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| **Course** | **FUNCTIONAL FOODS** | | | |
| **Llojj** | **Semestri** | **ECTS** | **Kodi** |
| ELECTIVE ( E ) | 6 | **4** | 130FF363 |
| **Course lecturer** | **Dr.Sc.EglantinaKraja Bardhi** | | | |
| **Course Assistant** |  | | | |
| **Subject Tutor** |  | | | |
| **Course description -** Goals and Objectives | The objectives of this course are to provide students with an overview of the field of functional foods, nutraceuticals and natural health products. The course enables students to understand the functional food concept as related to ingredient efficacy and safety. In addition, it familiarizes students with: examples of bioactive ingredient-disease relationships and the importance of clinical study support; regulatory aspects of functional foods; and requirements for standards of evidence of efficacy for health claims; and market determinants of the functional food industry. | | | |
| **Expected results** | After successful completion of the course, the student will be able to:   * use the knowledge they have acquired in a way appropriate to practicing the profession of the Food and Nutrition Scientist and have the skills they typically demonstrate through problem solving and functional foods production, * search for, analysis and synthesis of data and information about nutrition science and functional foods, with the use of the necessary technology * communicate information, ideas, problems and solutions to both qualified and non-specialized people about functional foods, * gain advanced knowledge on functional foods, which implies a critical understanding of theories and principles, * adapt to new situations regarding functional foods, * demonstrate the innovation required to solve complex and unpredictable problems in the field of functional foods. * decision-making relative to nutrition issues and functional foods | | | |
| **Content** | **Weekly plan** | | | **Week** |
| * Nutritional Value of Food. | | | 1 |
| * Nutrition and Health Correlation: * A holistic approach to nutrition: Nutritional value of food and nutritional standards. * Nutrition and prevention of cardiovascular diseases, metabolic syndrome, diabetes and cancer. | | | 2 |
| * Bioavailability and bioavailability of food nutrients. | | | 3 |
| * Functional Foods, Bio-Functional Ingredients and Health Promotion: * Introduction to Functional Foods: Definition, categorization, role, development and dissemination. * Procedures for the development and entry of marketable functional foods: Safety, bioavailability and bioactivity studies. | | | 4 |
| * The Legislative Framework of Functional Foods: * Nutrition and Health Claims. * Approval procedures for functional foods. | | | 5 |
| * The antioxidant components of nutrition and their role in health. * Probiotic foods and prevention of degenerative diseases. | | | 6 |
| 1st Colloquium | | | 7 |
| * Vegetable fiber: Effect on the prevention of diabetes and cardiovascular disease. | | | 8 |
| * The effect of monounsaturated and polyunsaturated fatty acids on health. | | | 9 |
| * The beneficial effects of olive oil and fish on health. | | | 10 |
| * The effect of phytosterols on reducing the risk of developing cardiovascular diseases. | | | 11 |
| * The Importance of Bioactive Peptides for Health. | | | 12 |
| * Functional foods and neurodegenerative diseases: * Functional foods, phytochemicals and cancer. | | | 13 |
| 2nd Colloquium | | | 14 |
| Final exam | | | 15 |
| **Literature/References** | * Angela Andreoli& Isabela Egidi. 2016. Ushqimidheushqyerja e njeriut: çfarëduhettë dish. Milano. Përkthyernga: DenisaEskiu, JonaLeka, IlirTopi. * Aluko, R. E. 2012. Functional Foods and Nutraceuticals. Springer. 162 p. * Bagchi D. 2014. Nutraceuticals and Functional Foods Regulations in the United States and Around the World 2nd edition. Elsevier. * Biesalski H-K., Dragsted L., Elmadfa I., Grossklaus R., ller M., Schrenk D., Walter P. & Weber P. 2009. Bioactive compounds: Safety and efficacy. Nutrition, 25, 1206–1211 * Bigliardia Β. &Galatib F. 2013. Innovation trends in the food industry: The case of functional foods.Trends in Food Science & Technology, 31, 118-129. * Coppens P., Da Silva M.F. &Pettman S. 2006. European regulations on nutraceuticals, dietary supplements and functional foods:a framework based on safety Toxicology, 221:59-74 * Costas G. Biliaderis, Marta S. Izydorczyk, Functional Food Carbohydrates, CRC Press, 2007. * Dibra F. 2013. ProbiotiketProduktequmështitëshëndetshëm. Shtëpiabotuse PEGI. * Duthie G.G., DuthieSJ.,& Kyle, A.M. 2000. Plant polyphenols in cancer and heart disease: implications as nutritional antioxidants. Nutrition Research Reviews, 13(1), 340-357. * Goetzke B., Nitzko S., Spiller A. 2014. Consumption of organic and functional food. A matter of well-being and health? Appetite 77, 94–103. * McClements, D.J., & Decker, E.D. 2009. Designing functional foods: measuring and controlling food structure breakdown and nutrient absorption. CRC Press.722 p. * Saarela M. 2011. Functional Foods: Concept to Product. 2nd edition. Oxford, Cambridge. Woodhead Publishing Ltd * Schmidl MK and Labuza TP. 2000. Essentials of Functional Foods, Functional Foods and Nutraceutical series. Technomic Publishing Co., Inc. * Shi, J., Mazza, G., & Le Maguer, M. 1998. Functional Foods: Biochemical and Processing Aspects. CRC Press. 412 p. * Smith, J., & Edward, C. 2010. Functional Food Product Development. Hoboken, NJ, USA: Wiley-Blackwell. 536 p. LC Call Number: QP144.F85 -- F853 2010eb * Takayuki, S. 2008. Functional food and health [electronic resource]. Online resource (xv, 514 p.) * Wildman, E. C. 2000. Handbook of Nutraceuticals and Functional Foods. CRC Press. 500 p. * Zawistowski J and Kitts DD. 2004. Functional Foods – A New Step in the Evolution of Food Development. Clinical Nutrition Rounds. 4:1-6. * Zawistowski J. 2010. Tangible Health Benefits of Phytosterol Functional Foods. J. Smith and E. Charter (Eds) In: Functional Food Product Development. Wiley-Blackwell. | | | |
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