# Special examination regulations for the consecutive Master's degree program Master of Science in Viticulture and Enology at the Ludwigshafen University of Business and Society

## dated 19 December 2024

Please note: this translation is provided for information purposes only. The legally binding version of this regulation is the original German text. In case of any inconsistencies or conflicts between the German and English versions, the German text shall take precedence.

## Preamble

Following the decision of the Joint Committee of the Departments (GAF) of the Department of Marketing and Human Resource Management at the Ludwigshafen University of Business and Society, the Department of Life Sciences and Engineering at the Bingen University of Applied Sciences, and the Department of Applied Logistics and Polymer Sciences at Kaiserslautern University of Applied Sciences on 10 December 2024, on the basis of the cooperation agreement from 6 April 2009, the President of the Ludwigshafen University of Business and Society approved the Special Examination Regulations for the Master of Science in Viticulture and Enology on 19 December 2024 after the Senate of the Ludwigshafen University of Business and Society had given its opinion on 18 December 2024 (§§ 7 Para. 2 Sentence 1 No. 2, 86 Para. 2 No. 2, 76 Para. 2 No. 6, 7 Para. 3 Sentence 2 of the *Hochschulgesetz* (Higher Education Act, hereafter *HochSchG*) in the version from 23 September 2020, last amended by *the Gesetz- und Verordnungsblatt für das Land Rheinland-Pfalz* (Ordinance Gazette of Rhineland-Pfalz intervented below.

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## § 1 Scope

- (1) For the Master of Science in Viticulture and Enology, the provisions of the General Examination Regulations (*Allgemeine Prüfungsordnung*, hereafter "GER") for Bachelor's and Master's degree programs at the Ludwigshafen University of Business and Society apply in their respective versions. These regulations contain supplementary special regulations for the completion of the degree program.
- (2) The Master of Science in Viticulture and Enology is offered in two study program formats:
  - **Plan A** is aimed at students who hold a Bachelor's degree in viticulture and enology who are looking to gain practical experience in the wine industry and expand their knowledge with an interdisciplinary approach.
  - **Plan B** is aimed at students who hold a Bachelor's degree in the natural sciences or engineering who would like to enter into the field of viticulture and enology and expand their knowledge with an interdisciplinary approach.
- (3) For examinations taken at the Ludwigshafen University of Business and Society, the examination regulations according to paragraph 1 apply.
- (4) The regulations of the Université de Haute-Alsace for the Master Sciences et technologies de l'agriculture, de l'alimentation et de l'environnement parcours franco-allemand Œnologie et Viticulture apply to examinations taken at the Université de Haute-Alsace.

## § 2 Admission requirements

- (1) Admission to the **Plan A** degree program is open to those who:
  - have a Bachelor's degree with at least 180 ECTS credits in an accredited degree program in viticulture and enology, or have obtained an equivalent university degree in Germany or abroad,

<u>or</u>

have a Bachelor's degree in a natural science, agricultural science, engineering or economics discipline with a focus on the wine industry; two years of qualified practical experience in the field of viticulture and enology is expected,

<u>and</u>

b. can provide a signed internship contract between the applicant and the cooperating dualstudies partner company for at least the duration of the first practical phase,

and

- c. can provide proof of enrollment in the Master Sciences et technologies de l'agriculture, de l'alimentation et de l'environnement parcours franco-allemand Œnologie et Viticulture at the Université de Haute-Alsace, France. Proof must be submitted by the end of the first semester at the latest.
- (2) Admission to the Plan B degree program is open to anyone who has obtained a Bachelor's degree with at least 180 ECTS credits in an accredited degree program in the natural sciences, agricultural sciences, engineering or economics with a focus on the wine industry, or an equivalent degree in Germany or abroad. On the basis of the cooperation agreement from 6 April 2009 with the *Dienstleistungszentrum Ländlicher Raum Rheinpfalz* (DLR, Center for Rural Services Rhineland-Palatinate), in the currently valid version, the practical periods in Plan B as

specified in the curriculum are to take place with the Johannitergut state winery and the research facilities of the DLR Rheinpfalz, as defined in § 1 para. 2. As such, enrollment comprises as the basis of the internship contract in accordance with § 20 para. 3 sentence 4 of the *HochSchG*.

(3) A further admission requirement for both Plan A and Plan B is proof of English language proficiency corresponding to the level B2 of the Common European Framework of Reference for Languages (CEFR). Proof can be provided through recognized language certificates such as TOEFL, Cambridge Certificate, IELTS, or through a successful oral aptitude test in accordance with Annex 1a), or through the successful completion of previous school or academic work as listed in Annex 1b).

## § 3 Academic degree

- (1) The Ludwigshafen University of Business and Society awards the academic degree Master of Science for successful completion of the degree program, abbreviated as: M.Sc.
- (2) The French partner university Université de Haute-Alsace awards the academic degree of "Master" (Master Sciences et technologies de l'agriculture, de l'alimentation et de l'environnement parcours franco-allemand Œnologie et Viticulture) for successful completion of the Plan A degree program option.

## § 4 Structure and duration of degree program

- The standard period of study is 4 semesters. The compulsory modules and compulsory elective modules required for successful completion are listed in Annex 2 (Plan A Curriculum) and Annex 3 (Plan B Curriculum).
- (2) The total number of ECTS credit points (CP) required for successful completion of the program is 120 and includes the Master's thesis, which consists of the thesis proposal, thesis, and thesis defense, amounting to 30 ECTS credit points.
- (3) One ECTS credit point corresponds to 25 hours of work.
- (4) Plan A includes the practical phases of semesters 1 to 3 (Application Studies 1 to 3), totaling 29 ECTS credit points.
- (5) The courses of Plan A in the third and fourth semester are held at the Université de Haute-Alsace (location: Colmar, France).
- (6) Plan B includes the practice-based phases of Semester 1 (Module 160 and 170); Semester 2 (Module 260) and Semester 3 (Module 350 and 360), totaling 45 ECTS credit points.

## § 5 Examination Board

- (1) The Joint Committee of the Departments (*Gemeinsamer Ausschuss der Fachbereiche*) elects an Examination Board.
- (2) The Examination Board shall consist of at least the following members with voting rights:
- a) Three full-time professors from the universities involved in the cooperation agreement (Ludwigshafen University of Business and Society, Bingen University of Applied Sciences, and Kaiserslautern University of Applied Sciences) and who teach at the Neustadt campus.
- b) One student representative.
- (3) One member from the group pursuant to § 37 Para. 2 Nos. 3 and 4 of the *HochSchG*. This only applies insofar as the cooperating universities do not make use of the rule according to § 37

Paragraph 2 Sentence 5, 2nd half-sentence of the *HochSchG*. Should the universities pass a corresponding resolution, each group must be represented. The member may be a member of the *Dienstleistungszentrum Ländlicher Raum Rheinpfalz* (DLR, Center for Rural Services RhinelandPalatinate).

(4) The examination board may include one or more advisory members of the cooperation partner *Dienstleistungszentrum Ländlicher Raum Rheinpfalz* (DLR). They are elected by the Joint Committee of the Departments.

## § 6 Examinations, organization of examinations

- (1) The Master of Science in Viticulture and Enology is offered predominantly in English. Module examinations may be taken in German upon request. This request does not constitute a legal right.
- (2) The respective examination regulations apply to the examinations of the degree program, which take place at the participating universities. There may be deviations between the examination regulations, e.g. in the number of repeat examinations allowed.
- (3) All module examinations in this degree program are examinations or coursework in accordance with Section 15 (1) and (2) of the General Examination Regulations.
- (4) These regulations provide for the following subject-specific examination types in accordance with Section 15 (5 f) of the General Examination Regulations:
- a) Scientific report: The scientific report comprises the written presentation and reflection of the preparation, implementation, and evaluation of an independently planned and executed research project. The written report should not exceed 15 pages.
- b) Case study: In a case study, the candidate should demonstrate that he or she can analyze a complex problem using the methods of the subject area, develop appropriate interdisciplinary concepts or solutions, and present the results in an appropriate written form within a limited period of time, either independently or in a team, on the basis of a practical case. The written case study should not exceed 15 pages. The case study may include an oral presentation in addition to the written component.
- c) Practical-phase assignments: Practical-phase assignments are written papers on cases, tasks, or questions that are worked on during the practical phases at partner companies, usually up to 5 pages in length. In total, the module examination should comprise no more than 4 assignments.
- d) Research Proposal: The research proposal is part of the Master's thesis. The conditions of the oral examination according to the General Examination Regulations § 15 Para. 10 apply. With the research proposal, students should demonstrate that they can independently identify and describe a topic of relevance to the future of the field. By means of a presentation, they present their research project, the research question (thesis and hypotheses), the significance, the study design, and the expected contribution of this research to the subject area.
- (5) When submitting written assignments, students must confirm that they have completed their work independently in the case of group work, each contributor's part must be marked accordingly and have not used any aids other than those specified and indicated in the case of quotations. The date of submission of the written work must be recorded. In the case of delivery by post, the date of delivery to the post office is binding; in the case of electronic delivery, the date of receipt is binding.
- (6) Student attendance is compulsory in the following courses, as the learning objectives can only be achieved through regular student attendance:

- a) Field Component: Cultural Context of Wine Germany, France and Beyond
- b) Laboratory Component: Advanced Techniques in Instrumental Wine Analysis
- c) Laboratory Component: Advanced Molecular Microbiological Analysis

Attendance is a prerequisite for taking the examination.

## § 7 Master's Thesis

- (1) The Master's thesis consists of the thesis proposal, the thesis, and the thesis defense. The time allocated for completing the thesis proposal and the thesis is six months, including one month for the thesis proposal. The topic, task, and scope of the Master's thesis must be set in such a way that the time frame allocated for thesis work can be adhered to.
- (2) In addition to the provisions of Section 17 (1) of the General Examination Regulations, application for advancement to the Master's thesis can be made at the earliest when 50 ECTS credit points have been earned. At the recommendation of the supervisor, the Examination Board can decide on advancement to the thesis at an earlier date.
- (3) The Master's thesis must be written in German, French, or English. The language is determined in agreement with the primary supervisor.
- (4) Following the thesis, a thesis defense is planned in which the topic of the Master's thesis is reflected upon in a presentation and accompanying discussion. The thesis defense is conducted as a peer examination in front of the reviewers and, if necessary, up to two other examiners as appointed by the examination board; it is usually open to the university public. The defense usually lasts 30 minutes and constitutes part of the Master's thesis. The rules of the oral examination according to § 15 Paragraph 10 of the General Examination Regulations apply. As a rule, the thesis defense must take place within two months of submission of the thesis.
- (5) The overall grade for the Master's thesis is calculated as 25% of the grade on the thesis proposal, 50% of the grade on the thesis, and 25% of the grade for the student's performance in their thesis defense.
- (6) The Master's thesis is considered passed if all parts of the examination (thesis proposal, thesis, thesis defense) have received a grade of at least 4.0.
- (7) The grade for the Master's thesis is given double weight in the calculation of the final grade for the degree program.

## § 8 Entry into force

- (1) These regulations for the Master of Science in Viticulture and Enology come into force on the day after their publication in the University Gazette of the Ludwigshafen University of Business and Society. They apply to all students of the Master of Science in Viticulture and Enology who begin their studies starting from the 2025/26 Winter Semester.
- (2) At this time, the examination regulations for the Master's degree program in Viticulture and Enology dated 10 May 2024 shall cease to apply.

## § 9 Transitional regulation

(1) Notwithstanding § 8 Paragraph (2), students who began their studies in the Master's degree program in Viticulture and Enology before the 2025/25 Winter Semester shall be examined in accordance with the Special Examination Regulations of 10 May 2024. Examinations according

to the Special Examination Regulations for the Master's degree program in Viticulture and Enology will be held for the last time during the 2027 Summer Semester.

(2) Upon request, students as defined in Paragraph 1 Sentence 1 may be examined in accordance with the provisions of these regulations.

Ludwigshafen and Neustadt an der Weinstraße, 19 December 2024

Prof. Dr. Gunther Piller President of the Ludwigshafen University of Business and Society Ludwigshafen Prof. Dr. Dominik Durner

Chairman of the GAF (Joint Committee of the Departments of the Marketing and Human Resource Management faculty at Ludwigshafen University of Business and Society Ludwigshafen, the Department of Life Sciences and Engineering at the Bingen University of Applied Sciences, and the Department of Applied Logistics and Polymer Sciences at the Kaiserslautern University of Applied Sciences)

## Annex 1a): Equivalence of language competence

- 1. In the oral aptitude test in accordance with § 2 Paragraph 3 of these regulations, applicants must demonstrate that they have English language skills corresponding to level B2 of the Common European Framework of Reference for Languages (CEFR).
- 2. The regulations of the oral examination according to § 15 Paragraph 10 of the General Examination REgulations apply to the aptitude test. As a rule, the duration is 30 minutes. The aptitude test is assessed as passed or failed. In the event of non-participation in the aptitude test or in the event of unjustified withdrawal after registration, it is deemed to have been failed.

## Annex 1b): Equivalence of completed academic work

Proof of English language proficiency at level B2 of the Common European Framework of Reference for Languages (CEFR) can be provided by proof of successful completion of English lessons up to and including the upper-secondary school level. This requires either the final grade of the last school year or an average of the last two school years, which must correspond to at least the German grade of 4 ("sufficient") or at least 5 points.

| Annex 2: Pla | n A – Curriculum |
|--------------|------------------|
|--------------|------------------|

|          | Module<br>no. | <b>Modules</b><br>Courses                                    | Required/<br>Elective | СР | Workload<br>in hours | sws | Exam type*               | Examinatio<br>n or<br>Coursework | Weighting<br>for overall<br>grade |
|----------|---------------|--|-----------------------|----|----------------------|-----|--------------------------|----------------------------------|-----------------------------------|
|          |               | Professional Integration and Transformation 1                |                       | 10 | 250                  | 1   | AP / PP                  | SL                               | 0/116                             |
|          | 110           | *** (practice-based module)                                  |                       |    |                      |     | ,                        |                                  | -,                                |
|          |               | Process Engineering  |                       |    |                      | 1   |                          |                                  |                                   |
|          |               | Regulatory Affairs Management                                | Elective              |    |                      | 1   |                          |                                  |                                   |
|          |               | Precision / Sustainable Viticulture                          | 1 out of 4            |    |                      | 1   |                          |                                  |                                   |
|          |               | R&D in Grape and Wine Production                             |                       |    |                      | 1   |                          |                                  |                                   |
|          | 120           | Wine Culture and Leadership Skills                           |                       | 5  | 125                  | 5   | PRE                      | SL                               | 0/116                             |
|          |               | Cultural Context of Wine - Germany, France and<br>Beyond **  | Required              |    |                      | 2   |                          |                                  |                                   |
| e        |               | Leadership and Intercultural Competences                     | Required              |    |                      | 2   |                          |                                  |                                   |
| Semester |               | European Wine Law and Protection of<br>Intellectual Property | Required              |    |                      | 1   |                          |                                  |                                   |
| Ser 1    | 130           | Data Analysis and Methodology                                |                       | 5  | 125                  | 4   | А                        | PL                               | 5/116                             |
|          |               | Advanced Statistical Modeling                                | Required              |    |                      | 2   |                          |                                  |                                   |
| 1st      |               | International Scientific Communication                       | Required              |    |                      | 1   |                          |                                  |                                   |
|          |               | Applied Wine Research - Journal Club                         | Required              |    |                      | 1   |                          |                                  |                                   |
|          | 140           | Future Technologies in Enology                               |                       | 5  | 125                  | 5   | CS                       | PL                               | 5/116                             |
|          |               | Innovations in Enology                                       | Required              |    |                      | 2   |                          |                                  |                                   |
|          |               | Process Engineering and Automation                           |                       |    |                      |     |                          |                                  |                                   |
|          |               | Technology   | Required              |    |                      | 2   |                          |                                  |                                   |
|          |               | Quality Management   | Required              |    |                      | 1   |                          |                                  |                                   |
|          | 150           | Customer-centric Product Development                         |                       | 5  | 125                  | 5   | CS,CS / CS,WB<br>/ WB,WB | PL                               | 5/116                             |
|          |               | Consumer Research and Behavior                               | Required              |    |                      | 2   |                          |                                  |                                   |
|          |               | Sustainable Product Development                              | Required              |    |                      | 1   |                          |                                  |                                   |
|          |               | Special Methods of Sensory Case Studies                      | Required              |    |                      | 2   |                          |                                  |                                   |
|          | Total         |  |                       | 30 | 750                  | 20  |                          |                                  |                                   |

|          | Module<br>no. | Modules<br>Courses                                      | Required/<br>Elective  | СР | Workload<br>in hours | sws | Exam type*   | Examinatio<br>n or<br>Coursework | Weighting<br>for overall<br>grade |
|----------|---------------|---|------------------------|----|----------------------|-----|--------------|----------------------------------|-----------------------------------|
|          |               | Professional Integration and Transformation 2           |                        | 10 | 250                  | 1   | AP / PP      | SL                               | 0/116                             |
|          | 210           | *** (practice-based module)                             |                        |    | 250                  | -   | ,,           | 32                               | 0,110                             |
|          |               | Process Engineering                                     |                        |    |                      | 1   |              |                                  |                                   |
|          |               | Regulatory Affairs Management                           | Elective               |    |                      | 1   |              |                                  |                                   |
|          |               | Precision / Sustainable Viticulture                     | 1 out of 4             |    |                      | 1   |              |                                  |                                   |
|          |               | R&D in Grape and Wine Production                        |                        |    |                      | 1   |              |                                  |                                   |
|          |               | Ecology, Sustainability and Management in               |                        | 5  | 125                  | 3   | CS / A / PRE | PL                               | 5/116                             |
|          | 220           | Viticulture   |                        | ,  | 125                  | 5   | C3/ A/ TRE   | 16                               | 5,110                             |
| er       |               | Ecology and Biodiversity in the wineyard                | Required               |    |                      | 1   |              |                                  |                                   |
| st       |               | Agricultural Meteorology and Precision                  |                        |    |                      |     |              |                                  |                                   |
| ne       |               | Viticulture   | Required               |    |                      | 1   |              |                                  |                                   |
| Semester |               | Viticultural Management and Technology                  | Required               |    |                      | 1   |              |                                  |                                   |
| d S      | 230           | Innovation in Biotechnology and Chemistry               |                        | 5  | 125                  | 4   | PRÄ          | PL                               | 5/116                             |
| 2nc      |               | Chemistry and Biotechnology of Wine Making              | Required               |    |                      | 2   |              |                                  |                                   |
| 2        |               | Advanced Techniques in Instrumental Wine<br>Analysis ** | Elective<br>1 out of 2 |    |                      | 2   |              |                                  |                                   |
|          |               | Advanced Molecular Microbiological Analysis             | 1 001 01 2             |    |                      | 2   |              |                                  |                                   |
|          | 240           | Management and Entrepreneurship in Wine                 |                        | 5  | 125                  | 3   | A / CS       | PL                               | 5/116                             |
|          |               | Sustainable Entrepreneurship and Wine                   |                        |    |                      |     |              |                                  |                                   |
|          |               | Economics   | Required               |    |                      | 2   |              |                                  |                                   |
|          |               | Wine Marketing  | Required               |    |                      | 1   |              |                                  |                                   |
|          |               | Climate Change and Viticulture: Influences and          |                        |    |                      |     |              |                                  |                                   |
|          | 250           | Adaptation Strategies                                   |                        | 5  | 125                  | 3   | CS / A / PRE | PL                               | 5/116                             |
|          |               | Impacts of Climate Change on Viticulture                | Required               |    |                      | 1   |              |                                  |                                   |
|          |               | Adaptation Strategies to Climate Change                 | Required               |    |                      | 2   |              |                                  |                                   |
|          | Total         |   |                        | 30 | 750                  | 14  |              |                                  |                                   |

| ter   | Module<br>no. | Modules<br>Courses                            | Required/<br>Elective | СР | Workload<br>in hours | sws | Exam type* | Examinatio<br>n or<br>Coursework | Weighting<br>for overall<br>grade |
|-------|---------------|---|-----------------------|----|----------------------|-----|------------|----------------------------------|-----------------------------------|
| meste |               | Professional Integration and Transformation 3 |                       |    |                      |     |            |                                  |                                   |
| Ĕ     | 310           | *** (practice-based module) ****              | Required              | 9  | 225                  | 1   | ****       | SL                               | 0/116                             |
| Se    | 320           | Project ChemWine**** (study abroad)           | Required              | 9  | 225                  | 15  | ****       | PL                               | 9/116                             |
|       | 330           | Project VitiSmart 1**** (study abroad)        | Required              | 3  | 75                   | 6   | ****       | PL                               | 3/116                             |
| 3rd   | 410           | Master Thesis                                 |                       | 9  | 225                  | 1   | RP         | PL                               | 18/116                            |
|       |               | Thesis Proposal                               | Required              | 9  |                      | 1   |            |                                  |                                   |
|       | Total         |   |                       | 30 | 750                  | 23  |            |                                  |                                   |

|    | Module<br>no. | Modules<br>Courses                     | Required/<br>Elective | СР | Workload<br>in hours | sws | Exam type* | Examinatio<br>n or<br>Coursework | Weighting<br>for overall<br>grade |
|----|---------------|--|-----------------------|----|----------------------|-----|------------|----------------------------------|-----------------------------------|
| es | 410           | Master Thesis                          |                       | 21 | 525                  | 2   | T,D        | PL                               | 42/116                            |
| Е  |               | Thesis                                 | Required              | 16 |                      | 1   |            |                                  |                                   |
| Se |               | Thesis Defense                         | Required              | 5  |                      | 1   |            |                                  |                                   |
| 4. | 420           | Project GreeneVine**** (study abroad)  | Required              | 6  | 150                  | 11  | ****       | PL                               | 6/116                             |
|    | 430           | Project VitiSmart 2**** (study abroad) | Required              | 3  | 75                   | 2   | ****       | PL                               | 3/116                             |
|    | Total         |  |                       | 30 | 750                  | 15  |            |                                  |                                   |
|    |               |  |                       |    |                      |     |            | -                                |                                   |

120

3000

72

116/116

#### Total full degree program

CP = Credit points within the framework of the European Credit Transfer System (ECTS)

PL = Examination = graded examination that is included in the overall grade calculation

SL = Course Work = graded or ungraded examination; the grade is not included in the overall grade calculation

- SWS = Semester hours per week
- \* The slash "/" between the examination types means "or"
- In exceptional cases, combinations of examination types are possible; these are indicated by a ","
- \*\* Compulsory attendance according to §6 paragraph 6
- \*\*\* Company practical phase
- \*\*\*\* Subject to French examination regulations of the UHA (study abroad)

#### Exam types:

- A = Assignment
- AP = Practice-integrating assignments
- CS = Case study
- D = Defense
- PP = Portfolio
- PRE = Presentation
- RP = Research proposal
- T = Thesis
- WB = Scientific report

Note: The contact time in France cannot be converted directly into weekly hours per semester. These figures therefore serve as a guide

|          | Module<br>no. | <b>Modules</b><br>Courses                                    | Required/<br>Elective | СР | Workload<br>in hours | sws | Exam type*               | Examinatio<br>n or<br>Coursework | Weighting<br>for overall<br>grade |
|----------|---------------|--|-----------------------|----|----------------------|-----|--------------------------|----------------------------------|-----------------------------------|
|          | 120           | Wine Culture and Leadership Skills                           |                       | 5  | 125                  | 5   | PRE                      | SL                               | 0/125                             |
|          |               | Cultural Context of Wine - Germany, France and<br>Beyond**   | Required              |    |                      | 2   |                          |                                  |                                   |
|          |               | Leadership and Intercultural Competences                     | Required              |    |                      | 2   |                          |                                  |                                   |
|          |               | European Wine Law and Protection of<br>Intellectual Property | Required              |    |                      | 1   |                          |                                  |                                   |
|          | 130           | Data Analysis and Methodology                                |                       | 5  | 125                  | 4   | Α                        | PL                               | 5/125                             |
|          |               | Advanced Statistical Modeling                                | Required              |    |                      | 2   |                          |                                  |                                   |
|          |               | International Scientific Communication                       | Required              |    |                      | 1   |                          |                                  |                                   |
|          |               | Applied Wine Research - Journal Club                         | Required              |    |                      | 1   |                          |                                  |                                   |
| Semester | 140           | Future Technologies in Enology                               |                       | 5  | 125                  | 5   | CS                       | PL                               | 5/125                             |
| est      |               | Innovations in Enology                                       | Required              |    |                      | 2   |                          |                                  |                                   |
| Ĕ        |               | Process Engineering and Automation                           | Required              |    |                      | 2   |                          |                                  |                                   |
| Se       |               | Quality Management   | Required              |    |                      | 1   |                          |                                  |                                   |
| 1st      | 150           | Customer-centric Product Development                         |                       | 5  | 125                  | 5   | CS,CS / CS,WB<br>/ WB,WB | PL                               | 5/125                             |
|          |               | Consumer Research and Behavior                               | Required              |    |                      | 2   |                          |                                  |                                   |
|          |               | Sustainable Product Development                              | Required              |    |                      | 1   |                          |                                  |                                   |
|          |               | Special Methods of Sensory Case Studies                      | Required              |    |                      | 2   |                          |                                  |                                   |
|          |               | Core Competences Biology and Ecology of the                  |                       |    |                      |     |                          |                                  |                                   |
|          | 160           | Vine (practice-based module)                                 |                       | 5  | 125                  | 4   | PRE / K                  | SL                               | 0/125                             |
|          |               | Grapevine Physiology, Biochemistry and                       | Required              |    |                      | 2   |                          |                                  |                                   |
|          |               | Vine Ecology: Climate, Soil, Biotic and Abiotic Stress       | Required              |    |                      | 2   |                          |                                  |                                   |
|          |               | Core Competences Enology (practice-based                     |                       |    |                      |     |                          |                                  |                                   |
|          | 170           | module)  |                       | 5  | 125                  | 4   | PRE / K                  | SL                               | 0/125                             |
|          |               | Sensory Analysis, Wine Chemistry and Analytics               | Required              |    |                      | 2   |                          |                                  |                                   |
|          |               | Applied Enology  | Required              |    |                      | 2   |                          |                                  |                                   |
|          | Total         |  |                       | 30 | 750                  | 27  |                          |                                  |                                   |

## Annex 3: Plan B – Curriculum

|          | Module<br>no. | Modules<br>Courses                             | Required/<br>Elective | СР | Workload<br>in hours | sws | Exam type*   | Examinatio<br>n or<br>Coursework | Weighting<br>for overall<br>grade |
|----------|---------------|--|-----------------------|----|----------------------|-----|--------------|----------------------------------|-----------------------------------|
|          |               | Ecology, Sustainability and Management in      |                       |    |                      |     |              |                                  |                                   |
|          | 220           | Viticulture                                    |                       | 5  | 125                  | 3   | CS / A / PRE | PL                               | 5/125                             |
|          |               | Ecology and Biodiversity in the wineyard       | Required              |    |                      | 1   |              |                                  |                                   |
|          |               | Agricultural Meteorology and Precision         |                       |    |                      |     |              |                                  |                                   |
|          |               | Viticulture                                    | Required              |    |                      | 1   |              |                                  |                                   |
|          |               | Viticultural Management and Technology         | Required              |    |                      | 1   |              |                                  |                                   |
|          | 230           | Innovation in Biotechnology and Chemistry      |                       | 5  | 125                  | 4   | PRÄ          | PL                               | 5/125                             |
|          |               | Chemistry and Biotechnology of Wine Making     | Required              |    |                      | 2   |              |                                  |                                   |
|          |               | Advanced Techniques in Instrumental Wine       | Elective              |    |                      |     |              |                                  |                                   |
| er       |               | Analysis**                                     | 1 of 2                |    |                      | 2   |              |                                  |                                   |
| st       |               | Advanced Molecular Microbiological Analysis**  | 1012                  |    |                      | 2   |              |                                  |                                   |
| Semester | 240           | Management and Entrepreneurship in Wine        |                       | 5  | 125                  | 3   | A / CS       | PL                               | 5/125                             |
| er       |               | Sustainable Entrepreneurship and Wine          |                       |    |                      |     |              |                                  |                                   |
|          |               | Economics                                      | Required              |    |                      | 2   |              |                                  |                                   |
| 2nd      |               | Wine Marketing                                 | Required              |    |                      | 1   |              |                                  |                                   |
| 2        |               | Climate change and Viticulture: Influences and |                       |    |                      |     |              |                                  |                                   |
|          | 250           | Adaptation Strategies                          |                       | 5  | 125                  | 3   | CS / A / PRE | PL                               | 5/125                             |
|          |               | Impacts of Climate Change on Viticulture       | Required              |    |                      | 1   |              |                                  |                                   |
|          |               | Adaptation Strategies to Climate Change        | Required              |    |                      | 2   |              |                                  |                                   |
|          |               | Core Competences Viticulture (practice-based   |                       |    |                      |     |              |                                  |                                   |
|          | 260           | module)  |                       | 5  | 125                  | 4   | PRE / K      | SL                               | 0/125                             |
|          |               | Smart & Sustainable Viticulture and Meterology | Required              |    |                      | 2   |              |                                  |                                   |
|          |               | Viticultural Practices                         | Required              |    |                      | 2   |              |                                  |                                   |
|          |               | Science in Practice: Management and            |                       |    |                      |     |              |                                  |                                   |
|          | 270           | Language Skills                                |                       | 5  | 125                  | 4   | PRE          | SL                               | 0/125                             |
|          |               | Experimental Design and Project Management     | Required              |    |                      | 2   |              |                                  |                                   |
|          |               | Wine Specific English                          | Required              |    |                      | 2   |              |                                  |                                   |
|          | Total         |  |                       | 30 | 750                  | 21  |              |                                  |                                   |

|          | Module<br>no. | Modules<br>Courses                       | Required/<br>Elective | СР | Workload<br>in hours | sws | Exam type* | Examinatio<br>n or<br>Coursework | Weighting<br>for overall<br>grade |
|----------|---------------|--|-----------------------|----|----------------------|-----|------------|----------------------------------|-----------------------------------|
|          | 350           | Lab Rotation 1 (practice-based module)   |                       | 15 | 375                  | 1   | WB         | PL                               | 15/125                            |
|          |               | Plant Breeding                           |                       |    |                      | 1   |            |                                  |                                   |
| e        |               | Mitigation Strategies for Climate Change | Elective<br>1 of 5    |    |                      | 1   |            |                                  |                                   |
| st       |               | Health Related Topics                    |                       |    |                      | 1   |            |                                  |                                   |
| Semester |               | Analytical Methodologies                 |                       |    |                      | 1   |            |                                  |                                   |
| Sel      |               | Consumer Research                        |                       |    |                      | 1   |            |                                  |                                   |
| D        | 360           | Lab Rotation 2 (practice-based module)   |                       | 15 | 375                  | 1   | WB         | PL                               | 15/125                            |
| 3        |               | Plant Breeding                           |                       |    |                      | 1   |            |                                  |                                   |
|          |               | Mitigation Strategies for Climate Change | Elective              |    |                      | 1   |            |                                  |                                   |
|          |               | Health Related Topics                    | 1 of 5                |    |                      | 1   |            |                                  |                                   |
|          |               | Analytical Methodologies                 | 1013                  |    |                      | 1   |            |                                  |                                   |
|          |               | Consumer Research                        |                       |    |                      | 1   |            |                                  |                                   |
|          | Total         |  |                       | 30 | 750                  | 2   |            |                                  |                                   |

| ester | Module<br>no. | Modules<br>Courses<br>Master Thesis | Required/<br>Elective | СР | Workload<br>in hours | sws | Exam type* | Examinatio<br>n or<br>Coursework | Weighting<br>for overall<br>grade |
|-------|---------------|-------------------------------------|-----------------------|----|----------------------|-----|------------|----------------------------------|-----------------------------------|
| Ĕ     | 410           | Master Thesis                       |                       | 30 | 750                  | 3   | RP, T, D   | PL                               | 60/125                            |
| Se    |               | Thesis Proposal                     | Pflicht               | 9  |                      | 1   |            |                                  |                                   |
| _     |               | Thesis                              | Pflicht               | 16 |                      | 1   |            |                                  |                                   |
| 4t    |               | Thesis Defense                      | Pflicht               | 5  |                      | 1   |            |                                  |                                   |
|       | Total         |                                     |                       | 30 | 750                  | 3   |            |                                  |                                   |

120

3000

53

#### Total full degree program

ECTS = Credit points within the framework of the European Credit Transfer System (ECTS)

PL = Examination = graded examination that is included in the overall grade calculation

SL = Course Work = graded or ungraded examination; the grade is not included in the overall grade calculation

SWS = Semester hours per week

- The slash "/" between the examination types means "or"
  In exceptional cases, combinations of examination types are possible; these are indicated by a ","
- \*\* Compulsory attendance according to §6 paragraph 6

#### Exam types:

- A = Assignment
- CS = Case study
- D = Defense
- K = Written exam
- PRE = Presentation
- RP = Research proposal
- T = Thesis
- WB = Scientific report

125/125