

Unisa - Extended Science Pathway

2018

What is the Extended Science Pathway?

The Extended Science Pathway provides learning support in extended streams within selected science diploma and degree qualifications. This support is largely provided in the form of tutorials within each module, but also includes mentorship and assistance in English language, mathematics, information and computer literacies. The purpose of the Extended Science Pathway is to improve the success rate in science programmes, thereby increasing the throughput of our science students.

Special learning support is provided to students at **no additional cost**.

What is an extended programme?

Extended programmes are streams within regular diploma or bachelor degree qualifications which are offered over a long period than the formal time for regular programmes. On completion of an extended programme, students are awarded the same diploma or degree certificate as students in the regular streams within a qualification. The rationale behind the extended period of learning is to accommodate additional learning support.

The general regulations stipulated for a regular qualification apply. In addition, the following are specific to the extended programmes:

- In the first and second year of study, students are restricted to a maximum of 60 credits of prescribed, sequenced modules.
- At least 50% of the first and second year curriculum is made up of extended (year) modules, with foundation provisions.
- The minimum number of years required to complete a full extended programme is one year, plus the approved minimum formal time for the regular programmes.
- The maximum number of years required to complete a full extended programme is one year, plus the approved maximum formal time for the regular programme.

The normal rules that regulate progression (including repeats in modules) within the qualification will apply.

What is different about teaching and learning in extended modules?

Diagnosics and academic development

- Students take diagnostic tests in academic skills during orientation, with referrals to professional academic development for remediation.

Unique teaching and learning methods

- Critical foundational academic skills are embedded in the learning outcomes.
- Extended modules are taken over a year.
- Students complete double the notional or study hours compared to the regular module.
- Learning is augmented through special, highly interactive tutorials
- Extended modules contain multiple, regular assessments. The rationale behind the multiple assignments is to gather evidence formatively and continuously to ascertain whether or not

the student is achieving or showing potential to achieve the prescribed outcomes of the module. The assessment is, therefore, developmental.

Interactive tutorials

- Tutors use custom-made tutorial support resources which follow a motivational, appreciative enquiry, activity-based approach.
- Tutorials are designed to encourage student interactive learning to promote authentic learning.
- Students have an option of face-to-face tutorials at a Unisa learning Centre or online or e-tutorials on Unisa's electronic management system (myUnisa).
- Tutorials are delivered in relatively small groups with more tutorial time compared to regular modules.

Mentorship, guidance and counselling

- Peer mentorship through online and face-to-face modes.
- Professional career guidance and educational counselling.

Qualifications with extended programmes

College Of Agriculture And Environmental Sciences	College Of Engineering, Science And Technology
<p>Diplomas</p> <p>98024-XNC Nature Conservation 98025-XOH Ornamental Horticulture 98026-XAH Animal Health</p> <p>Bachelor of Consumer Science</p> <p>98005-XFC Food And Clothing Stream 98005-XFN Food And Nutrition Stream 98005-XSJ Food Retail Management Stream</p> <p>BSc In Environmental Management</p> <p>98052-XEB Botany 98052-XEC Chemistry 98052-XEZ Zoology</p> <p>Bachelor Of Science (Life Sciences)</p> <p>98053-XBB Biochemistry & Botany 98053-XBU Biochemistry (Or Physiology Or Microbiology) With Business Management 98053-XBM Biochemistry And Microbiology 98053-XBP Biochemistry And Physiology 98053-XBZ Biochemistry And Zoology 98053-XBN Botany And Microbiology 98053-BZG Botany And Zoology (With Geography) 98053-GZB Genetics And Zoology Or Botany/Microbiology/Biochemistry/Physiology 98053-XMP Microbiology And Physiology 98053-XMZ Microbiology And Zoology 98053-XPZ Physiology And Zoology 98053-XPG Psychology And Physiology (With Genetics)</p>	<p>Diploma</p> <p>98806 - XIT Information Technology</p> <p>98906-XCO Bachelor Of Science In Computing 98907-XIN Bachelor Of Science In Informatics</p> <p>Bachelor Of Science</p> <p>98801-XAC Applied Mathematics And Computer Science 98801-XAP Applied Mathematics And Physics 98801-XAS Applied Mathematics And Statistics 98801-XCM Chemistry And Applied Mathematics 98801-XCC Chemistry And Computer Science 98801-XCI Chemistry And Information Systems 98801-XCP Chemistry And Physics 98801-XCS Chemistry And Statistics 98801-XGE General 98801-XMM Mathematics And Applied Mathematics 98801-XMH Mathematics And Chemistry 98801-XMC Mathematics And Computer Science 98801-XMI Mathematics And Information Systems 98801-XMP Mathematics And Physics 98801-XMS Mathematics And Statistics 98801-XSP Statistics And Physics</p>

Foundation modules in the extended programmes

Code	Description	Code	Description
XAT1503	Linear Algebra	XSC1620	Mathematical Modelling I
XAT1510	Precalculus Mathematics A	XSO1501	Plant Studies I
XAT1511	Precalculus Mathematics B	XSP1501	Introduction To Applied Sciences
XAT1512	Calculus A	XST1534	Spherical Astronomy And Kepler Orbits
XCT1511	Introduction To Programming	XTA1501	Descriptive Statistics And Probability I
XCT1512	Introduction To Interactive Programming Extended)	XSC1501	Soil Science I
XCT1513	Introduction To Web Design	XSC1510	Introduction To The Business World
XCT1521	Introduction To Databases Extended)	XSC1620	Mathematical Modelling I
XEC1501	Conservation Ecology I	XSO1501	Plant Studies I
XGH1501	Know Your World, Introduction To Geography	XSP1501	Introduction To Applied Sciences
XGH1502	World Issues-A Geographical Perspective	XST1534	Spherical Astronomy And Kepler Orbits
XGH1503	Our Living Earth	XTA1501	Descriptive Statistics And Probability I
XHE1501	General Chemistry IA	XTA1502	Statistical Inference I
XHY1501	Elementary Mechanics	XTA1510	Basic Statistics
XHY1502	Elementary Electromagnetism and Heat	XUP1501	Ethical Information And Communication Technologies For Development
XHY1505	Mechanics (physics)	XUT1501	Introduction To Nutrition and Energy Yielding Nutrients
XHY1506	Electromagnetism And Heat	XCT1531	Workstation Technical Skills
XIN1501	Conservation Interpretation I	XCT1532	Network Technical Skills
XLG1501	Basic Biology	XCT1541	Business Informatics I Extended)
XLO1501	Clothing Construction Theory	XDS1501	Landscape Maintenance
XNF1505	Introduction To Business Information Systems	XHE1502	General Chemistry IB
XNF1511	Visual Programming I	XHY1604	Modern physics
XNF1520	Human-Computer Interaction I	XLG1502	Animal And Plant Diversity
XOC1501	Fundamentals of Conservation I	XMS1501	Ornamental Plant Use I
XOL1501	Animal Diversity I	XNS1501	Animal Studies I
XOO1501	Food Preparation I	XOA1501	Conservation Administration I
XOR1501	Ornamental Plant Propagation	XOL1502	Animal Diversity II
XOS1501	Theoretical Computer Science I	XOR1503	Plant Growing and Care
XOS1511	Introduction To Programming I	XOS1512	Introduction To Programming II
XOS1521	Computer Systems, Fundamental Concepts	XOT1502	Plant Biodiversity and Environmental Botany
XOT1501	Plant Structure, Cytology, Morphology and Anatomy	XST1613	General Introduction To Astronomy
XPM1513	Applied Linear Algebra	XTA1503	Distribution Theory I
XPM1514	Mathematical Modelling	XTA1610	Introduction To Statistics

XSC1501	Soil Science I	XUT1601	Nutrition and Nutrient Deficiency Diseases
XSC1510	Introduction To The Business World	XVM1501	Conservation Resource Management I
XME1501	Introduction to Agricultural Economics	XNH1501	Pasture & Nutrition AH
XAH1501	Anatomy & Physiology AH I	XTG1502	Zootechnology II
XTG1501	Zootechnology I	XAH1502	Anatomy & Physiology AH II

Admission requirements

Admission to the Extended Science Pathway

The minimum admission requirements for the three-year stream in your qualification are the same as for the four-year stream in your qualification. This is because the same minimum requirements also apply to the extended stream. The Unisa application process streamed you into four-year programme based on the following criteria:

- South African citizenship
- Registration for a qualification which offers Science Foundation Provision
- Registration for a module(s) which offers Science Foundation Provision
- First-time registration for a qualification at tertiary level

The following criteria are used to determine whether or not you are in the Science Foundation Provision:

- First-time registration for qualification which offers Science Foundation Provision
- First-time registration for the qualification for a module (s) which offers Science Foundation Provision.
- South African citizenship
- Level of achievement of 49% or less in mathematics or English at Grade 12 in the NSC and at HC, or achievement of 59% or less at the SG
- A matric point score of 24 or less for bachelor degrees and 20 and less for diplomas.

Step 1: Write down the score for YOUR English language paper.

Step 2: Add the points from five (5) other subjects: first the score of the subjects prescribed for normal entry into your qualification, and then the score of your best subjects.

Step 3: If the total is 24 or lower (Bachelor of Science and Consumer Science qualifications) and 20 or lower (diploma qualifications), you qualify for admission to the Extended Science Pathway.

Academic Points Score

A minimum Academic Points Score (APS) has been set for all qualifications and is given in the admission criteria tables below. An Academic Points Score (APS) is to be used to stream students into foundation and mainstream streams. Students may be selected for foundation provision if they have an APS \leq 20 for diploma qualifications or \leq 24 for Bachelor of Science and Consumer Science qualifications. The points are calculated as follows:

- The score in English Language
- Add the points from five (5) other subjects, excluding Life Orientation: first the score of the subjects prescribed for normal entry into the regular qualification, and then the scores of the best other subjects using the table below.

Ratings used in calculating the Academic Points Score

Rating	Marks (%)
7	80-100
6	70-79
5	60-69
4	50-59
3	40-49
2	30-39
1	0-29

The following tables can be used to convert your marks/symbols into an Academic Point Score (APS).

APS (requirement level for subjects as well as overall APS)	NSC / IEB	SC HG M-score / AS- level	SC SG M-score	HIGCSE NSSC HL	IB SL	IGCSE / GCSE / NSSC OL / O-Level Grade 11*	IGCSE / GCSE / NSSC OL / O-Level Grade 12*
7	7 (80-100%)	A		1	7	A	
6	6 (70-79%)	B	A	2	6	B	
5	5 (60-69%)	C	B	3	5	C	A
4	4 (50-59%)	D	C	3	4	C	B
3	3 (40-49%)	E	D	4	3	D	C
2	2 (30-39%)	F	E		2	E	D/E
1	1 (0-29%)	G	F		1	F	F/G

APS conversion table only for Cambridge Advanced Level and IB Higher Level

APS		A-Level	IB HL
Requirement level for subjects	Requirement level for overall APS		
7	10	A	7
6	8	B	6
5	7	C	5
4	6	D	4
3	5	E	
2	4		
1	3		

APS conversion table only for National Senior Certificate against National Certificate Vocational

APS	National Certificate Vocational (NCV) - Fundamental subjects
7	7 (80 - 100%)
6	6 (70 - 79%)
5	5 (60 - 69%)
4	4 (50 - 59%)
3	3 (40 - 49%)
2	2 (30 - 39%)

APS	National Certificate Vocational (NCV) - Vocational subjects
4	4 (80 - 100%)
3	3 (70 - 79%)
2	2 (60 - 69%)
1	1 (0 - 59%)

Codes explained

- NSC: National Senior Certificate (completed Grade 12 in and after 2008)
- IEB: Independent Examination Board
- SC HG: Senior Certificate Higher Grade (completed Grade 12 before 2008)
- SC SG – Senior Certificate Standard Grade (completed Grade 12 before 2008)
- HIGCSE: Higher International General Certificate of Secondary Education
- A-Level: Advanced Level
- AS-Level: Advanced Subsidiary Level
- IB: International Baccalaureate Schools (Higher Levels and Standard Levels)
- IGCSE: International General Certificate of Secondary Education
- GCSE: General Certificate of Secondary Education
- NSSC: Namibia Senior Secondary Certificate
- O-Level: Ordinary Level

*Grade 11 = IGCSE/O-Level: APS conversion for Grade 11 equivalent only and for conditional admission and selection purposes

**Grade 12 = IGCSE/O-Level: APS conversion for Grade 12 equivalent – not for final admission and must be taken together with Advanced Subsidiary Level and Advanced Level for exemption purposes.

Contact details

Administrative enquiries	
Extended Science Pathway	sfpall@unisa.ac.za
General academic College of Agriculture and Environmental Science	CAESenquiries@unisa.ac.za
General academic College of Science, Engineering and Technology	CSETenquiries@unisa.ac.za
Discipline-specific enquiries	
College of Agriculture and Environmental Sciences	
Extended Science Pathway Coordinator	011 471 2510
Geography	011 471 2097
Life and Consumer Science	011 471 3639

Environmental Science	011 471 2140
Agriculture and Animal Health	011 471 2510
College of Science, Engineering and Technology	
Extended Science Pathway Coordinator	011 670 9224
School of Engineering - all departments	011 471 3041
Statistics	011 670 9260
Mathematics	011 670 9093
Chemistry	011 670 9224
School of Computing	011 670 9132
Physics	011 670 9075