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| **Subject** | **Plant Genetic Improvement**  |
| **Type** | **Semester** | **ECTS** | **Code** |
|  Z |  I | 6 | / |
| **Aims and Objectives** | • The purpose of this course is to give students the basic knowledge that will serve as a foundation for their profession as well as for greater absorption in future cases. The course includes the basic chapters of genetics. Students will be introduced to the structure and function of genes. On exchanges between genes and the resulting genetic variability. Transcription and translation of genetic information. The genetic code as well as hereditary genetic diseases caused by gene mutations in plants. To understand the importance and goals of genetic engineering. Genetic modifications of plants of positive interest to man. |
| **Learning outcomes** | 1. To get to know the meanings of genetics, gene, phenotype, genotype, allele, as well as the organic and inorganic construction of the cell.2. Describe and clarify the transfer of information from the DNA molecule, through the RNA molecule to the protein.3. Understand the basics of the laws of inheritance of qualities in plants.4. Understand and clarify the presentation of changes in the structure ofgenetic material and their relation to phenotypic changes.5. Understand monohybrid, dihybrid crosses, polyploidy.6. Gain knowledge from the subject of Genetics which will serve as a lesson about the variation of qualities.7. They will be familiar with molecular methods such as genetic engineering, PCR. 8. Be able to distinguish the influence of genetic and environmental factors in the increase of quantitative qualities in plants. |
| **Literature/References** | **1.Kamberi. N., Rizani.H.UBT-2019. Molecular cell biology with genetics. Pristina.****2.Kamberi. N; Rizani.H.Ubt-2020- Practicum Human Genetics With Cellular And Molecular Biology. Pristina.**3. Nussbaum, R.L., McInnes, R.R., & Willard, H.F. (2004). *Thompson & Thompson genetics in medicine* (revised Reprint). W. B. Saunders Company |