GM-311 - NUTRITION PRINCIPLES - Mühendislik Mimarlık Fakültesi - Gıda Mühendisliği Bölümü

General Info

Objectives of the Course

The aim of this course is to provide knowledge and skills on the relationship between nutrition science and healthy living.

Course Contents

The relationship between nutrition and health; components of a nutritious and healthy diet; the importance of dietary carbohydrates; the nutritional significance of lipids; the role of proteins in nutrition; vitamins, minerals, and their importance in nutrition.

Recommended or Required Reading

Gibney, M.J., Hester, H.V., Kok. F.J.(2002). Introduction to Human Nutrition (Ed by), Blackwell Publishing Company. Baysal, A. (2011). Beslenme. Hatiboğlu Yayınları:93, 12.Baskı,Ankara. Mahan K., Arlin M. Krause's Food, Nutrition and Diet Therapy, 10 th edition, 2000 Whitney, E. & Rolfes, S. R. (2007). Understanding Nutrition. (11th ed.). USA: Wadsworth Publishing. Michael Zeece, 2020. Vitamins and minerals. Introduction to the Chemistry of Food, Chapter Five, Pages 163-212. Arun Lal Srivastav and Tarandeep Kaur, 2020. Factors affecting the formation of disinfection by-products in drinking water: human health risk, Chapter 18. Disinfection By-products in Drinking Water, Detection and Treatment, Pages 433-45.

Planned Learning Activities and Teaching Methods

Oral presentation

Recommended Optional Programme Components

Not available

Instructor's Assistants

Not available

Presentation Of Course

Face to face

Dersi Veren Öğretim Elemanları

Prof. Dr. Hilal Yıldız

Program Outcomes

1. Understands the basic principles of human nutrition
2. Knows the components of food and their sources.
3. Develops adequate knowledge of nutrition in special circumstances.
4. Comprehends the health issues and diseases resulting from malnutrition.
5. Evaluates the toxicological risks of food components

Weekly Contents

Order	PreparationInfo	Laboratory	TeachingMethods	Theoretical	Practise
1	The content of each week will be covered using lecture notes prepared by the instructor. These notes have been provided to students at the beginning of the semester, with weekly topics clearly indicated.		Lectures and discussions	The relationship between nutrition and health	
2	The content of each week will be covered using lecture notes prepared by the instructor. These notes have been provided to students at the beginning of the semester, with weekly topics clearly indicated.		Lectures and discussions	Adequate and balanced diet Nutritional components	
3	The content of each week will be covered using lecture notes prepared by the instructor. These notes have been provided to students at the beginning of the semester, with weekly topics clearly indicated.		Lectures and discussions	Carbohydrates and nutritional significance	
4	The content of each week will be covered using lecture notes prepared by the instructor. These notes have been provided to students at the beginning of the semester, with weekly topics clearly indicated.		Lectures and discussions	Lipids and nutritional significance	
5	The content of each week will be covered using lecture notes prepared by the instructor. These notes have been provided to students at the beginning of the semester, with weekly topics clearly indicated.		Lectures and discussions	Proteins and nutritional significance	
6	The content of each week will be covered using lecture notes prepared by the instructor. These notes have been provided to students at the beginning of the semester, with weekly topics clearly indicated.		Lectures and discussions	Minerals and their roles in nutrition	
7	The content of each week will be covered using lecture notes prepared by the instructor. These notes have been provided to students at the beginning of the semester, with weekly topics clearly indicated.		Lectures and discussions	Minerals and their roles in nutrition	
8	During the midterm week, students are expected to review lecture notes provided at the beginning of the semester, consolidate concepts, and revise topics covered up to that point for the exam.			Midterm Exam	
9	The content of each week will be covered using lecture notes prepared by the instructor. These notes have been provided to students at the beginning of the semester, with weekly topics clearly indicated.		Lectures and discussions	Minerals and their toxic effects	
10	The content of each week will be covered using lecture notes prepared by the instructor. These notes have been provided to students at the beginning of the semester, with weekly topics clearly indicated.		Lectures and discussions	Vitamins and nutritional significance	
11	The content of each week will be covered using lecture notes prepared by the instructor. These notes have been provided to students at the beginning of the semester, with weekly topics clearly indicated.		Lectures and discussions	Vitamins and nutritional significance	
12	The content of each week will be covered using lecture notes prepared by the instructor. These notes have been provided to students at the beginning of the semester, with weekly topics clearly indicated.		Lectures and discussions	Vitamins and nutritional significance	
13	The content of each week will be covered using lecture notes prepared by the instructor. These notes have been provided to students at the beginning of the semester, with weekly topics clearly indicated.		Lectures and discussions	Water and its significance for life	
14	The content of each week will be covered using lecture notes prepared by the instructor. These notes have been provided to students at the beginning of the semester, with weekly topics clearly indicated.		Lectures and discussions	Nutrition in special conditions (obesity, diabetes, hypertension)	
15	The content of each week will be covered using lecture notes prepared by the instructor. These notes have been provided to students at the beginning of the semester, with weekly topics clearly indicated.		Lectures and discussions	Nutrition in special conditions (congenital metabolic disorders)	

Workload

Activities	Number	PLEASE SELECT TWO DISTINCT LANGUAGES
Vize	1	1,00
Final	1	2,00
Ders Öncesi Bireysel Çalışma	14	2,00
Ders Sonrası Bireysel Çalışma	14	2,00
Derse Katılım	14	2,00

Assesments

Activities	Weight (%)
Ara Sınav	40,00
Final	60,00

Gıda Mühendisliği Bölümü / GIDA MÜHENDİSLİĞİ X Learning Outcome Relation

	P.O. 1	P.O. 2	P.O. 3	P.O. 4	P.O. 5	P.O. 6	P.O. 7	P.O. 8	P.O. 9	P.O. 10	P.O. 11	P.O. 12	P.O. 13	P.O. 14
L.O. 1		4			5			4				4		
L.O. 2		4	3	4	4	4		4				4		4
L.O. 3					5			5			4	4		5
L.O. 4			4		5			4			4			5
L.O. 5		5	4	4	4			4			4	4		5

Table :

P.O. 1 : Gıda Mühendisliği ile ilgili temel mühendislik konularında yeterli alt yapıya sahiptir.

P.O. 2 : Alanı ile ilgili problemleri belirleme, tanımlama ve çözme becerisine sahiptir.

P.O. 3 : Nitelikli araştırma planlama, uygulama ve sonuçları analiz etme bilgi ve becerisine sahiptir.

P.O. 4 : Modern teknik ve araçları seçer, kullanır ve bilişim teknolojilerinden etkin biçimde yararlanır.

P.O. 5 : Bilgiye erişebilme yöntemlerini kavrar.

P.O. 6 : Bireysel olarak farklı çalışma gruplarında etkin çalışabilir ve sorumluluk alma özgüvenine sahiptir.

P.O. 7 : Etkin sözlü ve yazılı iletişim kurma becerisine ve en az bir yabancı dil bilgisine sahiptir.

P.O. 8 : Yaşam boyu öğrenmenin gerekliliği bilincindedir; bilim ve teknolojideki gelişmeleri izler ve kendini sürekli yeniler.

P.O. 9 : Mesleki ve etik sorumluluk bilincine sahiptir.

P.O. 10 : Proje hazırlama ve değerlendirme bilgi ve yeteneklerine sahiptir.

P.O. 11 : İşletme yönetimi, çalışanların sağlığı, çevre ve iş güvenliği konularında bilinç sahibidir.

P.O. 12 : Mühendislik çözümlerinin ve uygulamalarının evrensel ve toplumsal boyutlardaki etkilerini kavrar.

P.O. 13 : Gıda üretim prosesleri, kalite kontrolü, ürün kalitesinin artırılması, ürün geliştirme ve gıda analizleri alanlarında yeterli düzeyde bilgi ve beceriye sahiptir.

P.O. 14 : Gıda güvenilirliği açısından önem arz eden risklerin ortadan kaldırılması veya minimum düzeye indirilmesine yönelik bilgi birikimi ve uygulama becerisine sahiptir.

L.O. 1 : İnsan beslenmesinin temel ilkelerini kavrar.

L.O. 2 : Gıda bileşenlerini ve onların kaynaklarını bilir.

L.O. 3 : Özel durumlarda beslenme konusunda yeterli ölçüde bilgi sahibi olur.

L.O. 4 : Yetersiz beslenmeden kaynaklanan sorunları ve hastalıkları kavrar.

L.O. 5 : Besin bileşenlerinin toksikolojik açıdan risklerini anlar ve değerlendirir