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| Course: | Grapevine biology and propagation |
| Course id: |
| Number of ECTS: 6 |
| Teacher: | Prof. dr Ivan D. Kuljančić |
| Course status | Mandatory |
| Number of active teaching classes (weekly) |
| Lectures: 75 | Practical classes: 45 | Other teaching types: | Study research work: | Other classes: |
| Precondition courses | Botany, Plant physiology, Biochemistry |
| 1. Educational goal

is education and training of undergraduate students in the field of viticulture. Student must acquire basic knowledge about grapevine and wine history, botany, morphology, physiology, ecology and propagation. |
| 1. Educational outcomes

the formation of professionals with academic qualifications, which has an extended knowledge in relation to the knowledge acquired at the high school. Student must be prepared to upgrade his knowledge, in the field of viticulture, with the ultimate goal to use it in the field-in practice.  |
| 1. Course content

Theoretical lecturesIntroduction: Importance of grapevine and its products. History of vines, grapevine and wine. Botanical systematics: genaral features of Vitaceae family, genera of family Vitaceae, genus Vitis and geographical group in it. Grapevine physilogy: Photosytesis, carbon dioxid uptake and assimilation, respiration, gas exchange (transpiration), Mineral nutritives – uptake and transport, Organic matter – sinthesis and transport.Grapevine ecology: Heat (Influence of extremely low and high temperatures on grapevine, temperature summs, prapevine preparing for wintering), light (sun shining duration), soil and air humidity, winds, causes of climate diversity. Grapevine propagation: Generative propagation, vegetative propagation (cuttings, grafting), Vinestock necessary features for grafting.Practical classesVine and grapevine vegetative and generative organs review, Anatomy of roots, shoots, trunk, leaves. Cold hardiness of vine and grapevine tissues and organs, propagation by cuttings and grafting-review.  |
| 1. Teaching methods

Lectures, Practice/ Practical classes, Consultations, study, research work |
| Knowledge evaluation (maximum 100 points) |
| Pre-examination obligations | Mandatory | Points | Final exam  | Mandatory | Points |
| Lecture attendance | Yes | 20 | Oral part of the exam | Yes | 60 |
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| Exercise attendance | Yes | 20 |
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| Literature  |
| Ord. | Author | Title | Publisher | Year |
|  | Ivan D. Kuljančić | Vinogradarstvo-vinova loza ta božanska biljka | Prometej, Novi Sad | 2007/2008. |
|  | Nebojša Marković, Aleksandar Nakalamić | Opšte vinogradarstvo | Poljoprivredni fakultet Zemun I Zadužbina manastira Hilandara | 2009. |
|  | Marcus Keller | The science of grapevines-anatomy and physiology | Elsevier-Academic Press, San Diego | 2012. |
|  | Peter R. Dry, B.G. Coombe | Viticulture (Volume 1), | Resources, Adelaide | 2004. |

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| Znak univerziteta | UNIVERSITY OF NOVI SADFACULTY OF AGRICULTURE 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 8 | Znak fakulteta2 |
| Frutigrowing and viticulture UNDERGRADUATE ACADEMIC STUDIES  |
| Table 5.2 Course specification |