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| **Course** | **Grain Processing Technology**  |
| Type | Semester | ECTS | Code |
| Obligatory (O) | 5 | 4 | 130GPT310 |
| **Lecturer** | Dr.sc.Nora Rrahimi, Prof. Asoc. Dr. Namik Durmishi |
| **Assistant** | PhD. Lorike Salihu |
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| **Aims and Objectives** | The subject will offer to students knowledge of Grain Processing Technology and basic knowledge of cereal crops. The content, structure and quality of cereal carbohydrates and especially of wheat and their role in the process of production of final products; fats of cereals and their impact in suistainabilty, technological qualities and the role of proteins; enzymes, minerals and pigments as cereal compunds and their role. This unit offers to students also the knowledge about siloses and the conservation of cereals.Students will be known with the main grain processes, process of milling and about flours, starting from the cleaning and preparing processes for wheat milling, milling process, types of milling diagrams and packaging of final flour product. Also, will be treated dhe technological processes of two other main cereal crops which are the most used in our country, corn and rice.From the practical side student will be aware of basic analyzing methods of technological processes starting from the moisture of cereals and flours, hectoliter wheigh of cereals, wheigh of 1000 grains, glassnes value of cereals, determination of ash by which is determined the type of flour, determination of gluten as the main protein etc.Also, the studying visits in site of different plants will make students better understand the main technological processes of cereals. |
| **Expected results**  | After completing the course students must be able:* To know the main cereal crops,
* To know the features, attributes and role of main ingridiens of cereals,
* To know the physical properties of cereals,
* To know and understand the types of siloses and the conservation of cereals,
* To know and understand the main principles of milling of some of the main cereals,
* To independently determine the features of flours and their role in human nutrition.
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| **Content** | **Weekly Schedule** | **Java** |
| Production and consumption of cereals in the world | 1 |
| Types and general structure of cereals grain | 2 |
| Anatomical construction and chemical content of wheat and other cereals | 3 |
| Physical properties of cereals | 4 |
| Biochemical processes of cereal mass | 5 |
| Microflora of cereal mass | 6 |
| **Colloquium I** | 7 |
| Process of cereal silosing and the silo types | 8 |
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| Cleaning and selection of cereals | 9 |
| Preparation of wheat for milling | 10 |
| Wheat milling – equipment | 11 |
| Pneumatic transport and flour packaging | 12 |
| Technology of cleaning and process of de-germing | 13 |
|  | **Colloquium II** | 14 |
|  | **Final test** | 15 |
| **Literature/References** | 1.A.Sinani, Teknologjia e ruajtjes dhe perpunimit te dritherave, Tirane, 2008.2.g.Xhabiri,A.Sinani, Analizat laboratorike te dritherave, miellerave, brumerave dhe produkteve te pjekjes, Cabej, Gostivar – Tirane, 2011.3.D.B.Bechtel, et al.,1988: Wheat Chemistry and Technology, (y.Pomeranz,Ed.), AACC, St.Pauli, Minnesota, USA, Vol.I & Vol.II, Third Edition |
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