

# EC 235 THE WINE INDUSTRY IN CHILE: EMBRACING SUSTAINABILITY IN A CHANGING WORLD

IES Abroad Santiago

### **DESCRIPTION:**

Chile is one of the world's leading wine producers and exporters, celebrated for its diverse range of high-quality wines. The country's unique geography—featuring a long coastline, varied climates, and fertile valleys—creates ideal conditions for viticulture. The Chilean wine industry plays a significant role in the national economy and is known for its reputation for quality. Since the 1990s, the industry has experienced substantial growth, driven by modernization and innovation in viticulture and winemaking. Today, Chile has approximately 137,000 hectares of vineyards, primarily located in regions from Coquimbo to Araucanía. The adoption of advanced technologies, such as stainless-steel tanks and pneumatic presses, has improved the quality and consistency of Chilean wines, enhancing their competitiveness in the global market.

Economically, the industry is heavily focused on exports, with over 80% of its production shipped to international markets. In 2022, Chile exported around 833.5 million liters of wine, generating significant revenue and contributing positively to the trade balance. The main export destinations include the United States, China, and the United Kingdom. This strong export performance underscores the industry's importance to Chile's economy, providing employment and supporting related sectors like tourism and hospitality. Furthermore, the Chilean wine industry is making significant strides toward achieving the United Nations Sustainable Development Goals (SDGs) by implementing eco-friendly practices and promoting social responsibility. Vineyards are adopting organic farming methods, reducing water usage, and utilizing renewable energy sources to minimize their environmental impact. Additionally, the industry emphasizes fair labor practices and community engagement, ensuring economic growth and social well-being.

# Key highlights include:

- **Sustainability Code**: Launched in 2010, this code certifies wineries that meet rigorous sustainable standards. Over 80% of Chile's wine exports are certified under this code, with wineries engaging with local communities to ensure fair labor practices and support local development.
- Energy Use: Wineries are increasingly using renewable energy sources and improving energy efficiency to reduce their carbon footprint.
- **Community Engagement**: Most wineries work closely with local communities, ensuring fair labor practices and contributing to local development.
- **Education and Training**: Continuous education and training programs for workers promote skill development and sustainable practices.
- Market Expansion: Strategic plans are in place to increase exports and enhance global market presence, aiming for sustainable economic growth.

Despite these advancements, the industry faces challenges from climate change, including adverse weather conditions, water scarcity, and forest fires. These issues present opportunities for developing strategies to adapt to new conditions and enhance competitiveness in a changing global landscape.

This course explores the dynamic wine industry in Chile through the lens of the UN Sustainable Development Goals (SDGs). Participants will gain a comprehensive understanding of how the Chilean wine sector is integrating sustainable practices to address global challenges and contribute to a more sustainable future.



**CREDITS:** 3 credits

**CONTACT HOURS: 45 hours** 

**LANGUAGE OF INSTRUCTION:** English

**PREREQUISITES:** None

**ADDITIONAL COST: None** 

## METHOD OF PRESENTATION:

The course will incorporate a variety of instructional methods, such as class discussion, which requires students to complete assigned readings beforehand and actively participate in discussions. The faculty will provide theoretical background to complement the reading materials. Additionally, students will be responsible for presenting specific course topics in-group after conducting extensive research on their assigned subjects. Field trips like visits to public and private organizations related to the wine industry, winery visits and wine tastings, all of them will enhance the learning process and will allow the students to reach the outcomes.

# REQUIRED WORK AND FORM OF ASSESSMENT:

- Active class participation and class discussions 10%
- Written midterm exam 25%
- Project on innovation on wines industry 30%
- Class presentation 20%
- Assignments 15%

## **Class Participation and Class Discussions**

The class participation grade will consider students' active participation in class discussions, their ability to introduce ideas and thoughts dealing with the required texts, effective use of technical language, and their analytical skills in intellectual, constructive argumentation. When determining the class participation grade, the professor will consider traditional criteria such as material preparation, completed reading before class, and collaborative group work.

## Written Midterm and Final Exam

In-class written exams are designed to assess a student's knowledge of and familiarity with all the content and skills associated with the course.

### Midterm test:

Professor will provide 8 open questions, and the student must choose 4 to answer, along with 10 multiple choice questions. Students will have two hours to complete the exam.

## Final project:

Students will be required to design a comprehensive project that explores the intersection of the Chilean wine industry and the Sustainable Development Goals (SDGs). The project should demonstrate an understanding of sustainable practices within the industry and propose innovative solutions to enhance sustainability.

## **Project Components:**

Research Report (40%):

- Introduction: Overview of the Chilean wine industry.
- Sustainable Practices: Analysis of current sustainable practices in the industry.
- SDGs Alignment: Identify which SDGs are most relevant to the Chilean wine industry and how current practices align with these goals.



- Challenges and Opportunities: Discuss the main challenges the industry in Chile faces in becoming more sustainable and potential opportunities for improvement.
- Case Studies: Include at least two case studies of Chilean wineries that have successfully implemented sustainable practices.

# Innovative Proposal (30%):

- Proposal Development: Create a detailed proposal for a new sustainable initiative that could be implemented in the Chilean wine industry.
- Implementation Plan: Outline the steps needed to implement this initiative, including resources required, timeline, and potential obstacles.

## Presentation (20%):

- Visual Presentation: Develop a visual presentation (e.g., PowerPoint, Prezi) summarizing the key points of the research report and proposal.
- Oral Presentation: Present the project to the class, highlighting the importance of sustainability in the wine industry and the proposed initiative.

## Reflection (10%):

- Personal Reflection: Write a short reflection on what was learned during the project, including any challenges faced and how they were overcome.
- Group Reflection: include a reflection on the group dynamics and collaboration process.

#### **Evaluation Criteria:**

- Depth and quality of research.
- Creativity and feasibility of the proposal.
- Clarity and effectiveness of the presentation.
- Insightfulness of the reflections.

# **LEARNING OUTCOMES:**

By the end of the course, students will be able to:

- Articulate the significance of the Sustainable Development Goals (SDGs) in relation to the wine industry.
- Identify key sustainable practices in wine production.
- Evaluate the environmental, social, and economic impacts of the wine industry in Chile.
- Apply knowledge of sustainable practices to real-world scenarios within the wine industry.

## ATTENDANCE POLICY:

Successful progress of the program depends on the full cooperation of both students and faculty members: regular attendance and active participation in class are essential parts of the learning process. Attendance at and participation in all class meetings and field-studies are required. More than TWO absences will result in a lowering of your grade by two percentage points for every absence. Each further absence will automatically result in a penalty of two points off (2/100) on the final grade. SEVEN absences per course (including 2 excused absences) will result in a failing grade for that course. Furthermore, an absence on the date of scheduled tests, presentations or quizzes does not entitle you to recover/reschedule such tests. Failure to attend your midterm and/or final exam will result in an F grade on that paper/exam.



# **CONTENT:**

Week	Content	Assignments and Readings
Week 1	Introduction to the SDGs and the Wine Industry  • Sustainable development: definition and foundation • Sustainable Development Goals & Global pillars	Activity: Brief investigation about Chile's and the SDG  Readings:  • Aligning the Sustainable Development Goals in the Wine Industry: A Bibliometric Analysis.  (file:///Users/jessicaulloa/Downloads/sustainability-15-08172-v2.pdf)
	<ul> <li>Wine industry in the south: Chile and Argentina context:         <ul> <li>Influence of Spanish colonization in Chile, development of the wine industry in the 19th century, and the impact of French winemakers.</li> <li>Influence of Spanish and Italian immigrants in Argentina and the rise of Mendoza as a wine region, and the modernization of the industry.</li> </ul> </li> <li>Class discussion</li> </ul>	<ul> <li>Transforming our world: the 2030 Agenda for Sustainable Development         (https://sdgs.un.org/2030agenda)</li> <li>Sustainable Development Goals         (https://sdgs.un.org/goals)</li> <li>"Wine Regions in Argentina &amp; Chile: Which is Best for You?" by Kimkim: An overview of the wine regions in both countries, highlighting their unique characteristics. (https://www.kimkim.com/c/wine-regions-in-argentina-and-chile)</li> </ul>
Week 2	<ul> <li>History and Evolution of Chile's and Argentina's Wine Industry I</li> <li>Origin of Wine Industry</li> <li>Wine regions in Chile and Argentina</li> <li>Meaning of biodiversity and to valuate biodiversity</li> </ul>	<ul> <li>Activity: Class Discussion</li> <li>Readings:         <ul> <li>UNEP) United Nations Environment Program</li></ul></li></ul>



Week 3	History and Evolution of Chile's and Argentina's Wine Industry II	Activity: Brief investigation about Chile's principal wine region and wineries and vineyards  Readings:  "How Chile Became One of the Most Sustainable Winemaking Countries in the World" (https://rke.abertay.ac.uk/ws/portalfiles/port al/81536593/Forbes SDGsAndTheWineIndustry Acc epted 2024.pdf)  Rotarou, E. (2018). Challenges and Opportunities for the Sustainable Development of the Wine Tourism Sector in Chile. ResearchGate. In: https://www.researchgate.net/publication/3283454 37 Challenges and opportunities for the sustaina ble development of the wine tourism sector in Chile  The ultimate guide to Argentine wine (https://www.thewinesociety.com/discover/explore /regional-guides/the-ultimate-guide-to-argentine-wine)
Week 4	<ul> <li>Environmental Sustainability in Wine Production</li> <li>The requirements of environmental sustainability and social sustainability</li> <li>Sustainability Code for the Chilean Wine Industry</li> <li>Sustainable standards for Argentine Wineries</li> <li>Circular Economy</li> <li>Class Discussion</li> </ul>	Activity: Analysis of the country situation in terms of economic and environmental sustainability (critical issues and strengths)  Readings:  Drivers of Environmental Sustainability in the Wine Industry: A Life Cycle Assessment Approach (https://www.mdpi.com/2071-1050/16/13/5613)  Winegrowing Sustainable Protocol of Argentine Wineries https://www.oia.com.ar/index.php/en/certifications/certification-programs/winegrowing-sustainable-protocol-of-argentine-wineries/  Chilean wine Code (https://www.sustainable.cl/en/)  Evaluating Environmental Impact and Circular Economy Practices in the Wine Industry
Week 5	Social Dimensions of Sustainable Wine Production  Community Engagement and Social Initiatives Labor Practices	Readings:  Achieving a more sustainable wine supply chain—Environmental and socioeconomic issues of the industry, chapter 1  (https://www.sciencedirect.com/science/article/pii/B9780323851503000098?via%3Dihu)  Universidad de Chile. (n.d.). The Chilean Wine Industry. Repositorio Académico. In: https://repositorio.uchile.cl/bitstream/handle/2250/170915/The-Chilean-Wine-Industry1.pdf?sequence=1&isAllowed=y



Week 6	Economic Dimensions of Sustainable Wine Production   Wine Tourism Local economy Class discussion	Readings:  Achieving a more sustainable wine supply chain—Environmental and socioeconomic issues of the industry, chapter 1  (https://www.sciencedirect.com/science/article/pii/B9780323851503000098?via%3Dihu)  OECD (2018), Mainstreaming Biodiversity for Sustainable Development. OECD Publishing, Paris. https://doi.org/10.1787/9789264303201-en  Santini, C., Cavicchi, A., & Casini, L. (2013). Sustainability in the Wine Industry: Key Questions and Research Trends. Agricultural and Food Economics, 1(9. In:
Week 7	Case Studies of Sustainability in Wine ndustry in Chile I	https://agrifoodecon.springeropen.com/articles/10. 1186/2193-7532-1-9  Activity: In class, in groups review, discuss and present the cases
	<ul> <li>Chile's Comprehensive Sustainability         Program         Chile's Leading Role in Sustainable         Winemaking     </li> </ul>	Resources for the cases: <ul> <li>https://vinepair.com/articles/women-winemakers-leading-chiles-sustainability/</li> <li>https://discoversustainablewine.com/chile/</li> </ul>
Week 8	Case Studies of Sustainability in Wine Industry in Chile II	Activity: In class, in groups review, discuss and present the cases
	Certified Sustainable Wines in Chile	Resources for the cases: <ul> <li>https://vinepair.com/articles/how-chile-became-one-of-the-most-sustainable-winemaking-countries-in-the-world/</li> </ul>
Week 9	MIDTERM TEST	
Week 10	Global and National Environmental Policy for Sustainable Development	Procedures:  OECD Environmental Performance Reviews: Chile 2024". Executive summary. In: https://www.oecd-ilibrary.org/docserver/3c8cbb5b-en.pdf?expires=1723340233&id=id&accname=guest&checksum=8180EA78C163A0A2E7996697B96584BC  World Resources Institute: Chile's New Governance Structures Are Streamlining Net-zero Implementation". In: https://www.wri.org/update/chiles-new-governance-structures-are-streamlining-net-zero-implementation
Week 11	Visit to a public institution to see the support to the Chilean wine industry	Resources for the cases:
	<ul> <li>Significance of Chilean Wine         Export markets         Trade agreements     </li> </ul>	https://www.odepa.gob.cl/coordinacion-publico- privada/comision-nacional-de-la-vitivinicultura



	Government support	
Week 12	Lecture:  "Impact of climate change on the wine industry in Chile"  • Chile and vulnerability to climate change • Climate Change and Wine Quality  Adaptation and mitigation actions for the industry	
Week 13	<ul> <li>One case: Visit a Winery</li> <li>Guided tour of vineyards and winery facilities to understand the winemaking process</li> <li>Emblems of the Three Valleys</li> <li>Explore water conservation, organic farming, and biodiversity efforts</li> <li>Discussion on sustainable practices and terroir</li> </ul>	<ul> <li>Activity: Field Trip to Viña Veramonte.</li> <li>Viña Veramonte. In: <a href="https://vinedosveramonte.cl/">https://vinedosveramonte.cl/</a></li> </ul>
Week 14	Class work  Pre-Final presentation  In this class, students will prepare the final project presentation, receiving feedback from the teacher  Review of the rubric  Class discussion	Activity: Class discussion & group work
Week 15	Final Class Projects Presentation	

## **COURSE-RELATED TRIPS:**

- Viña Veramonte, Casablanca, Valparaiso region, to get a close insight into the relations between wine production and transformation, the environment, and sustainability principles
- Visit to a public institution

# **REQUIRED READINGS:**

- Sustainable Development Goals (<a href="https://sdgs.un.org/goals">https://sdgs.un.org/goals</a>)
- Drivers of Environmental Sustainability in the Wine Industry: A Life Cycle Assessment Approach (<a href="https://www.mdpi.com/2071-1050/16/13/5613">https://www.mdpi.com/2071-1050/16/13/5613</a>)
- Rotarou, E. (2018). Challenges and Opportunities for the Sustainable Development of the Wine Tourism Sector in Chile. ResearchGate. In:
  - https://www.researchgate.net/publication/328345437 Challenges and opportunities for the sustainable developmen t of the wine tourism sector in Chile

## **RECOMMENDED READINGS:**

- "How Chile Became One of the Most Sustainable Winemaking Countries in the World" (<a href="https://rke.abertay.ac.uk/ws/portalfiles/portal/81536593/Forbes">https://rke.abertay.ac.uk/ws/portalfiles/portal/81536593/Forbes</a> SDGsAndTheWineIndustry Accepted 2024.pdf
- Valenzuela, L., Kunc, M., & Moscovici, D. (2022). Evaluating Sustainability Practices in the Chilean Wine Industry. 13th



Academy of Wine Business Research Conference, Burgundy School of Business, Dijon. In: <a href="http://academyofwinebusiness.com/wp-content/uploads/2022/11/Evaluating-Sustainability-Practices-in-the-Chilean-Wine-Industry-.pdf">http://academyofwinebusiness.com/wp-content/uploads/2022/11/Evaluating-Sustainability-Practices-in-the-Chilean-Wine-Industry-.pdf</a>

- Santini, C., Cavicchi, A., & Casini, L. (2013). Sustainability in the Wine Industry: Key Questions and Research Trends. Agricultural and Food Economics, 1(9. In: <a href="https://agrifoodecon.springeropen.com/articles/10.1186/2193-7532-1-9">https://agrifoodecon.springeropen.com/articles/10.1186/2193-7532-1-9</a>
- Universidad de Chile. (n.d.). The Chilean Wine Industry. Repositorio Académico. In: https://repositorio.uchile.cl/bitstream/handle/2250/170915/The-Chilean-Wine-Industry1.pdf?sequence=1&isAllowed=y
- "OECD Environmental Performance Reviews: Chile 2024". Executive summary. In: <a href="https://www.oecd-ilibrary.org/docserver/3c8cbb5b-en.pdf?expires=1723340233&id=id&accname=guest&checksum=8180EA78C163A0A2E7996697B96584BC">https://www.oecd-ilibrary.org/docserver/3c8cbb5b-en.pdf?expires=1723340233&id=id&accname=guest&checksum=8180EA78C163A0A2E7996697B96584BC</a>
- "World Resources Institute: Chile's New Governance Structures Are Streamlining Net-zero Implementation". In: <a href="https://www.wri.org/update/chiles-new-governance-structures-are-streamlining-net-zero-implementation">https://www.wri.org/update/chiles-new-governance-structures-are-streamlining-net-zero-implementation</a>
- Viña Veramonte. In: https://vinedosveramonte.cl/