



ZELNA BOOTH

ACADEMIC CURRICULUM VITAE

M.Pharm (Wits); PhD Candidate (Wits)
Pharmacist, Academic lecturer and Researcher

BIOGRAPHICAL INFORMATION

Full name: Zelna Booth

Title: Mrs.

Identity number: 890630 0022 084

Date of Birth: 1989-06-30

Nationality: South African

Race: White

Gender: Female

Language: English; Afrikaans

Marital status: Married


Driver's license: Valid Code B


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1. Academic Appointment Details

Name and Surname	Zelna Booth
Current Academic Title	Lecturer
Academic title applied for	Ms.
School	Therapeutic Sciences
Department	Pharmacy and Pharmacology
Division	Pharmacy Practice
Current position	Lecturer (Pharmacy Practice) + 3 rd year coordinator
Period in current appointment	July 2018 to current
Period of employment	July 2018 to current
*Primary employer or funder	University of the Witwatersrand

2. Academic and Professional qualifications, and where and when obtained

Qualification (Highest first)	Year obtained	Institution
Doctor of Philosophy (by publication)	In progress	University of the Witwatersrand
Introduction to Research Ethics Course	2022	The University of Hong Kong, Clinical Trials Centre
The Science and Business of Biotechnology	2020	Massachusetts Institute of Technology
SAQA and SETA Assessor Course (basic)	2019	Accreditation and Training Services
Good Clinical Practice Basic Course	2019	Academic Advance
Master of Pharmacy (by research dissertation)	2014 (with distinction)	University of the Witwatersrand
Bachelor of Pharmacy	2011 (with distinction)	University of the Witwatersrand
Matriculate certificate	2007 (with distinction)	Bracken High School

3. Positions held

Position	Period in position	Employer
External course moderator	2023 to current	University of Johannesburg, Department of Complementary Medicine.
Academic Lecturer (Pharmacy Practice)	2018 to current	University of the Witwatersrand, Department of Pharmacy and Pharmacology, Division of Pharmacy Practice.
Continuing Professional Development Assessor for Pharmacy Interns	2019 to current	South African Pharmacy Council.
Grade 1 Pharmacist	2016 to 2018	Department of Health (Gauteng), Central Dispensing Unit for Ekurhuleni, Old Germiston Hospital.
Position	Period in position	Employer
Community Service Pharmacist	2015 to 2016	Department of Health (Gauteng), East Rand Regional Pharmacy (Nigel) Medical Depot.
Academic Pharmacy Intern	2012 to 2014	University of the Witwatersrand, Department of Pharmacy and Pharmacology, Division of Pharmacy Practice.
Academic Pharmacy Intern (400 hours in retail)	2014	Clicks Pharmacy Group, Brackenhurst Square, Alberton, Gauteng.

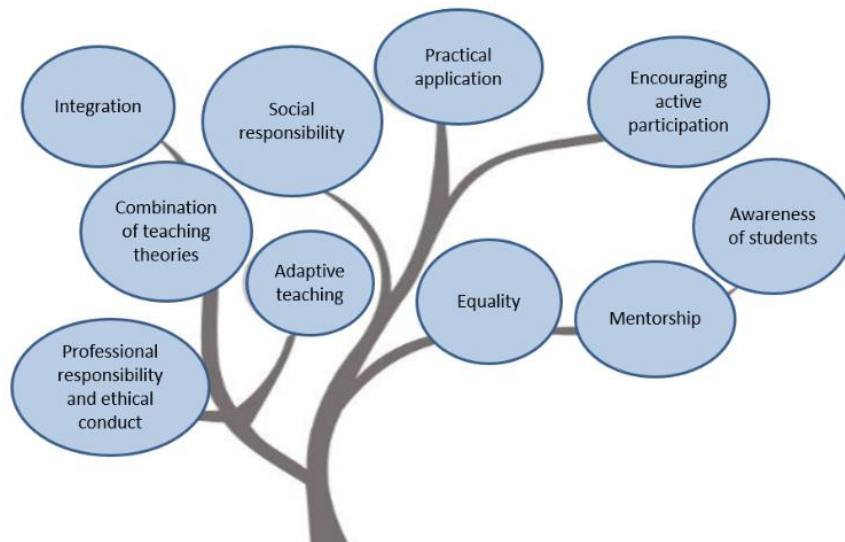
Post-basic Pharmacists' Assistant (BPharm 3 and 4)	2010 and 2011	1. Charlotte Maxeke Johannesburg Academic Hospital, Gauteng. 2. DisChem Pharmacy, Brackengardens, Alberton, Gauteng.
Post-basic Pharmacists' Assistant (BPharm 4)	2011	Phelophepa Health Train, Transnet Initiative.

4. Teaching and learning

My vision for teaching stems from my passion for the pharmacy profession and drive to improve the profession continuously. I feel that the most influence can be achieved through closely working with our future pharmacists in their undergraduate years of study. Through my teaching, I hope to be able to equip my students for the pharmacy profession and workplace, to not just be passive professionals, but rather to contribute actively and positively toward the improvement and growth of the pharmacy profession. I feel that my teaching needs to incorporate teaching and learning activities aimed at developing innovative thinking and entrepreneurial thinking among students so they may positively contribute to economic growth; to think critically and be able to apply theory in real workplace settings; to be fully equipped with necessary 21st century skills in innovation, critical thinking, digital and technological literacy and communications literacy (development of soft skillset). Incorporation of technology and adaptive teaching is important now, as it creates that openness to explore, to investigate and analyse - facilitating and promoting critical and reflective learning, as well as critical pedagogy.

Through my teaching, I hope to create a passion for the profession among students, which I think comes through from my own fondness of the profession and pride associated with being a member of the pharmacy community. Through inculcating this pride and passion for the profession among my students, I always emphasize the need for pharmacy students to disband the negative perceptions of the public and potentially other healthcare professionals, regarding the capabilities of a pharmacist and their integral role in patient health outcomes. Through my teaching, I hope to encourage students to practice in such a way as to demonstrate that they are active members of the healthcare team and that they are not simply "pill counters" but carry far more value and knowledge.

The key elements in my teaching philosophy have been graphically represented below:



Professional and ethical conduct

My teaching encompasses aspects of emphasizing the need for professionalism and fostering a passion in my students to ensure they provide the best possible quality healthcare to their patients. Through my teaching, I try to ensure that students fully understand their role as pharmacists in our society (relevant to the South African context). The importance of their role in ensuring the good health of patients and to act professionally, responsibly, and ethically, at all times, gets weaved throughout all my teaching.

Awareness of students and equality

Students are not a homogenous group of individuals and so there is most definitely a need for me to individualize my approaches to meet all student needs as best as possible. I think it is very important for academic staff to be more cognitive and inclusive of diversity in our teachings, in that not everyone requires the same amount of support to reach the same outcome successfully.

Social responsibility

Teaching is not simply relaying of knowledge but involves developing life skills in students too. Respectful interactions are encouraged. I also hope to foster a sense of social responsibility by creating activities where students need to identify shared goals with others and how to work towards those goals...building that sense of belonging and community. I try to create learning activities that are authentic to a workplace experience, to allow

students to develop further soft skills, as they are required to work with different personalities, from different backgrounds, and are required to develop communication skills and conflict management skills.

Encouraging active participation

My teaching practices tend to take on a combination of teaching methods, both passive and active teaching. Voicing of opinions, thoughts or questions are always welcomed throughout any teaching session and through this I have found that students gain the confidence to become active members and voice their opinions or thoughts, as opposed to being passive members of the healthcare profession.

Integration

I try not to teach in silos – integration is key – content is never written off but rather incorporated throughout the year. Integration not just with my own content, but interdisciplinary and between other courses within the program is incorporated.

Practical application

My teaching focuses on the application of theory, developing of problem-solving skills and encouraging critical thinking among students. PharmApprentice is a program I coordinate, in which teaching gets applied practically in the third year Pharmacy Practice curriculum.

Mentorship

The pharmacy profession is multi-faceted, with so many different career paths and I always try to make students aware of the benefits of this and the opportunities available in the profession. I believe that the only way to fully embrace ones' studies and to be successful in the pharmacy profession, is to have developed ones' own sense of pride and passion for the profession.

Methods of teaching:

- Encouraging student participation.
- Introduction of pre-reading sessions in PACY3002 for student-initiated learning.
- Introduction of integrated tutorial sessions at the end of each block in PACY3002.

- To encourage application of theory.
- To encourage students to critically apply themselves in their learning activities.
- Use of blended teaching and learning approach to ensure multiple forms of platforms for teaching are used.
- Migration of all content online from March 2020.
- PharmApprentice: A new initiative developed by Pharmacy Practice entitled “Pharmaceutical Business Leadership Development” (PBL), where an entrepreneurial spirit is encouraged amongst students and students are provided with the necessary skills for business-minded pharmacists. Students are divided into groups and given the task of developing a pharmacy related business idea. It is an annual long project, where students have various presentations and adjudicating processes to get through, with many hours of research. Majority of my involvement in this program involves coordination of program, especially with external stakeholders, along with consulting and steering the groups throughout the year. Various experts are also brought in to guide and lecture students (example: Wits Enterprise).
- Making use of case studies and practical scenarios for group discussions before and during class.
- Incorporating feedback provided through student evaluations of lecturing into future teaching exercises.
- Incorporation of a simulation aspect to the Pharmacy Practice curriculum, through student role-playing through the dispensing cycle.
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 - Introduction of pre-reading sessions in PACY3002 for student-initiated learning.
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with the necessary skills for business-minded pharmacists. Students are divided into groups and given the task of developing a pharmacy related business idea. It is an annual long project, where students have various presentations and adjudicating processes to get through, with many hours of research. Majority of my involvement in this program involves coordination of program, especially with external stakeholders, along with consulting and steering the groups throughout the year. Various experts are also brought in to guide and lecture students (example: Wits Enterprise).

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- Incorporation of a simulation aspect to the Pharmacy Practice curriculum, through student role-playing through the dispensing cycle.

4.1. Undergraduate Contact Time

* Content specific to the lecture contact time has been provided in a separate table below table 4.1.

** Content specific to the assessments has been provided in a separate table below table 4.1.

*** Content specific to the curriculum and course development has been provided in a separate table below this.

Year	Course Code	Lectures Contact time (hours) *, **	Tutorial contact time (hours)	Practical's Contact time (hours)	Formal Clinical Teaching contact time (hours)	Curriculum development & Design (new courses only) time (hours) ***	Project Supervision time (hours)	Total time (hours)
2018	PACY1000A	31	4	5	0	6	0	41
	PACY3002	10	0	20	0	8	10	48
2019	PACY1000A	50	6	0	0	5	0	61
	PACY2002	2	0	0	0	0	0	2
	PACY3002	29	8	26	0	10	10	83
	PACY4003	12	2	0	0	2	20	36
2020	PACY1000A	44	6	0	0	0	0	50
	PACY2002	2	0	0	0	0	0	2
	PACY3002A	29	11	28	0	0	20	88
	PACY4003	2	2	0	0	2	20	26
	PACY4007	8	2	0	0	6	0	16

2021	PACY1000A	44	5	0	0	0	0	49
	PACY3002A	29	9	5	0	0	20	63
	PACY4003	2	2	0	0	2	20	50
	PACY4007	8	2	0	0	0	0	10
2022	PACY1000A	34	2	0	0	0	0	36
	PACY3002A	27	8	16	0	0	26	87
	PACY4003	2	2	0	0	2	30	36
	PACY4007	8	2	0	0	0	0	10
2023	PACY1000A	34	4	0	0	0	0	38
	PACY3002A	29	8	4	0	0	30	71
	PACY4003	2	2	0	0	2	36	42
	PACY4007	8	2	0	0	0	0	10
2024	PACY1000A	26	4	0	0	0	0	30
	PACY3002A	56	15	4	0	6	24	99
	PACY4003	2	2	0	0	0	12	16
	PACY4007A	8	2	0	0	0	0	10

* Content specific to the lecture contact delivered:

Year	Course	Content attended to	Class size
2018	PACY1000A	Communication Skills for Pharmacists	102
		Introduction to Pharmaceutics	
	PACY3002	Marketing and Good Pharmacy Practice	89
		PharmApprentice Program	
2019	PACY1000A	South African Healthcare Framework	94
		Communication Skills for Pharmacists	
		Introduction to Pharmaceutics	
	PACY2002	Introductory lecture and work-based learning guidance lecture	98
		CPD cycle and OnBASE training	
	PACY3002	Introductory lecture and work-based learning guidance lecture	87
		Introduction to Business Management	
Operations Management and Good Pharmacy Practice			
Human Resource Management and Good Pharmacy Practice			
PACY4003	Marketing and Good Pharmacy Practice	16	
	PharmApprentice		
2020	PACY1000A	Special Research Project (Elective) study design and supervision	124
		South African Healthcare Framework	
		Introduction to Pharmacy Legislative Framework	
	PACY3002	Communication Skills for Pharmacists	96
		Introductory lecture and work-based learning guidance lecture	
	Introduction to Business Management		
	Operations Management and Good Pharmacy Practice		

		Human Resource Management and Good Pharmacy Practice		
		Marketing and Good Pharmacy Practice		
		PharmApprentice		
	PACY4003	Special Research Project (Elective) study design and supervision		11
	PACY4007	Traditional, complementary, and alternative medicine in practice	84	
2021	PACY1000A	South African Healthcare Framework	132	
		Introduction to Pharmacy Legislative Framework		
		Communication Skills for Pharmacists		
	PACY3002	Introductory lecture and work-based learning guidance lecture		94
		Introduction to Business Management		
		Operations Management and Good Pharmacy Practice		
		Human Resource Management and Good Pharmacy Practice		
	Marketing and Good Pharmacy Practice			
	PharmApprentice			
PACY4003	Special Research Project (Elective) study design and supervision	10		
PACY4007	Traditional, complementary, and alternative medicine in practice	87		
2022	PACY1000A	South African Healthcare Framework	136	
		Introduction to Pharmacy Legislative Framework		
		Communication Skills for Pharmacists		
		Introduction to traditional, complementary, and alternative medicine		
2022	PACY3002	Introductory lecture and work-based learning guidance lecture	83	
		Introduction to Business Management		
		Operations Management and Good Pharmacy Practice		
		Human Resource Management and Good Pharmacy Practice		
		Marketing and Good Pharmacy Practice		
		PharmApprentice		
	PACY4003	Special Research Project (Elective) study design and supervision		5
PACY4007	Traditional, complementary, and alternative medicine in practice	93		
2023	PACY1000A	South African Healthcare Framework	145	
		Introduction to Pharmacy Legislative Framework		
		Communication Skills for Pharmacists		
		Introduction to traditional, complementary, and alternative medicine		
	PACY3002	Introductory lecture and work-based learning guidance lecture	90	
		Introduction to Business Management		
		Operations Management and Good Pharmacy Practice		
		Human Resource Management and Good Pharmacy Practice		
Marketing and Good Pharmacy Practice				
	PharmApprentice			
PACY4003	Special Research Project (Elective) study design and supervision	8		
PACY4007	Traditional, complementary, and alternative medicine in practice	69		
2024	PACY1000A	South African Healthcare Framework	126	
		Introduction to Pharmacy Legislative Framework		
		Communication Skills for Pharmacists		
		Introduction to traditional, complementary, and alternative medicine		
	PACY3002	Introductory lecture and work-based learning guidance lecture	101	
		Introduction to Business Management		
		Operations Management and Good Pharmacy Practice		
Human Resource Management and Good Pharmacy Practice				
	Marketing and Good Pharmacy Practice			

		Patient Centred Care (PCP)	
		PharmApprentice	
	PACY4003	Special Research Project (Elective) study design and supervision	5
	PACY4007	Traditional, complementary, and alternative medicine in practice	90

**** Content specific to the assessments has been provided in a separate table below table 4.1.**

2018	Assessment
PACY1000A	Online Tutorial – Introduction to Pharmaceuticals (2% of year mark).
	Online Tutorial – Communication Skills for Pharmacists (2% of year mark).
	Test 3 (Summative written) – Contribution of MCQs (10% of year mark)
	Final Exam (Summative written) – Contribution of MCQs (30% of year mark).
PACY2002	Test 3 (Summative written) – Moderation (10% of year mark).
	Final Exam (Summative written) – Moderation (50% of year mark).
PACY3002	Test 3 (Summative written) – Setting, question contribution, marking (10% of year mark).
	Final Exam (Summative written) – Setting, question contribution, marking (30% year mark).
	PharmApprentice – Adjudication of pitch, marking of curveball assignments and final business plan submission (30% of year mark).
2019	Assessment
PACY1000A	Online Tutorial – Introduction to Pharmaceuticals (2% of year mark).
	Online Tutorial – Communication Skills for Pharmacists (2% of year mark).
	Online Tutorial – SA Healthcare Framework (2% of year mark).
	Test 1 (Summative written) – Moderation (10% of year mark).
	Test 2 (Summative written) – Moderation (10% of year mark).
	Test 3 (Summative written) – Contribution of MCQs (10% of year mark).
	Final Exam (Summative written) – Contribution of MCQs (30% of year mark).
PACY2002	Test 1 (Summative written) – Moderation (10% of year mark).
	Test 2 (Summative written) – Moderation (10% of year mark).
	Test 3 (Summative written) – Moderation (10% of year mark).
	Final Exam (Summative written) – Moderation (40% of year mark).
PACY3002	Work-based learning CPD 4.1. assessment (10% of year mark)
	Integrated tutorial 1– Setting of case study and assessment (5% of year mark)
	Test 1 (Summative oral counselling test) – Moderation and assessment (10% of year mark)
	Test 2 (Summative written) – Setting, contribution of case study, marking (10% of year mark)
	Test 3 (Summative online) – Moderation (10% of year mark)
	Final Exam (Summative written) – Setting, question contribution, marking (30% year mark).
	PharmApprentice – Adjudication of pitches, marking of executive summaries, curveball assignments and final business plan submission (20% of year mark)
	Final Exam (Summative written) – Contribution of MCQs (30% of year mark).
	Final Exam (Summative written) – Setting, question contribution, marking (30% of year mark).
	PharmApprentice – Adjudication of pitches, marking of executive summaries, curveball assignments and final business plan submission (30% contribution to year mark).
PACY4003	Special Research Project – Protocol, mid-year performance, ethics application review, final write-up, and poster presentation assessment.

2020	Assessment
PACY1000A	Online Tutorial – Introduction to Pharmacy Legislative Framework (2% of year mark)
	Online Tutorial – Communication Skills for Pharmacists (2% of year mark)
	Online Tutorial – SA Healthcare Framework (2% of year mark)
	Test 1 (Summative written) – Contribution of MCQs (10% of year mark)
	Test 2 (Summative written) – Contribution of MCQs (10% of year mark)
	Test 3 (Summative written) – Moderation (10% of year mark)
	Final Exam (Summative written) – Contribution of MCQs (30% of year mark)
PACY2002A	Test 1 (Summative written) – Moderation (10% of year mark)
	Test 2 (Summative written) – Moderation (10% of year mark)
	Test 3 (Summative online) – Moderation (10% of year mark)
	Final Exam (Summative written) – Moderation (40% of year mark)
PACY3002A	Work-based learning CPD 4.1. assessment (10% of year mark)
	Integrated tutorial 1– Setting of case study and assessment (5% of year mark)
	Test 1 (Summative oral counselling test) – Moderation and assessment (10% of year mark)
	Test 2 (Summative written) – Setting, contribution of case study, marking (10% of year mark)
	Test 3 (Summative online) – Moderation (10% of year mark)
	Final Exam (Summative written) – Setting, question contribution, marking (30% year mark).
	PharmApprentice – Adjudication of pitches, marking of executive summaries, curveball assignments and final business plan submission (20% of year mark)
PACY4003	Special Research Project – Protocol, mid-year performance, ethics application review, final write-up, and poster presentation assessment.
2021	Assessment
PACY1000A	Online Tutorial – Introduction to Pharmacy Legislative Framework (2% of year mark)
	Online Tutorial – Communication Skills for Pharmacists (2% of year mark)
	Online Tutorial – SA Healthcare Framework (2% of year mark)
	Test 1 (Summative, online invigilated) – Contribution of MCQs (10% of year mark)
	Test 2 (Summative, online invigilated) – Contribution of MCQs (10% of year mark)
	Test 3 (Summative written) – Moderation (10% of year mark)
	Final Exam (Summative written) – Contribution of MCQs (30% of year mark)
PACY3002A	Integrated tutorials online (5% of year mark)
	Test 1 (Summative, online invigilated) – Moderation (10% of year mark)
	Test 2 (Summative written) – Assessing my own content, setting of paper, contribution of case study, marking (10% of year mark)
	Test 3 (Summative written) – Moderation (10% of year mark)
	Final Exam (Summative written) – Setting, question contribution, marking (30% year mark).
	PharmApprentice – Adjudication of pitches, marking of executive summaries, curveball assignments and final business plan submission (20% of year mark).
PACY4003A	Special Research Project – Protocol, mid-year performance, ethics application review, final write-up and poster presentation assessment.

2022	Assessment
PACY1000A	Online Tutorial – Traditional, complementary, and alternative medicine (2% of year mark)
	Online Tutorial – Communication Skills for Pharmacists (2% of year mark)
	Test 1 (Summative, online invigilated) – Moderation (10% of year mark)
	Test 2 (Summative, online invigilated) – Contribution of MCQs (10% of year mark)
	Test 3 (Summative, online invigilated) – Moderation (10% of year mark)
	Final Exam (Summative, online invigilated) – Contribution of MCQs (30% of year mark)
PACY2002A	Test 1 (Summative, online invigilated) – Moderation (10% of year mark)
	Test 2 (Summative, online invigilated) – Moderation (10% of year mark)
	Test 3 (Summative, online invigilated) – Moderation (10% of year mark)
	Final Exam (Summative, online invigilated) – Moderation (10% of year mark)
PACY3002A	Work-based learning CPD 5.1. assessment (10% of year mark)
	Integrated tutorials online (5% of year mark)
	Test 1 (Summative oral) – Moderation and examiner (10% of year mark)
	Test 2 (Summative, online invigilated) – Assessing my own content, setting of paper, contribution of case study (10% of year mark)
	Test 3 (Summative, online invigilated) – Moderation (10% of year mark)
	Final Exam (Summative, online invigilated) – Setting, question contribution (30%year mark).
	PharmApprentice – Adjudication of pitches, marking of executive summaries, curveball assignments and final business plan submission (20% of year mark).
Simulation pharmacy practical – Setting of case studies and evaluations (contributing to WBL hours).	
PACY4003A	Special Research Project – Protocol, mid-year performance, ethics application review, final write-up, and poster presentation assessment.
PACY4007A	Online Tutorial – TCAM in Practice (2% of year mark)
	Test 2 (Summative, invigilated online) – Assessing my own content, setting of paper, contribution of case study, marking (10% of year mark)
	Final Exam (Summative, online invigilated) – Question contribution (30%year mark).

2023	Assessment
PACY1000A	Online Tutorial – Traditional, complementary, and alternative medicine (2% of year mark)
	Online Tutorial – Communication Skills for Pharmacists (2% of year mark)
	Test 1 (Summative, online invigilated) – Moderation (10% of year mark)
	Test 2 (Summative, online invigilated) – Contribution of MCQs (10% of year mark)
	Test 3 (Summative, online invigilated) – Moderation (10% of year mark)
	Final Exam (Summative, online invigilated) – Contribution of MCQs (30% of year mark)
PACY2002A	Test 1 (Summative, online invigilated) – Moderation (10% of year mark)
	Test 2 (Summative, online invigilated) – Moderation (10% of year mark)

	Test 3 (Summative, online invigilated) – Moderation (10% of year mark)
	Final Exam (Summative, online invigilated) – Moderation (10% of year mark)
PACY3002A	Work-based learning CPD 4.6. assessment (10% of year mark)
	Integrated tutorials online (10% of year mark)
	Test 1 (Summative oral) – Moderation and examiner (10% of year mark)
	Test 2 (Summative, online invigilated) – Assessing my own content, setting of paper, contribution of case study (10% of year mark)
	Test 3 (Summative, online invigilated) – Moderation (10% of year mark)
	Final Exam (Summative, online invigilated) – Setting, question contribution (30%year mark).
	PharmApprentice – Adjudication of pitches, marking of executive summaries, curveball assignments and final business plan submission (15% of year mark).
	Simulation pharmacy practical – Setting of case studies and evaluations (5% and contributing to WBL hours).
PACY4003	Special Research Project – Protocol, mid-year performance, ethics application review, final write-up, and poster presentation assessment.
PACY4007	Online Tutorial – TCAM in Practice (2% of year mark).
	Test 2 (Summative, invigilated online) – Assessing my own content, setting of paper, contribution of case study, marking (10% of year mark).
	Final Exam (Summative, online invigilated) – Question contribution (30%year mark).

2024	Assessment
PACY1000A	Online Tutorial – Traditional, complementary, and alternative medicine (2% of year mark)
	Online Tutorial – Communication Skills for Pharmacists (2% of year mark)
	Test 1 (Summative, online invigilated) – Moderation (10% of year mark)
	Test 2 (Summative, online invigilated) – Contribution of MCQs (10% of year mark)
	Test 3 (Summative, online invigilated) – Moderation (10% of year mark)
	Final Exam (Summative, online invigilated) – Contribution of MCQs (30% of year mark)
PACY2002A	Test 1 (Summative, online invigilated) – Moderation (10% of year mark)
	Test 2 (Summative, online invigilated) – Moderation (10% of year mark)
	Test 3 (Summative, online invigilated) – Moderation (10% of year mark)
	Final Exam (Summative, online invigilated) – Moderation (10% of year mark)
PACY3002A	Integrated tutorials online (10% of year mark)
	Test 1 (Summative, written invigilated) – Examiner, setting paper, marking (10% of year mark)
	Test 2 (Summative, oral invigilated) – Examiner – setting paper, assessing ¼ of class (10% of year mark)
	Test 3 (Summative, written invigilated) – Moderation (10% of year mark)
	Final Exam (Summative, online invigilated) – Examiner, setting paper (30% of year mark).
	PharmApprentice – Adjudication of pitches, marking of executive summaries, curveball assignments and final business plan submission (20% of year mark).

	Simulation pharmacy practical – Setting of case studies and evaluations.
	Integrated tutorials (online) – Setting questions, uploading, drawing marks from LMS (10% year mark).
PACY4003	Special Research Project – Protocol, mid-year performance, ethics application review, final write-up, and poster presentation assessment.
PACY4007	Online Tutorial – TCAM in Practice (2% of year mark).
	Test 2 (Summative, invigilated online) – Assessing my own content, setting of paper, contribution of case study, marking (10% of year mark).
	Final Exam (Summative, online invigilated) – Question contribution (30% year mark).

***** Content specific to the curriculum and course development involvement:**

- Content development for a newly introduced module in PACY1000A entitled “South African Healthcare Framework” in 2019.
- Updating of PACY1000A Introduction to Pharmaceutics content in 2019.
- Updating of PACY1000A Communication Skills for Pharmacists content in 2019, 2020 and 2021.
- Updating of PACY3002 Business Management content and related Good Pharmacy Practice content in 2018, 2019, 2020 and 2021.
- Updating of PACY1000A South African Healthcare Framework content in 2020.
- Updating of PACY1000A Introduction to Pharmacy Legislative Framework in 2020.
- Updating of methods of assessments in 2019 and 2020 for PACY2002 and PACY3002.
- Assisting in the development of online content for Forensics in 2020.
- PharmApprentice: The BPharm III PharmApprentice projects are prepared by our third-year pharmacy students as part of a new initiative developed by Pharmacy Practice entitled “Pharmaceutical Business Leadership Development” (PBL) (ongoing).
- Introduction of simulation teaching into Pharmacy Practice within the Dis-Chem simulation pharmacy.
- Migration of curriculum content in first and second B. Pharm to online LMS Moodle, ensuring that students access the lectures when needed, are assessed to determine their engagement online and are required to participate in discussion forums and via email. MS Teams meetings are also set up to touch base with students and recordings made available on Moodle for those who could not attend due to data

issues.

- Incorporation of Wits Enterprise and their expertise in the PharmApprentice program, to guide students on processes of patenting and pitching of new business ideas.
- Development of a new module introduced to the 4th year course curriculum, Traditional, Complementary and Alternative Medicine in Practice for 2022.
- Development of a module in 1st year course curriculum, Introduction to Traditional, Complementary and Alternative medicine for 2022.
- Development of simulation pharmacy activities for BPharm III students undertaken as group work in the DisChem simulation pharmacy (introduced in 2022):
 - Dispensing software training *Unisolv, Winscripts and Rx Solution);
 - Patient centered care skills development;
 - Communication skills development;
 - Mock inspection activities in accordance with SAPC inspection reports.
- Moderation of BHS Pharmacology course content and assessments for Chiropractors at the University of Johannesburg as of 2023.

4.2 Postgraduate coursework (lectures/tutorials) per year

Course	Content	Students	Hours
None	None	None	None

4.3 Personal supervision of post-graduate diploma courses, honours projects, masters dissertations and mini-dissertations and PhD theses:

Postgraduate diploma /Honours/4th year projects supervised - graduated

Name	*Race	Gender	Co/Supervisor:	Year/date of first registration:	Year of graduation OR Current	Comments
F. Gardee	Indian	Female	Co-supervisor	2019	2019	Research report
J. Govender	Indian	Female	Co-supervisor	2019	2019	Research report
Z. Moolla	Indian	Male	Co-supervisor	2019	2019	Research report
M. Basheer	Indian	Male	Co-supervisor	2019	2019	Research report
L. Bisetgn	Mixed	Female	Co-supervisor	2019	2019	Research report
F. Masinghi	Male	Black	Co-supervisor	2019	2019	Research report
Z. Hadebe	Female	Black	Supervisor	2019	2019	Research report
T. Mabobe	Male	Black	Supervisor	2019	2019	Research report
B. Bhinca	Female	Black	Co-supervisor	2019	2019	Research report

N. Masina	Female	Black	Co-supervisor	2019	2019	Research report
L. Magabane	Female	Black	Supervisor	2019	2019	Research report
F. Mabasa	Female	Black	Supervisor	2019	2019	Research report
M. Mashige	Female	Black	Supervisor	2019	2019	Research report
M. Phanyane	Female	Black	Supervisor	2019	2019	Research report
M. Mabuza	Male	Black	Supervisor	2019	2019	Research report
S. Kwakwa	Female	Black	Supervisor	2019	2019	Research report
C. Naidoo	Indian	Female	Supervisor	2020	2020	Research report
S. Badat	Indian	Female	Supervisor	2020	2020	Research report
M. Twala	Black	Male	Supervisor	2020	2020	Research report
Z. Mahlangu	Black	Female	Supervisor	2020	2020	Research report
M. Maake	Black	Female	Supervisor	2020	2020	Research report
C. Kawonga	Black	Male	Supervisor	2020	2020	Research report
S Ncube	Black	Female	Supervisor	2020	2020	Research report
P. Msimanga	Black	Female	Supervisor	2020	2020	Research report
N. Jogiati	Indian	Male	Supervisor	2020	2020	Research report
N. Sibeko	Black	Female	Supervisor	2020	2020	Research report
K. Pule	Black	Female	Co-supervisor	2020	2020	Research report
S. Maphalala	Black	Female	Supervisor	2021	2021	Research report
L. Mashabela	Black	Female	Co-supervisor	2021	2021	Research report
M. Mathoho	Black	Female	Supervisor	2021	2021	Research report
P. Moyo	Black	Female	Supervisor	2021	2021	Research report
P. Makaba	Black	Female	Supervisor	2021	2021	Research report
L. Thole	Black	Male	Supervisor	2021	2021	Research report
N. Tshiki	Black	Female	Supervisor	2022	2022	Research report
S. Nheera	Black	Female	Supervisor	2022	2022	Research report
N. Nxele	Black	Female	Supervisor	2022	2022	Research report
N. Msweli	Black	Female	Supervisor	2022	2022	Research report
J. Mokgaditsi	Black	Female	Supervisor	2023	2023	Research report
M. Babe	Black	Female	Supervisor	2023	2023	Research report
M. Nalla	Indian	Male	Supervisor	2023	2023	Research report
M. Master	Indian	Male	Supervisor	2023	2023	Research report
S. Mamogobo	Black	Male	Supervisor	2023	2023	Research report
K. Damari	Black	Male	Supervisor	2023	2023	Research report
K. Dlamini	Black	Male	Supervisor	2023	2023	Research report
L. Ndaba	Black	Female	Supervisor	2023	2023	Research report

Postgraduate diploma /Honours/4th year projects supervised – current (in progress)

Name	*Race	Gender	Co/Supervisor	Year/date of first registration	Year of graduation OR Current	Comments
A. Davids	Indian	Female	Supervisor	2024	Current	Research report
K. Ndlovu	Black	Female	Supervisor	2024	Current	Research report
S. Mandlazi	Black	Female	Supervisor	2024	Current	Research report
M. Ngeleka	Black	Female	Supervisor	2024	Current	Research report
N. Phungwayo	Black	Female	Supervisor	2024	Current	Research report

Masters (MSc/MMed/other) students graduated or currently registered

MSc

Name	*Race	Gender	Co/Supervisor	Year/date of first registration	Year of graduation OR Current	Comments
R. Kateera	Female	Black	Co-supervisor	2019	Current	South African pharmacists self-evaluation of their competence and confidence in conducting CPD submissions (A case study of pharmacists in Gauteng province).
S. Mohun	Female	Indian	Co-supervisor	2022	Passed 2024.	A drug utilization study on meropenem.
C. Minns	Female	White	Supervisor	2022	Passed 2024.	A retrospective review of documented side effects among patients receiving immunotherapy from a central oncology dispensing centre in Johannesburg.

MPharm

Name	*Race	Gender	Co/Supervisor	Year/date of first registration	Year of graduation OR Current	Comments
A. Asmall	Indian	Female	Co-supervisor	2019	Passed 2022.	Determining the prevalence of use of over-the-counter (OTC) codeine-containing products in the Johannesburg area (Region B): A mixed methods study.
T. Ismail	Indian	Female	Co-supervisor	2019	Passed 2021.	The evaluation of the on-time immunization rates of students entering public schools in the City of Johannesburg, Regions B and E.
F. Ibisomi	Black	Male	Co-supervisor	2019	Passed with distinction 2021.	Identifying substance use disorder (SUD) within the emergency department of a South African tertiary public institution.

H. Hassen	Indian	Female	Co-supervisor	2019	Passed with distinction 2021.	The attitudes, perceptions and practices of nurses in Primary Health Care (PHC) clinics within the City of Johannesburg District in the management of antibiotic resistance.
P. Msimanga	Black	Female	Co-supervisor	2020	Passed 2024.	Knowledge, attitudes and perceptions of electronic health record management systems amongst South African pharmacists.
C. Kawonga	Black	Male	Co-supervisor	2020	Submitting for examination October 2024.	Exploring the experiences, challenges and current practices of visually impaired patients and pharmacists who care for them within the South African pharmacy health care system.
N. du Plessis	White	Female	Co-supervisor	2020	Passed 2024.	Exploring the Knowledge, Perceptions and Practices of Pharmacists and Athletes with regards to Substance Use in Sport
L. Spinickum	Coloured	Female	Co-supervisor	2022	Passed with distinction.	Antibacterial stewardship practices in South Africa during the covid-19 era: a retrospective review.
M. Mathoho	Black	Female	Supervisor	2022	Passed 2024.	Exploring the knowledge, attitudes, perceptions, and practices of prescribing and dispensing healthcare professionals on traditional, complementary, and alternative medicine in a public hospital in Gauteng.
B. Wodrich	White	Female	Co-supervisor	2022	Submitted for examination August 2024.	Antimicrobials stewardship practices in the emergency department of a South African Tertiary Institution: Patterns of antibiotic prescribing prevalence of errors.
K. Sudu	Indian	Female	Co-supervisor	2023	Current	The attitudes, perceptions, and practices of doctors, pharmacists and nurses towards antifungal stewardship in a tertiary care hospital in South Africa.
B. Seete	Black	Male	Supervisor	2023	Current	Investigating health outcomes of diabetic and hypertensive patients enrolled on the CCMDD

						multimonth dispensing program.
F. Giuricich	White	Female	Co-supervisor	2023	Submitted for examination July 2024.	Evaluating the CCMDD rollout in Limpopo.

Doctoral students graduated or currently registered.

Name	Co/Supervisor	Year/date of first registration	Year graduated OR Current	Comments
V. Makoka	Co-supervisor	2025	Current	PhD thesis

Clinical Training

Training specialty	Numbers of trainees trained	Total hours
N/A	N/A	N/A

4.4 Internal/External examining at undergraduate level

Year	Degree/ course examined	Institution
2019	Bachelor of Pharmacy (Pharmacy Practice PACY1000A) YOS1 Test 1, Test 2, Test 3 and Final exam (examining/internally moderating).	University of the Witwatersrand
2019	Bachelor of Pharmacy (Pharmacy Practice PACY1000A) YOS2 Test 1, Test 2, Test 3 and Final exam (examining/internally moderating).	University of the Witwatersrand
2019	Bachelor of Pharmacy (Pharmacy Practice PACY1000A) YOS3 Test 1, Test 2, Test 3 and Final exam (examining/internally moderating).	University of the Witwatersrand
2019	Bachelor of Pharmacy (Pharmacy Practice PACY1000A) YOS4 Test 1, Test 2, Test 3 and Final exam (examining/internally moderating).	University of the Witwatersrand
2020	Bachelor of Pharmacy (Pharmacy Practice PACY1000A) YOS1 Test 1, Test 2, Test 3 and Final exam (examining/internally moderating).	University of the Witwatersrand
2020	Bachelor of Pharmacy (Pharmacy Practice PACY1000A) YOS2 Test 1, Test 2, Test 3 and Final exam (examining/internally moderating).	University of the Witwatersrand
2020	Bachelor of Pharmacy (Pharmacy Practice PACY1000A) YOS3 Test 1, Test 2, Test 3 and Final exam (examining/internally moderating).	University of the Witwatersrand
2020	Bachelor of Pharmacy (Pharmacy Practice PACY1000A) YOS4 Test 1, Test 2, Test 3 and Final exam (examining/internally moderating).	University of the Witwatersrand
2021	Bachelor of Pharmacy (Pharmacy Practice PACY1000A) YOS1 Test 1, Test 2, Test 3 and Final exam (examining/internally moderating).	University of the Witwatersrand
2021	Bachelor of Pharmacy (Pharmacy Practice PACY1000A) YOS2 Test 1, Test 2, Test 3 and Final exam (examining/internally moderating).	University of the Witwatersrand
2021	Bachelor of Pharmacy (Pharmacy Practice PACY1000A) YOS3 Test 1, Test 2, Test 3 and Final exam (examining/internally moderating).	University of the Witwatersrand
2021	Bachelor of Pharmacy (Pharmacy Practice PACY1000A) YOS4 Test 1, Test 2, Test 3 and Final exam (examining/internally moderating).	University of the Witwatersrand

2022	Bachelor of Pharmacy (Pharmacy Practice PACY1000A) YOS1 Test 1, Test 2, Test 3 and Final exam (examining/internally moderating).	University of the Witwatersrand
2022	Bachelor of Pharmacy (Pharmacy Practice PACY1000A) YOS2 Test 1, Test 2, Test 3 and Final exam (examining/internally moderating).	University of the Witwatersrand
2022	Bachelor of Pharmacy (Pharmacy Practice PACY1000A) YOS3 Test 1, Test 2, Test 3 and Final exam (examining/internally moderating).	University of the Witwatersrand
2022	Bachelor of Pharmacy (Pharmacy Practice PACY1000A) YOS4 Test 1, Test 2, Test 3 and Final exam (examining/internally moderating).	University of the Witwatersrand
2023	Bachelor of Pharmacy (Pharmacy Practice PACY1000A) YOS1 Test 1, Test 2, Test 3 and Final exam (examining/internally moderating).	University of the Witwatersrand
2023	Bachelor of Pharmacy (Pharmacy Practice PACY1000A) YOS2 Test 1, Test 2, Test 3 and Final exam (examining/internally moderating).	University of the Witwatersrand
2023	Bachelor of Pharmacy (Pharmacy Practice PACY1000A) YOS3 Test 1, Test 2, Test 3 and Final exam (examining/internally moderating).	University of the Witwatersrand
2023	Bachelor of Pharmacy (Pharmacy Practice PACY1000A) YOS4 Test 1, Test 2, Test 3 and Final exam (examining/internally moderating).	University of the Witwatersrand
2023	BHS Complementary Medicine / BHS Chiropractic (Pharmacology Course PHMCMA3 / PHMCHA3) for external course moderation	University of Johannesburg
2024	Bachelor of Pharmacy (Pharmacy Practice PACY1000A) YOS1 Test 1, Test 2, Test 3 and Final exam (examining/internally moderating).	University of the Witwatersrand
2024	Bachelor of Pharmacy (Pharmacy Practice PACY1000A) YOS2 Test 1, Test 2, Test 3 and Final exam (examining/internally moderating).	University of the Witwatersrand
2024	Bachelor of Pharmacy (Pharmacy Practice PACY1000A) YOS3 Test 1, Test 2, Test 3 and Final exam (examining/internally moderating).	University of the Witwatersrand
2024	Bachelor of Pharmacy (Pharmacy Practice PACY1000A) YOS4 Test 1, Test 2, Test 3 and Final exam (examining/internally moderating).	University of the Witwatersrand
2023	BHS Complementary Medicine / BHS Chiropractic (Pharmacology Course PHMCMA3 / PHMCHA3) for external course moderation	University of Johannesburg

4.5 External examining of dissertations/theses or post-graduate examinations

Year	Degree / course examined	Institution
2021	Master of Science in Medicine by dissertation (Dumisa, M. Antimicrobial combination therapy: potential for southern African medical plants and dyes to treat infectious skin pathogens).	University of the Witwatersrand
2021	Master of Pharmacy by mini-dissertation (van der Westhuizen, A. Antibigrams: an antibiotic stewardship intervention at a private hospital in Gauteng province, South Africa)	Sefako Makgatho Health Sciences University
2021	Master of Pharmacy by mini-dissertation (Govender, S. Monitoring of Antimicrobial Consumption in Academic Public Sector Hospitals in Gauteng Province).	Sefako Makgatho Health Sciences University
2021	Master of Pharmacy by mini-dissertation (MacFarlane, H. The significance of risk factors associated with <i>Clostridioides difficile</i> infections in two private hospitals – a retrospective study).	Sefako Makgatho Health Sciences University.

2022	Master of Pharmacy by monograph dissertation (Maniki, P). A quantitative assessment of cardiovascular related non-communicable disease occurrence at a South African academic environment: A pharmacy students' health promotion initiative.	University of the Witwatersrand
2022	Master of Pharmacy by mini-dissertation (Masetla, M). Antimicrobial stewardship for outpatients with chronic bone and joint infections in the orthopaedic clinic of an academic tertiary hospital.	Sefako Makgatho Health Sciences University
2022	Master of Pharmacy by dissertation (Maharaj, J) Global adverse drug reaction trends of Anastrozole, Fulvestrant and tamoxifen using VigiBase Data.	University of the Witwatersrand
2023	Master of Pharmacy by mini-dissertation (Maboa, R). Empiric use of carbapenems in a private hospital setting in Rustenburg, North West Province.	Sefako Makgatho Health Sciences University
2024	Master of Science by research report (Prescribing patterns for ventilated COVID-19 patients at a private hospital in Gauteng).	University of the Witwatersrand
2024	Master of Pharmacy by dissertation (Moyo, P). Knowledge, attitudes, and perceptions of pharmacy students on influenza vaccine in South Africa.	University of the Witwatersrand
2024	Master of Pharmacy by mini-dissertation (Louw, M). The role of full-time clinical pharmacists in adult and paediatric surgical wards at a tertiary hospital in South Africa.	Sefako Makgatho Health Sciences University
2024	Master of Pharmacy by dissertation (Y. Kim). Use of probiotics in community pharmacy in South Africa: A survey of pharmacist attitudes, perceptions and knowledge.	University of the Witwatersrand

Publications examined for Journals

Year	Publication
Zeitschrift für Naturforschung	
2021	Bergamot essential oil nanoemulsions: Antimicrobial and cytotoxic activity. ZNC.2019.0229.R2
South African Journal of Botany	
2021	Herbal essential oil and antibiotic synergism in infectious treatment. SAJB-D-21-00315
2021	Phytochemical characterization and enhanced antibacterial effect of antibiotics by the essential oil of <i>Aloysia gratissima</i> (Gillies & Hook.) and its major constituent beta-caryophyllene against efflux pump-carrying strains. SAJB-D-20-01862
2024	<i>In vitro</i> evaluation of antibacterial and antifungal activities of the supercritical extracts of two Algerian plants (<i>Peganum harmala</i> seeds and <i>Plantago ovata</i> seeds). SAJB-D-24-02349
2024	Valorization Of Biological Activity Of <i>Capsicum Annuum</i> Fruits From Ahaggar (Central Algerian Sahara) As Source Of Antimicrobial Agents. SAJB-D-24-02352
International Journal of Africa Nursing Sciences	
2022	Promoting the use of point of care testing in non-communicable disease screening among university students. IJANS-D-22-00025
Exploratory Research in Clinical and Social Pharmacy	
2022	Pharmacist Medication Charting: Implementation of a successful charting model. RCSOP-D-22-00172
2022	Pharmacists' knowledge, perception and practice regarding medication disposal in Trinidad. RCSOP-D-22-00115R3

2022	Medication errors in community pharmacies: evaluation of a standardized safety program. Manuscript Number: RCSOP-D-22-00135.
2023	Pharmacy students' perceived barriers to spiritual care: A qualitative study. RCSOP-D-22-00037R2
2023	Exploring Health Seeking Behaviours for Common Cold management. RCSOP-D-22-00178
2023	A Prospective Interventional Study on Combination of Calcium carbonate and Vitamin D3 in Osteoporosis Patient – An open labelled trial. RCSOP-D-22-00167
2023	Understanding People's Health Behaviours in the Management of the Common Cold. RCSOP-D-22-00178
2023	Renal effects of selective cyclooxygenase-2 inhibitor anti-inflammatory drugs: a systematic review and meta-analysis. RCSOP-D-23-00261
2023	Assessing Intradisciplinary Pharmacy Communication Related to Transitions of Care. RCSOP-D-23-00300
2023	Inpatients' medicine information needs: an analysis of semi-structured interviews with patients and members of the patient council. RCSOP-D-23-00243
2023	A qualitative exploration of how pharmacy professionals in primary care utilise planned protected development time. RCSOP-D-23-00208
2023	Evaluating the Competency of Community Pharmacists in Identifying and Managing Malnourished Patients: A Cross Sectional Survey. RCSOP-D-23-00196R3
2023	A systematic review on the use of virtual patient and computer-based simulation for experiential pharmacy education. RCSOP-D-23-00143R1
2023	Improper Application Aspects of Some Topical Drug Preparations for Eye Drops, Nasal Spray, and Inhalers and the Role of Community Pharmacists in Patient Knowledge and Education: A Narrative Review. RCSOP-D-23-00105
2023	Interactions with patients at risk of self-harm or suicide - a qualitative study of community pharmacists and pharmacy staff. RCSOP-D-23-00002R1
2023	Accuracy of medication labels on community pharmacy-prepared dose administration aids: an observational study. RCSOP-D-23-00090
2023	Dealing with patients at risk of self-harm or suicide - a qualitative study to inform the design of a support tool for community pharmacists and pharmacy staff. RCSOP-D-23-00002
2023	Ghanaians' awareness of Expedited Partner Therapy and if Ghana's Ministry of Health should promote it RCSOP-D-23-00043
2023	Pharmacy students' perceived barriers to spiritual care: A qualitative study RCSOP-D-22-00037R3
2024	Assessing Intradisciplinary Pharmacy Communication Related to Transitions of Care. RCSOP-D-23-00300R1
2024	A qualitative study exploring experiences of racial minority stressors in pharmacy education and practice. RCSOP-D-23-00288
2024	A qualitative exploration of how pharmacy professionals in primary care utilise planned protected development time. RCSOP-D-23-00208R1
2024	Improving Patient Safety and Access to Healthcare: The Role of Pharmacist-Managed Clinics in Optimizing Therapeutic Outcomes. RCSOP-D-24-00148
2024	Effectiveness of quality use of medicines (QUM) programs and initiatives in Saudi Arabia: A narrative review. RCSOP-D-24-00131
2024	Parent Perspectives on the Design, Implementation, and Use of the Parent E-cigarette and Vaping Educational Resource (P-EVER). RCSOP-D-24-00064
Research in Social and Administrative Pharmacy	

2023	Pharmacist Intervention for Pediatric Asthma: A Systematic Literature Review and Logic Model. RSAP-D-23-00183R2
2023	Accuracy of medication labels on community pharmacy-prepared dose administration aids: an observational study. RCSOP-D-23-00090R1
2024	Construction and Application of Pharmaceutical Service Capacity Evaluation Model Based on Principal Component Analysis. RSAP-D-23-00608
PLOS ONE	
2023	Cost estimation of mass vaccination at different COVID-19 vaccination locations in Beijing PONE-D-23-00546
2024	Possible Gastroprotective Impact of 3-hydrazinoquinoxaline-2-thiol on Gastric Ulcers in Rats. PONE-D-24-01018
2024	Exploring the Coming Out Experiences of Sexual and Gender Diverse Oncology Healthcare Professionals. PONE-D-24-14395
South African Pharmaceutical Journal	
2024	Unlocking Wellness: The Surprising Benefits of IV Vitamin Infusions
2024	Factors that hamper the effective implementation of the National Health Insurance (NHI) in South Africa.
2024	The introduction an artificial intelligence in pharmaceutical regulatory affairs.
Advances in Traditional Medicine	
2024	<i>Sphaeranthus indicus</i> floral extract attenuates BPS-induced testicular damage in rats by triggering RIPK1/3-MLK-driven necroptosis and Fas-FasL-mediated apoptosis. OPEM-D-24-00846

4.6 Other – e.g. adult/community education courses and workshops offered

Year	Course	Institution/Community
2022	Ethics for Pharmacists	LexisNexis (online course)

4.7 Where possible, candidates should clearly indicate how they have contributed to transformation in teaching and learning activities, for example, but not limited to 1) curriculum development and change, 2) UG and PG throughput, 3) PG profile.

Teaching and Learning Initiative	Contribution
1. Curriculum Development and change	<ul style="list-style-type: none"> • PharmApprentice: The BPharm III PharmApprentice projects are prepared by our third-year pharmacy students as part of a new initiative developed by Pharmacy Practice entitled “Pharmaceutical Business Leadership Development” (PBL) (ongoing). <ul style="list-style-type: none"> ○ This program has been adapted to take a theme-based approach to attend to current issues faced in the workplace.
	<ul style="list-style-type: none"> • Development of simulation pharmacy activities for BPharm III students undertaken as group work in the DisChem simulation pharmacy (introduced in 2022): <ul style="list-style-type: none"> ○ Dispensing software training *Unisolv, Winscripts and Rx Solution); ○ Patient centred care skills development. ○ Communication skills development. ○ Mock inspection activities in accordance with SAPC inspection reports.

	<ul style="list-style-type: none"> Developing a short course surrounding “Business Management Skill Development in Pharmacy” to be introduced in 2024 BPharm III Pharmacy Practice curriculum to support the PharmApprentice programme. Moderation of BHS Pharmacology course content and assessments for Chiropractors at the University of Johannesburg as of 2023.
2. UG and PG Throughput	<p>UG Throughput for course PACY3002:</p> <p>2019 (97 students) 2020 (135 students) 2021 (109 students) 2022 (92 students) 2023 (109 students) 2024 (94 students)</p> <p>PG Honours Throughput:</p> <p>2019 (16 students) 2020 (10 students) 2021 (5 students) 2022 (4 students) 2023 (10 students) 2024 (Current 5 students in 4th year)</p> <p>PG (Masters) Throughput:</p> <p>2021 (3 students) 2022 (1 students) 2023 (0 students) 2024 (5 students submitting March 2024; 4 students submitting in August 2024)</p>
3. PG Profile (students)	<p>For PG Masters as of registration:</p> <p>2019 = 1 x black female; 3 x Indian females; 1 x black male 2020 = 1 x black female; 1 x black; 1 x white female 2022 = 1 x white female; 1 x black female; 1 x black male; 1 x Indian female; 1 x coloured female 2023 = 1 x white female; 1 x Indian female; 1 x black male 2024 = 0 students</p>

5 Research

5.1 Research profile statistic

Provide a brief description on your research Niche area	<p>My PhD research focuses on determining the prevalence of traditional medicine use in some of our biggest public tertiary hospitals in South Africa. Furthermore, I would like to determine <i>in vitro</i> interactive properties that commonly identified traditional medicines may exhibit when in combination with conventional therapies. Recently, traditional medicine effects on conventional medicines have been identified as a major health concern, which further emphasizes the need for this research.</p>
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	Keywords: Pharmaceutical microbiology, pharmacognosy, traditional medicinal plants, interactive antimicrobial efficacy analysis of traditional medicinal plants in combination with conventional antimicrobials, antimicrobial resistance, advocacy for integration of traditional modern healthcare systems, indigenous knowledge systems.
NRF rating and year	N/A
Web of Science and Scopus <i>h</i>-index:	ORCID ID: https://orcid.org/0000-0001-7399-8666 Scopus Author ID: 56152911800 Scopus <i>h</i> -index: 2
Number of citations:	65 citations
Google Scholar profile: <i>h</i>-index citations	Google Scholar <i>h</i> -index: 2 Google Scholar i10-index: 2 125 citations

5.2. Publications (while recent publications carry more weight, lifetime scholarly activities will also be taken into account):

Table 5.2.1. Publications in last 5 years

Publications				
	No. first author	No. senior author	No. other author	Total
Original research and systematic review articles in ISSN accredited refereed/ peer-reviewed journals				
• International Journals	3	1	0	4
• Local Journals	1	0	2	3
Case reports/case series, commentary, letters and review articles in ISSN accredited refereed/ peer-reviewed journals				
• International Journals	0	0	0	0
• Local Journals	0	0	1	1
Chapters in books	1	0	0	1
Refereed/peer-reviewed conference outputs	6	0	0	6
Articles in non-refereed/ non-peer-reviewed journals/Electronic work, like app development/YouTube channels	3	0	0	3
Technical Reports	0	0	1	1
Other contributions/ reports (e.g. Policy reports)	1	1	3	5

Table 5.2.2. Lifetime publications

	No. first author	No. senior author	No. other author	Total
Original research and systematic review articles in ISSN accredited refereed/ peer-reviewed journals				
International Journals	3	1	0	4
Local Journals	3	0	2	5

Case reports/case series, commentary, letters and review articles in ISSN accredited refereed/ peer-reviewed journals				
• International Journals	0	0	0	0
• Local Journals	1	0	0	1
Books (authored or edited)	0	0	0	0
Chapters in books	1	0	0	1
Refereed/ peer-reviewed conference outputs	9	0	1	10
Patents	0	0	0	0
Articles in non-refereed/ non-peer-reviewed journals	3	0	0	3
Technical Reports	0	0	1	1
Other contributions/ reports (e.g. Policy reports)	1	1	3	5

5.2.2 Articles (ISSN) in refereed/ peer-reviewed journals (provide a full list of all refereed publications). Please use the standard format to list all publication details.**

5.2.2.1 International Journals

Number	Publication	ISSN number	# of Citations	Journal Impact factor	Role in publication
2022	Addressing Inequities in Pharmaceutical Education with an FIP toolkit. Alison Ubong Etukakpan, Nilhan Uzman, Aysu Selcuk Garba Mohammad Khalid, Oliver Grundmann, John M. Allen, Sally A. Arif ⁶ , Lakesha M. Butler, Jacob P. Gettig, Miriam C. Purnell, Ettie Rosenberg, Hoai-An Truong, Latasha Wade, Neelaveni Padayachee, Zelna Booth, Rubina Shaikh, Yahya Choonara, Dalal Hammoudi Halat, Nisreen Mourad, Marwan Akel, Claire Thompson, Ralph Altieri	In press	In press	In press	Co-author
2022	Modi, T., Khumalo, N., Shaikh, R., Booth, Z., Leigh-de Rapper, S., Mahumane, G.D., 2022. Impact of illegible prescriptions on dispensing practice: A pilot study of South African Pharmacy Personnel. <i>MDPI Pharmacy</i> , 10(5): 132. doi:10.3390/pharmacy10050132 .	Online ISSN: 2226-4787	0	0	Co-author

2023	Booth, Z., Essack, S., van Vuuren, S., 2023. Short Lecture “Combining traditional and conventional medicines: A prevalence and interactive antimicrobial profiling study in South Africa”. <i>Planta Medica</i> , 89(14): 1290 – 1291.	DOI: 10.1055/s-0043-1773852			First Author
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5.2.2.2 Local Journals

Number	Publication	ISSN number	# of Citations	Journal Impact factor	Role in publication
2014	Interactive antimicrobial and toxicity profiles of conventional antimicrobials with Southern African medicinal plants. <i>South African Journal of Botany</i> , 93 (2014): 185 – 197.	Online ISSN: 1727-9321	110	2.315	First author
2014	Hubsch, Z., van Vuuren, S., van Zyl., 2014. Can rooibos (<i>Aspalathus linearis</i>) tea have an effect on conventional antimicrobial therapies? <i>South African Journal of Botany</i> , 93 (2014): 148 – 156.	Online ISSN: 1727-9321	19	2.315	First author
2021	Shaikh, R., Calitz, A., Padayachee, N., Leigh-de Rapper, S., Booth, Z., Kharodia, M., Barnard-Ashton, P., 2021. Minecraft Education in the Wits undergraduate Pharmacy programme. <i>South African Pharmaceutical Journal</i> , 88(3): 44.	Online ISSN: 2220-1017	0	0.05	Co-author

5.2.3.2 International Technical Report

Booth, Z., Shaikh, R., Padayachee, N., Choonara, Y.E., 2022. Resource inequities impacting pharmaceutical education. FIP toolkit for addressing inequities in pharmaceutical education: Achieving equitable, inclusive and quality pharmaceutical education for all. Accessed through: <https://www.fip.org/inequitiesineducation>.

5.3 Books (authored or edited)

Name of Publication	Publisher	Year
N/A	N/A	N/A

5.4 Chapters in books

Authors and title of Chapter	Book	Publisher	Year
Zelna Booth; Sandy van Vuuren	Antimicrobial Resistance and One Health in Africa.	Springer	2023

Booth, Z., van Vuuren., 2023. A book chapter entitled: “Natural products in combination with conventional antimicrobial agents – A potential solution to antimicrobial resistance”. Springer Elsevier in book entitled: “Antimicrobial Research and One Health in Africa”.

5.5 Refereed/ peer-reviewed conference outputs

Authors and title	Conference	Location	Year
Hubsch, Z., van Vuuren., 2012. Can traditional medicinal plants interact with conventional antimicrobials?	Academy of Pharmaceutical Sciences of South Africa annual postgraduate conference	Rhodes University, Grahamstown, South Africa.	2012
Hubsch, Z., van Vuuren, S., 2012. Interactive antimicrobial profiles between conventional antimicrobials and indigenous, Southern African medicinal plants.	Inter-university Postgraduate Symposium for the Department of Botany and Plant Biotechnology	University of Johannesburg, South Africa	2012 (Awarded Best Masters Presentation).
Hubsch, Z., van Vuuren, S., 2012. Can traditional medicinal plants interact with conventional antimicrobials?	Therapeutic Sciences Biennial Research Day	University of the Witwatersrand, South Africa	2012 (Awarded Emerging Researcher Award).
Booth, Z., van Vuuren, S., Essack, S., 2021. Natural product combinations with conventional antimicrobials – Could this be a worthy consideration in our fight against antimicrobial resistance?	School of Therapeutic Sciences Research Day	University of the Witwatersrand, South Africa.	2021
Booth, Z., Shaikh, R., de Rapper, S., Mahumane, G., 2021. The PharmApprentice Program, an innovative teaching initiative.	School of Therapeutic Sciences Innovation Teaching and Learning Symposium	University of the Witwatersrand, South Africa.	2021 (Received top award for group presentation)
Booth, Z., van Vuuren, S.F., Essack. S.Y, 2022. Fact-check on the frequently quoted: 80% prevalence of traditional medicine use in the African population.	The 24th Indigenous Plant Use Forum Conference	University of Johannesburg, South Africa.	2022
Booth, Z., Essack, S., van Vuuren, S., 2022. Prevalence of traditional medicine use among patients in two public academic hospitals in South Africa.	The 43rd Annual Academy of Pharmaceutical Sciences of South Africa (APSSA) Conference,	Rhodes University, Makhanda, South Africa.	2022
Padayachee, N., Booth, Z., Shaikh, R., Choonara, Y.E., 2022. FIP Resource inequities impacting pharmaceutical education.	FIP Achieving equitable, inclusive and quality pharmaceutical education - Digital Toolkit Congress	International collaboration (Online)	2022
Booth, Z., Essack, S., van Vuuren, S., 2023. Combining traditional and conventional medicines: A prevalence and interactive antimicrobial profiling study in South Africa.	71st International Congress and Annual Meeting of the Society for Medicinal Plant and Natural Product Research (GA)	Trinity College, Dublin, Ireland	2023
Booth, Z., Khumalo, G., Essack, S., van Vuuren, S., 2024. Integrative medicine:	The 26th Indigenous Plant Use Forum Conference	Darling, Cape Town	2024

Combining conventional antimicrobials with traditional, medicinal plants from the Johannesburg and KwaZulu-Natal muthi markets.			
Booth, Z., Essack, S., van Vuuren, S., 2024. Integrating African traditional medicine - an infectious diseases viewpoint.	CPD Online Webinar Keynote speaker for the Pharmaceutical Society of South Africa, Southern Gauteng Branch.	Online	2024
Booth, Z., Essack, S., van Vuuren, S., 2024. Building bridges: exploring the integration of traditional and conventional medicine for infectious diseases.	Faculty of Health Sciences Research Day.	University of the Witwatersrand, Johannesburg, South Africa.	2024

*Hubsch = maiden name

Conference poster presentations from my supervised BPharm Honours elective students:

- A poster entitled “A survey – Determining traditional medicine use in a tertiary academic hospital (Charlotte Maxeke Johannesburg Academic Hospital)”: INVEST Undergraduate Research Expo, Johannesburg, South Africa, 2019.
- A poster entitled “A literature review: Precision-dosing and its implications on Clinical Pharmacy”: INVEST Undergraduate Research Expo, Johannesburg, South Africa, 2019.
- A poster entitled “Knowledge, attitude and perception of religious constraints on the prescribing and dispensing practices of final year health sciences students”: INVEST Undergraduate Research Expo, Johannesburg, South Africa, 2019.
- A poster entitled “Telepharmacy: A Model for Contraceptive Education in Rural Areas”: INVEST Undergraduate Research Expo, Johannesburg, South Africa, 2019.
- A poster entitled “DOSE: Designing an Electronic Prescribing Software System”: INVEST Undergraduate Research Expo, Johannesburg, South Africa, 2019.
- A poster entitled “The Use of Methadone and Cannabis in Treating Opioid dependence: A Comparative Literature Review”: INVEST Undergraduate Research Expo, Johannesburg, South Africa, 2019.
- A poster entitled “Literature Review or Survey: The management of Community and Hospital Acquired Pneumonia (CAP/HAP) in private and public hospital settings in South Africa”: INVEST Undergraduate Research Expo, Johannesburg, South Africa, 2019.
- A poster entitled “Greenfreeze: Pharmaceutical Cold Chain Maintenance – An intervention study”: INVEST Undergraduate Research Expo, Johannesburg, South Africa, 2019.

- A poster entitled: Pilot B: Determining traditional medicine use in a tertiary academic hospital (CMJAH). INVEST Undergraduate Research Expo, Johannesburg, South Africa, 2020 [Online].
- A poster entitled: PharmApprentice PharmBase – Rapill - Completion, analysis and testing of a pill counting machine prototype. INVEST Undergraduate Research Expo, Johannesburg, South Africa, 2020 [Online].
- A poster entitled: Designing and developing a mobile application for the visually impaired to assist with identification and administration of medication. INVEST Undergraduate Research Expo, Johannesburg, South Africa, 2020 [Online].
- A poster entitled: Knowledge, Attitude and Perceptions of Healthcare Professionals Regarding Traditional Medicine Use Among South African Patients at Charlotte Maxeke Johannesburg Academic Hospital. INVEST Undergraduate Research Expo, Johannesburg, South Africa, 2021 [Online].
- A poster entitled: A survey: Determining traditional medicinal plant use in a tertiary academic hospital (Charlotte Maxeke Johannesburg Academic Hospital). INVEST Undergraduate Research Expo, Johannesburg, South Africa, 2021 [Online].
- A poster entitled: A global review of the recorded interactive antimicrobial profiles of conventional antimicrobials in combination with natural products. INVEST Undergraduate Research Expo, Johannesburg, South Africa, 2021 [Online].
- A poster entitled: Antimicrobial interactive studies on medicinal plants commonly used in Johannesburg, in combination with conventional antimicrobials. INVEST Undergraduate Research Expo, Johannesburg, South Africa, 2022.
- A poster entitled: Antimicrobial interactive studies on medicinal plants commonly used in Kwa-Zulu Natal, in combination with conventional antimicrobials. INVEST Undergraduate Research Expo, Johannesburg, South Africa, 2022.
- A poster entitled: Traditional, medicinal plants from South African *muthi* markets: integrative medicine approaches to infectious diseases. The 82nd FIP World Congress of Pharmacy and Pharmaceutical Sciences, Cape Town, South Africa, 2024.

5.6 Patents

Patent label	Year	Registered Yes/No
N/A	N/A	N/A

5.7 Articles in non-refereed/ non-peer-reviewed journals/Electronic work, like app development/YouTube channels

Source	Detail of involvement
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News article published in The Conversation, 29 August 2023.	“South Africa's traditional medicines should be used in modern health care” https://theconversation.com/south-africas-traditional-medicines-should-be-used-in-modern-health-care-211382 .
Opinion piece published in Wits Research News 30 August 2023, entitled: “Traditional medicines should be used in healthcare”	Using centuries of indigenous knowledge along with modern healthcare could benefit more people.
Radio786 (100.4fm) Cape Town requested an interview to discuss topics brought forward in an article published in The Conversation on 29 August 2023.	A 10-minute Interview based on how traditional and home remedies can be incorporated into modern healthcare.
Radio786 (100.4fm) Cape Town interview 31 August 2023.	A 25-minute interview on the extent to which this knowledge is already being shared in our households and communities; whether home remedies fall into category of traditional medicine; challenges of people first using traditional medicines before conventional medicine; how to incorporate traditional medicine into mainstream medicine and changing mindsets.
SAfm radio interview 30 August 2023.	A 15-minute interview on South African traditional medicine as a resource to optimize patient healthcare coverage with radio presenter Koketso Sachane.
SmileFM (904fm) radio interview 4 September 2023.	A 20 minute interview with Benito Vergotine to provide listeners with some insight into the potential for integration of traditional and conventional medicine to assist in holistic treatment of South African patients and how a harmonious healthcare landscape would combine the strengths of both traditional and conventional healthcare systems to provide better and safer healthcare for all.

5.8 Technical Reports

Booth, Z., Shaikh, R., Padayachee, N., Choonara, Y.E., 2022. Resource inequities impacting pharmaceutical education. International Pharmaceutical Federation (FIP) toolkit for addressing inequities in pharmaceutical education: Achieving equitable, inclusive and quality pharmaceutical education for all. Digital toolkit accessed through: <https://www.fip.org/inequitiesineducation>. A new resource to help academic institutions, policymakers, educators, faculty members and students address inequities in pharmaceutical education is launched by the International Pharmaceutical Federation (FIP) today. *The Hague, 9 September 2022* —

5.9 Other contributions/ reports (e.g. Policy reports, development of data sets, electronic resources)

N/A

5.10 Research: scholarly presentations at congresses

Name, place and date of conferences and titles of keynote/invited talks presented in the last two years:

Name	Place	Date	Title
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N/A	N/A	N/A	N/A
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	As keynote/ invited speaker	Other e.g. Chairing session or poster presentation
Number of local conferences attended in last five years:	0	0
Number of international conferences attended in last five years:	0	0

5.10.1 International (provide full list)

Publication and number	Impact factor	Contribution
N/A	N/A	N/A

5.10.2 Local

Publication and number	Impact factor	Contribution
N/A	N/A	N/A

5.10.3 Refresher/educational courses attended and presented.

Course	Year
Supervisors Course – Faculty of Health Sciences Research Office, Centre for Health Sciences Education (CHSE)	2018
Course Coordinators Workshop – through CHSE	2019
Good Clinical Practice (GCP) Basic Course – Wits Health Consortium and Academic Advance Training	2019
Research Ethics Training Curriculum Online Course – FHI360	2019
Assessors Course – through Centre for Health Sciences Education and Benita	2019
Qualitative Research Methodology using MAXQDA through Health Sciences Research Office and Professor Nicola Christofides	2019
Applied Statistical Methods using STATA and STATISTICA Course – through Health Sciences Research Office	2019
SAQA and SETA accredited Assessor Course through Accreditation and Training Services, Rivonia	2019
Early Career Academic Development Programme (ECAD) 2020 - through Centre for Learning and Training Development (CLTD)	2020
RedCAP Training Workshop - through RedCAP Team	2020
Publishing Webinar - through Emerald Publishing	2020
Postgraduate Supervision Workshop - through CLTD and Dr. Rajohane Matshedisho	2020

Project Planning in the Research context by Dr Rob Drennan - through CLTD and ECAD Programme	2020
T4T Webinar – Quickly Moving Content Online - through CLTD	2020
T4T Webinar – Creating Groups and Adding Teaching Assistants – through CLTD	2020
T4T Webinar – Using Turnit in for Assessments – through CLTD	2020
T4T Webinar – MS Teams and MS Streams – through CLTD	2020
Online Assessments in Moodle Workshop – through eFundanathi	2020
Randomized Questions in Moodle Webinar – through eFundanathi team	2020
Facilitation in the Remote Teaching Environment - through CLTD and ECAD Programme	2020
Online, Social Media and Interactive Document Learning, Teaching and Facilitation - through CLTD and ECAD Programme	2020
Funding Landscape within South African Higher Education Space - through CLTD and ECAD Programme and Dr. Rob Drennan	2020
Evaluating remote teaching - Keeping track of how we're doing - through CLTD	2020
Being an Academic Scholar or a Scholarly Academic - through CLTD and ECAD Programme	2020
Curriculum Development Course 0 – Learning and Teaching Philosophies – through CLTD	2020

Course	Year
Curriculum Development Course 1 – Curriculum Orientations and Principles Underpinning Curriculum Design – through CLTD	2020
Curriculum Development Course 2 – Open Pedagogies – through CLTD	2020
Curriculum Development Course 3 – Assessment for learning in Higher Education – through CLTD	2020
Curriculum Development Course 4 – Curriculum Design - through CLTD	2020
Postgraduate Supervision Workshop – through CLTD and Terri Carmichael	2020
Facilitating Online Accredited Course 2020 B - through CLTD	2020
Reflective Practice for Professional Development - through CLTD and ECAD Program	2020
Assessor Course for CPD entries through The South African Pharmacy Council (2020). Learning Activities for Student Collaboration on Moodle – through the eFundanathi team	2020
Developing and Teaching Online Courses – Enrichment Course – through Magna Publications	2020
Publishing Trends & How to get Published in Academic Journals Course – through the Taylor and Francis Group	2020
Enhancing Postgraduate Research Supervision – through CLTD – Dr Mupowase and Dr. Ojo	2020
ECAD Writing Retreat – through ECAD by Dr. Cheryl Chamberlain	2020
Grammarly Software Introductory Workshop through Grammarly Design Team	2020

The Science and Business of Biotechnology (15.480x) Online Course - through edX and the Massachusetts Institute of Technology (MIT), VALID CERTIFICATE ID 877939cafce54af4b50bc9d8537928cd.	2020
Canvas LMS Training through Centre for Health Sciences Education	2021
National Department of Health Knowledge Hub online course: COVID-19 Vaccination Training for Health Workers	2021
ECAD Writing Retreat – through ECAD by Prof. Hayley Gewer	2021
21 st Century Teaching and Learning Course through eFundanathi (March to May 2022).	2022
Career Development Workshop presented by Prof. Myezwa (School of Therapeutic Sciences).	2022
TRREE ethics training 2022 (Clinical Trials Centre), The University of Hong Kong	2022

5.10.4 Other – e.g. chairing or organising of conferences.

Conference	Year	Contribution
N/A	N/A	N/A

5.11 Research Grant Funding

5.11.1 Research projects in progress

Title of project/ award	Grant source	Amount of Funding	Purpose of grant	Year/s active	Own Role	Collaborators
Traditional medicine use in two public South African hospitals: Prevalence and interactive antimicrobial and toxicity studies for combinations with conventional antimicrobials.	National Research Foundation Thuthuka PhD Track Funding	URC = R104 625; NRF = R104 625 renewed for 3 years.	Completion of research to achieve a postgraduate degree (PhD).	2022 to 2024	Principal investigator	Supervisor: Prof S. van Vuuren Co-supervisor: Prof. S. Essack
Traditional medicine use in two public South African hospitals: Prevalence and interactive antimicrobial and toxicity studies for combinations with conventional antimicrobials.	DHET UCDP/USD P grant hosted by the University of Pretoria	R500 000 over a 3 year period.	Completion of research to achieve a postgraduate degree (PhD).	2023 to 2025	Principal investigator	Supervisor: Prof S. van Vuuren Co-supervisor: Prof. S. Essack

5.11.2 List of all completed grants (please include any other grant/s)

Donator	Amount	Year
University of the Witwatersrand, Faculty Research Committee (FRC) Individual Grant	R 12 000	2019
Early Career Academic Development (ECAD) Program Start Up Funding	R 25 000	2020

University of the Witwatersrand, Faculty Research Committee (FRC)	R 12 000	2020
Faculty of Health Sciences Research Office Start-up Research Funding	R 30 000	2020

5.12 This criteria is only applicable for application to full Professor

List five (5) of your best peer-reviewed publications

Publication	Impact factor	Contribution
N/A	N/A	N/A

6 University/Faculty Leadership, Management and Academic Citizenship

This section should focus largely on your faculty/university wide and associated activities, including transformation initiatives, while those related to the wider community, including clinical services and management, should be included under the Social Responsiveness section.

ADMINISTRATIVE DUTIES

- 3rd Bachelor of Pharmacy year coordinator role as of 2022.
- Pharmacy Practice I course (PACY2002) coordinator (July 2018 – 2020).
- Pharmacy Practice II course (PACY3002) coordinator (July 2018 – present).
- INVEST program coordinator (July 2018 - present).
- PharmApprentice program coordinator (July 2018 – present), requiring collaboration with various external stakeholders, such as Aspen Pharmacare.
- Simulation Pharmacy coordinator, involved in upkeep, ensuring correct equipment availability and resources required in the facility for quality simulation based teaching.

PROFESSIONAL SOCIETIES / ACADEMIC CITIZENSHIP

- Active member of the Pharmaceutical Society of South Africa (PSSA) Southern Gauteng Branch.
- Registered on Editorial Manager (EM) system as an examiner for the *South African Journal of Botany*, 2021.
- Assessor of Continuing Professional Development (CPD) submissions by pharmacy interns with the South African Pharmacy Council (SAPC) since 2019.
- South African Pharmacy Council (SAPC)
 - A pharmacist registered as practicing with the SAPC.
 - A registered tutor for pharmacy interns.
- Sector representatives for Academia with the PSSA Southern Gauteng Branch for 2021.

- Registered on Editorial Manager (EM) system as an examiner for the *International Journal of African Nursing Medicine*, 2022.
- Registered on Editorial Manager (EM) system as an examiner for *Exploratory Research in Clinical and Social Pharmacy*, 2022.
- Appointed as moderator for BHS Pharmacology course content and assessments for Chiropractors at the University of Johannesburg as of 2023.
- Appointed as an external examiner of postgraduate dissertation or research report submissions from Sefako Makgatho Health Sciences University.
- Appointed as moderator for the Pharmacology for Chiropractors, Department of Complementary Medicine, University of Johannesburg.

LIST OF COMMUNITY AND SERVICE WORK

a. INVEST Career and Mentorship Program:

The Pharmacy Practice team ensures the running of a program called INVEST, which essentially is a student career mentorship program, as well as a platform to allow for students to network and interact with various key professionals in the field of pharmacy. Various pharmacists from different fields within pharmacy are brought in to talk to the students and to enlighten students on the various career opportunities after qualification. INVEST has been extremely successful since inception in 2017, and as such, the INVEST team was shortlisted for the VC Academic Citizenship Award for 2018.

b. PharmApprentice Coordinator:

In BPharm III, the Pharmacy Practice division facilitates the PharmApprentice program, developed by Pharmacy Practice as a novel approach to teaching and learning and aims to teach students to develop the skills necessary to contribute to pharmaceutical business and its growth. Within the third year Pharmacy Practice curriculum, students are required to create a novel pharmacy related business idea. Students are required to prepare funding pitches and idea proposal pitches to various high profile external stakeholders.

c. SAPC tutoring of pharmacy interns:

As a SAPC tutor, I have to supervise interns in their completion of their internship. Interns need to complete 6 CPDs, along with passing the intern exam and also undertaking 400 hours in a pharmacy as academic interns. This all needs to be overseen by the tutor. Tutors are required to submit progress reports, verify CPD submissions and prepare interns for their exam. There is also a large amount of admin associated with being a tutor.

Intern name	SAPC number	Year of registration	Masters Division
S. Ranjith	P60647	2024	Clinical Pharmacy
P. Moyo	P55134	2023	Pharmacy Practice
M. Laher	P60667	2023	Pharmaceutical Microbiology
M. Mathoho	P58339	2023	Pharmacy Practice
J. Maharaj	P55050	2022	Clinical Pharmacy
L. Singh	P49502	2021	Pharmaceutical Microbiology
N. Hoosen	P23640	2021	Pharmaceutical Microbiology

N. Ganga	P48590	2020	Clinical Pharmacy
T. Maniki	P50615	2020	Clinical Pharmacy
N. Lekoloane	P47670	2020	Pharmaceutics

6.1 Personal, reflective statement summarising your approach and contributions to leadership and management.

Having worked in government at a public sector medical depot, I was given many opportunities to take on a leadership role in my capacity as a pharmacist. I was exposed to a politically heated work environment, with many different personalities to manage. This experience developed the foundation on which I am now developing my leadership and management approaches. I prefer to take on a modern view of management. When faced with needing to lead a team, students, or other staff, I find myself encouraging active participation in decision making. I think that leading a team is much easier when you have gained their respect, and this can only be achieved through treating others respectfully and professionally. Allowing for individuals to easily communicate or voice concerns creates a positive working environment, where group decision making allows for everyone to feel valued, rather than being instructed to do a particular task.

This submission now is for my final probation report only; hence I have only included a testimonial from one of my main mentors in the workplace. For promotion, more testimonials will be included testifying to leadership and management skills.

Testimonial: Mrs Rubina Shaikh (Divisional colleague):

Since her appointment, Mrs. Booth has sought to improve her teaching and supervision skills by attending various workshops and courses offered through the University. Zelna has specifically focused on improving her supervision capacity in this manner through enrolling in the ECAD program. Zelna has also embraced using blended learning in her approach to teaching. Zelna has ensured the successful running of the PharmApprentice program in the Department and is currently focusing on developing a simulation pharmacy approach to teaching. Furthermore, her independent assessment by the Faculty of her teaching clearly indicates that she falls above the university average and for a newly appointed member of staff, this should be commended.

Zelna is the current year coordinator for the third year BPharm degree. Zelna has held many administrative roles within her division. She is currently the coordinator for the 3rd year Pharmacy Practice course, is an active member of the INVEST Committee and steering the PharmApprentice program. Although, these are administratively demanding she has shown a drive to innovate her teaching methods by coordinating and driving the PharmApprentice program, which involves teaching pharmacy students an entrepreneurial approach to pharmacy. Through this program, Zelna has been actively involved in sourcing relevant external stakeholders who are able to contribute to the PharmApprentice Program and better the curriculum for the pharmacy students. Zelna has submitted and had approved her PhD protocol, completed her KZN and JHB survey data collection and is currently working on the last part of data collection from *in vitro* laboratory studies. Zelna has supervised a number of PG students and contributed to innovation in teaching. Zelna is friendly and approachable. She integrates well with the staff and has a positive relationship with her colleagues. She is a dedicated team player within the Division. Zelna is readily available to both other staff and students. When not in her office, it is clearly noted on her door if she is attending meetings or teaching. Zelna has an open-door policy for students and is readily available to students for consultations. Zelna has assisted colleagues throughout 2022 to ensure continuation of course delivery and postgraduate supervision for fellow divisional members taking on a sabbatical and maternity leave during 2022. Zelna has met and exceeded the expectations as per the appointment letter. She fulfils her role exceptionally. She is dynamic and up to date with her

teaching. She is currently on her way to her PhD and her research publications are gaining momentum. Zelna could be assisted with a decreased workload so she can pursue her research. She is currently inundated with the teaching and administration. Zelna will also benefit from funding to drive her research.

Mentor: Mrs. Rubina Shaikh



6.2 Divisional, departmental, faculty and university committees.

Committee	Contribution	Period
Third year working party committee (Faculty of Health Sciences).	Coordinator for the BPharm3 program.	2021 to current.
INVEST Career and Mentorship Program	Committee member.	2018 to current.
PharmApprentice Program	Co-ordinator.	2018 to current.

6.2.1 Programme/Course Convenorship, including co- or deputy

Year	Programme	Number of students	Your specific contributions
2019 to current	Pharmacy Practice II (PACY3002)	2019 (70 students) 2020 (85 students) 2021 (82 students) 2022 (66 students) 2023 (92 students) 2024 (94 students)	Ensuring quality assurance and continuous updating of Pharmacy Practice content delivered in the third year course, sourcing of external professionals and guest lecturers for an enriched course, demonstrating how content translates into the workplace, facilitating course logistics, venue bookings, scheduling, student communication liaison for course, relaying necessary information to Head of Department in relation to course or student issues with course, assisting in course content design and development, alignment of assessments and implementing a wide range of assessment strategies. Updating and ensuring the LMS course page is user friendly for students and includes all necessary information, course packs etc, collating of results and reporting of such as BoE and ensuring marks get uploaded to SIMS correctly. Ensuring that the course meets the exit level outcomes as stipulated by the South African Pharmacy Council and to ensure comprehensive record keeping for accreditation visits from Council. Setting of exams, tests, assignments and ensuring that students are receiving announcements and continuous communication pertaining to Pharmacy Practice logistics etc. Ensuring that students receive feedback on any assessment and availing of time for consultations with students to discuss any concerns related to the Pharmacy Practice course in BPharm3. Coordinate all activities related to the PharmApprentice program, a teaching initiative added to the third-year curriculum as an annual long assignment for students to develop business and entrepreneurial skills.

6.2.2 Departmental/Division Duties/Initiatives

Committee/ Initiative/ Working Group/ Department	Period	Role	Brief description of your activities and specific contributions/ initiatives/ outcomes/ impact
BPharm3 year coordinator	2021 to current	Year coordination	Administrative duties related to third year undergraduate curriculum, liaison between Faculty/School and respective third year course lecturers, attending administrative meetings and representing BPharm3 program at School level, relaying necessary information to departmental members concerning the third-year program, coordinating courses, lecture schedules and venue bookings. Mediating any concerns raised by BPharm3 students and escalating where necessary. Reporting of at-risk students, monitoring student performances and consulting with students needing additional assistance and referrals.
BPharm3 Pharmacy Practice course coordinator	2019 to current	Course coordination	Administrative duties related to the Pharmacy Practice course for BPharm3, liaison between all lecturers on the course and also Pharmacy Practice representative for department for the third-year program, attending administrative meetings and representing Pharmacy Practice for third year level, coordinating lecturers on the courses, ensuring lecture venue bookings, liaising with external lecturers on courses and undertaking logistical planning. Coordinating the PharmApprentice program within third year Pharmacy Practice curriculum, administrative duties related to the PharmApprentice initiative and liaising with external stakeholders and adjudicators. Mediating any concerns raised by BPharm3 students on course content and escalating where necessary. Reporting of at-risk students, monitoring student performances and consulting with students needing additional assistance and referrals.
INVEST	2018 to current.	Committee member	Ensuring the running of a program called INVEST, which essentially is a student career mentorship program, as well as a platform to allow for students to network and interact with various key professionals in the field of pharmacy. Various pharmacists from different fields within pharmacy are brought in to talk to the students and to enlighten students on the various career opportunities after qualification.
PharmApprentice	2018 to current.	Co-ordinator	Co-ordinating and facilitating the PharmApprentice program (a novel approach to teaching and learning and aims to teach students to develop the skills necessary to contribute to pharmaceutical business and its growth). Supervision and steering of 12 – 15 groups per year of students during creation of novel pharmacy related business idea. Students are required to prepare funding pitches and idea proposal pitches to various high profile external stakeholders.

6.2.3 Faculty Committees/Initiatives

Committee/ Initiative/ Working Group	Period	Role	Brief description of your activities and specific contributions/ initiatives/ outcomes/ impact
Third year working party (Faculty of Health Sciences, School of Therapeutic Sciences).	2021 to current	Year coordinator for BPharm3 program	Administrative duties related to third year undergraduate curriculum, liaison between Faculty/School and respective third year course lecturers, attending administrative meetings and representing BPharm3 program at School level, coordinating courses, lecture schedules and venue bookings. Mediating any concerns raised by BPharm3 students and escalating where necessary. Reporting of at-risk students, monitoring student performances and consulting with students needing additional assistance and referrals.

6.2.4 University Committees/Initiatives (last five years)

Period	Role	Brief description of your activities and specific contributions/ initiatives / outcomes/ impact
N/A	N/A	N/A

6.2.5 Other: Please identify any other activity, informal or formal, for which you find no place above, but which you judge **demonstrates your leadership/management capacity.**

Year	Activity & Purpose	Achievements so far	Your role and specific contributions
N/A	N/A	N/A	N/A

6.2.6 Transformation, for example but not limited to active participation as an employment equity representative on recruitment processes contributions

Initiative/ Process	Role	Contribution
N/A	N/A	N/A

6.3 Transformation contributions (publications by previously disadvantaged students support of previously disadvantaged students to attend conferences etc.)

Initiative/ Process	Role	Contribution
<p>The INVEST Program The INVEST Program is executed by a team of academics in the Pharmacy Practice division. I am one of the committee members in this team, implementing the INVEST program on an annual basis. The INVEST program is dedicated to involving pharmacy professionals from various fields in the pharmacy profession, with our student body, to motivate our students with showcasing prospective career paths. INVEST engages with the broader national community of pharmacy, such as the retail, hospital and community pharmacy sectors. International pharmacy scholars have also been involved in the provision of lectures/talks with the students on their experiences working as pharmacists abroad. The INVEST program not only invites external stakeholders to engage with students on campus, but also provides mentorship program coordinated by the INVEST committee, where each second-year student is allocated a member of staff in the department as an academic mentor for the remainder of the students degree. This gets announced at the White Coat Ceremony held by the INVEST team, where second year BPharm students are welcomed to medical campus and take the pharmacists oath.</p>	<p>Committee Member and Program Facilitator</p>	<p>Facilitate networking opportunities for the BPharm students, administrative and logistical planning for guest lecturers from various professional avenues in the field of pharmacy, facilitating the departmental mentorship program for second year students, running events such as the second year White Coat Ceremony and the end of year undergraduate research expo.</p>

6.4 Innovative Leadership and Management initiatives

Initiative & Purpose	Achievements so far	Your role and specific contributions	Year
<p>The PharmApprentice Program: In BPharm III, the Pharmacy Practice division facilitates the PharmApprentice program. It is a novel approach to teaching and learning and aims to teach students to develop the skills necessary to contribute to pharmaceutical business and its growth. Research has indicated that the practice of pharmacy is moving away from large corporations and more toward the development of smaller community based initiatives and start-ups. To succeed in this new environment, pharmaceutical 'entrepreneurs' need to acquire the skills to grow and sustain a business</p>	<p>Each year, there is throughput of approximately 13 to 15 innovative group business ideas presented. Since the program started, we have collaborated with Aspen Pharmacare to support the project. The program has received attention on social media and among external stakeholders that we have been recruited to adjudicate and assist groups in refining and potentially commercialising their ideas. Adjudicators include executives of Aspen, Massmart, Fagron, Mylan, Tautomer, Adcock Ingram, SAPC, Discovery Health, Kiara Health and many more. There have currently been 4 teams that have taken their PharmApprentice ideas further into 4th year</p>	<p>Coordinator</p>	<p>2019 to current</p>

<p>effectively. In order to address this, the Pharmacy Practice team, in collaboration with WITS School of Commerce, Law and Management, developed the third year PharmApprentice program. This program encourages students to develop a unique business venture and create a pitch-worthy business plan to attract start-up funders.</p>	<p>elective research projects, 1 has progressed to a Masters level and 1 project progressed further with collaboration from Wits Enterprise to secure R100 000 funding through their pitch with Prospectus@Wits. Social media accounts can be seen below: https://www.wits.ac.za/news/latest-news/research-news/2021/2021-07/wits-graduates-awarded-start-up-capital-for-pharmacy-innovation.html https://www.iol.co.za/the-star/news/wits-graduates-create-automated-pill-dispensing-counter-91ec79c9-6e58-4b1b-b012-38770f26dfaf https://www.bioeconomy.co.za/news/wits-graduates-awarded-start-capital-pharmacy-innovation</p> <p>The Pharmacy Practice team also presented on the program at the School of Therapeutic Sciences I3 (Innovation in Teaching and Learning) Symposium and was awarded first place. Each year the group assessed as the winning idea for the year gets awarded a sponsored trip to the Aspen manufacturing plant in Gqeberha for two days, as well as an award of a medallion and one ounce silver coin from the Gold Reef City Mint at the Schools Awards Ceremony. Dr Stavros Nicolaou, Senior Executive for Strategic Trade at Aspen stated that, “PharmApprentice ensures that the WITS pharmacy degree becomes a catalyst for positive economic development in South Africa. It lays the foundation for pharmacists to embrace entrepreneurship and the Fourth Industrial Revolution [4IR]. Aspen is committed to youth empowerment and economic growth and the PharmApprentice programme builds business capability among new pharmacy graduates.”</p>		
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7 Social Responsiveness

7.1 Professional services/editorial boards/journal reviewer

Entity	Role	Year
South African Journal of Botany	Reviewer	2019 to current
Zeitschrift für Naturforschung C	Reviewer	2019
International Journal of Africa Nursing Sciences	Reviewer	2022
Exploratory Research in Clinical and Social Pharmacy	Reviewer	2022 to current
Research in Administrative and Clinical Pharmacy	Reviewer	2022 to current
South African Pharmaceutical Journal	Reviewer	2024 to current
Plos One	Reviewer	2024 to current
CPD assessor for Pharmacy Interns with the South African Pharmacy Council	Assessor	2020 to current
Pharmaceutical Society of South Africa (Southern Gauteng Branch) Academic Sector Representative	Academic Sector Representative	2021 to 2022

7.2 Community outreach

Community	Contribution	Year
N/A	N/A	N/A

7.3 Policy input and advocacy for policy reform

Policy category	Contribution	Year
N/A	N/A	N/A

7.4 Public service and/or systems development

Department/Unit	Contribution	Year
N/A	N/A	N/A

7.5 Public information and discourse

Web URL //Source	Content	Year
https://www.wits.ac.za/news/latest-news/general-news/2019/2019-02/so-you-think-you-can-pharma-wits-pharmacy-students-pitch-solutions.html	PharmApprentice is a curriculum innovation where Wits Pharmacy students develop entrepreneurial skills in a competition enabled by Aspen Pharmacare.	2019
https://www.fip.org/inequitiesineducation .	FIP toolkit for addressing inequities in pharmaceutical education. Digital toolkit accessed on: https://www.fip.org/inequitiesineducation . A new resource to help academic institutions, policymakers, educators, faculty members and students address inequities in pharmaceutical education is launched by the International Pharmaceutical Federation (FIP) today. <i>The Hague, 9 September 2022</i> —	2022

7.6 Professional/National/International/Editorial Committees

Entity/Committee	Role	Year
N/A	N/A	N/A

7.7 Joint Academic Clinical Practice: Describe your contribution to enhancing clinical academic practice across the clinical service platform - where applicable.

N/A

8 Honours, awards, prizes, noteworthy recognitions

Name of Award	Year
Golden Key International Honours Society Membership	2010
UPD Pharmacy Medal	2010
Academy of Pharmaceutical Sciences of the Pharmaceutical Society of South Africa Medal	2010
University Council Merit Scholarship	2011
Sandoz Pharmacia Pharmacotherapy Award	2011
School of Therapeutic Sciences, Faculty of Health Sciences, University of the Witwatersrand Biennial Report showcase of my MPharm success	2013/2014 edition
Faculty of Health Sciences, University of the Witwatersrand "Most Prestigious Postgraduate Degree Award"	2014
Early Career Academic Development (ECAD) Program Member (University of the Witwatersrand Centre for Learning and Teaching)	2020
School of Therapeutic Sciences, University of the Witwatersrand, Mentoring Excellence Award	2020
School of Therapeutic Sciences, University of the Witwatersrand, Innovation Teaching and Learning Symposium finalist (group category)	2021

9 National and International collaborations

Collaborator	Country	Year
Ian Cock	Australia	2014
Sabiha Essack	South Africa (KwaZulu Natal)	2019 to current
Alison Ubong Etukakpan	The Hague, Netherlands (International Pharmaceutical Federation)	2022 to current
Gugulethu Khumalo	Switzerland	2022 to current

10 Clinical Academic Practice – where applicable

Institution /Department/Unit	Contribution	Year
N/A	N/A	N/A

11 Referees

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