**„ION IONESCU DE LA BRAD” UNIVERSITY OF LIFE SCIENCES, IASI**

**ACADEMIC YEAR 2023/2024**

**Ist SEMESTER**

**Promotion exam in the teaching career**

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| **JOB DESCRIPTION:** | |  |
| **The post** | **Associate Professor for an indefinite period** |
| **The position in the state of functions** | VI/13 |
| **Faculty** | Faculty of Horticulture |
| **Departament** | Horticultural technologies |
| **Subjects in the education plan** | MANAGEMENT SYSTEM of ECOLOGICAL VINEYARDS  TECHNOLOGY OF FOOD PRODUCTS OF VEGETAL ORIGIN I (BEVERAGES)  HORTICULTURAL TECHNOLOGIES (VITICULTURE)  OENOLOGY |
| **Scientific domain** | Horticulture |
| **Post description** | The position of university lecturer, for an indefinite period, vacant, position VI/13, as can be seen in the State of functions and teaching staff approved for the academic year 2023-2024, contains a norm of **10 conventional hours**, ensured by **lectures** (**7 hours**) and **practical works** (**3 hours**), with the following semester distribution by discipline:  ***Management of viticultural ecological systems, with specific objectives, Bachelor cycle:***  - third year, Faculty of Horticulture, specialization Environmental Engineering, in the second semester: lecture 3 physical hours = 6 conventional hours/week  ***average 3 conventional hours/year***  ***Technology of plant-based food products I (Beverages), with specific objectives, Bachelor cycle:***  - third year, Faculty of Engineering and Animal and Food Resources, CEPA specialization, first semester: lecture 2.0 physical hours = 4.0 conventional hours/week.  ***average 2.0 conventional hours/year***  ***Horticultural technologies (Viticulture), with specific objectives, Bachelor cycle:***  - third year, Faculty of Agriculture, specialization Agriculture, semester I: lecture 2.0 physical hours = 4.0 conventional hours/week  ***average 2.0 conventional hours/year***  ***Oenology, with specific objectives, Bachelor cycle:***  - third year, Faculty of Horticulture, Horticulture specialization, second semester, practical work, 1 work formation x 2 hours = 2.0 physical hours  ***average 1.0 conventional hours/year;***  - IV year, Faculty of Horticulture, Horticulture specialization, first semester, practical work, 2 work formations x 2 hours = 4.0 physical hours  ***average 2.0 conventional hours/year*** |
| **Activities specific for the post** | Lectures and practical works for the subjects in the list of functions, provided for in position VI/13;  Development and preparing of the didactic activity;  Test evaluations  Consultations for students provided for the regular disciplines;  Guiding license projects;  Elaboration of didactic materials;  Scientific research activity;  Practical guidance during the academic year;  Participation in scientific events;  Promotional activities and connection with the economic environment;  Participation in civic, cultural activities, in support of education;  Other activities for the practical and theoretical training of students. |
| **Topics of the exam** | **Topics**  **1. The morphology of the vine.** Morphological elements of the grapevine and their importance (root, stem, woody elements resulting from cuttings, buds and eyes, shoot, inflorescence, flower, grapes and berries) within viticulture in the ecological system.  **2. Elements of vine zoning. Elements of world statistics and in Romania.** Vine-growing area, vine-growing region, vineyard, vine-growing center. Climatic characteristics specific to vine-growing regions in Romania. Admitted grape varieties and production directions.  **3. Biotope factors within the ecological viticultural ecosystem.** Climatic factors (solar radiation, light, temperature, soil and air humidity, air, accidental climatic factors). Soil factors (soil genetic type, useful soil volume, soil texture, soil structure, soil porosity, humidity, soil chemical properties – content in humus, in macro- and microelements, in soluble salts, soil reaction). Orographic factors (relief, terrain exposure, slope, altitude). Secondary biotope factors.  **4. Must processing technology.** Assembly and blending of musts. Deburring the must. Treatments applied to the must before fermentation. Composition corrections applied to must and wine. Correction of the sugar content of must by adding concentrated must, by adding food sugar, by partial concentration. Increasing and decreasing the acidity of must and wine.  **5. Fermentation and maceration in wine production technology.** Alcoholic fermentation of must. Filling fermentation vessels with must and equipping them. Development phases of alcoholic fermentation. Spontaneous fermentation. Induced fermentation. Technological variants of must fermentation. Fermentation supervision and management. Fermentation of must in continuous flow. Fermentation and maceration in wine production technology. Maceration in the technology of obtaining white wines. Maceration - fermentation in the technology of red wine production. Maceration fermentation in static vessels. Maceration fermentation in dynamic vessels (rotating tanks) and in continuous flow. Carbonic maceration. Red vinification by thermal maceration.  **6. The evolution and development phases of wines.** The evolution and development phases of wine. The fermentation phase and the wine formation phase. The maturation phase of the wine. The main processes that take place during wine maturation. Fast wine aging processes. Maturation of wines in small oak barrels. The aging phase of the wine. The degradation phase of the wine.  **Bibliography**   1. Bernaz Gh., Dejeu L., 2006 - Fertilizarea viilor şi întreţinerea solului în concepţie ecologică. Editura Ceres, Bucureşti. 2. Colibaba Cintia, Luchian Camelia, Rotaru Liliana, 2015, Managementul sistemelor viticole ecologice, ISBN 978-973- 147-192-1, Editura Ion Ionescu de la Brad Iaşi. 3. 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Pomohaci, N., Gheorghiţă, M., Iuoraş, R., Stoian, V., Cotrău, A., Cotea, V.V.,- Oenologie, Editura Didactică şi Pedagogică, Bucureşti, 1990. 10. Pomohaci, N., Stoian, V., Gheorghița, M., Sîrghi, C., Cotea, V.V., Nămoloşanu, I. - Oenologie. Volumul 1: Prelucrarea strugurilor şi producerea vinurilor. Editura Ceres, București, 2000. 11. Rochard Joel, 2005 - Traite de viticulture et d’oenologie durable. Edit. Oenoplurimedia, Chaintre-France. 12. Rotaru Liliana, Jitareanu Carmenica Doina, Slabu Cristina, Cotea V. V., Mustea M., Marta Alina Elena, Colibaba Lucia Cintia, 2013, Adaptarea tehnologiilor viticole în contextual schimbărilor climatice, Editura Ion Ionescu de la Brad, Iasi, ISBN 978-973- 147-134-1 13. Rotaru Liliana, Vasile Ancuţa, Nechita Bogdan, Niculaua Marius, Colibaba Cintia, 2011 – Modernizarea tehnologiei de obţinere şi valorificare a strugurilor de masă prin implementarea sistemului european de calitate Eurepgap. Editura Ion Ionescu de la Brad, Iaşi, ISBN 978-973- 147-090-0. 14. Colibaba Cintia, 2018, Ghid de laborator – Managementul sistemelor viticole ecologice, Editura Stef, ISSN 978-606-575-956-5. 15. Luchian Camelia, Cotea V. Valeriu, Scutărașu Cristina, Colibaba Cintia, 2021, Metode și tehnici de analiză a calității băuturilor, Ed. Ion Ionescu de la Brad, Iasi, ISBN 978-973-147-372-7 16. Irimia Liviu Mihai – Coordonator, Autori Irimia Liviu Mihai, Stoleru Vasile, Chelariu Elena Liliana, Filimon Răzvan Vasile, Mustea Mihai, Stan Teodor, Apostol Maria, Bernardis Roberto, Colibaba Cintia Lucia, Dascălu Marius, Teliban Gabriel-Ciprian, Zlati Cristina, Cojocaru Alexandru, Hrițu Adriana, Popîrdă Andreea, 2021 - Manual de practică – Specializarea Horticultură, vol. II, Edit. "Ion Ionescu de la Brad", Iași, ISBN 978-973-147-408-3. |
| **Salary** | The position of assistant professor will be paid according to Law 153/2017, with the amount of 7974 lei. |