**DESCRIPTION OF A STUDY COURSE – SYLLABUS**

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| **Title of a course** | **Plant physiology** | | | | |
| **Study programme** | **Professional undergraduate study Winemaking** | | | | |
| **Status of a course** | Obligatory | | | | |
| **Year of study** | 1. | **Semester** | S | **ECTS credits** | 3 |
| **Goals of a course** | | | | | |
| Introduce students to the functions of the plant organism at the level of the cell, organ, plant as a whole and the life processes that take place in plants. To familiarize students with the influence of external factors on the physiological processes and on the growth and development of plants, and the mechanisms by which plants resist stressful conditions. | | | | | |
| **Conditions for enrolling course** | | | | | |
| No conditions | | | | | |
| **Learning outcomes on a level of a study programme which includes course** | | | | | |
| Develop a plan for the cultivation of Mediterranean cultures, including economic and breeding elements.  Design irrigation models based on water balance and apply classic and special irrigation models. | | | | | |
| **Expected learning outcomes on a level of a course** | | | | | |
| 1. Comment on the functions of the plant at the cell and organ level, and the level of the plant as a whole.  2. Evaluate the significance of physiological - biochemical processes that take place in plants.  3. Link growth and development processes with yield production in plants.  4. Analyse the resistance of plants to the stress effects of external factors. | | | | | |
| **Content of a course** | | | | | |
| Basic functions of cell. Water regime of plants (content inside plants, absorption, transport and extraction). Mineral substances (importance, intake and transport across plant). Photosynthesis (importance, mechanism and chemise, types, factors affecting process of photosynthesis). Chemosynthesis. Circulation of assimilates inside plant. Biological oxidations, respiration and fermentation. Heterotrophic plants. Growth and development of plants. Development of agricultural plants. Commotion of plants. Resistance to extreme factors of outdoor environment. | | | | | |
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