World of Wine: From Grape to Glass

Course Syllabus

Course Overview

Have you always wanted to know more about how grapes are grown and wine is made? Perhaps you like a specific wine, but can’t pinpoint the reason why. The attributes that make wine so enjoyable are achieved through the expertise of viticulturists and winemakers, whose decision-making is underpinned by science – to be precise, viticulture and oenology.

The finer details can take years to learn, but in a matter of weeks this course will give you a broad understanding of the principles and practices of grape and wine production, and the ability to confidently describe wine appearance, aroma, flavour and taste. You’ll also gain an appreciation for how cutting-edge research is helping to secure the future sustainability of the global wine industry.

The course employs a variety of engaging learning methods, including videos, animations, interactive activities and short quizzes to guide you through key concepts and plenty of extra resources for those who want it!

**Disclaimer:** Please note that while much of this course relates to winemaking, it includes content that covers tasting wine. It is therefore recommended that participants only register if they are age appropriate.
Week 1: Wine Styles and Sensory Evaluation

Week 1 Learning Objectives

1.1 Explain the classification of wine, wine styles and wine regions.

1.2 Describe the basic sensory processes and their application to wine evaluation.

1.3 Describe the key components of wine and their influence on wine appearance, aroma, flavour, taste and/or mouth feel properties.

1.4 Explain the Odour Activity Value and how it can be used to determine the impact of volatile compounds on wine aroma.

1.5 Describe and compare the varietal characteristics of different white and red cultivars.

1.6 Evaluate and communicate the sensory attributes of wine using appropriate descriptive terminology.

Week 1 Assessment Requirements

You'll be assessed on the following items:

1. Participation in the weekly discussion activities:
   - Taste/tactile interactions
   - Your wine notes

2. A Taste Test
Week 2: The Grape Vine

Week 2 Learning Objectives
2.1 Describe the structure, growth and development of grapevines.
2.2 Identify the different structural components of shoots, leaves and bunches.
2.3 Explain the seasonal cycle of growth of the grapevine.
2.4 Explain the factors which influence crop yield.
2.5 Identify the important factors to consider when selecting a site to grow grapevines.

Week 2 Assessment Requirements
You'll be assessed on the following items:
1. Participation in the weekly discussion activity:
   - Alternative varieties
2. The Grapevine Knowledge Test

Week 3: Understanding the Planning Phase

Week 3 Learning Objectives
3.1 Explain the objectives of key vineyard management practices.
3.2 Understand the differences between spur and cane pruning.
3.3 Describe the physical and compositional changes that occur during berry development and ripening.
3.4 Explain how and why we undertake maturity and quality assessment during the ripening period.
3.5 Compare the advantages/disadvantages of hand vs. mechanical harvesting.
3.6 Describe ways in which vine performance is measured.
Week 3 Assessment Requirements
You'll be assessed on the following items:

1. Participation in the weekly discussion activity:
   - Harvest decisions
2. The Vineyard Knowledge Test

Week 4: Determining Project Risk

Week 4 Learning Objectives
4.1 Describe the processes involved in making different styles of wine.
4.2 Explain the objectives of pressing, crushing and draining processes.
4.3 Contrast the different winemaking techniques employed in the production of red and white wines.
4.4 Explain the impact of skin contact during red winemaking.
4.5 Describe what happens during alcoholic (primary) and malolactic (secondary) fermentation.
4.6 Recall the parameters that need to be monitored during fermentation.
4.7 Discuss the origin of different classes of wine components and their impact on the appearance, aroma, flavour, taste and/or mouthfeel properties of wine.
4.8 Understand the objectives of clarification and stabilisation processes.

Week 4 Assessment Requirements
You'll be assessed on the following items:

1. Participation in the weekly discussion activity:
   - Virtual winemaking
2. The Wine Production Knowledge Test
**Week 5: Wine Making**

**Week 5 Learning Objectives**

5.1 Outline how wine maturation can be undertaken.

5.2 Explain the purpose of blending wine.

5.3 Describe the processes involved in bottling wine.

5.4 Explain the influence of different packaging materials of wine quality.

5.5 Identify the ways in which oak components are incorporated into the winemaking process.

5.6 Outline the various sources of taint compounds in wine and their sensory impact.

**Week 5 Assessment Requirements**

You'll be assessed on the following items:

1. Participation in the weekly discussion activities:
   - *Best labels*
   - *Make better wine*

2. The Winemaking Knowledge Test

**Week 6: Grape and Wine Science**

**Week 6 Learning Objectives**

6.1 Demonstrate an understanding of how research can be used to solve or address issues of interest or concern to grape growers and/or winemakers.

6.2 Describe the facilities and functions with a commercial winery.

**Week 6 Assessment Requirements**

You'll be assessed on the following items:

- No assessment items in this week
DISCUSSION FORUM ETIQUETTE AND FREQUENCY
We expect you to follow the edX Code of Conduct at all times and keep your posts/responses positive on the learning forums.

Post regularly, at least once per discussion activity and be sure to respond to your peers, as instructed.

Moderators will be available to answer questions on the Discussion Forum.