

**Master Oenobio: - UE 1 Definitions Concept Conversion**

University leader: USVAMB

Nb. credits ECTS: 5

Total hourly volume for the student: 40h

H CM: H Lecture/Magistral Class

H TD: H Tutorials/Directed Work

H TP: H Practical Work

**3 parts**

**Syllabus part 1: Concept and type of wine production and definition of Organic Vines and Wines**

**Syllabus part 2: Organic Conversion**

**Syllabus part 3: Comparison Conventional/Reasoned/Organic/Biodynamic**

**Syllabus part 1: Concept and type of wine production and definition of Organic Vines and Wines**

Sequence Professor/ Teacher N°, Name	Sequence duration	Teaching time	Estimated working time for the student	Face-to-face / Distance learning / Practical work	Theme	Materials and content	Educational objectives
1 Arina Oana ANTOCE	2 h CM	2 h CM	4h	Synchronous distance	Organic Products; Vine and Wine in the World	PT + audio support	Understanding the globally magnitude of the organic viticulture and wine production (Statistics: organic vineyard surfaces, organic grapes production, organic wines, consumption of organic wine, evolution, trends on the global level, possible development measures on organic production)
2 Anne Hubert	2 h CM	0,5 h CM	1H	Asynchronous distance	Organic wine production in France and in the world		Understanding the repartition of the production and its evolution by economical data
3 Mihaela BUCUR	2 h CM	2 h CM	4h	Synchronous/ Asynchronous distance	Introduction to Organic viticulture	PT + audio support	Definition and particularities (Understanding the main concepts and

							principles of organic grape cultivation).
4	2 h CM	2 h CM	4h	Synchronous/ Asynchronous distance	Introduction to Biodynamic viticulture  (+TECHNIQ UES)	PT + audio support	Definition and particularities
<i>George Cojocar</i>  <i>HGU</i>  <i>Georg Meissner</i>							
5	2 h CM	2 h CM	4h	Synchronous/ Asynchronous distance	Sustainable viticulture principles	PT + audio support	Definition and particularities
<i>Arina Antoce and Vittorino Novello</i>							
6	2 h CM	2 h CM	4h	Synchronous/ Asynchronous distance	Precision viticulture principles	PT + audio support	Definition and particularities
<i>Arina Antoce</i>  <i>HGU</i>  <i>Manfred Stoll</i>							
7	2 h CM	2 h CM	4h	Synchronous/ Asynchronous distance	Organic wine; Eco sustainable winery	PT + audio support	Definition and particularities
<i>George Cojocar</i> , <i>Arina Antoce</i> <i>URV</i>  <i>Fernado Zamora / Joan Miquel Canals</i>							
8	2 h CM	2 h CM	4h	Synchronous/ Asynchronous distance	Natural wine	PT + audio support	Definition and particularities
<i>Arina Antoce</i> , <i>Pierre-Louis TEISSEDE</i> , <i>Stéphane BECQUET</i>							
10	2 h CM	2 h CM	4h	Asynchronous distance	Marketing specificities of organic grapes and wines	PT + audio support	Understanding the marketing channels and approaches for organic products. The profile of organic wine consumer.
<i>Arina Antoce</i> ,  <i>URV</i> <i>Christophe Marquet/ Joan Miquel Canals</i>  <i>Anne Hubert (0,5 H)</i>							



## Syllabus part 2: Organic Conversion

Sequence Professor/ Teacher N°, Name	Sequence duration	Teaching time	Estimated working time for the student	Face-to-face / Distance learning / Practical work	Theme	Materials and content	Educational objectives
1 Alina Donici, Arina Antoce	2 h CM	2 h CM	4h	Synchronous/ Asynchronous distance	Technical aspects of converting to organic grape cultivation and winemaking	PPT + audio support	Understanding the main requirements for conversion to organic systems: timing, selection of suitable location, varieties, vine management practices.
2 Alina Donici, Arina Antoce	2 h CM	2 h CM	4 h	Synchronous/ Asynchronous distance	Conversion timeline and aspects organic grape cultivation and winemaking	PPT + audio support	Understanding the procedure of registration for organic production, transition and certification. Working with documents.
3 Arina Antoce, Laura Calugaru ( Ministry Agri ROM) and <i>Denis de Froidmont</i>	2 h CM	2 h CM	4h	Synchronous/ Asynchronous distance	EU actions to support organic wine - oenobio 9nov2020		Unless is covered in U2
4 USAMV (Alina Donici, George Cojocaru, Arina Antoce) <i>and Partner Universities</i>	8 h CM	8 h CM	8h	Practical work	Applying organic viticulture and wine production principles	Farm visits in own country	Understanding the main concepts and principles of organic grape cultivation. Understanding the main steps to be followed for organic production and adjusting the knowledge of conventional farming practices <i>Study cases.</i>



### Syllabus part 3: Comparison Conventional/Reasoned/Organic/Biodynamic

Sequence Professor/ Teacher N°, Name	Sequence duration	Teaching time	Estimated working time for the student	Face-to-face / Distance learning / Practical work	Theme	Materials and content	Educational objectives
1 Mihaela BUCUR	2 h CM	2 h CM	4h	Synchronous/ Asynchronous distance	Sustainable versus conventional farming practices. Requirements for adaptation in vine and wine production	PT + audio support	Understanding the impact of short- and long-term farming practices: conventional vs sustainable (including organic and biodynamic) farming. Understanding the need for sustainability in the vine and wine sector
<i>Johanna DORING</i>	1 h CM	1 h CM	2h	Asynchronous distance	<i>1 hour introduction: overview of the research of INBIODYN trial</i>	PT + audio support	Comparison Conventional/Reasoned/Organic/Biodynamic
2 Arina Oana ANTOCE	1 h CM	1 h CM	2h	Synchronous/ Asynchronous distance	Consumer perception and health aspects related to Conventional / Organic / Biodynamic products	PPT + audio support	Understanding the impact of the specific Conventional / Organic / Biodynamic products
3 <i>Stéphane BECQUET</i>	2 h CM	2 h CM	4h	Synchronous/ Asynchronous distance	Pesticide and pesticides residues in organic vine and wine	PPT + audio support	How to manage pesticide residue in organic wine. Research results, regulation and management on the estate
4 Arina Oana ANTOCE	2 h CM	2 h CM	4h	Synchronous/ Asynchronous distance	Traceability and HACCP; labelling	PPT + audio support	
5 Arina Antocea and <i>ECO-CERT</i>	4 h CM	4 h CM	8h	Synchronous/ Asynchronous distance	Certification in organic vine and wine		Certification – organisms, paper work, follow-ups



7	2 h CM	2 h CM	4h	Synchronous/ Asynchronous distance	Economic aspects comparison Conventional / Organic / Biodynamic	PPT + audio support	Understanding costs implication (treatments, work field and certification) for conversion to organic production
Arina Antoce (?) and  <b>VBNA Anne Hubert (0,5 H) : construction of the price of a French organic wine, elements to take account</b>  <b>/ HGU (Institute of Economics Dr Strub)</b>							
8	4 h CM	4 h CM	8 h	Self-research report by groups of students and presentation in the end of module	Marketing specificities of organic grapes and wines	PTT + short report	The wines available on various national markets. France, Spain, Italy, Germany, Romania etc.
Tutored project  Arina Antoce, George Cojocaru  (Invite one partner member person for presentation)  Szolnoky HGU							



## Master Oenobio: - UE 2 Legislation and certification

University leader: UB and URV

Nb credits ECTS: 5

Total hourly volume for the student: 40h

H CM: H Lecture/ Magistral Class

H TD: H Tutorials/ Directed Work

H TP: H Practical Work

### 3 parts

**Syllabus part 1: Rules and Legislation EU/ non EU**

**Syllabus part 2: Control and Quality Insurance**

**Syllabus part 3: Fertilizers, Plant protection and protecting agents**

**Syllabus part 1: Rules and Legislation EU/ non EU**

Sequence Professor/ Teacher N°, Name	Sequence duration	Teaching time	Estimated working time for the student	Face-to-face / Distance learning / Practical work	Theme	Materials and content	Educational objectives
1 Rabot Amélie	2 h CM	2hCM	2h	Synchronous distance	History and evolution of rules and legislation in European and commonwealth of biocontrol product	To define	Understand the global context of rules evolutions from 1920's to now
2 Rabot Amélie	1hCM	1hCM	2h	Synchronous distance	Different rules to different country: benefits and disadvantage	To define	Be able to be aware of specific rules establishment regarding country specificity



## Syllabus part 2: Control and Quality Insurance

Sequence Professor/ Teacher N°, Name	Sequence duration	Teaching time	Estimated working time for the student	Face-to-face / Distance learning / Practical work	Theme	Materials and content	Educational objectives
1 Rabot Amélie	2 h CM	2hCM	2h	Asynchronous distance	Differences rules between country : how to defined the influence of certification and the windig up bodies	To define	Have a knowledge of the word wide map of organism control of Organic production
2 URV	2 h CM	2hCM	3h	Synchronous distance	Introduction of Quality Control Assurance	PPT + audio support audio QCM selfevaluati on	History, general definition. Why QCA? Social and business benefits. Concepts, nomenclature and rules of quality.
3 URV	2hCM	2hCM	3h	Synchronous distance	How execute a QCA?	PPT+audio QCM selfevaluati on	Sampling methods, MIL STD 105E. Properties, criteria. Methodology. Examples of different materials.
4 URV	2h	1H	4h	Asynchronous	Theoric exercise	Problem of QCA	The student must solve the problem of QCA based on given data.
5 URV	2h	2h	3h	Synchronous distance	Supplier control.	PPT+audio QCM selfevaluati on	Evaluation of suppliers, examples, just on time production, Statistical control of the process
6 URV	3h	2h	3h	Synchronous distance	Automatic methods of QCA and managing non conformities	PPT+audio QCM selfevaluati on	On line inspection, methodologies of electronic control and artificial vision. Treatment of the data on place.
7 URV	3h	4h	5h	Synchronous presential	Practical exercise of QCA	Visit a wine plant with QCA. Solve a questionnair e	
8 URV Professionnal s/ JMC or .... Ana Gras	2H	2H	2H	Synchronous presential	Laboratory exercise of QCA	Solve a real problem from the beginning, examine samples and give a conclusion. Deliver a document.	Work on group on a problem and solve it.



### Syllabus part 3: Fertilizers, Plant protection and protecting agents

Sequence Professor/ Teacher N°, Name	Sequence duration	Teaching time	Estimated working time for the student	Face-to-face / Distance learning / Practical work	Theme	Materials and content	Educational objectives
Rabot Amelie	2 h CM	2hCM	2h	ASynchronous distance	Relation between soil typology and fertilizer use	To define	Having general knowledge of soil and product connection in the world
Rabot Amélie	2 h CM	2hCM	2h	Synchronous distance	Difference in use of fertilizer product in UE and Non UE country	To define	Be able to understand that the kind of products could be different but also the quantity and the kind of application
Rabot Amelie	2 h CM	2hCM	2h	ASynchronous distance	Organic pest management, different products to different pest	To define	Having general knowledge of product and their specificity in pest management in the world
Rabot Amelie	2hCM	2hCM	2h	Synchronous distance	Difference in use of biocontrol product in UE and Non UE country	To define	Be able to understand that the kind of products could be different but also the quantity and the kind of application
Rabot Amélie	2hCM	2hCM	2h	Synchronous distance	Difference in use of biocontrol product in UE and Non UE country	To define	Be able to understand that the kind of products could be different but also the quantity and the kind of application





## Master Oenobio: - UE 3 Winegrape Production

University leader: HGU

Nb credits ECTS : 5

Total hourly volume for the student : 40h

H CM : H Lecture/ Magistral Class

H TD : H Tutorials/ Directed Work

H TP : H Practical Work

### 3 parts

**Syllabus part 1: Viticultural practices**

**Syllabus part 2: Soil management**

**Syllabus part 3: Plant protection**

### Syllabus part 1: Viticultural practices (12/40 h)

Sequence Professor/ Teacher N°, Name	Sequence duration	Teaching time	Estimated working time for the student	Face-to-face / Distance learning / Practical work	Theme	Materials and content	Educational objectives
1  Prof. Kauer Prof. Schultz (HGU)	2 h CM	1,5 h CM	4 h	Asynchronous distance	Challenges of organic viticulture facing climate change	PPT + audio	Understand the global challenges of climate change for organic viticulture
2  Prof. Schmid (HGU)  Dr. O. Trapp (JKI)	2 h CM	1,5 h CM	4 h	Synchronous distance	Breeding of fungus tolerant grape varieties and propagation of organic vines	PPT + audio	Understand the basics of breeding fungus tolerant grape varieties Understand the problems of propagation of organic vines
3  Prof. Kauer Prof. Schmid (HGU)	2 h CM	1,5 h CM	4 h	Asynchronous distance	Fungus tolerant vines (Properties of tolerant grape varieties)	PPT + audio	Understand the properties and conditions of fungus tolerant grape varieties
4  Prof. Kauer Dr. Döring (HGU)	2 h CM	1,5 h CM	4 h	Synchronous distance	Training systems and management of vigor (Vines and grapes)	PPT + audio	Understand how to manage the vigor of vines and grapes in organic viticulture



5	Prof. Kauer M. Scheidweiler (HGU)	2 h TP	1,5 h TP	4 h	Presential	TP Soft pruning	PPT + working in groups	Understand the basics and aims of “soft pruning”
6	Prof. Kauer Dr. Döring (HGU)	2 h TP	1,5 h TP	4 h	Presential	TP Wines from Fungus tolerant grape varieties	Sensory evaluation	Assessment of wine quality from tolerant grape varieties

## Syllabus part 2: Soil management (14/40 h)

Sequence	Professor/ Teacher N°, Name	Sequence duration	Teaching time	Estimated working time for the student	Face-to-face / Distance learning / Practical work	Theme	Materials and content	Educational objectives
1	M. Scheidweiler M. Hendgen (HGU)	2 h CM	1,5 h CM	4 h	Asynchronous distance	General soil characterization	PPT + audio	Understand the different soil types and soil structures
2	M. Scheidweiler Y. Wohlfahrt (HGU)	1,5 h CM 1,5 h TD	1,5 h CM	6 h	Synchronous distance	Determination of soil type and structure	PPT + audio, video Self-study / directed work	Assessment of soil identification
3	M. Scheidweiler (HGU)	2 h CM	1,5 h CM	4 h	Asynchronous distance	Techniques of soil cultivation	PPT + audio, videos	Understand different soil cultivation techniques
4	M. Scheidweiler (HGU)	2 h CM	1,5 h CM	4 h	Asynchronous distance	Cover crop management and future challenges	PPT + audio	Understand types and effects of cover crop applications
5	M. Scheidweiler Y. Wohlfahrt (HGU)	1,5 h CM 1,5 h TD	1,5 h CM	6 h	Synchronous distance	Cover crop compositions	PPT + audio, video Self-study /directed work	Learn how to create cover crop mixtures
6	M. Scheidweiler Y. Wohlfahrt (HGU)	2 h TP	2 h CM	4 h	Presential	TP cover crop	Field trip	Reflect, discuss and apply cover crops



### Syllabus part 3: Plant protection (14/40 h)

Sequence Professor/ Teacher N°, Name	Sequence duration	Teaching time	Estimated working time for the student	Face-to-face / Distance learning / Practical work	Theme	Materials and content	Educational objectives
1 Dr. Döring (HGU)	2 h CM	2 h CM	4 h	Synchronous distance	History of organic agriculture in the context of plant protection	Video conference	Understanding how, why, and in which context organic agriculture developed
2 Dr. Selim (HGU)	2 h CM	2 h CM	4 h	Asynchronous	Most important pests and diseases in viticulture	PPT + audio	Remembering the characteristics of important viticultural pests and diseases
3 Dr. Döring (HGU)	2 h CM 1 h TD	2 h CM	6 h	Synchronous distance	Plant protection strategies in organic viticulture I	Video conference Directed work	Understanding principles of current plant protection strategies in organic viticulture
4 Dr. Döring (HGU)	2 h CM	2 h CM	4 h	Synchronous distance	Copper in plant protection	Video conference	Controversially discuss advantages and disadvantages of copper as plant protection agent
5 Prof. Kauer Dr. Döring M.Sc. Wohlfahrt (HGU)	2 h CM	2 h CM	4 h	Synchronous distance	Future plant protection agents in organic viticulture	Video conference	Understanding the functioning of potential plant protection agents for organic viticulture
6 Prof. Kauer Dr. Döring M.Sc. Wohlfahrt (HGU)	1,5 h TP 1,5 h TD	1,5 h CM	6 h	Presential	Plant protection strategies in organic viticulture II	Field trip Directed work in groups	Understanding the application of differing plant protection strategies according to climate, variety, vigor



## Master Oenobio: - UE 4 Table Grape Viticulture

University leader: UNITO

Nb credits ECTS: 3

Total hourly volume for the student: 25h

H CM: H Lecture/ Magistral Class

H TD: H Tutorials/ Directed Work

H TP: H Practical Work

### 3 parts

**Syllabus part 1: Soil and Climate, varieties of table grapes**

**Syllabus part 2: Viticultural practices**

**Syllabus part 3: Vines diseases, special solutions, post-Harvest management**

### Syllabus part 1: Soil and Climate, varieties of table grapes

Sequence Professor/ Teacher N°, Name	Sequence duration	Teaching time	Estimated working time for the student	Face-to-face / Distance learning / Practical work	Theme	Materials and content	Educational objectives
1 UNITO Rosario DI Lorenzo?? (UNIPA)	1 h CM	1 h CM	1 h	Synchronous distance	Introduction to the table grape industry in the world	PPT + audio	Understand the diffusion and importance of the table grape
2 UNITO Silvia Guidono	2 h CM	2 h CM	2 h	Synchronous distance	Basic information on climate in viticulture	PPT+ audio	Understand the relationships between climate, and grape cultivation
3 UNITO	2 h CM	2 h CM	2 h	Asynchronous distance	Basic information on soil	PPT+ audio	Understand the relationships between climate, soil, and table grape
4 UNITO	2 h CM	2 h CM	2 h	Asynchronous distance	Table grape varieties	PPT+ audio	Understanding the different types of table grapes varieties and their attractiveness to the markets and the consumers
5 UNITO	1 h CM	1 h CM	1 h	Asynchronous distance	Resistant table grape varieties	PPT+ audio	Understanding the different types of table grapes varieties and their attractiveness to the markets and the consumers



## Syllabus part 2: Viticultural practices

Sequence Professor/ Teacher N°, Name	Sequence duration	Teaching time	Estimated working time for the student	Face-to-face / Distance learning / Practical work	Theme	Materials and content	Educational objectives
1 UNITO S. Guidoni	2 h CM	2 h CM	2 h	Synchronous distance	Planting vineyards: choice of, site, plant density and trellis system	PPT+ audio	Understanding the problems of the vineyard establishment in different environment
2 UNITO ACarlomagno	2 h CM	2 h CM	2h	Asynchronous distance	Table grape vineyard management	PPT+ audio	Understanding of the modality of toe table grape vineyard management
3 UNITO ACarlomagno	1 h CM	1h CM	1h	Asynchronous distance	Table grape trellis systems	PPT+ audio	Understanding of the modality of toe table grape vineyard management

## Syllabus part 3: Vines diseases, special solutions, post-Harvest management

Sequence Professor/ Teacher N°, Name	Sequence duration	Teaching time	Estimated working time for the student	Face-to-face / Distance learning / Practical work	Theme	Materials and content	Educational objectives
1 UNITO	2 h CM	2 h CM	2 h	Synchronous distance	Table grape vine diseases	PPT+ audio	Understanding the major table grape vine diseases and the modality of their control under the organic production
2 UNITO	1 h CM	1 h CM	1 h	Synchronous distance	Table grape organic production	PPT+ audio	Understanding the major table grape vine diseases and the modality of their control under the organic production
3 UNITO Laura de Palma (UNIFG)	2 h CM	2 h CM	2h	Asynchronous distance	Use of plastic films and nets to advance maturation	PPT+ audio	Understanding the se of plastic films and nets to advance maturation or delay harvest under organic production

4 UNITO Laura de Palma (UNIFG)	1 h CM	1 h CM	1h	Asynchronous distance	Use of plastic films and nets to delay harvest	PPT+ audio	Understanding the se of plastic films and nets to advance maturation or delay harvest under organic production
5 UNITO Rosario Di Lorenzo?? (UNIPA)	2 h CM	2 h CM	2h	Asynchronous distance	Soilless table grape cultivation	PPT+ audio	Understanding soilless table grape cultivation under organic production
6 UNITO Rosario Di Lorenzo?? (UNIPA)	1 h CM	1 h CM	1h	Asynchronous distance	Soilless table grape cultivation: double yield/year	PPT+ audio	Understanding soilless table grape cultivation under organic production
7 UNITO	1 h CM	1 h CM	1h	Asynchronous distance	Table grape harvest management	PPT+ audio	Understanding Table grape harvest and post- harvest management under organic production
8 UNITO	2 h CM	2 h CM	2h	Asynchronous distance	Table grape post-harvest management	PPT+ audio	Understanding Table grape harvest and post- harvest management under organic production



## Master Oenobio: - UE 5 Composition derivate / Sustainability and safety

University leader: UNITO

Nb credits ECTS: 3

Total hourly volume for the student: 25h

H CM: H Lecture/ Magistral Class

H TD: H Tutorials/ Directed Work

H TP: H Practical Work

### 3 parts

#### Syllabus part 1: Grapes and Wines composition

#### Syllabus part 2: Derivate from organic grapes and wines

#### Syllabus part 3: Sustainability and Safety

#### Syllabus part 1: Grapes and Wines composition

Sequence Professor/ Teacher N°, Name	Sequence duration	Teaching time	Estimated working time for the student	Face-to-face / Distance learning / Practical work	Theme	Materials and content	Educational objectives
1 UNITO AFerrandino	2 h CM	2hCM	2h	Synchronous distance	Chemical grape quality parameters	PPT + audio	Understand the main Chemical & physical grape quality evolution during ripening
2 UNITO AFerrandino	1 h CM	1hCM	1h	Synchronous distance	Physical grape quality parameters	PPT + audio	Understand the main Chemical & physical grape quality evolution during ripening
3 UNITO S. Giacosa	2hCM	2hCM	2h	Synchronous distance	Chemical-physical wine quality parameters	PPT+audio	Understand the main physicochemical wine quality evolution during winemaking and ageing
4 UNITO S. Giacosa	1hCM	1hCM	1h	Synchronous distance	Physical-sensorial wine quality parameters	PPT+audio	Understand the main physicochemical wine quality evolution during winemaking and ageing



5 UNITO M.A. Paissoni	2hCM	2hCM	2h	Synchronous distance	Enological technique to improve organic wine quality	PPT+audio	Understand the main technological that influence that wine chemical & physical characteristics
6 UNITO M.A. Paissoni	1hCM	1hCM	1h	Synchronous distance	Enological strategies to improve organic wine quality	PPT+audio	Understand the main technological that influence that wine chemical & physical characteristics

### Syllabus part 2: Derivates from organic grapes and wines

Sequence Professor/ Teacher N°, Name	Sequence duration	Teaching time	Estimated working time for the student	Face-to-face / Distance learning / Practical work	Theme	Materials and content	Educational objectives
1 UNITO	2 h CM	2hCM	2h	Synchronous distance	Extraction techniques of main chemical metabolites	PPT+audio	Understanding the main strategies to obtain chemical compounds to use in food industries
2 UNITO	1 h CM	1hCM	1h	Synchronous distance	Extraction strategies of main chemical metabolites	PPT+audio	Understanding the main strategies to obtain chemical compounds to use in food industries
3 UNITO	2 h CM	2hCM	2h	Virtual visit and/or Synchronous distance	Use of by- products in food industries	Visit and/or PPT+audio	Understanding the main uses of by- products in food industries
4 UNITO	2 h CM	2hCM	2h	Virtual visit and/or Synchronous distance	Use of by- products in industries	Visit and/or PPT+audio	Understanding the main uses of by- products in food industries





### Syllabus part 3: Sustainability and Safety

Sequence Professor/ Teacher N°, Name	Sequence duration	Teaching time	Estimated working time for the student	Face-to-face / Distance learning / Practical work	Theme	Materials and content	Educational objectives
1 Luca Cocolin	2 h CM	2hCM	2h	Synchronous distance	Microbial Ecology of grapes and wines	PPT + audio	Understanding the behavior microorganisms in the organic wine production
2 Vasileios Englezos	2 h CM	2hCM	2h	Synchronous distance	Sustainable wine making through management of microbial biodiversity	PPT + audio	Understanding the behavior microorganisms in the organic wine production
3 Vasileios Englezos	2 h CM	2hCM	2h	Synchronous distance	Examples of microbial solutions for sustainable wine making	PPT+audio	Reduction of SO <sub>2</sub> use, ethanol reduction and bioprotection
4 UNITO (Kalliopi Rantsiou)	2 h CM	2hCM	2h	Synchronous distance	Microbiological risks and their management in the wine system	PPT+audio	Understanding the potential risks and relative management linked to microorganisms



## Master Oenobio: - UE 6 Microbiology, Oenological Practices, Winemaking- Ageing

University leader: UB

Nb credits ECTS : 5

Total hourly volume for the student : 40h

H CM : 42 H Lecture/ Magistral Class

H TD : H Tutorials/ Directed Work

H TP : 8 H Practical Work

### 3 parts

#### Syllabus part 1: Microbiology

#### Syllabus part 2: Oenological Practices

#### Syllabus part 3: Winemaking- Ageing and shelf life

#### Syllabus part 1: Microbiology

Sequence Professor/ Teacher N°, Name	Sequence duration	Teaching time	Estimated working time for the student	Face-to-face / Distance learning / Practical work	Theme	Materials and content	Educational objectives
1 PL Teissedre	2 h CM	2hCM	2h	Synchronous distance	Introduction to the winemaking in	PPT + audio support audio	Understand the concept of winemaking in organic production / conventional / Biodynamics/ reasoned culture and Teaching Unit presentation
2 P. Lucas	1hCM	2hCM	2h	Asynchronous distance	Microbiology	PPT+audio	Microbiology and Organic wine productin
3 M. Bely	2hCM	2hCM	2h	Synchronous distance	Microbiology	PPT + audio support audio	Sacharomyces and non saccharomyces yeasts: interest and fermentation driving
4 P. Lucas	1hCM	2hCM	2h	Asynchronous distance	Microbiology	PPT+audio	Biodiversity, Lactic bacterias, others bactrias , management during winemaking and aging, risks and prevention
5. S. Becquet	2H CM	2HCM	2h	Synchronous distance	Microbiology	PPT + audio support audio	Indigenous fermentation result of research program and application on wineries



## Syllabus part 2: Oenological Practices

Sequence Professor/ Teacher N°, Name	Sequence duration	Teaching time	Estimated working time for the student	Face-to-face / Distance learning / Practical work	Theme	Materials and content	Educational objectives
6 P.L. Teissedre	1hCM	2hCM	2h	Asynchronous distance		PPT + audio support audio	Chemical processes in Organic wine production
7 R. Ghidossi	2hCM	2hCM	2h	Synchronous distance		PPT + audio support audio	Physical processes in Organic wine preproduction
8 P.L. Teissedre	1hCM	2hCM	2h	Asynchronous distance		PPT + audio support audio	Winemaking with minimal intervention : management, risks and examples
9. S. Becquet	2H CM	2HCM	2h	Synchronous distance		PPT + audio support audio	Reflexion around Natural wine movement and Key point of reflexion to reduce input and technic in winemaking
10. Turning each year in function of presential tasting place	4h TP	4h TP	4h	Presential		PPT + audio support audio	Visit of organic wineries with different sizes (small, medium large): winemaking organization and consequences
11. Turning each year in function of presential tasting place	4h TP	4h TP	4h	Presential		PPT + audio support audio	Visit of biodynamics, reasoned cultures, conventional wineries : winemaking differences and management



### Syllabus part 3: Winemaking- Ageing and shelf life

Sequence Professor/ Teacher N°, Name	Sequence duration	Teaching time	Estimated working time for the student	Face-to-face / Distance learning / Practical work	Theme	Materials and content	Educational objectives
12. PL Teissedre	1hCM	2hCM	2h	Asynchronous distance	Winemaking	PPT+audio QCM selfvaluation	Winemaking without sulfur dioxide : fermentation driving, alternatives and management
13. S. Becquet	1hCM	2hCM	2h	Asynchronous distance	Winemaking	PPT+audio	Wine without SO2 Research program and application on wineries
14. P. Darriet	1hCM	2hCM	2h	Asynchronous distance	Winemaking	PPT+audio	White wine and Sweet white wines Winemaking in organic wines production
15. PL Teissedre	1hCM	2hCM	2h	Asynchronous distance	Ageing	PPT+audio QCM selfvaluation	Wood use during wine ageing: good practices,...
16 UB M. Jourdes/ R. Ghidossi	1hCM	2hCM	2h	Asynchronous distance	Ageing	PPT + audio support audio	Oxygen management during ageing for organic wines
17. M. Jourdes	1hCM	2hCM	2h	Asynchronous distance	Conservation	PPT+audio selfvaluation	Types of Cork choice and incidence for bottling and conservation
18.. S. Becquet	2H CM	2hCM	2h	Synchronous distance		PPT + audio support audio	Reflexion around Natural wine movement and Key point of reflexion to reduce input and technic in winemaking
19. UB/Unito/URV Panel of EU producers exchange Teissedre/ Canals/ HGU – USVAMB ?...	2hCM	2hCM	2h	synchronous distance		PPT + audio support audio	Organic winemaking of Special sweet wines Porto/ cherry madeira, Vin paille , passito, repasso vin jaune , etc....., Contraints and adaptation
20. URV	2h CM	2hCM	2h	Synchronous distance		PPT + audio support audio	Organic Winemaking on sparkling wines Part 1
21. URV	1hCM	2hCM	2h	Asynchronous distance		PPT + audio support audio	Organic Winemaking on sparkling wines Part 2
22. URV Paco Lopes	1hCM	2hCM	2h	Asynchronous distance		PPT + audio support audio	Organic distillates elaboration



## Master Oenobio: - UE 7 Sensory analyses /Promotion Economy

University leader: URV

Nb credits ECTS : 4

Total hourly volume for the student : 32h

H CM : H Lecture/ Magistral Class

H TD : H Tutorials/ Directed Work

H TP : H Practical Work

### 3 parts

#### Syllabus part 1: Sensory analyses

#### Syllabus part 2: Consumer interface, Promotion

#### Syllabus part 3: Economy

#### Syllabus part 1: Sensory analyses 16h

Sequence Professor/ Teacher N°, Name	Sequence duration	Teaching time	Estimated working time for the student	Face-to-face / Distance learning / Practical work	Theme	Materials and content	Educational objectives
1 URV	2 h CM	2hCM	2h	Asynchronous distance	Introduction to Sensory analysis	PPT + audio support audio	Basics of sensory analysis. Place, process, assessor conditions. Physiology.
2 URV	2hTP	2hTP	2h	Synchronous presential	Olfactory perception in quality wines	Wine prepared samples	Principal family aromas in wines
3 URV	2hTP	2hTP	2h	Synchronous presential	Typical taints in wine	Wine prepared samples	Identification of principal taints in wine
4 URV	2hTP	2hTP	2h	Synchronous presential	Ageing of wines	Commercial samples	Taste young and aged wines and perceive the differences



5 URV	2hTP	2hTP	2H	Synchronous presential	Blending wines	Varietal wines to prepare a blending	The students prepare a blend of different wines looking for specific properties of this wine
6 URV	2hTP	2hTP	2H	Synchronous presential	Create a sensory profile with ISO 17025	Evaluate wines with the same properties to create a sensory profile using the rule	The student creates a sensory profile using this tool.
7 URV	2hTP	2hTP	2H	Synchronous distance	Rules to organize a tasting session minimizing biases.	PPT + audio support audio	Know how to prepare a tasting session avoiding biases with Williams Latin Squares
8 URV	2hTP	2hTP	2H	Synchronous distance	Analise sensory analysis data with Pannelcheck	PPT + audio support audio Solve a problem	How to analyze the data with a GNU software, main characteristics and how to use it

## Syllabus part 2: Consumer interface, Promotion 4h

Sequence Professor/ Teacher N°, Name	Sequence duration	Teaching time	Estimated working time for the student	Face-to-face / Distance learning / Practical work	Theme	Materials and content	Educational objectives
1 Christophe Marquet URV	2 h CM	2hCM	2h	synchronous distance	Information systems in marketing	PPT + audio support audio QCM self- evaluation	Information panels from consumer
2 Christophe Marquet URV	1hCM	2hCM	2h	Synchronous distance	Marketing from 6 "P"	PPT+audio QCM self- evaluation	Explanation about the targets in the marketing: product, price, place publicity, point of sale and pool of sales.



Syllabus part 3: Economy 12h

Sequence Professor/ Teacher N°, Name	Sequence duration	Teaching time	Estimated working time for the student	Face-to-face / Distance learning / Practical work	Theme	Materials and content	Educational objectives
1 Christophe Marquet? URV	2 h CM	2hCM	2h	Synchronous distance	Description of the Wine Industry	PPT + audio support audio QCM self-evaluation	Global market industry, segmentation of the market, paradigm of the price-quantity
2 URV	2hCM	2hCM	2h	Synchronous distance	Strategic Models in the wine business	PPT + audio QCM self-evaluation	Study of different models, economic profiles, strategic vision.
3 URV	2hCM	2hCM	2h	Synchronous distance	How create a brand from a product	PPT + audio QCM self-evaluation	The brand as element to achieve difference, from push to pull strategy. How to construct a brand.
4 URV	??	??	2h	Synchronous distance	Leadership and organization	PPT + audio QCM self-evaluation	How to organize a team, managing and leadership
5 URV	4CM	4h (1 to present the exercise and 3 for presentations)	4h	Synchronous distance or presential (better)	Case studies	Solve a case. Deliver a document and explain it to the classroom	Group work on a case proposed by the teacher.
6 Anne Hubert VBNA	0,5H			Synchronous or asynchronous distance	Organic wine market in France		How the organic wine market is organized in France?
7 HGU (the institute of economics) Pr Hanf or with Dr Strub or Snoloswki	2-3H				Data on economical context in Germany		Costs for wine sale/ Markets



## Master Oenobio: - UE 8 Internship (Professional or Research)

University leader:

Nb credits ECTS : 30 ECTS

Total hourly volume for the student:    h

### Trainee

H CM : H Lecture/ Magistral Class

H TD : H Tutorials/ Directed Work

H TP : H Practical Work

### 2 parts

**Syllabus part 1: Professional or Research internship in a Winery/Laboratory**

**Syllabus part 2: Master thesis**

**Syllabus part 1: Professional or Research internship in a Winery/Laboratory**

Sequence Professor/ Teacher N°, Name	Sequence duration	Teaching time	Estimated working time for the student	Face-to-face / Distance learning / Practical work	Theme	Materials and content	Educational objectives
1 PL Teissedre S. Marchand	2 h CM	2hCM	2h	Asynchronous distance	How to prepare a master thesis	PPT + audio support audio	<ul style="list-style-type: none"> <li>- Applying the scientific and technical knowledge acquired during his training</li> <li>- Carrying out experiments and / or setting up tests, audits, etc.</li> <li>- Propose initiatives, solutions to the problems posed</li> <li>- Analyse results, evaluate perspectives</li> <li>- Autonomy in the</li> </ul>



							conduct of a project Ability to present his work in writing and orally.
2 Academic Coordinators of each partner of Oenobio Consortium and	1hCM	2hCM	2h	Synchronous distance	Questions to prepare Master Thesis intetnship	PPT+audio QCM selfvaluation	<b>professional situation enable student to carry out an R &amp; D project</b>

### Syllabus part 2: Master thesis

Sequence Professor/ Teacher N°, Name	Sequence duration	Teaching time	Estimated working time for the student	Face-to-face / Distance learning / Practical work	Theme	Materials and content	Educational objectives
1 Professors and Teachers of all the consorsitium	2 h CM	2hCM	2h	Asynchronous distance	Presentation of the master thesis		<ul style="list-style-type: none"> <li>- Research and / or development internship</li> <li>- Knowledge Assessment</li> </ul>

