

Career Information

Diploma in Analytical Chemistry

Location: Steve Biko Campus (S10, Level 3)

Description of the Programme

The Diploma in Analytical Chemistry represents a level of qualification that recognizes the ability to gain and apply a range of specialized knowledge, skills and understanding designed to meet the needs of various chemical industries. Graduates of the diploma would be able to display competence in the application of knowledge in a broad range of varied work activities associated with a career in the Chemical and Allied Industries involving detergents, petroleum, plastics, food, pharmaceuticals, mining, water treatment, metallurgy and, in addition, educational institutions may employ graduates from this course.

Graduates are required for specific practical applications such as quality control and testing or theoretical fields such as research and development. Quality control and assurance is an especially important field where industries need to verify their standards of operation and quality of manufactured materials.

This course is designed to meet the human resource needs of the chemical and allied industries and tertiary educational institutions, by providing nationally and internationally recognized tertiary education and training to students. Students who are successful in the programme may progress to the Advanced Diploma in Analytical Chemistry followed by the Postgraduate Diploma in Analytical Chemistry/Honours in order to gain access to postgraduate study towards a Masters or Doctoral qualification.

Apart from the formal course and practical work at DUT's Chemistry laboratories, the course also includes a nine month Work Integrated Learning (WIL) component in an industrial setting where skills and knowledge acquired at the university are integrated and applied under real-life working conditions.

Career opportunities

There is therefore a growing demand for graduates in this field. Industries are supportive of the furthering education of graduates and hence opportunities exist for graduates to pursue further educational qualifications. Graduates may also apply for associate membership of South African Chemical Institute (SACI). SACI is associated with the South African Council for Natural Scientific Professions (SACNASP). The following link refers: <http://www.sacnasp.org.za/about-us/voluntary-associations.html>

Explanation of Points scale:

symbol	Senior Certificate	
	Higher Grade	Standard Grade
A	8	6
B	7	5
C	6	4
D	5	3
E	4	2
F	3	1

%	NSC Level	Points
90-100	7	8
80-89%	7	7
70-79%	6	6
60-69%	5	5
50-59%	4	4
40-49%	3	3
30-39%	2	2
20-29%	1	1

Entry Requirements

DEPARTMENTAL NSC REQUIREMENTS		DEPARTMENTAL SENIOR CERTIFICATE REQUIREMENTS		
NSC Diploma Entry	NSC Rating	A Senior Certificate or equivalent qualification.		
Compulsory Subjects	Code	Compulsory Subjects	HG	SG
English (home) OR English (1st additional)	4	English	D	B
Maths	4	Mathematics	D	B
Physical Science	3	Physical Science	E	C

OR

NCV entry Requirements:

A National Certificate Vocational (NCV) Level 4 with statutory requirements for a diploma with English and Physical Science at (50%) and Maths at (60%).

OR

Admission Requirement based upon Work Experience, Age and Maturity

For admission to entry level diploma and certificate studies:

A person may, subject to such requirements as the Senate may determine, be admitted to the Institution even if such a person is not in a possession of a National Senior Certificate, Senior Certificate or an equivalent certificate, provided that:

- The person shall have reached the age of 23 in the first year of registration and shall have at least:
 - three years' appropriate work experience; and/or
 - capacity for the proposed instructional programme, which shall be assessed at the discretion of the respective Head of

Department by a Senate approved admission assessment comprising of a DUT Standardised Assessment Test for Access and Placement (SATAP), Academic Literacies (Al) & English for Academic Purposes (EAP) and/or an appropriate subject or programme specific written assessment designed and marked by the relevant Department; and

- The relevant Faculty Board shall be satisfied that the person's standard of communication skills, ability to study successfully and/or work experience are such that the person, in the opinion of the relevant Faculty Board, should be able to complete the proposed instructional programme successfully. If required, the communication skills and study skills should be tested; and
- The person's application for admission in terms of work experience, age and maturity is approved prior to registration.

Applicants intending to gain admission through work experience, age and maturity must submit their applications at least four months before commencement of the academic year inclusive of the date of scheduling writing a requisite eligibility assessment.

If there are more applications than there are vacancies, then applicants will be ranked and selected on the basis of their academic achievement in Physical Science, Mathematics.

New student intake is done in January only.

Tuition Fees

To assist you with your planning, the 2019 fees have been indicated.

PLEASE NOTE: DUT cannot be held liable for the fees in this brochure as the 2020 fees are not yet final.

First Year Curriculum: 2019 Fees

General and Inorganic Chemistry	R6 260
Mathematics I	R3 990
Physics I	R3 990
Cornerstone 101	R2 950
Computer Skills	<u>R2 850</u>
Total	<u>R20 040</u>

Semester Two

Organic and Physical Chemistry	R6 260
Analytical Chemistry I	R7 400
Communication Skills	R2 850
Choice of 2 of the following electives (IGE)	
Introduction to Technopreneurship	R1 710
Cultural Diversity	R1 850
Values in the Workplace	R1 970
Sustainable Earth Studies	R1 850

Second Year Curriculum

Semester Three

Analytical Chemistry II	R2 330
Applied Inorganic Chemistry	R4 550
Applied Organic Chemistry	R4 550
Applied Physical Chemistry	R4 550
Choice of 1 of the following electives (IGE)	
Leadership	R1 850
Constitutional Law & Human Rights	R1 850

Semester Four

Analytical Chemistry III: Chromatography	R4 550
Analytical Chemistry III: Atomic Spectroscopy	R4 550
Analytical Chemistry III: Molecular Spectroscopy	R4 550
Analytical Chemistry III: Electroanalytical Chemistry	R4 550
Chemical Quality Assurance	<u>R3 990</u>
Total	<u>R22 190</u>

Third Year Curriculum

Semester Five

Experiential Learning I	R2 280
Chemistry Project I	R3 420
Community Engagement and Development	R1 710
Total	<u>R 7 410</u>

Semester Six

Experiential Learning II	R2 850
Chemistry Project II	<u>R2 280</u>
Total	<u>R5 130</u>

FOR FURTHER INFORMATION

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APPLICATION FORMS

Contact the Central Applications Office (C.A.O) Address letters to:

CAO Code: DUDCH3

Central Applications Office Private Bag X06
Dalbridge
4014

Tel: (031) 2684444

Fax: (031) 2684422

Apply online: <http://www.cao.ac.za>

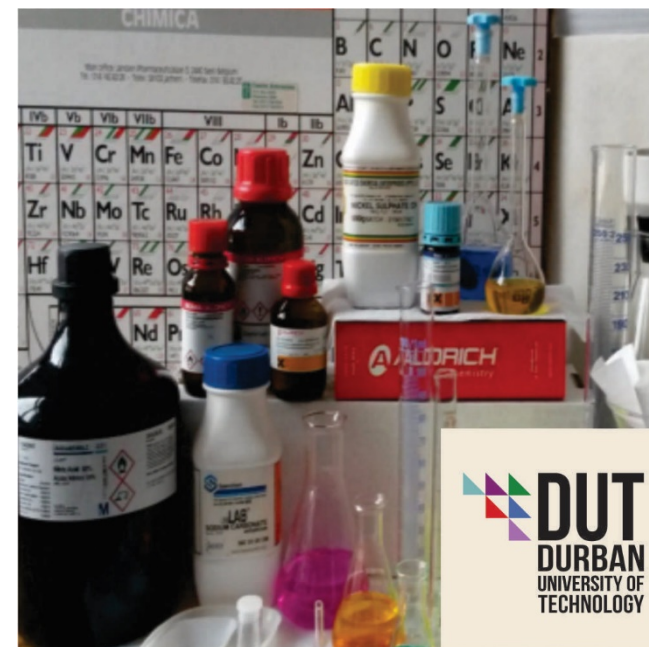
Closing Date for applications: 30 September 2019

Financial Aid

For Financial Aid application for a DUT programme please apply online at www.nsfas.org.za or call the NSFAS call centre on 0860 067 327.

For an explanation on how to fill out the application form, please go to www.nsfas.org.za or contact the call centre on the number above.

Please note that completing a form does not guarantee Financial Aid. For further assistance, please consult the Department of Financial Aid and Scholarships on (031)373 2931/2557/2054.



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DEPARTMENT OF
CHEMISTRY

CAREER INFORMATION

**DIPLoma IN
ANALYTICAL
CHEMISTRY**

1 JANUARY - 31 DECEMBER

2020