1. **Title of the module**

Introduction to Wine Science (Summer School)

1. **School or partner institution which will be responsible for management of the module**

Centre for English and World Languages

1. **The level of the module (Level 4, Level 5, Level 6 or Level 7)**

Level 5

1. **The number of credits and the ECTS value which the module represents**

15 / 7.5 ECTS

1. **Which term(s) the module is to be taught in (or other teaching pattern)**

Summer Term and Summer holiday (after week 30); please note the Summer Term content will be delivered online with face to face contact during the residential Summer School at the beginning of the Summer holiday.

1. **Prerequisite and co-requisite modules**

No pre- or co-requisite modules; however, students should be comfortable discussing basic biological processes. It should be noted that students must be of legal drinking age in the UK and be comfortable with alcohol consumption.

1. **The programmes of study to which the module contributes**

None. Available as a stand-alone or wild module.

1. **The intended subject specific learning outcomes.
On successfully completing the module students will be able to:**
	1. describe the morphology, growth and development of the grapevine;
	2. describe the photosynthetic process and explain the influence of light and temperature on photosynthetic activity and grape composition, yield and quality;
	3. explain the changes that occur in the grape berry during ripening;
	4. outline the processes involved in winemaking that occur before, during and after fermentation and how these influence wine style and quality;
	5. describe the basics of beer production and beer styles
	6. explain human sensory processes, their application to technical wine/beer evaluation, and recognise the basic sensory characteristics of different wine styles.
2. **The intended generic learning outcomes.
On successfully completing the module students will be able to:**
	1. demonstrate aptitude in independent and higher level study
	2. clearly communicate evaluation, critical analysis and research using appropriate technical terminology
	3. communicate their interpretation of experimental data in written form.
3. **A synopsis of the curriculum**

Introduction to Wine Science comprises three main topic areas: viticulture (grape growing), oenology (winemaking science) and sensory science. The course provides students with an understanding of basic viticultural, oenological, sensory and related principles and practices. Topics covered include: grape varieties; grapevine structure and function; the annual growth cycle of the grapevine; the factors that influence crop yield; the source/sink balance of the grapevine; berry development and composition; wine classification; the unit operations involved in winemaking and beer brewing; the taste and olfactory system; and taste/aroma interactions. Practical sessions will include grapevine anatomy, variety traits and berry ripening, and technical wine evaluation (i.e. training in the recognition and evaluation of different wine styles and their characteristic sensory attributes). The theoretical component will be delivered largely online and comprises: sensory evaluation modules (~2 hours); viticulture modules (~9 hours); oenology and brewing modules (~9 hours). The practical component will involve a 4 day Residential School to be held during the Summer Holidays (after Week 30), for which attendance is compulsory.

**Theory component** (to be delivered online)

Introduction to Wine Science comprises the following modules: Sensory: The taste and olfactory system, Taste and aroma interactions. Viticulture: The grapevine and varieties, Grapevine morphology, growth and development, Grapevine physiology, Berry ripening and composition. Oenology: Wine styles and types, Handling the grapes and juice, Fermentation, Preparing wine for market, Beer brewing basics.

**Practical component** (to be delivered via the Residential School)

The Residential School comprises: Grapevine Anatomy, Variety familiarisation and Maturity determination, Sensory practicals, including Basic tastes, Taste interactions, Complexing factors, Faults, Fruit characteristics, Still, sparkling, sweet and fortified wine styles and key beer styles. A visit to a local vineyard and winery(s) with also take place.

1. **Reading list (Indicative list, current at time of publication. Reading lists will be published annually)**

Essential reading:

Iland, P.G., Gago, P., Caillard, A. and Dry, P. (2017) Australian Wine: styles and tastes, people and places. Patrick Iland Wine Promotions, Adelaide. (Hard copy ISBN 13: 9780994635617; Ebook ISBN: 9780994635624). Available at <https://www.piwpwinebooks.com.au/wine-books/australian-wine-styles-and-tastes-people-and-places>.

Suggested reading:

Viticulture

Dry, P.R. and Coombe, B.G. (2004) Viticulture Volume 1: Resources. Winetitles.

Coombe, B.G. and Dry, P.R. (2004) Viticulture Volume 2: Practices. Winetitles.

Oenology

Halliday, J. and Johnson, H. (2006) The art and science of wine. Mitchell Beazley.Peynaud, E. (1984) Knowing and making wine. John Wiley and Sons.

Robinson, J. (1994) The Oxford companion to wine. Oxford University Press.

Goode, J (2004) Wine Science. Mitchell Beazley.

Rankine, B.C. (2004) Making good wine: a manual of winemaking practice for Australia and New Zealand. Sun Books.

Sensory evaluation

Amerine, M.A. and Roessler, E.B. (1983) Wines - their sensory evaluation. WH Freeman.

Rankine, B.C. (1990) Tasting and enjoying wine: a guide to wine evaluation for Australia and New Zealand. Winetitles.

1. **Learning and teaching methods**

Total contact hours: 24

Total private study hours: 126

Total study hours: 150

1. **Assessment methods**

13.1 Main assessment methods

Practical Reports – Grape ripening (1,200 words; 15%) and online variety identification (1,200 words; 15%)

Assignment – Winemaking process of an allocated wine style (800 words; 10%)

Sensory examinations – 25%

Written examination (3 hours) – 35%

13.2 Reassessment methods

100% Coursework. Practical classes cannot be repeated.

1. ***Map of module learning outcomes (sections 8 & 9) to learning and teaching methods (section12) and methods of assessment (section 13)***

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Module learning outcome** | 8.1 | 8.2 | 8.3 | 8.4 | 8.5 | 8.6 | 9.1 | 9.2 | 9.3 |
| **Learning/ teaching method** |  |  |  |  |  |  |  |  |  |
| Private Study | **x** | **x** | **x** | **x** | **x** | **x** | **x** |  | **x** |
| Lectures | **x** | **x** | **x** | **x** | **x** | **x** |  | **x** |  |
| Workshops | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |
| Visits | **x** |  | **x** | **x** |  |  |  | **x** |  |
| **Assessment method** |  |  |  |  |  |  |  |  |  |
| Practical Reports | **x** | **x** | **x** | **x** |  |  | **x** | **x** | **x** |
| Assignment | **x** | **x** | **x** | **x** |  |  | **x** | **x** | **x** |
| Sensory Examination |  | **x** | **x** | **x** | **x** | **x** |  | **x** |  |
| Written Examination | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |

1. **Inclusive module design**

The Centre recognises and has embedded the expectations of current equality legislation, by ensuring that the module is as accessible as possible by design. Additional alternative arrangements for students with Inclusive Learning Plans (ILPs)/declared disabilities will be made on an individual basis, in consultation with the relevant policies and support services; however, this is unlikely to be possible if students are unable to taste or smell.

The inclusive practices in the guidance (see Annex B Appendix A) have been considered in order to support all students in the following areas:

a) Accessible resources and curriculum

b) Learning, teaching and assessment methods

1. **Campus(es) or centre(s) where module will be delivered**

Canterbury

1. **Internationalisation**

This module is designed to be welcoming to all students, whichever their background, and to present them with a global overview of wine production which can be applied to any context. The subject matter will include international matters to be analysed from a global perspective.

**FACULTIES SUPPORT OFFICE USE ONLY**

**Revision record – all revisions must be recorded in the grid and full details of the change retained in the appropriate committee records.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date approved | Major/minor revision | Start date of delivery of revised version | Section revised | Impacts PLOs (Q6&7 cover sheet) |
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