



DURBAN UNIVERSITY OF TECHNOLOGY  
INVUVESI YASETHEKWINI YEZOBUCHWEPHESHE



FACULTY OF  
APPLIED  
SCIENCES

# 2024 TOP ACHIEVERS

FACULTY OF APPLIED SCIENCES

UNLOCKED EXCELLENCE # ADAPTIVE GRADUATES

ENVISION2030

transparency • honesty • integrity • respect • accountability  
fairness • professionalism • commitment • compassion • excellence

CREATIVE. DISTINCTIVE. IMPACTFUL.

# MESSAGE FROM THE EXECUTIVE DEAN

**Prof. Suren Singh**  
Executive Dean  
Faculty of Applied Sciences

This launch of the Top Achievers Bulletin 2024 provides an in-depth look at the remarkable accomplishments of the top achievers from the Faculty of Applied Sciences at the Durban University of Technology. It underscores the academic excellence and future ambitions of graduates from a variety of programmes, presenting a holistic view of success in the realms of science and technology education. Through detailed individual profiles, readers are invited to explore the commitment, diligence, and enthusiasm that have driven these graduates to excel academically.

These profiles not only highlight the academic feats achieved by these top scholars, but they also share their personal journeys, philosophies of study, and how their education has shaped their future career paths. By examining their experiences, challenges, and motivations, the document tells a compelling story of resilience, perseverance, and the relentless pursuit of knowledge within applied sciences. The variety of programmes and research disciplines showcased reflects the university's dedication to promoting innovation, creativity, and high standards of excellence among its students. These top achievers exemplify the transformative nature of education and the unwavering spirit of those who aspire to exceed expectations. Their narratives inspire admiration and serve as guiding lights for future scholars, emphasising the infinite possibilities within science and technology.

As we laud the accomplishments of these exceptional individuals, we are reminded of the crucial role education plays in shaping minds, fostering creativity, and advancing societal progress. The academic rigour, quest for knowledge, and development of critical thinking skills exhibited by these graduates, reflect the core principles of the university and its Faculty of Applied Sciences. Their success symbolizes not just personal achievement, but also the collective influence of a nurturing academic environment that embraces a culture of excellence.

A heartfelt thank you to everyone in my faculty: academics, supervisors, co-supervisors, research staff, technical staff, tutors, support staff, administrators, and faculty office staff. Your contributions keep our "Educate, Engage, and Innovate" mantra alive for the faculty. Your dedication and tireless efforts in the higher education sector are deeply appreciated.



To all staff from supporting sectors across the university, your impact on the growth of the Faculty of Applied Sciences is greatly valued.

**Congratulations to all the top achievers for their significant accomplishments! May their journeys continue to inspire future generations of students to aim high and create a meaningful impact in their respective fields.** The Faculty of Applied Sciences stands as a pillar of academic excellence, dedicated to cultivating the next generation of leaders, researchers, and innovators who will shape a better tomorrow with their knowledge, skills, and commitment to greatness.



# Autumn Graduation

21 May 2024



## CUM LAUDE STUDENTS

### DEGREE OF MASTER OF APPLIED SCIENCE IN BIOTECHNOLOGY

FANZHI	WANG	84
SUEYENKA	SUBROYEN	75

### DEGREE OF MASTER OF APPLIED IN FOOD SCIENCE AND TECHNOLOGY

NAAZNEE	MOHAN	79
SONAAL	RAMSOOKMOHAN	80

### DEGREE OF BACHELOR OF APPLIED SCIENCE HONOURS IN BIOTECHNOLOGY

RAYHAAN	GOVENDER	75
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### DEGREE OF BACHELOR OF APPLIED SCIENCE HONOURS IN TEXTILE SCIENCE

LINDOKUHLE EDWARD	NTUZELA	78.80
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### POSTGRADUATE DIPLOMA IN INTERNATIONAL SHIPPING

TREVOR STHEMBISO	MTHEMBU	75.30
BOIKHUTSO LEON GEORGE	REKHOTSO	74.50

### DEGREE OF BACHELOR OF APPLIED SCIENCE IN BIOTECHNOLOGY

NIRAV	BADAMI	81.10
KALEN JOSEPH	CHETTY	77.80
MENZI	RADEBE	75
AMELIA ANNE	SINGH	76.20
SHRIYA	SOOJAN	76.60

### DEGREE OF BACHELOR OF APPLIED SCIENCE IN FOOD SCIENCE

LENISHA	GOVENDER	78.30
NISHIKA	NAIDOO	74.90

### ADVANCED DIPLOMA IN MARINE ENGINEERING

PAULUS HAINDOMBO	DESIKEYA	79.70
SPHELELE NIKIWE	JOBE	75.70

### ADVANCED DIPLOMA IN NAUTICAL STUDIES

SBONGISENI ROBERTSON	LANGA	76.20
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### ADVANCED DIPLOMA IN SUSTAINABLE HORTICULTURE

NTOMBENHLE PRETTY	SHANGE	76.90
WENZELE MANQOBA	CEBEKHULI	74.90
XOLANI	MASEKO	74.50

# Autumn Graduation

21 May 2024



## CUM LAUDE STUDENTS

### DIPLOMA IN ANALYTICAL CHEMISTRY

EMIHLE KAMVA	FLATELA	78.90
REBECCA MAPHEFO	NKOMO	75.90

### DIPLOMA IN CONSUMER SCIENCE FOOD AND NUTRITION

RIASHNIE	THAVER	90
MUKELWA LUSANDA	MAGWAZA	74.70
USAMKELE	NTLATYWA	77.60

### DIPLOMA IN NAUTICAL STUDIES

AVIWE	DUBE	80.70
NOMPUMELELO HAPPYNESS	LEMBETHE	79.30
HALALISILE	MBOKAZI	76.30
ASIPHE	MLAMBO	80.20
ZANELE INNOCENTIA	NYEMBE	76.00
VIBHAV	RAMSANDER	78.80
KWANELE	SIBIYA	76.80
NOMBUSO SANELISIWE	TENZA	76.60

### DIPLOMA IN SHIPPING AND LOGISTICS

KIRUSHA	GOVINDASAMY	80.80
THOBANI SIPHIWE	MBATHA	78.20
SIKHULILE AKHONA	MKHWANAZI	76.90
SIKHATHESIHLE BANELE	NSIBANDE	79.40

### DIPLOMA IN SUSTAINABLE HORTICULTURE AND LANDSCAPING

KEIRRA	SAMSUNDER	77.10
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### HIGHER CERTIFICATE IN SPORT SCIENCES

NOLUTHANDO PRUDENCE	SHONGWE	84.50
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### HIGHER CERTIFICATE IN APPLIED SCIENCES

SPHAMANDLA QINISO	BIYELA	80.4
ELIHLE	BADISI	76.7
OLWETHU AMANDA	HADEBE	75.3
MLONDI DALINGCEBO	KHANYILE	76.6
APHIWE NKULULEKO	MKHIZE	74.8
MAKI AMAHLE	NDLOVU	75.4
KHAYA SIPHAKAMISE	NGCOBO	75.1



# FACULTY OF APPLIED SCIENCES AUTUMN GRADUATION

## DOCTORS OF PHILOSOPHY IN CHEMISTRY



**Dr Phathisanani Hloma**

Title of thesis: Development of electrochemical biosensors for sweeteners using engineered nanomaterials supported by computational modelling.

**Research Impact:**

- Publication in a Q I-ranked journal with a high impact factor
- Presentations at a national and international conference
- Collaboration with Mintek



**Dr Nhlanhla Hlongwa**

Title of thesis: Fate and removal of emerging contaminants during chlorination of drinking water.

**Research Impact:**

- 2 published research papers in high impact journals and international conferences



# FACULTY OF APPLIED SCIENCES AUTUMN GRADUATION

## DOCTORS OF PHILOSOPHY IN BIOTECHNOLOGY



**Dr Karen Reddy**

Title of thesis: Efficacy and mechanisms of antiretroviral drugs removal by algae from wastewater treatment plants.

**Research Impact:**

- 2 publications in high impact factor journals
- 1 book chapter
- 2 international conference presentations



**Dr Shisy Jose**

Title of thesis: Cyanobacteria-microalgae consortia as bioinoculants for enhancing soil fertility and plant growth.

**Research Impact:**

- 3 publications in high impact factor journals
- 1 peer-reviewed book chapter





## Degree of Doctor of Philosophy in CHEMISTRY

**Dr Lyndon Naidoo**

### Title of thesis: Development of electrochemical sensors for the detection of mycotoxins in food matrices using functionalist nanocomposites

I am an eligible PhD graduate based in the Department of Chemistry under the Faculty of Applied Sciences. My PhD supervisors are Prof Krishna Bisetty (DUT), Dr Florian Meier (Postnova Analytics, Germany) and Dr Gloria Uwaya (DUT). I grew up and reside in Durban. With regard to my work, I specialize in Nanotechnology, with expertise in the Analytical Separation Sciences pertaining to Multidetector Field-Flow Fractionation and single particle ICP-MS. I also have interests in the development of electrochemical biosensors as well as computational modelling, with the broader goal being to align the above approaches in a synergistic manner to contribute to the food and health sectors in South Africa.

DUT has always fostered a reputation for upholding a very hands-on approach in terms of applying what we learn in our studies to real life. This ethos, along with strong relations in both industry and academic sectors, makes this institution a very attractive option for upcoming students, like me earlier in my career, looking to make a difference in their lives and others.

As a child, I have always been fascinated with how and why things work the way they do, drawing me to reading science books and wanting to have my own simple chemistry set. This curiosity continued as I got older, with me learning how broadly chemistry is applied in everyday life. In the end, I've simply been catapulted into a career where I just get to learn, work and have fun all at the same time! In my work, I aim to contribute towards establishing food and health safety regulatory frameworks in South Africa through an ongoing SA-Germany collaboration through research outputs arising from my work. Further, being involved in the science and technology field, which itself is a scarce skill sector, I aim to



**“I have simply been catapulted into a career where I just get to learn, work and have fun all at the same time.”**

help establish further local and international partnerships and contribute to our country's skills development. Firstly, I believe that the importance of balance and rest can be understated in the life of a student and an academic in general. While it may be admirable to want to spend as much time on a task as possible, there comes a point where burnout can play a factor and inhibit you from working to the best of your ability. Others may have a different perspective, but I just feel it's better to put yourself and your mind in as best condition as possible to perform a task, with total cognisance of the time and effort it would take in one's own true capacity.

I am an active member of the DUT Chemistry Community Engagement group, where the group visits local schools in the greater KZN area and teaches and conducts Physical Science practicals for matriculants.

In 2021, I travelled to Germany for a research visit where I underwent training in analytical field-flow fractionation analyses for three weeks at the Postnova Analytics headquarters in Landsberg as part of my PhD work.





#### **External Awards:**

- Winner - Mail & Guardian 200 Young South Africans 2021 • Science & Technology, June 2021

- Member - Golden Key International Honour Society, July 2021

#### **Institutional Awards:**

- Chancellor's Award – in Recognition of Innovative Excellence in the Category of Engagement - Community Engagement : Science Practicals, issued by Durban University of Technology, November 2019

- Cum Laude, Dean's Merit Award - Master of Applied Sciences in Chemistry, issued by Faculty of Applied Sciences, 2021

- Masters Student of the Year – 78%, 2 publications, qualification completion in 2 years - Master of Applied Sciences in Chemistry, issued by Faculty of Applied Sciences, 2021

- Graduated with Cum Laude and Dean's merit for my PhD in Chemistry for the Autumn grad 2024.





## Degree of Master of Applied Science in BIOTECHNOLOGY

**Fanzhi Wang**

**CUM LAUDE & DEANS MERIT**

Fanzhi Wang, who originates from China, was acknowledged for his academic excellence at the DUT 2024 Autumn Graduation ceremony, which was held at the Olive Convention Centre on Tuesday, 21 May 2024.

The 25-year-old graduated Cum Laude and obtained the prestigious Dean's Merit Award for academic excellence with his Master's Degree in Biotechnology. His journey with DUT commenced in 2018 and he has since obtained his Diploma, Bachelor of Technology (BTech) and Honours degree. For Wang, he had a passion for Biotechnology from a young age. He was always fascinated by the conceptualization of Biotechnology.

The title of his research was: Increasing catalytic activity of a fructosyltransferase using site directed mutagenesis. Apart from having to adapt to the new country's way of doing things, Wang shared that during his time of study he faced a trying time in terms of purchasing the materials needed for his research which was time-consuming and also had brought about delays in the research progress. Nonetheless, he said he fully embraced all the challenges that came with being a student. "University is a fantastic platform that not only offers many opportunities for study, but also a long-time experience that makes life precious.

I would like to advise new first years students to not hesitate to be armed with all the vital information, to be professional in their study area and to better understand themselves with the type of life that they want to lead," he said. His career goals include becoming a specialist in the field of Biotechnology and working as a lecturer.

Sharing his thoughts on DUT's ENVISION2030 principles and values, he relayed that he associates with honesty, integrity, professionalism and excellence the most. "As a postgraduate student, one needs to show the ability to make progress in the forefront of this professional field and have some achievements. The honesty and integrity are basic attitudes for someone to conduct research while professionalism and excellence should be achieved after a period of postgraduate training in skills," he concluded.



**"University is a fantastic platform that not only offers many opportunities for study, but also a long-time experience that makes life precious."**



## Bachelor of Applied Science Honours in TEXTILE SCIENCE

**Lindokuhle Ntuzela**

**CUM LAUDE & DEANS MERIT**

My name is Lindokuhle Edward Ntuzela, I am 31 years old and from Pinetown. I am a Textile Technician with experience in the field of textiles. I am a highly motivated individual that is driven by innovations, and research and I am not afraid of new challenges and ways to mitigate those challenges for better outcomes. My strengths include the ability to work under immense pressure and still deliver a great outcome and also the ability to retain knowledge.

My journey at DUT has been good with great support from my family and lecturers as I embarked towards my Honours Degree. I am excited but also relieved as I set graduating with a Cum Laude as a target from the beginning of my studies.

### **The DUT value I associate with is:**

Accountability- We are responsible for everything in our lives that we associate with, therefore always set your targets higher than your expectations to account for the positive things that happen to you, especially in the academic discipline.

Since I did the qualification as a full-time employee at DUT, it was difficult to balance the academic work with a full-time job, hence it made it difficult to have sufficient time to study fully. It is a requirement to get to a master's level, I needed to do the qualification, in addition to furthering my expertise and research.

I play to study further, to become more proficient in all aspects of textile manufacturing processes by seeking opportunities for career advancement and professional development to stay updated on the industry trends and technological advancements contributing to innovation and sustainable production methods research efforts within the industry. To anyone wishing to follow the same career path, there is a lot of negativity due to the lack of employment in South Africa and wanting to obtain a degree but continue to press forward and embark on your journey with a positive attitude.

I am currently working at DUT as a Technician, my duties are assisting with lecturing and assisting in the laboratory with student practicals.



**“I am excited but also relieved as I set graduating with a Cum Laude as a target from the beginning of my studies.”**





# Degree of Bachelor of Applied Sciences Honours in BIOTECHNOLOGY

**Rayhaan Govender**  
**CUM LAUDE**

I am a Biotechnology graduate from the Durban University of Technology holding a National Diploma, Advanced Diploma and Honours Degree. All of my qualifications were obtained with a cum laude pass, alongside the Dean's Merit Award for the latter two. I also have an extensive work profile as I was a peer tutor for Microbiology II and Biochemistry II at the university during my first-year National Diploma studies and was appointed as a research intern at the South African Sugarcane Research Institute during the WIL period of my National Diploma and the two years following that. Currently I am pursuing my Master's Degree in Biotechnology and I hope to learn many new skills to better prepare me for my future in the Biotechnology workspace.

I chose the university for two major reasons, its proximity to where I live and the WIL programme which was a part of the National Diploma qualification. The first reason was largely due to my family's financial situation at the time and the latter was to aid in increasing my chances of getting a job following graduation due to the exposure to industry.

I have always wanted to pursue a career in the Biological Sciences for as long as I can remember. It was during my time as a grade 11 learner that I learned about Biotechnology and decided that it was the career path best suited for myself. I liked how interlinked all the sub-disciplines (microbiology, biochemistry, etc.) were with one another and the complexity of the field itself.

I hope to one day become an established researcher in the field of Biotechnology with a specialisation in molecular biology and enzymology. Ideally, I would like to be a researcher in an academic setting where I can also lecture and have students of my own.

My major work philosophy is to be passionate about whatever you set out to do, whether that may be academic or workspace pursuits. Having passion for your work will essentially make it a personal task and thus inspire you as an individual to excel in it.



**“All of my qualifications were obtained with Cum Laude, alongside the Dean's Merit award.”**

**Some of achievements include:**

- Three times cum laude graduate
- Two times Dean's Merit Award recipient
- Co-authored a poster during my time at SASRI which won first place in the Agriculture Section at the South African Sugar Technologists' Association conference in 2021
- Co-authored an article during my Advanced Diploma studies



# Degree of Bachelor of Applied Science in FOOD SCIENCE AND TECHNOLOGY

**Lenisha Govender**

**CUM LAUDE & DEANS MERIT**

My name is Lenisha Govender, I am 21 years old, and I am from the beautiful suburb of Phoenix. Fun fact, I am the middle child in my family, having an older and younger sister. My hobbies include baking and dancing. I got the amazing opportunity to study Bachelor of Applied Science in Food Science and Technology at DUT. Graduating with 22 distinctions, Dean's Merit and Cum Laude is my biggest achievement thus far, and I'm so grateful and blessed to have accomplished it. My goals have always been to help others and one day be successful, so that I can give back to my parents for all they have done for me.

DUT was the only university around me that offered Food Science and Technology. The lecturers were so helpful and were always there for us when we needed guidance. Throughout these three years I have gained so much knowledge, experience and was even given the opportunity of being the class representative for two years. I learnt how to be a leader, to take responsibility, and gained confidence.

I wanted to become a doctor, but I got into Food Science and Technology. I realised that I am still able to achieve my goal of helping people, by providing them good quality and safe products. Although my degree was not my first option, it was hands down the best decision I have ever made, as I really enjoy what I do. I believe in not limiting yourself, as there is always something to learn, and I would like to do courses that interlink with Food science and technology, maybe even do my honours one day.

I am currently working as an Inbound/Food Safety Intern at SPAR DC. I had the honour of facilitating the food safety training for the workers, which took place over two weeks. I spent time in the perishables department to learn about quality. I recently I came up with a project to try and implement safety and quality schedules and procedures in the dry goods warehouse.

My career goal is to gain knowledge and experience in all aspects of my degree, like quality, safety, research and development. Gaining this experience and knowledge will help me put people first, bring people together, and provide safe and good quality products that they love.



**“I believe in not limiting yourself, as there is always something to learn.”**

Honesty, respect, compassion, commitment and fairness, these are some of the values and principles that I feel everyone should follow, as it builds one's character and morals. It's important to show kindness, to do the right thing and to have determination for anything you do in life.



# Advanced Diploma in SUSTAINABLE HORTICULTURE

**Ntombenhle Shange**

**CUM LAUDE & DEANS MERIT**

I am from dusty roads of Uyaya Village (Eshowe). I was raised by my beautiful Grandma and my Mom. I completed my matric with no hope of going to university due to the condition of the area I'm coming from, but God answered my prayers and I got an offer at DUT in 2020 for Diploma in Sustainable Horticulture and Landscaping, it was like a dream come true.

From an early age I've been fascinated by science and art of plant cultivation. Studying plants and designing landscapes by altering different material is what I enjoy the most. This passion drove me to pursue a tertiary qualification in Sustainable Horticulture. Being at DUT was my dream, even in high school I always told my friends that I will work as hard as I can to be at DUT one day, with God being good my dream came true.

In my Advanced diploma year, my research project which was titled: The Impact of Polyphagous Shot Hole Borer (PSHB) infestation on tree diversity at Mount Edgecombe Country Club Estate. I am proud to say with the assistance from my research Supervisor (Mrs Indrani Govender) and the whole department of Horticulture my research was a success and I managed to get good results in my study, of which I'll be always proud of.

I am also proud to say I've managed to complete my Advanced diploma with a Cum laude of which I still cannot believe. But all I can say is "Hard work pays". I am willing to further my studies in the field of Horticulture and undergo research studies that are innovative to develop the future of the Horticulture industry. In addition, I have plans of working with local organisations surrounding environmental education in which we can use as South Africans to achieve the Sustainable Development goals by 2030.



**“I completed my matric with no hope of going to university due to the condition of the area I come from, but God answered.”**





# Diploma in SHIPPING AND LOGISTICS

**Kirusha Govindasamy**  
**CUM LAUDE & DEANS MERIT**

My name is Kirusha Govindasamy and I have graduated with a Diploma in Shipping and Logistics. I am 22 years old and my day to day activities are never complete until I read, whether it's a few chapters of whichever book has my interest. It's one of the things that I'm most passionate about, I love to absorb knowledge or just use it as a form of escapism. I think the most interesting fact about me is that I have a twin sister and we look nothing alike.

DUT is a reputable institution that delivers quality education, what better institution is there to attend. After researching about the institution, I felt it was the best decision to make for me and also a way to get new life experiences.

Shipping and Logistics has not always been my dream, it is something that snuck up on me unexpectedly and I just grew to love. There's always something new to be learnt which I love, it allows you to always keep absorbing new information. It is a fast-paced industry which is really thrilling and gives you good development within yourself.

My goal is not set, I'm open to new and different paths in the industry as it very vast, there's always more to learn and different experiences to gain to build up your skill set. I would say that's main objective, building up my skill set in the industry.

Always do your best, you can do nothing worse than your best. Balance is important, knowing when to be strict with yourself and when to have fun. Taking care of your mental health also helps you have a clearer mind when studying. My mentor Thula (who is a former Dut and Shipping and Logistics student and one of the smartest people I know) tells me that when you reach for the stars and you fall, you might fall on a mountain but not the ground, you keep trying until you reach the stars. Give your everything and if you don't know, you learn.



**“Balance is important, knowing when to be strict with yourself and when to have fun”**

I would like to further my studies as academics is the key to a successful future. We never fully know everything. Being open to obtaining new knowledge gives us a good foundation on which to build yourself on.

I am working at a Shipping company currently and looking for ways and courses to enhance my experience while also wanting to study further after I graduate. My biggest achievement is graduating from Dut, it is something that I'm really proud and never expected to get here, but perseverance is vital!



# Diploma in Sustainable Horticulture and Landscaping

**Keirra Samsunder**

**CUM LAUDE & DEANS MERIT**



My name is Keirra Samsunder, and my journey through the Diploma in Sustainable Horticulture and Landscaping at Durban University of Technology has been a testament to my perseverance and passion.

My journey began amidst the challenges of the COVID-19 pandemic. The initial year and a half of my studies were spent navigating online learning, with only practical sessions at the nursery providing in-person contact. Despite the absence of face-to-face interactions with lecturers, I remained committed to my studies, ensuring each virtual session was a platform for focused learning.

Upon returning to campus in the second semester of 2022, I embraced the opportunity to immerse myself fully in the horticultural world on campus. In the third year of my diploma, I had undertaken my Work Integrated Learning (WIL) at McFair Holdings, specializing in hydroponic bell pepper cultivation. Working under the guidance of Lindiwe Nxumalo, the CEO, I gained invaluable hands-on experience managing large-scale operations. I delved deep into the intricacies of hydroponic farming, honing my skills and expanding my knowledge base.

Throughout my journey, I have had unwavering support from my mother, Natasha Samsunder, who was at the time in the last stretch of completing her PhD dissertation. Together, we navigated late-night working sessions, drawing inspiration from each other's dedication and perseverance, we navigated the challenges of our respective programs together.

Now, having completed my diploma, I am embarking on an Advanced Diploma in Sustainable Horticulture, driven by a passion for research and a desire to make meaningful contributions to the field. With aspirations of earning a PhD of my own in the near future. I am committed to lifelong learning and exploration in the realm of sustainable horticulture.



**“Throughout my journey, I have had unwavering support from my mother, Natasha Samsunder, who was at the time in the last stretch of completing her PhD dissertation”**



# Diploma in ANALYTICAL CHEMISTRY

**Emihle Flatela**

**CUM LAUDE & DEANS MERIT**

My name is Emihle Flatela and I come from the Eastern Cape in a small town called Flagstaff. My journey at DUT began in 2021 when I enrolled for my Diploma in Analytical Chemistry. If I were to use 3 words to describe myself, I would say friendly, soft-spoken and inquisitive. One of the things I enjoy doing during my leisure time is reading books especially novels.

I have always had a keen interest in science since high school and chemistry happened to be the science stream I chose to go into after matric. My career goals include growing within the chemistry industry and to be involved in scientific research to find solutions and bring about new information and knowledge. This is also one of the reasons why I am planning to further my studies next year.

I would say my study philosophy has always been seeking help either from a fellow classmate or my lecturers whenever I encountered problems when it came to comprehending the course content. Even during my in-service training, I applied the same concept of seeking help, asking questions and being proactive and I would say that has really helped me thus far.



**“Even during my in-service training, I applied the same concept of seeking help, asking questions and being proactive.”**



# Diploma in Consumer Science: FOOD AND NUTRITION

**Riashnee Thaver**

**CUM LAUDE & DEANS MERIT**

My name is Riashnee Thaver, I am 25 years old and reside in Bluff, Durban. My journey with DUT has been an enriching experience. Walking into a university a little older than my counterparts, I felt as if I was behind. However, I realised that you are never too old to learn something new. All that matters is your attitude and ability to persevere in the face of adversity.

I enrolled for the Diploma in Consumer Sciences: Food & Nutrition in 2021, hoping to grow in my knowledge of food and science. constantly pushed myself to think and do more, which consequently led to my success in the end. The practical experience was most enjoyable and the community outreach programme that was joined in conjunction with RCL foods.

To be the first person in my family to graduate Cum Laude is an absolute honour! I should also add that I'm the first woman in my family to attend and graduate university, making this achievement special not just for me but all the women before me who sacrificed so much for me to attend university today.

At times, we often find ourselves slipping into a routine and becoming comfortable with being stagnant. I found new activities to engage with and involved myself in extracurricular activities that broadened my knowledge in various areas, allowing me to develop holistically. Time management is a real issue. Divide and conquer! Always use your energy wisely.

## **I achieved the below during my journey at DUT:**

Winner of Departmental awards for 3 years recurring.

- Finalist for the Abe Bailey Trust Travel bursary 2023
- Chairperson of the UNICEF-DUT Volunteers club 2024

I have always been super passionate about food but always had a thirst to learn more. I enjoy being creative with food innovations and recipe development. I am planning on furthering my studies as I have enrolled for my 4th year, Advanced Diploma in Consumer Sciences: Food and Nutrition. I am looking forward to working in communities and developing products and recipes with local ingredients. I would like to leave my mark in a positive manner and encourage others to live healthier.



**“Time management is a real issue. Divide and conquer! Always use your energy wisely.”**

My advice to other students would be “whether you think you can or you think you can't, you're right”. Believe in yourself and continue working hard. Consistent hard work always, always pays off. Stay humble and thankful for every step of this journey. Learn and engage with your study material as much as possible. Learning doesn't end after a lecture!

## **The DUT values that I associate with are:**

Honesty- I stand firm in the belief that honesty is always the best policy. You need to be honest with yourself and acknowledge your shortfalls to improve. Be honest with others as they will always benefit from hearing the truth.

Integrity- Always do what is right, even when nobody is watching. I believe that our kindness should know no boundaries and we should extend our hands to help wherever we can. Never do things with the expectation of receiving something in return, do it because you believe in it and genuinely want to help others.

I would like to give thanks to my family for their unwavering support throughout my academic journey. They have always been dedicated to my pursuit of knowledge and encouraged me to follow my dreams. I would also like to acknowledge all the wonderful lecturers at the department of food and nutrition for their constant support and guidance over my journey.





# Diploma in NAUTICAL STUDIES

**Aviwe Dube**

**CUM LAUDE & DEANS MERIT**

My name is Aviwe Dube and I am 22 years old. I was born in East London. I went to George Randell High School which started offering Nautical Science and Maritime Studies when I was in Grade 8. It was one of 2 high schools in the Eastern Cape at the time that offered these subjects. I enjoyed Nautical Science so much that I took part in water-based sports such as rowing and sailing which I continued in university and in grade 10 I knew that I wanted to make this field my career.

When I was in Grade 11, I had the fortunate chance to attend a five-day matric summer School for Mathematics, Physical Science, Maritime Studies and Nautical Science in Chintsa due to being the highest in both subjects. The Department of Education had organized DUT lecturers Mr. Asanda Isaac Zangwa and Mr Nhlanhla Rodgers Mtshali to teach us Maritime Studies and Nautical Science to help revise in preparation for matric final examinations.

While they were there, they did a fantastic job in explaining what DUT had to offer and why students should choose it. The way they taught made it easy for me to grasp new topics, even though I was a grade 11 student. Thanks to their teaching, I didn't have to relearn those concepts in matric. Then when I finally reached matric, I had gotten recommendations from my Nautical Science teacher and from students that were in both DUT and CPUT to have DUT as my first option, so it made it easy to choose DUT.

I chose Nautical Studies because it was not completely new to me in high school and I did a lot of research. I discovered that it would lead to a life of adventure and travel at sea which fascinated me, but it became a dream career at the end Grade 10 second term. Nautical Science, the subject was a challenging pass but fun at the same time. It required you do both pure Maths and Physical Science.

The theory was long, and you were required to memorize it word for word. Then calculations were long and hard to understand the concept behind them but the practical work such as radar plotting, chart work and passage planning came easily. All of these aspects in short period time, enabled me to work hard in the subject which I would then continue at university level and lead to becoming my dream career.



## Achievements

- 1** Cum Laude
- 2** Deans Merit
- 3** 27 distinctions out of 32 subjects

**In my third-year I was also a part of the DUT Sailing team and we came:**



4th in MSC Week  
1st in RNR Regatta  
4th at USSA (Team Sailing)

## Acknowledgments

I would love to acknowledge and honour my high school nautical science and maritime studies teachers- Miss Giyose and Mr Mpiyane, without them I would have not been on this journey. I would also like to acknowledge and honour Vibhav Ramsander, my closest university friend and rival.

Your dedication and perseverance always inspired me to work harder. Without you, I wouldn't have accomplished as much in the past two years. I'll always remember our study sessions, debates, and post-exam celebrations.



# Higher Certificate in SPORT SCIENCES

**Noluthando Shongwe**

**CUM LAUDE & DEANS MERIT**

My name is Noluthando Shongwe. I am 19 years old and I come from Stanger. I am currently enrolled for my first year of Bachelor in Sport Science and Management. I am also a model.

I am in the pageantry industry and hold the titles: Miss Role Model KwaDukuza 2023 1st Runner Up, Miss Premium SA 2023 Seniors 2nd Runner up, Miss Premium Charity Queen and Miss Premium directors' choice and currently I am Miss Heart of SA 2024 Finalist and have attended various fashion shows around Durban as well. Most importantly a DUT graduate with Cum Laude/ Deans Merit.

Being part of this institution is one great privilege and I'm grateful for being part of an amazing faculty. Knowing myself, I have always been an active, engaging and a cultivating person. I am a participative person when it comes to any activities or sport. When it was time to select my field of study it was easy for me because I knew what excites me the most and where I can deliver my best. I believe that DUT was the institution that had a great study program, I went through the curriculum and decided to send my application through.

My journey at DUT has been an amazing and a fulfilling one doing High Certificate in Sport Science. I am furthering my studies here at DUT; I was one the students who were articulated to Bachelor's degree in Sport Science and Management and nothing is more pleasant than seeing those sleepless nights, late library meetings with groups, early morning rise paying off.

With this field of study, it will set me up for various career roles along with skills such as critical thinking and evaluation but with determination towards my purpose. I need to commit myself so that I can make great decisions to breed success and excellence.



**“My journey at DUT has been an amazing and a fulfilling one doing Higher Certificate in Sport Science. I am furthering my studies here at DUT.”**



## Higher Certificate in APPLIED SCIENCES

**Sphamandla Qiniso Biyela**

**CUM LAUDE & DEANS MERIT**

It has been always my dream to work along the shore or at sea, my career goals are in line with professions which put me near the sea (naval architecture, tug driver and the shore's pilot). Currently, I am registered for my Diploma in Nautical Studies which will put me in better position to achieve my dreams.

My study philosophy is that of constant improvement, which states that every day is an opportunity to improve, even if it is only by 1%. This philosophy played a huge role in my life as I am looking forward to further my studies to achieve and find myself in the workplace of my desire.

Currently I have not been involved in many projects, but I proudly present my national senior certificate and my recent qualification-Higher certificate in Applied Sciences obtained with Cum Laude and Deans Merit. I would also like it to be known how appreciative I am to my family and friends to be at this stage in life. For it wasn't for them, I wouldn't be here.



**“My study philosophy is that of constant improvement, which states that every day is an opportunity to improve, even if it is only by 1%”**







DUT

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DURBAN UNIVERSITY OF TECHNOLOGY

DUT

DURBAN UNIVERSITY OF TECHNOLOGY  
DURBAN UNIVERSITY OF TECHNOLOGY

EDUCATE,  
ENGAGE AND  
INNOVATE







# Spring Graduation

19 September 2024



## CUM LAUDE STUDENTS

### DEGREE OF MASTER OF APPLIED SCIENCE IN CHEMISTRY

SANDILE CROMWELL	MKHIZE	83
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### DEGREE OF MASTER OF APPLIED SCIENCE IN BIOTECHNOLOGY

MDUDUZI HUMPREY	SHONGWE	75
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### DIPLOMA IN ANALYTICAL CHEMISTRY

LEANNE ODETTE	GANESAN	78.3
TSHEPHO	RABOSHAKGA	76
DARRIC REEVES	RICKEELAL	75.4

### DIPLOMA IN SHIPPING AND LOGISTICS

VARSHAN	RAMKISSON	75
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# FACULTY OF APPLIED SCIENCES SPRING GRADUATION

## DOCTOR OF PHILOSOPHY IN BIOTECHNOLOGY



**Dr Johnson Tungamirai Zininga**

Title of thesis: A *Mucor circinelloides*-based integrated biofinery

Supervisor: Prof K Permaul

Co-Supervisor: Prof S Singh

**Research Impact:**

Two publications and one international conference



# FACULTY OF APPLIED SCIENCES SPRING GRADUATION

## DEGREE OF DOCTOR OF PHILOSOPHY IN FOOD AND NUTRITION



**Dr Evonne Singh**

Title of thesis: Effectiveness of a canteen and a worksite behavioural intervention to lower cardiometabolic risk in South Africa

Supervisor: Prof. A Naicker

Co-Supervisor: Dr HH Grobbelaar

Research Impact: This study generated two published journal articles.





# FACULTY OF APPLIED SCIENCES SPRING GRADUATION

## DEGREE OF DOCTOR OF APPLIED SCIENCES IN CHEMISTRY



**Dr Sisonke Sigonya**

Title of thesis: Synthesis and characterization of electrospun-based composites for remediation of selected pharmaceutical pollutants in wastewater.

Supervisor: Dr TH Mokhothu

Co-Supervisor: Dr TC Mokhena

Research Impact: 5 journal publications (3 technical papers and 2 reviews) under this study and 2 publications under review in Q1 high impact factor journals.



# FACULTY OF APPLIED SCIENCES SPRING GRADUATION

## DEGREE OF DOCTOR OF APPLIED SCIENCES IN PHYSICS



**Dr Dwayne Reddy**

Title of thesis: Ion-doped metal oxide and its power conversion influence on perovskite solar cells

Supervisor: Prof. I Lazarus

Research Impact: This study generated two published journal articles.



# FACULTY OF APPLIED SCIENCES SPRING GRADUATION

## DEGREE OF MASTER OF APPLIED SCIENCES IN CHEMISTRY



**Samantha Padayatchee**

Title of dissertation: Activation of n-octane using  
VOx/MgO catalysts prepared  
by mixed fuel solution combustion synthesis.  
Supervisor: Dr P Ntola  
Co-supervisors: Prof HB Friedrich  
Prof EL Olivier`



**Archie Mpotulo**

Title of thesis: Oxidative dehydrogenation of  
n- octane using dealuminated faujasite zeolites.  
Supervisor: Prof HB Friedrich  
Co-Supervisor: Dr SS Ndlela



# FACULTY OF APPLIED SCIENCES

## SPRING GRADUATION

### DEGREE OF MASTER OF APPLIED SCIENCES IN FOOD AND NUTRITION



**Nosipho Mtiti**

Title of thesis: Intervention effect of food literacy on household food waste in the KwaDukuza municipality  
Supervisor: Prof A Naicker  
Co-Supervisor: Dr HH Grobbelaar



**Sindisiwe Nene**

Title of dissertation: Sugar-sweetened beverages and household sugar consumption patterns among adults living in Southgate Phoenix.  
Supervisor: Prof A Naicker  
Co-Supervisor: Mrs ES Singh  
Research Impact: Poster presentation at national conference and one paper under review.





## Degree of Master of Applied Science in CHEMISTRY

**Sandile Mkhize**  
**CUM LAUDE**

My name is Sandile Cromwell Mkhize, and I am 28 years old. I come from Izingolweni, but I currently reside in Glenwood, Durban, due to work. I currently work as a laboratory analyst for the Sugar Milling Research Institute NPC. My job also involves training laboratory personnel and auditing laboratories across sugar mills in Africa.

Shortly after graduating with a Bachelor of Technology in Chemistry, I received an unexpected call asking if I would be interested in pursuing a Master of Applied Science in Chemistry. Although it wasn't something I had actively considered, I eagerly embraced the opportunity. The project was incredibly fascinating, involving transforming waste into a product that could help combat tooth sensitivity. It required me to delve into an unfamiliar branch of chemistry (mechanochemistry) and explore dentistry—an entirely new field for a chemistry major. The journey demanded significant dedication, but the support from my supervisors, family, and friends made it all worthwhile.

Seeing "Cum Laude" at the end of my qualification feels like validation for all the hard work and sacrifices made along the way. It's a reminder that the countless weekends spent studying, instead of going out with friends, were worth it. This honour reflects my determination, drive, and the incredible support I received throughout my academic journey.

One of the DUT values that resonates with me is Integrity. It is the moral compass that guides our decisions and is essential in building and maintaining credibility and trust in both our personal and professional lives. As a scientist, integrity is particularly important to me as it ensures adherence to professional practices, guaranteeing objectivity, clarity, and reproducibility in my scientific work.

I aspire to be called Dr. Mkhize one day. I also aim to increase my contributions to the scientific community and inspire those pursuing a science degree. I aim to become a world-renowned researcher, focusing on green chemistry principles and conducting research that addresses real-world issues.



**“I aspire to be called Dr. Mkhize one day. I also aim to increase my contributions to the scientific community and inspire those pursuing a science degree”**

The advice I could give other students is that time management is key to your success. There is so much to learn, and if you don't manage your time efficiently, you risk falling behind. It's also helpful to have a group of people you can study with, who can assist you in understanding difficult topics. Remember, you're not only there to study but also to build relationships and lay a strong foundation for your future endeavours.



## Degree of Master of Applied Science in BIOTECHNOLOGY

**Mduduzi Shongwe**  
**CUM LAUDE**

My name is Mduduzi Shongwe, I am 27 years old. I am originally from a small township called Kamhlushwa, Nkomazi, in the Mpumalanga province.

For me, graduating with Cum Laude is evidence that my determination and hard work have paid off. I will always look back on this achievement during tough times to remind myself that perseverance brings results. My study philosophy is to struggle until the end. No matter how difficult the challenges, I keep trying, exploring different methods, and asking for help until I reach my goals. This mindset has been pivotal throughout my academic journey.

I plan to start by gaining experience in the industry and then transition into product development and research roles. Eventually, I aspire to become a lecturer, sharing my knowledge with the next generation of scientists.

Additionally, I am always working on short projects in the field of edutainment. I am currently working on storybooks aimed at teaching children aged 6-8 and 9-12 about microbiology, be on the lookout!

### **Some of my achievements thus far have been:**

- Second place in my category at the 2018 KZN SASM symposium
- Former Deputy President of the DUT Debating Union
- Presented at the 5th International Conference on Applied Surface Science 2022, held in Mallorca, Spain.

My advice to other students would be, never waste an opportunity to develop yourself. In 20 years, you'll still have your degree, but knowledge is only powerful if you apply it.

My advice to other students would be, never waste an opportunity to develop yourself. In 20 years, you'll still have your degree, but knowledge is only powerful if you apply it.



**“I am currently working on storybooks aimed at teaching children aged 6-8 and 9-12 about microbiology, be on the lookout!”**



## Diploma in ANALYTICAL CHEMISTRY

**Leanne Ganesan**  
**CUM LAUDE & DEANS MERIT**

My name is Leanne Odette Ganesan, I am 21 years old and reside in the beautiful city of Durban. I am currently working at CSIR in the Biorefinery Industry Development Facility (BIDF) as a laboratory intern. The CSIR-BIDF is dedicated to developing and optimizing biorefinery processes, which involve converting renewable resources like plant biomass into high-value products.

My role involves applying advanced analytical chemistry techniques such as fourier transform infrared spectroscopy, pyrolysis gas chromatography mass spectroscopy, scanning electron microscopy-energy dispersive x-ray analysis, high performance liquid chromatography, to support these processes during the research and development phases. This experience is not only enhancing my technical skills but also providing me with invaluable insights into the practical applications of my studies. It's an exciting environment where I am constantly learning and growing, and it is laying a strong foundation for my future career.

My passion for learning has only deepened throughout my time at DUT, and I firmly believe that education is a lifelong journey. While my studies in Analytical Chemistry have provided me with a strong foundation, I am eager to delve even deeper into this field. There is so much more to explore and discover, especially as the world of science continues to evolve at a rapid pace.

Graduating with Cum Laude is a moment of profound significance for me. It's a symbol of the countless hours of hard work, determination, and resilience that I invested in my studies. More than just an academic accolade, it represents the fulfilment of a dream that I have nurtured since I was a child—a dream of making a meaningful contribution to the world through science.

This achievement is not mine alone; it belongs to my family, who have been my unwavering pillars of support, to my mentors who believed in me even when I doubted myself, and to my friends who stood by me through every challenge. When I reflect on this honour, I am filled with a deep sense of gratitude and humility. It's a reminder that with passion, perseverance, and a strong support system, anything is possible.

My study philosophy is rooted in the belief that learning is a journey, not a destination. From the very beginning,



**“My passion for learning has only deepened throughout my time at DUT, and I firmly believe that education is a lifelong journey”**

I approached my studies with curiosity and an eagerness to understand the 'why' behind every concept. Consistency has been key in my approach. By setting aside dedicated time each day to study, I was able to build a solid foundation of knowledge while avoiding the stress of cramming. I also believe in the power of balance. While academics were my priority, I made sure to take care of my mental and physical well-being, knowing that a healthy mind and body are crucial for sustained success.

Beyond academics, I aspire to take on leadership roles in the scientific community, where I can mentor and inspire the next generation of scientists. I envision myself leading projects that push the boundaries of innovation, driving progress in areas that matter most to me.

My goal is to make a lasting impact—both in the field of chemistry and in the lives of those I work with.

### **Some of my achievements thus far include:**

- First Place in WIL (Work Integrated Learning) Presentations
- Internship at CSIR-BIDF: I was offered an internship at the CSIR Biorefinery Industry Development Facility (BIDF), where I am involved in research projects
- Upcoming Publication: CSIR has provided me with the incredible opportunity to write a review paper, which is soon to be published as my first academic publication

# Diploma in ANALYTICAL CHEMISTRY

**Tshepo Raboshakga**  
**CUM LAUDE**

My name is Tshepo Raboshakga, I am 20 years old. I am from a small village called Indermark in Limpopo.

My DUT Journey started in 2021 when I enrolled in the Diploma in Analytical chemistry course, and my motivation to study analytical chemistry was a combination of both love and curiosity. Since high school, I have always loved chemistry and been curious about the materials that make up the things we see around us, and I chose to study the course Analytical chemistry since it aims to examine materials both qualitatively (what they consist of) and quantitatively (how much of the materials they consist of). And, because I want to grow and discover more in the field of chemistry, I plan to continue my studies the following year with the goal of working in research and development.

Graduating with cum laude reflects the hard work, dedication, and perseverance I've put into my studies, and it means a lot to me as it shows that all my hard work and dedication paid off. I'm proud of myself for achieving this and inspired to keep aiming high. My study philosophy was to set goals for myself and manage my time effectively to stay on track, and I never hesitated to seek assistance from my lecturers, tutors or classmates when I needed it.

The advice I would give to other students is to have a clear vision of what you want to achieve and keep focused on it, as well as to not be hesitant to seek help when needed and to not hesitate to ask questions, as curiosity drives deeper learning and discovery



**“My goal is to work in research and development since I want to learn more and advance in the field of chemistry. I plan to further my studies the following year”**





# Diploma in ANALYTICAL CHEMISTRY

**Darric Rickeelal**  
**CUM LAUDE**



My name is Darric Rickeelal, and I currently reside in central Durban within the suburbs of Merebank. I received my secondary education at P R Pather Secondary.

My thoughts on graduating with Cum Laude was a big but welcome surprise. My family's reaction included a mixture of shock and pride. However, as I think of this achievement, I am convinced that like a chemical reaction – what you put in is what you get out – equivalent exchange. This achievement is the sweet fruits of my hard efforts with my studies. Forward thinking, engagement, excellence and integrity are the values that I resonate most with DUT. These values form the core of my character along with honesty and critical thinking.

I currently am the lab technician for KZN Resins Pty Ltd which is a resin manufacturer in Durban South, Prospecton. My duty at KZN Resin entail the control and supervision of the ISO 9001 quality control and research and development laboratories. Apart from supervising a lab team of 5 individuals, I also see to the maintenance and calibration of the laboratory's equipment's such as analytical balances, kinematic viscometers, moisture analyzers, temperature controlled heating baths etc.

I'm currently involved in an ongoing project at KZN Resins whereby the aim is to determine a suitable eco-friendly catalyst which would depolymerize post consumer polyethylene terephthalate. Whilst working and gaining experience I do plan on furthering my diploma into an advanced diploma in analytical chemistry.

Further down the line I also aspire to do a qualification in Quality Control which can possibly lead me down the path to becoming a Quality ISO auditor.

A piece of advice that I'd give to a first year who is in pursuit of a chemistry qualification is that, as an analyst, the most important tool at our disposal is information. Information that can not be put on a graph and be statistically analyzed is pointless. My suggestion to them would be to become a sponge and soak in as much knowledge as possible.

**“As I think of this achievement,  
I am convinced that like a chemical  
reaction – what you put in is what  
you get out – equivalent exchange”**





**18**

DEANS MERIT  
GRADUATES

**35**

CUM LAUDE  
GRADUATES

**10**

DEPARTMENTS

**12**

PROGRAMMES

**43**

QUALIFICATIONS  
OFFERED

**3100**

STUDENTS

**900**

FIRST YEAR  
STUDENTS

**159**

POSTGRADUATE  
STUDENTS

**64%**

DOCTORAL  
ACADEMIC STAFF

**24**

PROFESSORS  
(18 NRF RATED)

THE FACULTY OF  
APPLIED SCIENCES  
IS THE BEST STEM  
POWER YOU CAN  
FIND AT DUT!



