's wording, name, phrase, sentence, paragraph or essay without using quotation marks.**
- **Misrepresentation of the sources that were used.**

**The instructor has the right to fail the coursework or deduct marks where plagiarism is detected**

***Late or Missed Assignments***

In all cases of assessment, students who fails to attend an exam, class project or deliver a presentation on the scheduled date without prior permission, and/or are unable to provide a medical note, will automatically receive a fail grade for this part of the assessment.

- Submitting a term paper on time is a key part of the assessment process. Students who fail to submit their work by the deadline specified will automatically receive a 10% penalty.

Assignments handed in more than 24 hours late will receive a further 10% penalty. Each subsequent 24 hours will result in a further 10% penalty.

- In cases where a student misses an assessment on account of a medical reason or with prior permission; in line with University regulations an incomplete grade for the specific assessment will be awarded and an alternative assessment or extension can be arranged.

***Student Complaints Policy***

Students at The Hashemite University have the right to pursue complaints related to faculty, staff, and other students. The nature of the complaints may be either academic or non-academic. For more information about the policy and processes related to this policy, you may refer to the students' handbook.

## COURSE ASSESSMENT

***Course Calendar and Assessment***

Students will be graded through the following means of assessment and their final grade will be calculated from the forms of assessment as listed below with their grade weighting taken into account. The criteria for grading are listed at the end of the syllabus

| Assessment | Instrument | Grade Weighting | Deadline Assessment |
|---|---|---|---|
| **First Assessment** | First-Hour exam | 30 % | Time & place: To be determined |
| **Second Assessment** | Second-Hour exam | 30 % | Time & place: To be determined |
| **Final Exam** | Final Exam | 40 % | Time & place: To be determined by the University later |

**Description of Exams**

Test questions will predominately come from material presented in the lectures. Semester exams will be conducted during the regularly scheduled lecture period. Exam will consist of a combination of multiple choice, short answer, match, true and false and/or descriptive questions.

**Homework:** Will be given for each chapter, while the chapter in progress you are supposed to work on them continuously and submit in next lecture when I finish the chapter.

You are also expected to work on in-chapter examples, self-tests and representative number of end of chapter problems. The answers of self-tests and end of chapter exercises are given at the end of the book.

**Quizzes:** Unannounced quizzes will be given during or/and at the end of each chapter based upon the previous lectures. It will enforce that you come prepared to the class.

No make-up exams, homework or quizzes will be given. Only documented absences will be considered as per HU guidelines.

**Grades are not negotiable and are awarded according to the following criteria*:**

| Letter Grade | Description | Grade Points |
|---|---|---|
| A+ | Excellent | 4.00 |
| A | | 3.75 |
| A- | | 3.50 |
| B+ | Very Good | 3.25 |
| B | | 3.00 |
| B- | | 2.75 |
| C+ | Good | 2.50 |
| C | | 2.25 |
| C- | | 2.00 |
| D+ | Pass | 1.75 |
| D | Pass | 1.50 |
| F | Fail | 0.00 |
| I | Incomplete | - |

## WEEKLY LECTURE SCHEDULE AND CONTENT DISTRIBUTION

***"Lecture hours and weeks are approximate and may change as needed"***

| Course Content | |
|---|---|
| **Week** | **Topics** |
| **1** | **Introduction to Sports Nutrition** |
| **2** | **Defining and Measuring Energy** |
| **3** | **Energy Systems and Exercise** |
| **4** | **Carbohydrates** |
| **5** | **Proteins** |
| **6** | **Fats** |
| **7** | **Water and Electrolytes** |
| **8** | **Vitamins** |
| **9** | **Minerals** |
| **10** | **Diet Planning: Food First, Supplements Second** |
| **11** | **Care of the Athlete With Type 1 Diabetes Mellitus** |

## Assessment Rubrics

| Classroom Participation: Assessment Criteria | | | | | |
|---|---|---|---|---|---|
| **Criteria** | **Quality** | | | | **Score** |
| | **Excellent (4 points)** | **Good (3 points)** | **Satisfactory (2 points)** | **Needs Improvement (1 points)** | |
| **Degree to which student integrates course readings into classroom participation** | - often cites from readings;<br>- uses readings to support points;<br>- often articulates "fit" of readings with topic at hand. | -occasionally cites from readings;<br>- sometimes uses readings to support points;<br>-occasionally articulates "fit" of readings with topic at hand . | -rarely able to cite from readings;<br>- rarely uses readings to support points;<br>- rarely articulates "fit" of readings with topic at hand | -unable to cite from readings;<br>-cannot use readings to support points; cannot articulates "fit" of readings with topic at hand . | |
| **Interaction / participation in classroom discussions** | -always a willing participant, responds frequently to questions;<br>- routinely volunteers point of view . | -often a willing participant,<br>- responds occasionally to questions;<br>- occasionally volunteers point of view . | -rarely a willing participant,<br>- rarely able to respond to questions;<br>- rarely volunteers point of view . | -never a willing participant.,<br>- never able to respond to questions;<br>- never volunteers point of view . | |
| **Interaction /participation in classroom learning activities** | -always a willing participant;<br>-acts appropriately during all role plays;<br>- responds frequently to questions;<br>- routinely volunteers point of view. | -often a willing participant;<br>-acts appropriately during role plays;<br>- responds occasionally to questions;<br>-occasionally volunteers point of view. | -rarely a willing participant.<br>-occasionally acts inappropriately during role plays;<br>- rarely able to respond to direct questions;<br>-rarely volunteers point of view . | -never a willing participant<br>- often acts inappropriately during role plays;,<br>- never able to respond to direct questions;<br>- never volunteers point of view. | |
| **Demonstration of professional attitude and demeanor** | -always demonstrates commitment through thorough preparation;<br>- always arrives on time;<br>- often solicits instructors' perspective outside class. | - rarely unprepared; rarely arrives late;<br>- occasionally solicits instructors' perspective outside class . | -often unprepared; occasionally arrives late;<br>- rarely solicits instructors' perspective outside class . | -rarely prepared;<br>- often arrives late;<br>-never solicits instructors' perspective outside class | |