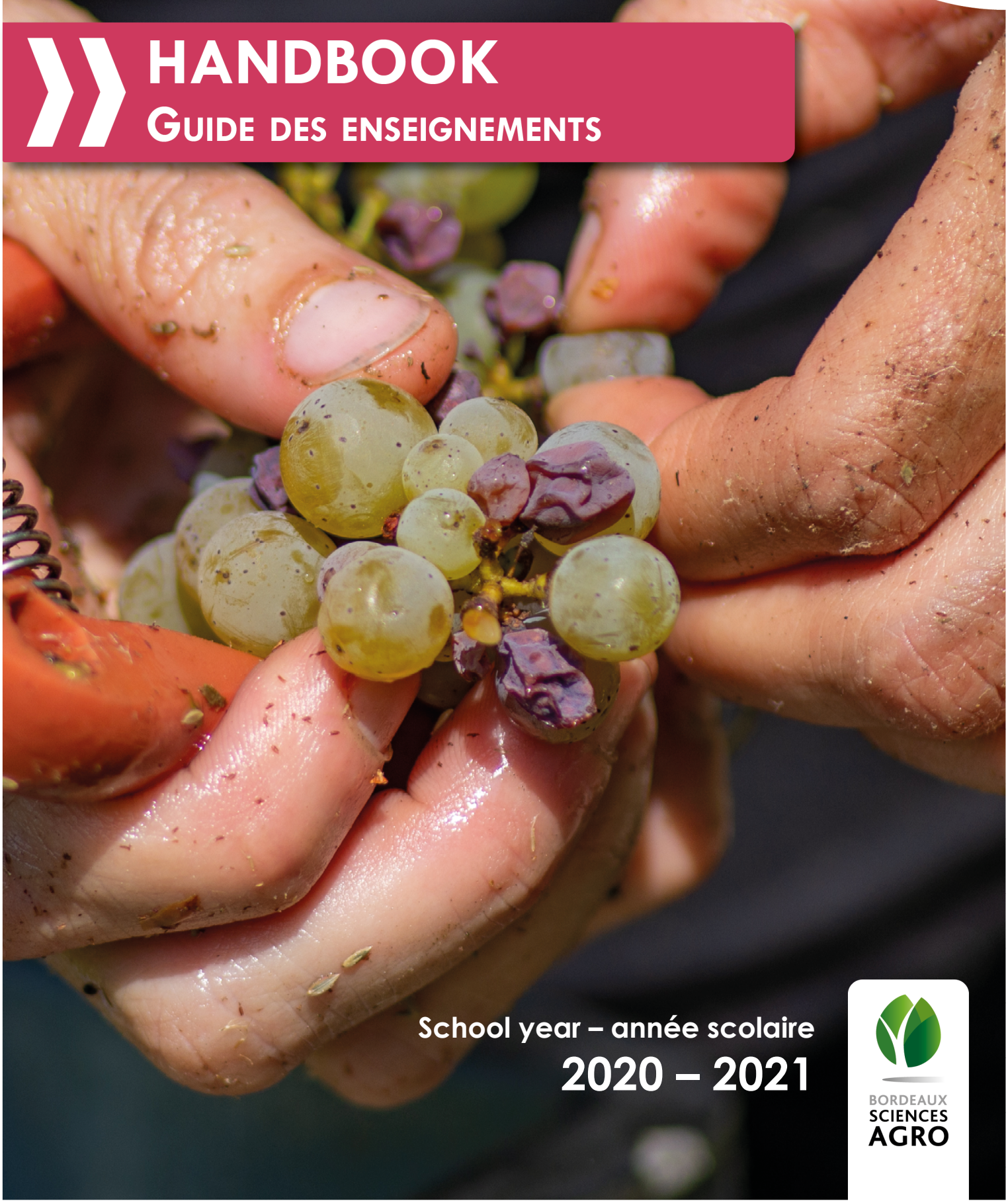
MASTER OF SCIENCE
VINEYARD & WINERY MANAGEMENT

Welcome to
BORDEAUX
SCIENCES
AGRO

HANDBOOK
GUIDE DES ENSEIGNEMENTS



School year – année scolaire
2020 – 2021

BORDEAUX
SCIENCES
AGRO

Foreword

The goal of the Master of Science in Vineyard and Winery Management is to train global leaders in wine estate management.

The program was launched in 2014 and its curriculum has its roots in a longstanding French program that has been taught for over 35 years; the Mastère Spécialisé Managers de Domaines Viticoles. Our degree strives to train wine estate managers in the whole breadth of expertise that serve top managers, knowledge of grapevines and berries, vineyards and how they are managed, wine vinification and aging, sensory analysis and tasting, financial management, business planning, and marketing.

And although we are a French University located in Bordeaux, courses focus on diverse approaches to grape growing and winemaking that reflect the global diversity in varietals, wine styles, and terroirs. We believe that our students need to have a base knowledge grounded in science. Our faculty is made up of internationally recognized researchers in Viticulture and Enology and the degree is co-accredited with the University of Bordeaux's Institut des Sciences de la Vigne et du Vin, one of the top wine research institutes in the world.

But that is only half of the equation. Top managers also need the practical know-how to apply this knowledge in a production context where theory is often constrained by the real world.

This is why we also devote large parts of the curriculum to practical experience for our students, including two internships, several exercises working directly with real wine estates, and why we leverage our connections with industry to include accomplished professionals as instructors. Together we aim to educate wine estate managers who draw upon the state-of-the-art technical knowledge in making sound management decisions.

We welcome you to the MSci in Vineyard and Winery Management program and look forward to working with you over the next two years of your education.

Sincerely,

The MSci Team

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About the knowledge at our MSci Vineyard & Winery Management

Note about the economy business part

The MSc in Vineyard & Winery Management is an unique international program in the field of business studies. The program offers a diversity of contents and experiences across many fields of the sciences of management. On the business side, the core of the program is organized around the areas of international business, accounting, financial management, and business planning. Other fields of study include wine economics and policies, strategic management, consumer behavior, marketing, supply chain management, and corporate social responsibility.

On preparing future wine estate managers, our teaching combines lectures with international professors and experiences with a diversity of professionals with different backgrounds operating in many areas of the supply chain (vineyards, winemaking, brokerage, sales and distribution, wine tourism…). We are different from other wine programs as we offer an unique hands-on experience in an human-size school. You will learn about Bordeaux wines but also of world-class wineries around the planet. Group work in small teams and coaching sessions are part of our DNA.

Teaching also includes field visits, case studies, and experiences with family-owned, co-operative estates, and multinationals around wine and distilled spirits (cognac, armagnac).

After learning the fundamentals in the first year, you will have the opportunity to work on a major integrated and international professional project combining viticulture-oenology-sensory analysis – financial and business planning. This project is developed in partnership with a world-class wine estate in a foreign country. You will have the opportunity to apply your learning and competencies during this period and to present your findings to the top managers/owners of the estate. This hands-on project runs for about 3.5 months and usually. This is a great and unique rewarding experience highly appreciated by all our past students.

You will have the opportunity to benefit from three decades of expertise and knowledge on training wine estate managers at Bordeaux Sciences Agro. We developed a solid network of contacts and experience to help you to prepare your future career in the international wine industry.

Note about the enology part

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Note about the viticulture part

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PROGRAM TEACHING UNITS

Semester	TU	Name	Responsible	# Hours	ECTS
S7	1	Immersion Program	Guilherme Martins	21	0
	2	Fundamentals of Viticulture and Enology	Greg Gambetta	63.5	12
	3	Wine Markets and Policies	Alfredo Coelho	81	9
	4	Fundamentals of Micro Economics and Accounting	Alfredo Coelho	90	9
	5	Study Visit (Mediterranean/Atlantic Terroir)	Guilherme Martins	33	0
		French courses	DEVE	28	
			Total hours (without French) and ECTS	**288.5**	**30**
S8	6	Seasonal Vineyard Practices and Management	Greg Gambetta	70	4
	7	Enology and Winery Technology	Guilherme Martins	53	3
	8	Marketing Supply Chain, Distribution	Alfredo Coelho	84	5
	9	Cost and profitability	Alfredo Coelho	45	3
	10	Technical Audit – Vineyard and Winery	Laura Farris, Greg Gambetta	42	2
	11	Financial Management	Alfredo Coelho	36	3
	12	First Year Internship-Part 1	Greg Gambetta		8
		French courses	DEVE	22	
			Total hours (without French) and ECTS	**330**	**30**
	13	First Year Internship-Part 2	Greg Gambetta		4
S9	14	World Viticulture	Greg Gambetta	50	5
	15	Specific Vinification and Aging	Laura Farris, Guilherme Martins	55	5
	16	International Business & Development Strategies	Alfredo Coelho	70	4
	17	Business Plan for Wine Estate	Alfredo Coelho	21	3
	18	Global Audit	Alfredo Coelho	87	9
		French courses	DEVE	26	0
			Total hours (without French) and ECTS	**283**	**30**
S10	19	Second Year Internship	Greg Gambetta, Alfredo Coelho		30

SEMESTER 7

LIST OF TEACHING UNITS

Name of TUs	Training modules Semester 7	Nb ECTS	Lectures	Tutorials	Practical exercices	Visits	TOTAL (heures)	Responsable
TUM7A	Immersion Week (TU1)	0		15		6	21	Guilherme MARTINS
	Fundamentals of Viticulture and Enology (TU2)	12	34	29,5			63,5	Gregory GAMBETTA
	Study Visit (Mediterranean/Atlantic Terroir) (TU5)	0		6	6	21	33	Guilherme MARTINS
TUM7B	Wine Markets and Policies (TU3)	9	42	30		9	81	Alfredo COELHO
TUM7C	Fundamentals of Micro Economics and Accounting (TU4)	9	54	30		6	90	Alfredo COELHO
TOTAL S7		**30**	**130**	**110,5**	**6**	**42**	**288,5**	

2h français optionnel
+ 18h extracurriculum

h/sem (hors TPNE, français et extracurriculum): 20,6

Pedagogical Sheet
TU1 - Immersion Week

SEMESTRE: S7	Immersion Week - TU1						Global duration: 21h	Version: 1	Update date: 06/2019
	Module coordinator: Guilherme MARTINS						N ECTS: 0	Open to sandwich courses (alternance): ☐	Open to Formco: ☐
HOURS DISTRIBUTION	**CM**	**TD**	**TP**	**Visits**	**CM TICE**	**TD TICE**	**Personal work**	**TOTAL**	
		15		6					

OVERALL OBJECTIVE	To provide an introduction to the MBS program and Bordeaux Sciences Agro. Introduce students to the resources that are available to them and provide more information regarding administrative matters. Build strong relationships between students and begin to explore cultural exchange.	
PREREQUISITE	None	
PEDAGOGICAL CONTENT	**UP1**	Immersion Week
	UP2	Multicutural Team Building
EVALUATION METHODS	Individual presentations on home country and wine regions	
TECHNOLOGY TOOLS NEEDED	NA	

Pedagogical Sheet
TU2 - Fundamentals of Viticulture and Enology

SEMESTRE: S7	Fundamentals of Viticulture and Enology TU2						Global duration: 63,5h	Version: 1	Update date: 06/2019
	Module coordinator: Gregory GAMBETTA						N ECTS: 12	Open to sandwich courses (alternance): ☐	Open to Formco: ☐
HOURS DISTRIBUTION	**CM**	**TD**	**TP**	**Visits**	**CM TICE**	**TD TICE**	**Personal work**	**TOTAL**	
	34	29,5		6					
OVERALL OBJECTIVE	Introduction to the principles of viticulture including: Vine physiology, ecophysiology and morphology. Ampelography, training systems, vineyard floor management, pathology and other technical practices in viticulture. An introduction to enology, including grape maturation, fermentation, winery operations, aging and wine preservation. Introduction to sensory analysis. Objective: prepare the students for upper division courses in viticulture and enology.								
PREREQUISITE	Basic biology and chemistry undergraduate course work.								
PEDAGOGICAL CONTENT	**UP1**	Vine physiology, morphology, pathology, and management							
	UP2	The wine making process							
	UP3	Introduction to sensory analysis							
	UP4	Sensory training sessions							
	UP5	Knowledge based decision making							
EVALUATION METHODS	Class Participation, Individual Project, and Take Home Examination;								
TECHNOLOGY TOOLS NEEDED	NA								

Pedagogical Sheet
TU3 - Wine Markets and Policies

SEMESTRE: S7	Wine Markets and Policies -TU3						Global duration: 81h	Version: 1	Update date: 02/2019
Dominante: EET	Module coordinator: Alfredo COELHO						N ECTS: 9	Open to sandwich courses (alternance): ☐	Open to Formco: ☐
HOURS DISTRIBUTION	**CM**	**TD**	**TP**	**Visits**	**CM TICE**	**TD TICE**	**Personal work**	**TOTAL**	
	42	30		9					

OVERALL OBJECTIVE	To be able to describe and explain the drivers and dynamics of international wine markets (bulk, bottled, and sparkling wines). The economics of European and New World wine countries. The role of institutions on the regulation of the wine market. To understand and explain European and international wine policies. Exposure to key wine professionals.	
PREREQUISITE	None.	
PEDAGOGICAL CONTENT	**Subunit 1**	The economics of international wine markets
	Subunit 2	National and regional wine clusters
	Subunit 3	Economics of international bulk wine markets (it includes a professional seminar)
	Subunit 4	The role of institutions (local, regional, international) (it includes field visits to CIVB and BNIC)
	Subunit 5	European wine policies
	Subunit 6	The regulation of the production potential (Authorizations of Vine Plantings in Europe, Argentinean Grape Musts, Design of Grape Contracts)
EVALUATION METHODS	Evaluation: Exam (1), and projects/group work.	
TECHNOLOGY TOOLS NEEDED		

Pedagogical Sheet
TU4 - Basics In Wine Economics And Wine Estate Management

SEMESTRE: S7	Basics In Wine Economics and Wine Estate Management – TU 4						Global duration: 90h	Version: 1	Update date: 02/2019
Dominante: EET	Module coordinator: Alfredo COELHO						N ECTS: 9	Open to sandwich courses (alternance): ☐	Open to Formco: ☐
HOURS DISTRIBUTION	**CM** 54	**TD** 30	**TP**	**Visits** 6	**CM TICE**	**TD TICE**	**Personal work**	**TOTAL**	
OVERALL OBJECTIVE	**Lectures**: Teaching staff from Bordeaux Sciences Agro, University of Bordeaux, Kedge, New York University & European partners. **Description**: In this TU, students will find the basics in wine estate management (general accounting, cost accounting, British accounting, and basics in economics and wine economics) (it includes several practical-oriented experiences). **Objectives:** Aside from active class participation (questions are welcome), students are expected to play the game in doing the exercises proposed by the teachers and to conduct at the end their own research project and present the results in class. There will also be a final take-home exam.								
PREREQUISITE	No specific module - There is no "required" textbook as the class draws on many different sources. Some detailed lecture notes and supplementary material will be posted online. But students have to read and learn by themselves going to the libraries (BSA, University of Bordeaux).								
PEDAGOGICAL CONTENT	**Subunit 1**	**General accounting** - basics in general accounting (Anne Marie Garvey)							
	Subunit 2	**Cost accounting *in order to manage and decide*** - basics in cost accounting (definitions, full costs techniques, direct costing, cost of technical ways) (Beatriz Gonzalez)							
	Subunit 3	**British accounting** - basics in British accounting (Anne Marie Garvey)							
	Subunit 4	**Basics in economics** - Basics in economics (in order to be able to get the best from the wine economics class following). Introduction, The working of competitive markets, Demand behavior, Production and costs, Perfect competition and monopoly, Imperfect competition							
	Subunit 5	**Wine economics** - Introduction to quantitative analysis (Basic statistics, regression analysis, introduction to software STATA (Lecture Notes will be posted)) Product variety, quality and bundling (Horizontal and Vertical Product Differentiation, Bundling) Monopoly power and practice (Price Discrimination) Market concentration (Market Structure and Market Power, Examples from the Beer and Wine Industry, Advertising and Market Concentration) Microeconomic foundation (Production, Costs, Profit Maximization, Competition, Monopoly, Monopsony, Oligopoly, Monopolistic Competition, Market Power) Wine and climate change (Impact on Prices, Quantities, Qualities, Revenue, Profits and on Land Values. Political Implications).							
EVALUATION METHODS	Evaluation: take-home exam (1), and projects & working paper								
TECHNOLOGY TOOLS NEEDED	STATA								

Pedagogical Sheet
TU5 - Study visit (Mediterranean/Atlantic Terroir)

SEMESTRE: S7	Study visit (Mediterranean/Atlantic Terroir) TU 5						Global duration: 33h	Version: 1	Update date: 06/2019
Dominante: EET	Module coordinator: Guilherme MARTINS						N ECTS: 0	Open to sandwich courses (alternance): ☐	Open to Formco: ☐
HOURS DISTRIBUTION	**CM**	**TD**	**TP**	**Visits**	**CM TICE**	**TD TICE**	**Personal work**	**TOTAL**	
		6	6	21					
OVERALL OBJECTIVE	To provide real world exposure to a global professional community surrounding the wine industry. Provide the opportunity to learn about the plethora of management methodologies, concerns, technologies, etc. involved in vineyard and wine management in an international context								
PREREQUISITE	TU3 or equivalent professional experience								
PEDAGOGICAL CONTENT	**UP1**	Visit to Vinitech or SITEV II: 3 h TD (deux fois 3 heures) + 3 h TD (deux fois 3 heures) 1 Guided visit to Vinitech or SITEVI (3 h TD morning x 2 days) 2 Conferences and Seminars (3 h TP in the afternoon x 2 days)							
	UP2	Study trip: 21 h visits (3 and ½ days) If the exibition is in Montpellier the visits will be around Montpellier, Cataluña wine region. If the exibition is in Bordeaux the visits will be in the southwest of France, Basque Country, Navarra and Rioja (Spain).							
EVALUATION METHODS	Take-home exam about of a subject dealt in the visit								
TECHNOLOGY TOOLS NEEDED									

SEMESTER 8

LIST OF TEACHING UNITS

Name of TUs	Training modules Semester 8	Nb ECTS	Lectures	Tutorials	Practical exercices	Visits	TOTAL (heures)	Responsable
TUM8A	Seasonal Vineyard Management (TU6)	4	52,5	17,5			70	Gregory GAMBETTA
	Enology and Winery Technology (TU7)	3	44	6		3	53	Guilherme MARTINS
	Technical Audit (TU 10)	4	3	33		6	42	Laura FARRIS Gregory GAMBETTA
TUM8B	Marketing Supply Chain, Distribution (TU8)	3	39	39		6	84	Alfredo COELHO
	Cost and Profitability (TU9)	5	18	27			45	Alfredo COELHO
	Financial Management (TU11)	3	18	18			36	Alfredo COELHO
TUM8C	Practical Internship - Part1 (TU12)	8						Gregory GAMBETTA
TOTAL S8		**30**	**174,5**	**140,5**	**0**	**15**	**330**	

2h français optionnel
+ 21h extracurriculum

h/sem (hors Pers. Work, français et extracurriculum): 30

Pedagogical Sheet
TU6 - Seasonal vineyard practices & management at different

SEMESTRE: S8	Seasonal vineyard practices & management at different scales – TU 6						Global duration: 70h	Version: 1	Update date: 06/2019
Dominante: EET	Module coordinator: Gregory GAMBETTA						N ECTS: 4	Open to sandwich courses (alternance): ☐	Open to Formco: ☒ Terroir and Vineyard Management
HOURS DISTRIBUTION	**CM** 52,5	**TD** 17,5	**TP**	**Visits**	**CM TICE**	**TD TICE**	**Personal work**	**TOTAL**	
OVERALL OBJECTIVE	An in-depth examination of vine physiology and canopy management, nutrient uptake and fertilization, climate, water relations and irrigation, precision viticulture, and practical vineyard management practices at different scales. Objectives: provide students with a comprehensive overview of the biological foundations of vine growth, nutrition, and water relations, and then expand this knowledge to their corresponding practical application at the vineyard level; canopy management, fertilization, and irrigation management.								
PREREQUISITE	TU 3 - Fundamentals of Viticulture and Enology or equivalent course work and/or professional experience								
PEDAGOGICAL CONTENT	**UP1**	Soils, nutrients, climate and water status management							
	UP2	Pruning, vigor, vine balance, and canopy management							
	UP3	Sustainable and Organic Viticulture							
	UP4	Terroir and Vineyard Management							
EVALUATION METHODS	Take home exam and Quizzes								
TECHNOLOGY TOOLS NEEDED									

Pedagogical Sheet
TU7 - Enology and Winery Technology

SEMESTRE: S8	Enology and Winery Technology – TU 7						Global duration: 53h	Version: 1	Update date: 02/2019
Dominante: EET	Module coordinator: Guilherme MARTINS						N ECTS: 3	Open to sandwich courses (alternance): ☐	Open to Formco: ☒ **(Only the UP 3 Sensory Analysis is for Ongoing training)**
HOURS DISTRIBUTION	**CM** 44	**TD** 6	**TP**	**Visits** 3	**CM TICE**	**TD TICE**	**Personal work**	**TOTAL**	
OVERALL OBJECTIVE	Acquire and develop knowledge in the field of enology and winery technology								
PREREQUISITE	Basics in biology and chemistry, undergraduate course in enology								
PEDAGOGICAL CONTENT	**UP1**	**Wine biotechnology** 1 Biotechnological tools (2h CM, Isabelle Masneuf-Pomarède) 2 Enzymatic transformation (3h CM, Rose-Marie Canal) 3 Yeast metabolic pathways and regulations (3h CM, Marina Beli) 4 Malolactic fermentation (3h CM, Muriel Denayrolles)							
	UP2	**Enological practices and products** 1 Filtration techniques (3h CM, Remy Ghidossi) 2 Diversity and use enological products (6h CM, Rose-Marie Canal) 3 Analyses of wines and musts (6h CM, Marie Laure Badet) 4 Food Safety -Analysis of Risk and Regulation (6h TD, Benoît Grossiord) 5 Study Visit to a enology laboratory (3h Visit, Marie Laure Badet)							
	UP3	**Sensory Analysis: A tool for monitoring Winemaking** 1 Wine quality olfactive determinants (3h CM, Jean-Christophe Barbe) 2 Oxygen in red wines elaboration (3h CM, Romain Boube ou Laurent Fargeton) 3 Diagnosing off flavors (3h CM, Isabelle Masneuf-Pomarède) 4 Oak aging management (3h CM, Marie Laure Badet) 5 Diversity of Chardonnay Wine (3h CM, Axel Marchal) 6 Wine gustative determinants: the concept of mouthfeel (3h CM, Axel Marchal)							
EVALUATION METHODS	Take-home exam								
TECHNOLOGY TOOLS NEEDED									

Pedagogical Sheet
TU8 - Marketing, Supply Chain, Distribution

SEMESTRE: S8	Marketing, Supply Chain, Distribution – TU 8						Global duration: 84h	Version: 1	Update date: 02/2019
Dominante: EET	Module coordinator: Alfredo COELHO						N ECTS: 3	Open to sandwich courses (alternance): ☐	Open to Formco: ☐
HOURS DISTRIBUTION	**CM**	**TD**	**TP**	**Visits**	**CM TICE**	**TD TICE**	**Personal work**	**TOTAL**	
	39	39		6					
OVERALL OBJECTIVE	To able to understand the main marketing-mix strategies. Understand and explain consumer drivers and challenges. To be able to establish a consumer segmentation and develop market research in wine studies. Strategies and changes in supply chain and international wine distribution. Sustainability drivers and standards in the international wine industry.								
PREREQUISITE	None								
PEDAGOGICAL CONTENT	**Subunit 1**	Product, packaging, and branding (& story-telling)							
	Subunit 2	Marketing mix							
	Subunit 3	Supply chain							
	Subunit 4	Distribution in wine channels							
	Subunit 5	Consumer behavior							
	Subunit 6	Wine market research							
	Subunit 7	International wine business management: global overview, principal tools, and key to success							
EVALUATION METHODS	Evaluation: Individual projects/group work.								
TECHNOLOGY TOOLS NEEDED									

Pedagogical Sheet
TU9 - COST AND PROFITABILITY

SEMESTRE: S8	COST AND PROFITABILITY – TU 9						Global duration: 45h	Version: 1	Update date: 20/02/2020
Dominante: EET	Module coordinator: Alfredo COELHO						N ECTS: 5	Open to sandwich courses (alternance): ☐	Open to Formco: ☐
HOURS DISTRIBUTION	**CM**	**TD**	**TP**	**Visits**	**CM TICE**	**TD TICE**	**Personal work**	**TOTAL**	
	18	**27**	**0**	**0**					

OVERALL OBJECTIVE		**Description**: the organization of this teaching unit combines a theoretical approach for learning audit content and cost approach methodology. Further, it will focus on a pragmatic 'hands-on' approach while undertaking a real estate audit. For the audit, students will work on wine estates with real data, starting on the analysis of the cost of activities and sales until the economic performance of the estate. Strategic proposals and decision-making will be discussed. The audit will be carried out on wine estate companies located in the Bordeaux region. **Objectives**: To be capable to implement and evaluate the economic situation of a wine estate taking into account viticulture, wine making, and selling specificities. Explaining cost drivers. Costs are a useful driver for the management of wine firms because yields and sales prices could have a lower leverage effect on and impact on economic performance in some cases (example: protected designations of origin).
PREREQUISITE		Cost accounting basics for wine estates
PEDAGOGICAL CONTENT	**Subunit 1**	Introduction to auditing and to accounting documents in wine estates: basics reminder + where to find the different information we need to make an economic audit?
	Subunit 2	Understanding the costs through ABC method and the assessment of market activities based on case studies: methodology, analysis, and presentation of the findings + methodology for the written report
	Subunit 3	Practical Audit: reading and interpreting the outcomes from cost and market analysis. Applying the benchmarking approach. Writing a report on cost and profitability of wine estates. Different real case studies will be proposed to the students (one by group). Work by groups.
	Subunit 4	Professional seminars: cost and profitability in vineyards & cellars (I) + managing costs and profitability in sales/distribution (II)
EVALUATION METHODS		Evaluation: Group work and/or individual participation.
TECHNOLOGY TOOLS NEEDED		

Pedagogical Sheet
TU10 - Technical Audit

SEMESTRE: S8	Technical Audit – TU 10						Global duration: 42h	Version: 1	Update date: 02/2019
Dominante: EET	Module coordinators: Laura FARRIS / Gregory GAMBETTA						N ECTS: 4	Open to sandwich courses (alternance): ☐	Open to Formco: ☐
HOURS DISTRIBUTION	**CM**	**TD**	**TP**	**Visits**	**CM TICE**	**TD TICE**	**Personal work**	**TOTAL**	
	3	**33**		**6**					
OVERALL OBJECTIVE	Case Study: practical evaluation of a winery – technical evaluation of all aspects of winery management from vineyard to the bottle. This will be carried out at a local Chateau located in the Bordeaux region. Objectives: utilize knowledge gained for the practical evaluation of a working winery.								
PREREQUISITE	Basic knowledge in chemistry, physic, biochemistry, botany and plant biology usually obtained in first semester								
PEDAGOGICAL CONTENT	**UP1**	Technical Audit							
	UP2	Pruning, vigor, vine balance, and canopy management							
	UP3	Sustainable and Organic Viticulture							
	UP4	Terroir and Vineyard Management							
EVALUATION METHODS	Group and individual evaluation: written report 10-20 pages, 40 minutes of oral presentation on company audit.								
TECHNOLOGY TOOLS NEEDED									

Pedagogical Sheet
TU11 - Financial Management

SEMESTRE: S8	Financial Management – TU 11						Global duration: 36h	Version: 1	Update date: 02/2019
Dominante: EET	Module coordinator: Alfredo COELHO						N ECTS: 3	Open to sandwich courses (alternance): ☐	Open to Formco: ☐
HOURS DISTRIBUTION	**CM**	**TD**	**TP**	**Visits**	**CM TICE**	**TD TICE**	**Personal work**	**TOTAL**	
	18	**18**	**0**	**0**			**0**		
OVERALL OBJECTIVE	To be capable to implement an economic and financial audit on a wine estate, and to evaluate the economic and financial situation								
PREREQUISITE	Basic knowledge in chemistry, physic, biochemistry, botany and plant biology usually obtained in first semester								
PEDAGOGICAL CONTENT	**Subunit 1**	Understanding economic and financial auditing methods for a wine estate (synthesizing financials and strategy, activity and profitability, analysis of financial flows, solvency analysis) + methodology to write a report							
	Subunit 2	Practical audit: analyzing financial data and writing a report on financial analysis of wine estates. Different case studies will be proposed to the students (one by group). Work by groups.							
	Subunit 3								
	Subunit 4								
EVALUATION METHODS	Evaluation: Group work and/or individual participation.								
TECHNOLOGY TOOLS NEEDED									

Pedagogical Sheet
TU12 - First Year Internship-part 1

SEMESTRE: S8	First Year Internship-part 1– TU 12						Global duration:	Version: 1	Update date: 06/2019
Dominante: EET	Module coordinator: Gregory GAMBETTA						N ECTS: 8	Open to sandwich courses (alternance): ☐	Open to Formco: ☐
HOURS DISTRIBUTION	**CM**	**TD**	**TP**	**Visits**	**CM TICE**	**TD TICE**	**Personal work**	**TOTAL**	
	18	**18**	**0**				**0**		
OVERALL OBJECTIVE									
PREREQUISITE									
PEDAGOGICAL CONTENT									
EVALUATION METHODS									
TECHNOLOGY TOOLS NEEDED									

SEMESTER 9

LIST OF TEACHING UNITS

Name of TUs	Training modules Semester 9	Nb ECTS	Lectures	Tutorials	Practical exercices	Visits	TOTAL (heures)	Responsable
TUM9A	Practical Internship - Part2 (TU13)	4						Gregory GAMBETTA
	World Viticulture (TU 14)	5	17	33			50	Gregory GAMBETTA
	Specific Vinification and Aging (TU 15)	5	42	10		3	55	Laura. FARRIS Guilherme MARTINS
TUM9B	International business and development strategies (TU 16)	4	22	39		9	70	Alfredo COELHO
	Business plan for wine estate (TU 17)	3	6	15			21	Alfredo COELHO
TUM9C	Global audit (TU 18)	9	13	36		48	87	Alfredo COELHO
TOTAL S9		**30**	**90**	**133**	**0**	**60**	**283**	

2h français optionnel
+ 21h extracurriculum

h/sem (hors Pers. Work, français et extracurriculum): 18,9

Pedagogical Sheet
TU13 - First Year Internship-part 2

SEMESTRE: S9	First Year Internship-part 2 – TU 13						Global duration:	Version: 1	Update date: 06/2019
Dominante: EET	Module coordinator: Gregory GAMBETTA						N ECTS: 4	Open to sandwich courses (alternance): ☐	Open to Formco: ☒
HOURS DISTRIBUTION	**CM**	**TD**	**TP**	**Visits**	**CM TICE**	**TD TICE**	**Personal work**	**TOTAL**	
OVERALL OBJECTIVE									
PREREQUISITE									
PEDAGOGICAL CONTENT									
EVALUATION METHODS									
TECHNOLOGY TOOLS NEEDED									

Pedagogical Sheet
TU14 - World Viticulture

SEMESTRE: S9	World Viticulture – TU 14						Global duration: 50h	Version: 1	Update date: 06/2019
Dominante: EET	Module coordinator: Gregory GAMBETTA						N ECTS: 5	Open to sandwich courses (alternance): ☐	Open to Formco: ☒
HOURS DISTRIBUTION	**CM**	**TD**	**TP**	**Visits**	**CM TICE**	**TD TICE**	**Personal work**	**TOTAL**	
	17	33							
OVERALL OBJECTIVE	An overview of the major viticulture areas of the world in terms of varietals, climate, and specific management challenges. Discussion of adapting management strategies to these specific climates including choice of plant material, irrigation management, and pest management. Discussion of industrial level management. Objectives: to provide the student with a global view of vineyard management specifically with respect to assessing specific climate and market contexts and finding solutions to specific challenges and potential difficulties.								
PREREQUISITE	Basic biology and chemistry undergraduate course work.								
PEDAGOGICAL CONTENT	**UP1**	World Wine Regions							
	UP2	Professional Seminars: Management challenges and solutions							
	UP3	Practical Application Workshops							
	UP4								
EVALUATION METHODS	Class Participation, Individual Region Presentations								
TECHNOLOGY TOOLS NEEDED									

Pedagogical Sheet
TU15 - Specific Vinification and Aging

SEMESTRE: S9	Specific Vinification and Aging – TU 15						Global duration: 55h	Version: 1	Update date: 02/2019
Dominante: EET	Module coordinator: Laura FARRIS, Guilherme MARTINS						N ECTS: 5	Open to sandwich courses (alternance): ☐	Open to Formco: ☒
HOURS DISTRIBUTION	**CM**	**TD**	**TP**	**Visits**	**CM TICE**	**TD TICE**	**Personal work**	**TOTAL**	
	42	10		3					
OVERALL OBJECTIVE	The main objectives of the module are to provide current knowledge based on recent research and apply to the optimization and the control of the winemaking process. Updating the knowledge on wine quality determinants and diagnosing off-flavours at an early stage.								
PREREQUISITE	Knowledge and practical experience on oenology								
PEDAGOGICAL CONTENT	**UP1**	Special Winemaking Techniques (varietal wines, sweet wines, fortified wines, sparkling wines, oxidative wines, partial de-alcoholisation).							
	UP2	Winery conception: Winery design– building construction choice of material; choice of equipment. Production scaling, hygiene.							
	UP3	Bordeaux Winemaking Specificities (FormCo)							
	UP4								
	UP…								
EVALUATION METHODS	Written examination and sensory analysis evaluation								
TECHNOLOGY TOOLS NEEDED									

Pedagogical Sheet
TU16 - International business and development strategies

SEMESTRE: S9	International business and development strategies TU 16						Global duration: 70h	Version: 1	Update date: 02/2019
Dominante: EET	Module coordinator: Alfredo COELHO						N ECTS: 5	Open to sandwich courses (alternance): ☐	Open to Formco: ☐
HOURS DISTRIBUTION	**CM**	**TD**	**TP**	**Visits**	**CM TICE**	**TD TICE**	**Personal work**	**TOTAL**	
	22	**39**	**0**	**9**					

OVERALL OBJECTIVE	Providing a diversity of management insights and feedback experiences in the international wine industry. Understanding the competitive strategies of leading investor-owned firms and co-operatives in the wine industry. Understanding firms' strategic dimensions by combining different approaches: resource-based view (RBV), core competencies, and Customer Value Propositions (CVP).	
PREREQUISITE		
PEDAGOGICAL CONTENT	**Subunit 1**	Global strategy & entrepreneurship
	Subunit 2	Professional seminars: case studies in international businesst (+field visit)
	Subunit 3	Wine tourism practices
	Subunit 4	Professional seminar: Global wine marketing & sustainability (+ field visit)
	Subunit 5	Professional seminar: global wine distribution
	Subunit 6	Professional seminar: global financial issues
	Subunit 7	Marketing audit
EVALUATION METHODS	Evaluation: Individual work (project-based and case-studies)	
TECHNOLOGY TOOLS NEEDED		

Pedagogical Sheet
TU17 - Business plan for wine estate

SEMESTRE: S9	Business plan for wine Estate - TU 17						Global duration: 21h	Version: 1	Update date: 02/2019
Dominante: EET	Module coordinator: Alfredo COELHO						N ECTS: 3	Open to sandwich courses (alternance): ☐	Open to Formco: ☐
HOURS DISTRIBUTION	**CM**	**TD**	**TP**	**Visits**	**CM TICE**	**TD TICE**	**Personal work**	**TOTAL**	
	6	**15**	**0**	**0**					
OVERALL OBJECTIVE	Provide methods, tools and goals on business plans, both in international and local context, particularly in the wine industry.								
PREREQUISITE									
PEDAGOGICAL CONTENT	**Subunit 1**	Defining a business plan in a general and international context							
	Subunit 2	Defining a business plan in a general and international context							
	Subunit 3	Different approaches in the wine industry: strategic and operational							
	Subunit 4	Business plan as a dynamic tool							
EVALUATION METHODS	Evaluation: Exam (1) or individual/group Work								
TECHNOLOGY TOOLS NEEDED									

Pedagogical Sheet
TU18 – Global audit

SEMESTRE: S9	Global Audit- TU 18						Global duration: 96h	Version: 1	Update date: 02/2019
Dominante: EET	Module coordinators: Alfredo COELHO & Jean-Philippe ROBY						N ECTS: 8	Open to sandwich courses (alternance): ☐	Open to Formco: ☐
HOURS DISTRIBUTION	**CM**	**TD**	**TP**	**Visits**	**CM TICE**	**TD TICE**	**Personal work**	**TOTAL**	
	3	36		48					
OVERALL OBJECTIVE	Assessment of a project on its technical and economic/business dimensions, providing a medium and long-term vision on a wine international estate								
PREREQUISITE									
PEDAGOGICAL CONTENT	**Subunit 1**	Global audit: Evaluate a project by producing a technical audit and a business plan including marketing, finance, and strategy of a real wine estate. Address the issues and make forecasts. Reporting the findings to the top managers.							
	Subunit 2								
	Subunit 3								
	Subunit 4								
EVALUATION METHODS	Evaluation: Group Work and individual performance and involvement								
TECHNOLOGY TOOLS NEEDED									

SEMESTER 10

INTERNSHIP TEACHING UNIT

Name of TUs	Training module Semester 10	Nb ECTS	Lectures	Tutorials	Practical exercices	Visits	TOTAL (heures)	Responsable
TUM10	Second Year Internship (TU 19)	30						Greg Gambetta, Alfredo Coelho
TOTAL S10		**30**						

Pedagogical Sheet
TU19 – Second Year Internship

SEMESTRE: S9	Second Year Internship - TU 19						Global duration:	Version: 1	Update date: 06/2019
Dominante: EET	Module coordinators: Gregory GAMBETTA & Alfredo COELHO						N ECTS: 30	Open to sandwich courses (alternance): ☐	Open to Formco: ☐
HOURS DISTRIBUTION	**CM**	**TD**	**TP**	**Visits**	**CM TICE**	**TD TICE**	**Personal work**	**TOTAL**	
	3	**36**		**48**					
OVERALL OBJECTIVE									
PREREQUISITE									
PEDAGOGICAL CONTENT									
EVALUATION METHODS									
TECHNOLOGY TOOLS NEEDED									

Guidelines
for Master Student Internships

Two internships are included in the curriculum of the Master of Science « Vineyard and Winery Management ». The first one takes place during the summer at the end of the first year and the second one covers the whole second semester of the second year. The internships are compulsory. They are an essential part of your training as a future professional manager of wine estates.

The pedagogic objectives of the two internships are very different.

This document will provide you the goals of the second internship.

The first internship is a hands-on experience in a wine producing estate.

For the second (final) internship you have the freedom to choose the focus of the internship; which could be focused on a specific question with regard to the vineyard, vinification, management, marketing, accounting, etc for a wine estate or related company.

A multidisciplinary approach (e.g. comparison of the impact of two training systems on wine quality, including an assessment of the impact on production cost) is highly appreciated.

The important criterion of the second internship is that it is project based. What does this mean? That means that you work on a specific question or objective that has a defined goal. It will require the student to develop ideas and approaches, carry out a literature study, acquire data, analyze data, assess outcomes, and draw conclusions.

Examples of topic and questions could include:

- You assess the product placement of the wines of a particular estate. You conduct composition analyses on the wines, sensory analyses to compare the preferences, analyze the data (including statistical analyses), synthesize and present outcomes to the wine estate.
- An estate has two training systems with different densities. You study the impact of these training systems on yield, grape composition, possibilities for mechanization and production costs.
- An estate works on a part of their vineyard with contract based labour and on another part of the vineyard with permanent employees. You compare the impact on the quality of the work and the production costs.
- You assess the merger of two vineyards as a strategy of development.
- You make a diagnosis of a family vineyard in the context of a change in the marketing approach
- Which new strategic approaches could make possible a continued success for Chateau xxx?
- How can the economic performance of company xxx be improved while preserving wine quality?
- Vineyard restructuring of chateau xxx: from diagnosis to measurement of the economic impact through a business plan
- Which strategic issues for company xxx?
- You build a global diagnosis of company xxx to start a new phase of its development.
- Chinese market: an opportunity to improve the sales and economic performance of the vineyard xxx?
- You make a feasibility and modality study on a project of extension of chateau xxx: hearing-brief file for an investment.
- You assess the specific issues linked to wine tourism for the chateau xxx.
- You design Chateau xxx: Wines' repositioning to better meet market demand and to improve added-value.

The internship should cover a minimum of a 5 months period although longer internships are recommended.

Like the first internship the goal for each of you is to have an international experience. This does not necessarily mean that the internship has to be carried out outside of France however this is strongly recommended for French students.

You will have one tutor from Bordeaux Sciences Agro for the internship.

The tutor will be chosen depending on the focus of your internship; either one from the Viticulture team or one from the Management team. One of the important roles of the tutor is to give you feed-back during the construction of the project and you can contact your tutor for any questions that may arise before or during your internship.

You will have to fill in an internship agreement signed by Greg Gambetta of Bordeaux Sciences Agro, a representative of the company and yourself. This agreement will cover you in case of an accident.

In France, a fee is due to any internee doing an internship of more than two months. The minimum fee is about €500/month.

Goals for the internship

Along with your internship host you must actively participate in the intellectual conception of the project. This includes reflection of the primary question at hand, development of appropriate approaches to answer the question, and communication with project stakeholders (e.g. your host, other interested parties in the company, perhaps experts in the field) in order to assess the need and gauge expectations in relation to the project.

- Along with your internship host you must develop the specific approaches that will reach the project goal. This likely involves a survey of the question at hand, gaining knowledge of the previous information and/or specific data involved in the project, a bibliographic overview of the project subject, and perhaps seeking the advice of your BSA tutor and/or other experts in the field.
- You must be responsible for carrying out the project. This includes all of the day to day work involved in bringing the project to fruition; communication with other participants, organization of the project, data collection, tool development, etc.
- You will be responsible for troubleshooting. No project succeeds without experiences difficulties and problems along the way. You will apply your knowledge and critical thinking to overcome potential challenges and difficulties during the project.
- You will analyze and synthesize all of the results of the project. This may involve seeking advice from your internship host and BSA tutor to apply the appropriate analyses regarding the data you have. This may equally involve the synthesis and integration of your project into the larger scope of the company.
- You will present and communicate the results of your project to your internship host. The project is not successfully completed unless your results and insights that you have gained are effectively communicated to the project stakeholders (e.g. your host, other interested parties in the company).

Evaluation

This internship project and the resulting report represent your Master thesis. You will be required to submit a Master thesis report of a maximum of 50 pages and make an oral presentation. The exact rules and format of the written and oral reports will be presented in separate documents.

Conclusion

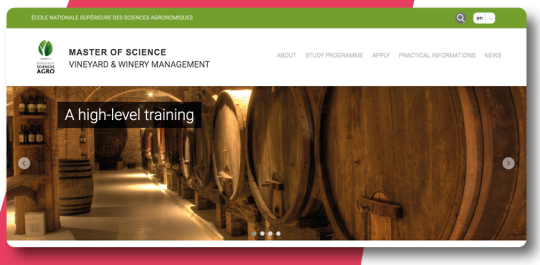
This internship is an opportunity for you to apply everything you have learned in the MBS to a real practical question facing a wine estate or wine related company. It is an opportunity to further expand your professional network and create ties with individuals that may be able to help you later in your career.

This experience should be one were you take the lead and leverage your intellectual confidence to contribute to the enterprise that you will be involved with.

It must be a real project, not just a first working experience.

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