**- Grapevine varieties and terroir**

## Prof. Luigi Bavaresco

***COURSE AIMS***

To teach the student the viticultural, oenological and cultural characteristics of the main wine grape varieties grown worldwide and to describe the main growing areas.

***EXPECTED LEARNING RESULTS***

***Knowledge and understanding capability***

At the end of the teaching program the will student be able to know and to understand:

1. The main traits of the global wine industry.
2. The wine production strategies of the main players on the global market.
3. Grape and wine statistics (surface, production, consumption, export, import, etc.).
4. Some elements of paleobotany, paleoanthropology, and the timeline of grapevine para-domestication and domestication
5. The evolution of the terroir concept and the role of the different elements (especially climate, soil, human being) on the wine quality.
6. The origin and the viticultural-enological traits of the main wine grape varieties.
7. The world wine geography.

**Knowledge comprehension and utilization**

At the end of the teaching program the student will be able to:

1. Utilize the knowledge to understand the relationships between the grape varieties and the terroir in which they are grown.
2. Utilize the knowledge to correlate the sensory profiles of the wines with the different terroirs.
3. Utilize the knowledge to establish a new vineyard in different growing environments and for specific enological targets, by choosing the proper variety.
4. Utilize the knowledge to study the possibilities to set up a vineyard in new growing areas.
5. Utilize the knowledge to be able to promote a given viticultural area.

**Opinion autonomy**

At the end of the teaching program the student will be able to:

1. Decide which wine style is more appropriate in a certain terroir.
2. Decide which terroir is more suitable for growing a certain grape variety producing a given wine stile.

**Communication skills**

At the end of the teaching program the student will be able to:

1. Utilize in a proper way the scientific language related to the terroir factors to describe and to transfer , by written documents and oral talks, the acquired knowledge.

**Learning skills**

At the end of the teaching program the student will be able to:

1. Improve the knowledge on the grape varieties and the global growing areas by the use of textbooks, scientific and popular journals, other proper sources.

***COURSE CONTENT***

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| Description | ECTS |
| Wine statistics. Terroir definition and role of the different factors. World viticultural terroirs: history and structure of national wine industries; description of producing areas, emphasizing the role of the grape variety, soil, climate and human being on grape and wine quality traits. Wine as a cultural produce.  | 3 |
| Grape varieties: Para-domestication and domestication of the grapevine. Origin of the grape varieties grown nowadays. Classification and distribution in the world of the most grown varieties. | 1 |
| Grape varieties: description of the most cultivated varieties: history, ampelographiccharacterization, phenology, agronomical attitudes, technological traits, wine sensory profiles. | 2  |
| Tutorials: Wine sensory analyses. Visits to representative wine estates. | 1 |

***READING LIST***

***Chosen books***

Bavaresco L., Gardiman M.., 2015. *Vitigni italiani – Italian Wine Grape Varieties*. Gianni Sartori Editore, Ponte di Piave.

ROBINSON. J., HARDIING S J., VOUILLAM OZ J 2012. *Wine grapes,* Allen La.ne

Wilson J.E.,1998.*Terroir***.** *The role of geology, climate,and culture in the making of French Wines.* Mitchell Beazley, London

***Suggested books***

AA.VV**. ,***2013.**Atlante dei territori del vino italiano. Enoteca italiana di Siena***,** Pacini Editore, Pisa.

AndersonK.*, 2013.**Which Winegrapes Varieties are Grown where?* University of Adelaide Press, e-book**.**

Anderson K., Nelgen S. 2020. Which Winegrapes Varieties are Grown where?- A global empirical pictures. Revisewd Edition. University of Adelaide Press, e-book.

Calò, A., Scienza A., Costacurta A., 2006.*Vitigni d’Italia.* Edagricole, Bologna

Christensen L.P., Dokoozlian N.K., Walker M.A., Wolpert J.A., 2003.*Wine Grape Varieties in California.* University of California ANR, Publ. 3419

Fregoni M., Schuster D., Paoletti A., 2003. *Terroir, Zonazione, Viticoltura*. Phytoline, Rivoli veronese.

Gerrat J., Posluszny U., Melville L. , 2015. *Taming the Wild Grape.,* Springer, International Publishing Switzerland*.*

Maghradze D., Rustioni L., Tukor J., Scienza A., Failla O.,2012.*Caucasus and Northern Black Sea Region Ampelography.* Vitis, Siebeldingen, Germany.

Robinson J.2006,*The Oxford Companion to Wine,* Oxford University Press

Steinberg E., 2006. *Sorì San Lorenzo – La nascita di un grande vino*. Gaja Distribuzione s.n.c., Barbaresco

Szabo J., 2016. *Volcanic Wines – Salt, Grit and Power.* Jacqui Small LLP London*.*

Tomasi D., Gaiotti F., Jones G.V.,*2013.**The Power of the Terroir: the Case Study of Prosecco Wine.* Springer

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***TEACHING METHOD***

1. Face-to-face lessons where the contents of the class will be taught.
2. Practical work concerning the sensory evaluation of wines of the same variety but from different geographical origins.
3. Two field trips in different wine producing areas in order for the students to understand the production philosophy and to get familiar with the structure of the Italian wine estates.
4. The slides utilized for the lessons will be weekly provided to the students.
5. The slides will be considered crucial for the subject learning and for the preparation of the exam.
6. At the end of the class a list of references will be provided to the students for a better and deeper understanding of the frontal lessons.

***ASSESSMENT METHOD AND CRITERIA***

# Oral examination. The assessment will be done by asking three questions related to the main wine grape varieties and the world wine terroirs (10 maximum marks each). As concerning each question the mark will result as the addition of single aspects, as follows:

# 5: correctness of the given answer;

# 2: capability to make connections among subjects and to have a broad vision of the topic;

# 3: capability to synthesize information and to go right away to the point, addressing the subject with a proper language and in a critical and personal way.

***NOTES AND PRE-QUALIFICATIONS***

# Tutorial is recommended as it will be included in the final exam. The pre-qualifications are represented by basic knowledge of general viticulture.

Prof. Luigi Bavaresco is available to meet with students after the lectures at the DI.PRO.VE.S, Pomology and Viticulture Section (room 316)