



2015

Postgraduate studies in Viticulture & Oenology



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1. Introduction

The Department of Viticulture and Oenology (DVO) came into being at the beginning of 1995 after the fusion of the departments of Viticulture and Oenology, which for years had functioned as separate departments within the Faculty of AgriSciences at the Stellenbosch University. The Institute for Wine Biotechnology (IWBT) came into being at the end of 1995 and forms part of the DVO. The DVO is characterised by enthusiastic lecturers and researchers with innovative thoughts and initiatives. In addition to effective student teaching at the undergraduate and postgraduate levels, staff use cutting-edge technology in specific niche fields and successfully transferring it for application in the industry. The DVO is situated in the JH Neethling building, which was fully renovated in 2009.



The most important **objectives** of the DVO are:

- to maintain and expand efficient teaching, research and service delivery;
- to provide the industry with well-trained human resources;
- to maintain a high level of productive cooperation with other role players.

2. Research

The **main objective** of the research activities within the DVO is to contribute to enabling the South African industry to produce wines and vineyard products of a high quality with the aid of environmentally friendly technology in the most cost-effective manner. Industry-linked research that can be implemented by means of technology transfer to the industry is undertaken at all times.



Viticulture		
Grapevine cultivation Grapevine and climate	Dr Albert Strever	Plant management and remote sensing Grapevine physiology
Grapevine physiology	Prof Kobus Hunter	Grapevine metabolism and cultivation
Table grape production	Mrs Eunice Avenant	Viticultural aspects of table grape production (rootstocks, dormancy management, plant bioregulators) Water use efficiency
Ecophysiology of berry ripening	Mrs Erna Blancquaert	Berry growth, composition and quality
Grapevine cultivation	Mrs Anneli Bosman	Grapevine architecture, alternative trellis systems and sustainable practices.
Grapevine biology	Prof Melané Vivier	Understanding grapevine and berry growth and development

Oenology		
Wine microbiology	Prof Maret du Toit	Malolactic fermentation and its role in winemaking; Microbial spoilage of wine
	Prof Florian Bauer	Yeast, alcoholic fermentation, aroma production
Wine chemistry	Prof Wessel du Toit	Wine ageing, aroma, wood, phenolics, oxidation, and sensory of wine
	Ms Marianne McKay	Impact of work-based learning in Oenology on students and industry mentors
Cellar technology	Mr Riaan Wassung	Winemaking, wine apparatus

Grapevine molecular biology and biotechnology	
Dr John Moore	Functional genomics; grapevine field-omics; grapevine abiotic and biotic stress biology; cell wall profiling
Prof Melané Vivier	
Dr Philip Young	

Wine Biotechnology	
Prof Florian Bauer	Yeast molecular and cellular biology
Dr Benoit Divol	Microbial interactions and spoilage – impact of microorganisms on wine properties
Prof Maret du Toit	Molecular biology of wine lactic acid bacteria and interaction with wine yeasts
Dr Evodia Setati	Using metagenomic and metatranscriptomic approaches to study diversity and mine novel biocatalysts

Analytical chemistry Advanced chemical-analytical techniques in viticulture, oenology and biotechnology	
Dr Hélène Nieuwoudt	Focus on rapid analytical techniques and data processing, wine sensory profiling, sensometrics, consumer preference mapping
Prof Marius Lambrechts	Focus on optimisation of brandy process
Prof Antonio Ferreira	Flavour chemistry focus on the chemical definition to wine quality. metabolomics
Dr Astrid Buica	Sample preparation and liquid chromatography for grape and wine analyses

Computational Biology and Biomathematics	
Dr Dan Jacobson	Focus on the use and development of new high performance computing methods for the analysis and integration of genomics, phylogenomics, transcriptomics, proteomics, metabolomics, interactomics, sensoromics, microbiomics, chemiomics and fieldomics data.





3. Postgraduate programme

The DVO offers the postgraduate programmes in Viticulture and Oenology to obtain the following degrees:

- MScAgric
- PhD
- DSc

878 MScAgric (Food and Wine Production Systems)

The master's programmes in Food and Wine Production Systems leads to one of the following qualifications: MScAgric (Oenology), MScAgric (Viticulture),. The programme is two years of masters' studies if the student holds an applicable BScAgric-degree.

33103 878 MScAgric in Oenology

Programme description:

Topics for the master's degree are determined in consultation with the relevant lecturer for each prospective student. Research projects can be selected from one of the following themes: wine microbiology; wine chemistry; analytical method development, and sensory methodology and analyses. A further objective is the deepening of subject knowledge through self-study.

- **33103 : Oenology** 878(180): Master's thesis

33103 878 MScAgric in Viticulture

Programme description:

Topics for the master's degree are determined in consultation with the relevant lecturer for every prospective student. Research projects can be selected from one of the following themes: molecular aspects of key processes in grapevines; advanced grapevine physiology; climate change; analysis of spatial patterns; berry ripening and table grapes. A further objective is the deepening of subject knowledge through self-study.

- **33081 : Viticulture** 878(180): Master's thesis

Student assistance

Postgraduate Viticulture and Oenology students are expected to assist with all undergraduate practicals in order to ensure effective practical teaching. Undergraduate practical reports must be marked within the prescribed time period and the postgraduate students are assessed on the basis of the thoroughness of their marking. Postgraduate students must also act as tutors on a rotational basis for undergraduate students who cannot speak Afrikaans.

978 PhD (Food and Wine Production systems)

Programme description: This programme lead to one of the following qualifications: PhD (fields: Oenology, Viticulture or). A dissertation containing original research in one of these fields is required. The programmes focus strongly on research in various specialist fields of Food and Wine Production Systems and they train students to become subject specialists in the fields of food science, oenology, viticulture, grapevine biotechnology and wine biotechnology. For each field of study a relevant and practically oriented research project is chosen which puts the student in contact with the industry, leading to problem solving in the industry concerned, and also prepares the student to enter the research or professional market. They thus become professionals who can play, either as a team member or individually, a meaningful role in national or international research, teaching and policy making in specialist fields concerned with sustainable and environmentally friendly food production and food safety.

Course content: The student is expected to write a dissertation that contains the results of original research. A typed literature review (Chapter 2 of the dissertation) must be submitted at the end of the first year of study.

- **33103 Oenology:** 978(360) Doctoral dissertation
- **33081 Viticulture:** 978(360) Doctoral dissertation

998 DSc (Food and Wine Production Systems)

Programme description: The degree DSc is awarded to candidates who have held the PhD or PhD (Agric) degree of this University, or some other equivalent (in the opinion of the Senate) qualification for at least five years, or who have held the MSc or MScAgric degree of this University, or some other adequate (in the opinion of the Senate) qualification for at least seven years, and who have produced advanced original research and/or creative work in Food Science or the Agricultural Sciences, have submitted original and previously published scientific paper(s) of a high standard which indicate(s) that the candidate has made a real and high-quality contribution to the enrichment of the knowledge in Food Science or the Agricultural Sciences and, if required by the examiners, has taken an oral examination to the satisfaction of the University.

- **33193 Oenology:** 998(360) DSc research collection
- **33081 Viticulture:** 998(360) DSc research collection

4. Postgraduate bursaries

4.1 Postgraduate bursaries from the DVO

The DVO may, at its discretion and subject to sufficient funding being available per project, award financial support to full-time registered students, ***if they have not been awarded any other external bursaries.***

Bursaries are awarded in terms of the regulations of Stellenbosch University and maximum amounts for bursaries are applied as determined by the **Office for Postgraduate Bursaries.**

4.2 Other postgraduate bursaries from Stellenbosch University

Students are strongly encouraged to apply for competitive bursaries (e.g. NRF Free-standing Prestige Bursary, NRF Equity Bursary, US Postgraduate Merit Bursary, etc.) through the **Office for Postgraduate Bursaries.**

Several private bursaries are available, eg.:

- Harry Crossley bursaries
- Murray bursary for fulltime study
- CJ Theron bursary; Andrew Mellon bursary
- And others

Office for Postgraduate Bursaries:

Tel: 021-808 4208

E-mail: Beursnavrae_nagraads@sun.ac.za

Postgraduate International Office

(for international students)

[http://www0.sun.ac.za/international/](http://www0.sun.ac.za/international/postgraduate-student-funding)

[postgraduate-student-funding](http://www0.sun.ac.za/international/postgraduate-student-funding)



5. Application & selection



Closing dates for applications:

20 August – for international students

7 September – for South African students

5.1 Application procedure

STEP 1	Stellenbosch University's application form (official application)	<p><u>In person:</u> Mrs Ghafsa Gamiet; Administration A building, Room 2033, Van Ryneveld street, Stellenbosch, or</p> <p><u>Electronic:</u> online application at http://www0.sun.ac.za/pgstudies/</p> <p><u>Foreign students:</u> apply online at http://www0.sun.ac.za/international/postgraduate-studies</p>
STEP 2	DVO's application form (internal application and not an official application)	<p>Complete all sections of the DVO application form. The application form can be requested from Ms Karin Vergeer (ccav@sun.ac.za) or downloaded from the DVO website (www.sun.ac.za/viti_oenol).</p> <p>Please attach the following documents to your form (pdf/scanned-versions are accepted if submitted by email):</p> <ul style="list-style-type: none"> • A certified copy of your academic transcripts (marks) [and English translation if in a foreign language] • Certified copies of degree(s) obtained. (<u>Please note:</u> if you are currently registered as a student at Stellenbosch University, the DVO will request your academic transcripts from Administration. There is therefore no need to attach them to this application). • A complete Curriculum Vitae • A copy of your ID/Passport documents • Foreign students, whose mother tongue is not English, is requested to complete a TOEFL test and submit the results to the DVO.

5.2 Selection procedure

Candidates are selected by the DVO on **merit** and according to the following **criteria**:

- undergraduate academic results
- postgraduate academic results (*if applicable*)
- practical proficiency, and personal motivation.

Students are firstly accepted **provisionally** if the current degree is not completed. The student need to meet the requirements of the University after completing the current degree with an average of **60%**, before he/she can be *finally accepted* for the postgraduate study.

You will receive an **unofficial** acceptance letter from the DVO, but you need the **official acceptance letter from Stellenbosch University** to register for your studies.

6. Frequently asked questions

? I am an international student who will be starting my degree. I was informed that I do not have any hostel accommodation. What can I do?

The International Office have on their webpage a list of available private housing as well as a list of usefull websites.

<http://www0.sun.ac.za/international/accommodation-and-arrival/housing-private-housing-adverts>

? I am an international student and want to know if someone will meet me at the airport when I arrive?

The International Office does provide such a service, but you need to complete the arrival sheet and email it to them.

<http://www0.sun.ac.za/international/accommodation-a-arrival>

? What will the cost be of my degree?

Please enquire at the Student Account Office in person or phone Sean Davids at 021-808 3530.

For international students it is different and they can enquire at <http://www0.sun.ac.za/international/postgraduate/postgraduate-fees>.

? When and how must I register for my degree?

Online registrations via MYMATIES should be available during January or you can register with Mrs Cheryl Nieuwoudt in person at the Administration Building Block A, room 2034, Van Ryneveld street.

HonsBSc students need to register by the end of January.

Master's and Doctoral students can register until the end of March.

New Doctoral students can only register after a Faculty meeting was held in February and that they have been informed.

For international students it is mostly the same, but they do register at the International Office.

? Will I receive a bursary from the DVO?

Refer to point above.

? This is my first time in Stellenbosch. What will the living costs be?

It all depends if you are accommodated in a hostel or private housing. Stellenbosch is very expensive, so for living costs you will approximately need about R5000 (including accommodation).



7. Enquiries

At DVO

- **Ms Karin Vergeer: Postgraduate Coordinator**
Tel. 021-808 3770 (international: +27-21-808 3770)
Fax 021-808 3771 (international: +27-21-808 3771)
E-mail: ccav@sun.ac.za

At Stellenbosch University

- **Web site**
www.sun.ac.za
- **Division Admissions (Stellenbosch University)**
Mrs S Blanché
Tel. 021-808 4515 (international +27-21-808 4515)
E-mail: seb@sun.ac.za
- **Division Accommodation (Stellenbosch University)**
Ms M Hendrikse
Tel. 021-808 3892 (international +27-21-808 3892)
E-mail: mary@sun.ac.za
- **Division for Student Fees (Stellenbosch University)**
Tel. 021-808 4913 (international +27-21-808 4913)
<http://www0.sun.ac.za/pgstudies/study-fees>
- **Division for Postgraduate Bursaries**
Tel. 021-808 4208
E-mail: Beursnavrae_nagraads@sun.ac.za
- **Postgraduate and International Office**
Tel. +27-21-808 2565
E-mail: interoff@sun.ac.za
<http://www0.sun.ac.za/international/postgraduate/degree-studies-postgraduate-how-to-apply>

