

Curriculum

for the Master Programme in

Viticulture, Oenology and Wine Economics

Programme Classification No. 066
498

Effective Date: October 1st, 2021

For legal purposes, only the version of the curriculum that has been published in the official journal (Mitteilungsblatt) is binding and valid - this English translation is for information purposes only.



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<p style="text-align: center;">Curriculum of the Master Degree Programme “Viticulture, Oenology and Wine Economics” At the University of Natural Resources and Life Sciences, Vienna</p>

As at October 1st, 2021

§ 1 QUALIFICATION PROFILE

The Master programme in Viticulture, Oenology and Wine Economics is a degree programme which serves to deepen and extend students' pre-vocational academic education, building on the basis provided by a Bachelor degree programme (§ 51 [2] item 5 of the Universities Act UG 2002, Federal Law Gazette BGBl I no. 81/2009). The study programme is established as a joint degree programme based on an agreement between the University of Natural Resources and Life Sciences, Vienna and Geisenheim University (§ 51 para. 2 clause 27 University Law 2002 Federal Law Gazette I No. 81/2009). The programme fulfils the requirements of Directive 2005/36/EC on the recognition of professional qualifications, article 11, letter e.

1a) Knowledge and Personal and Professional Skills

The vocationally-oriented Master study programme Viticulture, Oenology and Wine Economics imparts application-related knowledge and skills in the three core areas viticulture, oenology and wine economics. The study programme is shaped to provide quality-oriented, economic and sustainable grapevine cultivation, grape processing and wine marketing. Graduates are equipped with the ability to solve subject-specific problems based on a profound professional competence in the fields of engineering and economic sciences.

1b) Professional Qualifications

Based on their scientific education and training, graduates are active in the following fields:

- Operations and business managers of wineries, wine cellars and wine-trading companies
- Consulting firms
- Quality management and testing laboratories
- Education and research institutions
- Academic career at universities
- Higher service in public administration

Graduates possess the qualifications of oenologists according to the definition of the International Organisation of Vine and Wine (OIV). Graduates of the Master study programme Viticulture, Oenology and Wine Economics have acquired the competences necessary to execute the four defined professions defined in the resolutions of the OIV. They are enabled to execute all tasks related to the following phases (resolution ECO 11-492):

- Grape production (phase I)
- Grape processing and wine making (phase II)
- Production monitoring (phase III)
- Marketing and adapting the products to the market requirements (phase IV)

Course Number	Phytomedicine in Viticulture (WS)	Course Type	Sem ester	ECTS Credits
	Course Title			
953329	Chemistry and application of pesticides *)	VX	WS	3.0
953334	Plant pathology in viticulture *)	VU	WS	3.0

Learning Outcomes:

The students

- know and understand the most important processes of grapevine pathogenesis
- know and understand the most important processes for the development of damage to plants due to animal pests
- know about the plant-based defense mechanisms
- know the biology of the essential diseases and pests in national and international vineyards
- know the basics of propagation and spread of pest populations
- can estimate and assess qualitative and quantitative damage by pathogenic organisms and animal pests
- have the professional knowledge to fight diseases and animal pests in conventional, integrated and organic wine growing
- have special knowledge on prognosis modelling in fruit and wine growing
- know the guidelines and legal requirements of integrated plant protection
- know integrated production systems for fruit and wine growing and their stock monitoring with regards to the occurrence of pests and beneficial animals

OR:

Course Number	Phytomedicine in Viticulture (WS)	Course Type	Sem ester	ECTS Credits
	Course Title			
	Phytomedicine in viticulture **)	VS/PJ/UE	WS	6.0

Learning Outcomes:

The students

- know the most important processes that play a role in the colonization and infection of grapevines by phytopathogenes and herbivore insects respectively
- are in the position to assess the connection between the development of resistances of the grapevine against pests as foundation for specific disease control measures
- know specific diseases and pests of European and non-European winegrowing areas
- have special knowledge on prognosis models
- can carry out phytomedical laboratory investigation for the diagnosis and the characterization of grapevine pests

Course Number	Viniculture Around the World and International Wines (SS)	Course Type	Semester	ECTS Credits
	Course Title			
958342	World wines and viticulture ¹ *)	VS	SS	3.0
958343	Field trip - viticulture and oenology *)	EX	SS	3.0

Learning Outcomes:

The students

- have insights in national and international winegrowing areas
- understand the structural and production-related differences in selected wineries
- know the geographic and climatic conditions in selected wine producing countries
- can assess the effect of political structures and of marketing strategies on wine economy
- know regional and country-specific wines and their characteristics

Course Number	Biometry and Test Planning (SS)	Course Type	Sem ester	ECTS Credits
	Course Title			
851301	Experimental design *)	VO	SS	3.0
851302	Experimental design - lab *)	UE	SS	3.0

Learning Outcomes:

The students

- can develop a test planning
- can critically consider and assess experimental designs
- receive an overview on the methods of bioinformatics and the difficulties that arise from modern methods of analysis
- can select suitable methods for the analysis of experimental data
- can utilize modern statistics software

Course Number	Soil & Terroir in Viticulture (SS) The module is held by instructors at BOKU and HSGM	Course Type	Sem ester	ECTS Credits
Course Title				
911337	Soil and terroir in viticulture and oenology *) **)	VU	SS	2.0
911341	Biogeochemistry of soils ¹ *)	VU	SS	3.0
911338	Soil and terroir in viticulture and oenology *)	EX	SS	1.0

Learning Outcomes:

The students

- have a basic knowledge on the term terroir and its importance both for viticulture and oenology
- have theoretical knowledge and partial practical mastery of essential methods related to site, field soil and soil analysis in order to record and describe terroirs
- can differentiate the site characteristics with regards to landscape, climate and soil and assess the interrelations with terroir effects

Course Number	Organic Viticulture (SS)	Course Type	Sem ester	ECTS Credits
Course Title				
	Organic viticulture **)	VO/SX	SS	6.0

Learning Outcomes:

The students

- know the cultivation differences of wine cultivation systems, international differences and developments as well as their history
- can legally classify cultivation systems
- possess special in-depth knowledge on cultivation requirements of organic viticulture (cultivation technique, soil management and fertilization, phytomedicine)
- know the guidelines on processing, declaration and monitoring of organically produced wines
- are enabled to assess organic viticulture from an economic point of view

Course Number	Special Grapevine Breeding, Grapevine Propagation and Cultivar Knowledge (SS)	Course Type	Semester	ECTS Credits
	Course Title			
	Special Grapevine Breeding, Grapevine Propagation and Cultivar Knowledge **)	VU	SS	6.0

Learning Outcomes:

The students

- have in-depth knowledge on grapevine breeding methods
- have knowledge on resistance breeding for scion and rootstock varieties
- know strategies of clone selection
- know the importance of genetic resources and possibilities of their conservation
- have legal knowledge on plant variety and seedling rights
- have in-depth knowledge of refining and propagation methods
- have knowledge on important international grape varieties, their appearance, characteristics, site requirements and spread

Course Number	Wine Sales and Logistics (SS)	Course Type	Semester	ECTS Credits
	Course Title			
	Wine Sales and Logistics ² **)	VO/SE/EX	WS	6.0

Learning Outcomes:

The students

- can explain and develop alternative marketing and logistics strategies and concepts
- can conduct distribution controlling
- can analyse trade patterns
- can execute sales and logistics for wine

Course Number	Special Beverage Analysis	Course Type	Semester	ECTS Credits
	Course Title			
	Special Beverage Analysis **)	VU	SS	6.0

Learning Outcomes:

The students

- have knowledge on the analytics of primary and secondary ingredients of beverages
- know traditional and modern analytical methods and can assess them

Course Number	Applied Wine Market Research (WS)	Course Type	Sem ester	ECTS Credits
	Course Title			
	Applied Wine Market Research **)	VU	SS	6.0

Learning Outcomes:

The students

- can introduce empirical questions on wine markets in econometrical models
- can develop and apply empirical survey approaches for concrete questions
- can analyse and interpret collected data using econometrical and / or other statistical methods
- can analyse results of qualitative and quantitative research and derive action recommendations for the beverage industry from it

Course Number	Strategic Management in the Wine Industry (WS)	Course Type	Sem ester	ECTS Credits
	Course Title			
	Strategic Management in the Wine Industry **)	US	WS	6.0

Learning Outcomes:

The students

- can utilize methods for the analysis of the economic environment within the field of wine industry
- can use strategic instruments for corporate development
- know the methods for strategic positioning of a business in the field of viticulture
- can develop products and assortments in viticulture
- can develop a business plan and know the methods of controlling in a viticulture enterprise

Course Number	IT Systems in the Wine Industry (SS)	Course Type	Sem ester	ECTS Credits
	Course Title			
	IT Systems in the Wine Industry **)	VU	SS	6.0

Learning Outcomes:

The students

- can identify the providers and solutions of systems for viticulture currently on the market
- can distinguish the various IT systems for the wine industry
- can assess the intended purpose-dependent criteria in selection procedures of a suitable IT system
- can perform the development of product requirements specifications
- can clean data
- can estimate the migration and implementation processes regarding activities and expenditures
- can estimate future requirements related to IT systems in viticulture
- can perform basic bookings in selected IT systems and explain the related background

§ 6 FREE ELECTIVES

Free electives worth a total of 12 ECTS credits are required to complete the Master programme. Free electives may be selected from all courses offered by all recognized universities in Austria and abroad. Free electives are intended to impart knowledge and skills in the student's own academic subject as well as in fields of general interest.

§ 7 MASTER'S THESIS

A Master's Thesis is a paper on a scientific topic, to be written as part of a Master degree programme (for exceptions please see the By Laws of the University of Natural Resources and Life Sciences, Vienna, part III- Teaching, § 30[9]). The thesis is worth a total of 30 ECTS credits. With their Master's Thesis, students demonstrate their ability to independently address a scientific topic, both thematically and methodologically (§ 51 [8] UG 2002 BGBl. I no. 81/2009).

The topic of the Master's thesis must be taken from a subject of the degree programme. The Master's thesis must be jointly supervised by a supervisor from the University of Natural Resources and Life Sciences, Vienna and a supervisor from Hochschule Geisenheim University. The student must announce the topic of the Master's thesis and the two supervisors of the University of Natural Resources and Life Sciences, Vienna and Hochschule Geisenheim University in writing before beginning work on the thesis.

The topic of a Master's Thesis shall be chosen in such a way that it is reasonable to expect a student to be able to complete it within six months. Multiple students may jointly address a topic, provided that the performance of individual students can be assessed (§ 81 [2] UG 2002 BGBl. I no. 81/2009).

The Master's Thesis shall be written in German or English. Languages other than German or English are permissible only if approved and confirmed by the thesis supervisor. The thesis defence must be held in German or English regardless of the language of the thesis.

§ 8 COMPLETION OF THE MASTER PROGRAMME

The Master programme in Viticulture, Oenology and Wine Economics has been completed when the student has passed all required courses and received a positive grade on the Master's Thesis and defence examination.

§ 9 ACADEMIC DEGREE

Graduates of the Master programme in Viticulture, Oenology and Wine Economics are awarded the academic title Master of Science, abbreviated as MSc or M.Sc..

The academic title MSc (M.Sc), if used, shall follow the bearer's name (§ 88 [2] UG 2002 BGBl. I no. 81/2009).

§ 10 EXAMINATION REGULATIONS

(1) The Master programme in Viticulture, Oenology and Wine Economics has been completed successfully when the following requirements have been met:

- positive completion of compulsory courses worth a total of 54 ECTS credits (§ 4)
- positive completion of elective courses worth a total of 24 ECTS credits (§ 5)
- positive completion of free electives worth a total of 12 ECTS credits (§ 6)
- a positive grade on the Master's Thesis and the defence examination.

(2) Student evaluation takes the form of course and module examinations. Course examinations can be either written or oral, as determined by the course instructor, taking the ECTS credit value of the course into account. Any prerequisites for admission to examinations shall be listed in § 4 under the respective course/module.

(3) Student evaluation in modules: Module evaluation is based on the grades given the students in the individual courses that make up the module. The total evaluation for the module is calculated as the average of the grades of all module courses, weighted by ECTS credits. Average values of .5 or lower are rounded to the better (numerically lower) grade; values of over .5 are rounded to the worse (numerically higher) grade. If deemed necessary, the Dean of Students may require a module examination at his/her discretion.

(4) The choice of examination method shall be based on the type of course: Lectures shall conclude with a written or oral examination, if continuous assessment of student performance is not applied. Seminars and project-based courses can be evaluated based on independently written papers, length and contents of which are determined by the course instructor. For all other course types, the examination type is at the instructor's discretion.

(5) The completed Master's Thesis which has been assessed positively by the supervisor shall be publically presented by the student and defended in the form of an academic discussion (defence examination) after successful completion of all courses. The committee shall consist of a committee chair and two additional university lecturers (one from the University of Natural Resources and Life Sciences, Vienna and one from Geisenheim University) with a *venia docendi* or equivalent qualification. The student's total performance (thesis and defence examination) will be assigned a comprehensive grade. Both thesis and defence examination must receive a passing grade for the student to complete the programme. The written evaluations stating the grounds for the thesis grade and the defence examination grade are included in calculating the comprehensive grade and are documented separately.

The comprehensive grade is calculated as follows:

- Master's Thesis: 70%
- Defence examination (incl. presentation): 30%

(6) A comprehensive evaluation of the student's performance on the entire programme shall be assigned. A comprehensive evaluation of "passed" means that each individual component of the programme was completed successfully. If individual components of the programme have not been successfully completed, the comprehensive evaluation is "failed". A comprehensive evaluation of "passed with honours" is granted if the student has received no grade worse than a 2 (good) on all individual components, and if at least 50% of the individual components were graded with 1 (excellent).

§ 11 TRANSITIONAL PROVISIONS

Students who have not completed the formerly effective Master's curriculum in Viticulture, Oenology and Wine Economics when this new Master's curriculum comes into force are transferred to the currently valid one.

For students in the new Master's curriculum already positively completed exams on courses from the old Master's curriculum are acknowledged based on the equivalence list for the respective study programme.

§ 12 EFFECTIVE DATE

This curriculum shall take effect on October, 1st 2021.

ANNEX A TYPES OF COURSES

The following types of courses are available:

Lecture (VO)

Lectures are courses in which certain areas of a subject and the methods used in this area are imparted through didactic presentation.

Lab Course (UE)

Lab courses are courses in which students are instructed in specific practical skills, based on theoretical knowledge.

Practical Course (PR)

Practical courses are classes in which students deal with specific topics independently, based on previously acquired theoretical and practical knowledge.

Compulsory Internship Seminar (PP)

The compulsory internship seminar is a class in which students deal independently with topics related to their internship placements, based on previously acquired theoretical and practical knowledge.

Seminar (SE)

Seminars are courses in which students are required to work independently on the respective subject, deepen their knowledge of the topic and discuss relevant issues.

Field Trips (EX)

Field trips are courses in which students have the opportunity to experience relevant fields of study in real-life practical application, to deepen their knowledge of the respective subject. Field trips can be taken to destinations both in Austria and abroad.

Master's Thesis Seminar (MA)

Master's Thesis seminars are seminars intended to provide students with academic support during the thesis writing process.

Mixed-Type Courses:

Mixed-type courses combine the characteristics of the courses named above (with the exception of project-type courses). Integration of different course-type elements improved the didactic value of these courses.

Project Course (PJ)

Project courses are characterized by problem-based learning. Under instruction, students work (preferably in small groups) on case studies, applying appropriate scientific methods.

Lecture/Seminar (VS)

Lecture/Lab (VU)

Lecture/Field Trip (VX)

Seminar/Field Trip (SX)

Lab/Seminar (US)

Lab/Field Trip (UX)

ANNEX B MODULE PLAN

Joint Degree Master WÖW - Overview

Compulsory Courses
(9 modules consisting of 6 ECTS credits each)

BOKU (WS) Grapevine Yield Physiology	BOKU (WS) Business Administration and Marketing	BOKU (WS) Quality Management	BOKU (SS) Wine Economic Policy and Winelaw GM (WS) Wine Markets from around the World	BOKU (SS) Risk Analysis in Viticulture GM (SS) Process Strategies in Viticulture	BOKU (SS) Grapevine Nutrition and Stress Management GM (WS) Ecophysiology, Special Nutritional Issues	BOKU / GM (WS) Master's Thesis Seminar: Scientific Writing and Presentation in Viticulture	GM (WS) Technology and Microbiology in Enology	GM (WS) Advanced Enology
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Elective Courses
(4 modules consisting of 6 ECTS credits each)

BOKU (WS) Wine Chemistry	BOKU (SS) Viticulture Landscape Nature conservation Tourism	BOKU (WS) Phytomedicine in Viticulture GM (WS) Phytomedicine in Viticulture	GM (WS) Organic Viticulture	GM (SS) Special Grapevine Breeding, Grapevine Propagation and Cultivar Knowledge	GM (WS) Wine Sales and Logistics	GM (SS) Special Beverage Analysis
BOKU (SS) Viniculture around the World and International Wines	BOKU (WS) Biometry and Test Planning	BOKU (WS) Molecular Breeding, Bioengineering GM Bioengineering, Genetic Engineering	BOKU / GM (SS) Soil & Terroir in Viticulture	GM (SS) Applied Wine Market Research	GM (WS) Strategic Management in the Wine Industry	GM (SS) IT Systems in the Wine Industry

Free Electives (12 ECTS)

Master's Thesis (30 ECTS)