

Topics and references for competition

For no. 9 Associated professor position from the Positions List of the Department of Food
Product Engineering for the year 2023 – 2024

Discipline: Principles of Human Nutrition

Lecture topics:

1. The scientific significance of healthy human nutrition,
2. The optimal proportion of nutrients,
3. The dietary importance of proteins and the protein nutritional profile,
4. The dietary importance of lipids and the lipid nutritional profile,
5. The dietary importance of carbohydrates and the carbohydrate nutritional profile,
6. Nutritional survey.

Reference list:

1. Anthony S. Fauci, Eugene Braunwald, Kurt J. Isselbacher, Jean D. Wilson, Joseph B. Martin, Dennis L. Kasper, Stephen L. Hauser, Dan L. Longo. Harrison. Principiile Medicinii Interne. Vol. II, Ediția a II-a în limba română. Editura Teora, 2003,
2. Anthony S. Fauci, Eugene Braunwald, Kurt J. Isselbacher, Jean D. Wilson, Joseph B. Martin, Dennis L. Kasper, Stephen L. Hauser, Dan L. Longo. Harrison,
3. BANU C., și colab, 2009, Alimentație pentru sănătate, Ed.ASAB, București,
4. BANU C. și colab., Alimente funcționale, suplimente alimentare și plante medicinale, Editura ASAB, București, 2010,
5. BANU C. și colab., Industria alimentară între adevăr și fraudă, Editura ASAB, București, 2013,
6. Veronoca Dinu, Eugen Truția, Elene Popa – Cristea, Aurora Popescu, 2006. Biochimie Medicală – Mic Tratat. Editura Medicală, București.
7. Lawrennce M. Tierney, Stephen J. McPhee, Maxine A. Papadakis. Diagnostic și Tratatament în Practica Medicală. Ediție Internațională. Editura Științelor Medicale București, 2001,
8. American Heart Association Nutrition Committee. Lichtenstein A.H., Appel L.J., Brands M., Carnethon M., Daniels S., Franch H.A., Franklin B., Kris-Etherton P., Harris W.S., et al. Diet and lifestyle recommendations revision 2006: A scientific statement from the American Heart Association Nutrition Committee. Circulation. 2006; 114:82–96,

9. Mozaffarian D. Dietary and policy priorities for cardiovascular disease, diabetes and obesity: a comprehensive review. *Circulation*. 2016 jan 12; 133(2):187-225,
10. Ulbricht, T.L.V.; Southgate, D.A.T. Coronary heart disease: Seven dietary factors. *Lancet* 1991, 338, 985–992,
11. Santos-Silva, J.; Bessa, R.J.B.; Santos-Silva, F. Effect of genotype, feeding system and slaughter weight on the quality of light lambs: II. Fatty acid composition of meat. *Livest. Prod. Sci.* 2002, 77, 187–194,
12. Chen, S.; Bobe, G.; Zimmerman, S.; Hammond, E.G.; Luhman, C.M.; Boylston, T.D.; Freeman, A.E.; Beitz, D.C. Physical and sensory properties of dairy products from cows with various milk fatty acid compositions. *J. Agric. Food Chem.* 2004, 52, 3422–3428,
13. Abrami, G.; Natiello, F.; Bronzi, P.; McKenzie, D.; Bolis, L.; Agradi, E. A comparison of highly unsaturated fatty acid levels in wild and farmed eels (*Anguilla anguilla*). *Comp. Biochem. Physiol.* 1992, 101, 79–81,
14. Krajnović-Ozretić, M.; Najdek, M.; Ozretić, B. Fatty acids in liver and muscle of farmed and wild sea bass (*Dicentrarchus labrax* L.). *Comp. Biochem. Physiol.* 1994, 109, 611–617,
15. Burdge, G.C.; Jones, A.E.; Wootton, S.A. Eicosapentaenoic and docosapentaenoic acids are the principal products of α -linolenic acid metabolism in young men. *Br. J. Nutr.* 2002, 88, 355–363,
16. Johnson, E.J.; Schaefer, E.J. Potential role of dietary n-3 fatty acids in the prevention of dementia and macular degeneration. *Am. J. Clin. Nutr.* 2006, 83, 1494–1498,
17. Dietschy, J.M. Dietary fatty acids and the regulation of plasma low density lipoprotein cholesterol concentrations. *J. Nutr.* 1998, 128, 444–448.

Discipline: Packaging, labeling and design in the food industry

Lecture topics:

1. Ways of labeling food products,
2. Labeling of food products as a component part of the packaging. Ways of labeling depending on the nutritional profile of the food. Regulations regarding the labeling of food products in Romania,
3. Packaging of food products. Norms and principle,
4. Functions of packaging.
5. Elements of design and aesthetics. Analysis of the aesthetic level of the products. The relationship between function-form-structure-material in the design of food products.

Reference list:

1. Pamfilie, R., Procopie, R., Design și Estetica mărfurilor, Editura A.S.E., București, 2002,
2. Robertson, G.L si altii –Food packaging an shelf-life, Gordon L. Robertson Ed., Taylor & Francis Group, 2010,
3. Setnescu, Radu - Ambalaje ecologice pentru produse alimentare. Ed. Electra, Bucuresti, 2004,
4. EC Council Directives on Food Hygiene and Additives (93/43/EEC;95/2/EC),
5. Euro Commerce & Food Drink Europe. Ghidul privind informarea consumatorilor cu privire la produsele alimentare (Regulamentul CE 1169/2011),
6. PURCAREA, Anca - Ambalajul : atitudine pentru calitate : tehnologie, economie, mediu. Ed. : Expert, Bucuresti, 1999,
7. UNGUREANU George, Ambalaje și design în industria alimentară, Editura TipoMoldova, 2020,
8. Constanta Modoran, Dorel Modoran. Ambalarea produselor alimentare, editiaa II-a, 2008. Colecția: AGRARIA, Editura Risoprint, Cluj-Napoca, ISBN: 978-973-751-701-2,
9. Mira Elena Ionica Noi abordari privind ambalarea si etichetarea produselor alimentare, Editura Universitaria, 2018, ISBN 9786061414215,
10. Verma MK, Shakya S, Kumar P, Madhavi J, Murugaiyan J, Rao MVR. Trends in packaging material for food products: historical background, current scenario, and future prospects. J Food Sci Technol. 2021 Nov;58(11):4069-4082. doi: 10.1007/s13197-021-04964-2. Epub 2021 Jan 16. PMID: 34538891; PMCID: PMC8405760,
11. Turtoi, Maria - Materiale de ambalaj si ambalaje pentru produsele alimentare. Ed. Alma, Galați, 2000,
12. Puscaselu RG, Lobiuc A, Gutt G. The Future Packaging of the Food Industry: The Development and Characterization of Innovative Biobased Materials with Essential Oils Added. Gels. 2022 Aug 14;8(8):505. doi: 10.3390/gels8080505. PMID: 36005106; PMCID: PMC9407569,
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14. Pascall MA, DeAngelo K, Richards J, Arensberg MB. Role and Importance of Functional Food Packaging in Specialized Products for Vulnerable Populations: Implications for Innovation and Policy Development for Sustainability. Foods.

2022 Sep 30;11(19):3043. doi: 10.3390/foods11193043. PMID: 36230119; PMCID: PMC9564204,

15. Vasile C, Baican M. Progresses in Food Packaging, Food Quality, and Safety-Controlled-Release Antioxidant and/or Antimicrobial Packaging. *Molecules*. 2021 Feb 26;26(5):1263. doi: 10.3390/molecules26051263. PMID: 33652755; PMCID: PMC7956554,
16. Müller P, Schmid M. Intelligent Packaging in the Food Sector: A Brief Overview. *Foods*. 2019 Jan 7;8(1):16. doi: 10.3390/foods8010016. PMID: 30621006; PMCID: PMC6352026,
17. Maurizzi E, Bigi F, Quartieri A, De Leo R, Volpelli LA, Pulvirenti A. The Green Era of Food Packaging: General Considerations and New Trends. *Polymers (Basel)*. 2022 Oct 11;14(20):4257. doi: 10.3390/polym14204257. PMID: 36297835; PMCID: PMC9610407.

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