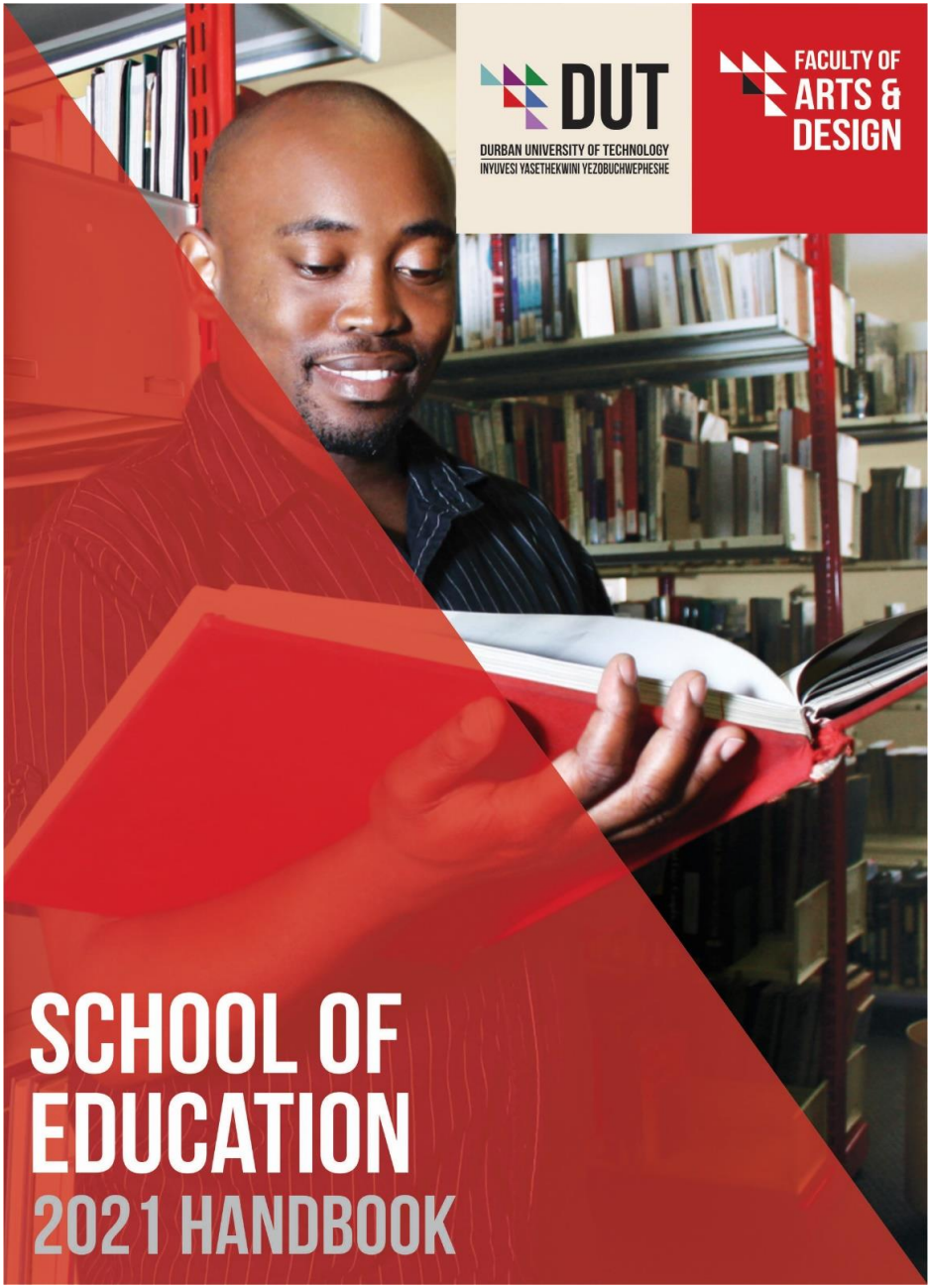

DUT
DURBAN UNIVERSITY OF TECHNOLOGY
INYUVESI YASETHEKWINI YEZOBUCHWEPHESHE

FACULTY OF ARTS & DESIGN

SCHOOL OF EDUCATION

2021 HANDBOOK

HANDBOOK FOR 2021

FACULTY of ARTS AND DESIGN

SCHOOL OF EDUCATION

which incorporates
the Adult and Community Education Unit

What is a University of Technology?

A university of technology is characterised by being research informed rather than research driven where the focus is on strategic and applied research that can be translated into professional practice. Furthermore, research output is commercialised thus providing a source of income for the institution. Learning programmes, in which the emphasis on technological capability is as important as cognitive skills, are developed around graduate profiles as defined by industry and the professions.

MISSION of SCHOOL OF EDUCATION

Promotion of quality teaching, learning and research in educational institutions by:

- Empowering students with knowledge, skills and values relevant to their careers.
- Encouraging innovative teaching and learning in education.
- Promoting active research in education to benefit communities and societies.

The School of Education will achieve this by:

- Considering pre-service and in-service education and training as parts of the same professional development continuum;
- Delivering professional education and training of the highest quality, in accordance with relevant South African legislation and the requirements for expressed development needs of educators;
- Engaging in educational research, with particular reference to problems experienced in KwaZulu-Natal educational institutions;
- Providing or facilitating advice and assistance in response to any requests from the educational community in South Africa and its neighbours;
- Exemplifying the principles of equity and transparency in all dealings with students and the broad educational community.

VISION AND MISSION of the ADULT AND COMMUNITY EDUCATION UNIT

The vision of DUT in establishing its Adult and Community Education Unit (A&CE) unit is to enhance the provision of adult education for ordinary people living in Pietermaritzburg and beyond. This accords with the White Paper for Post-School Education and Training, which stresses the need to cater for the educational needs of millions of South Africans who are poorly educated, not studying, and not employed.

The mission of the A&CE unit is expressed in the following objectives:

- to offer formal courses to adult educators and trainers in the public and private sector, thus addressing a long standing gap in education and training opportunities open to adult educators in KZN;
- to engage in and provide a base for research and debate in reading, literacy, adult education and community engagement;
- to run non-formal adult education courses in response to expressed community needs;
- to establish, maintain and promote cooperative working relationships with NGOs, the private sector and government departments in Pietermaritzburg, and with UKZN;
- to support the proposed KwaZulu-Natal Community College in offering a

range of formal and non-formal adult basic education courses in line with international standards and best practices in order to redress past disadvantage;

- to build this unit to become a recognised Southern African centre of specialisation in literacy, and adult and community education.

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IMPORTANT NOTICE

The departmental rules in this handbook must be read in conjunction with the University of Technology's General Rules contained in the current General Handbook for Students.

NOTE TO ALL REGISTERED STUDENTS

Your registration is in accordance with all current rules of the Institution. If, for whatever reason, you do not register consecutively for every year/semester of your programme, your existing registration contract with the Institution will cease. Your re-registration anytime thereafter will be at the discretion of the Institution and, if permitted, will be in accordance with the rules applicable at that time.

"The information contained in this handbook is reflective of the Department and Programme Rules and Procedures, as approved by the University Senate Rules Committee and must be read in conjunction with latest version of the General Handbook for Students of the Durban University of Technology. Whilst all efforts have been made to ensure the accuracy of the information contained within the handbook, please verify information with the Department or Programme, as in the unlikely event that errors and omissions could have.

1. CONTACT DETAILS

All School queries to:

Secretary:	Ms Upasna Rampersadh
Tel No:	033 8458927
Fax No:	033 8458936
EMAIL:	upasnar@dut.ac.za
Location of Department:	Indumiso Campus, PMB

All Faculty queries to:

Faculty officer:	Mr Pragasen Reddy
Tel No:	031 3736522
Fax No:	031 3736518
Location of Faculty:	City Campus, Durban Office
Executive Dean:	Dr Rene Smith
Tel No:	031 3736516/17
Fax No:	031 3736518
Location of Executive: Deans Office	City Campus, Durban

ADULT AND COMMUNITY EDUCATION UNIT
(AFFILIATED TO THE SCHOOL OF EDUCATION)

Administrative Assistant	Ms Xolile Xaba
Tel No	031 373 6047
Email	XolileX@dut.ac.za

2. STAFFING	Name and Qualification
Head of School	Dr D Mzindle, STD (Indumiso College), BA, (UniZulu), B.Ed;(UNP) M. Ed (UKZN); D. Ed (UNIZULU)
Residing Professor	Sheryl Potgieter
Senior Lecturers	Dr JP Abraham, BSc (Univ. of Kerala); MSc (Sardar Patel Univ.); M Phil (Univ. of Kerala); PhD (Univ. of Kerala)
	Dr MA Thamae, BSc; PGCE (NUL); BSc (Hons); MSc Chemistry converted to PhD (Rhodes University)
	Dr CCN Mthiyane, B.Pead (Science); B.Ed (Hons) Unizulu; M Sc Education (State Univ of New York College at Buffalo, USA); PhD UKZN
Lecturers	Dr GK Zulu, SPTD (Umbumbulu College), FDE (UNP), B Ed (Hons) & M Ed (UKZN), D Ed [UniZulu]
	Dr MSA Maeko, ND Technical Education; B Tech; B Ed Hons(WSU); M Ed (TUT); D Ed (TUT)
	Dr J Mangundu, BSC; MSC: Information Systems (Midlands State University - Zimbabwe) Ph D (UKZN)
	Dr A Hiralaal, BA Degree; ND in Business; HED; B Ed (Hons); B Comm(Hons); M Ed (UKZN), Ph D (UKZN)
	Dr DTS Sotsaka, Dip Architectural Drawing [Intec College] STD (Indumiso); N6 Diploma: Civil (Soshanguve Tech); B Tech (TSA) BEd [Hons]; UKZN MEd [UKZN] PhD (UKZN)
	Dr D.E Mkhize, STD (Esikhawini College), B. Paed B.Ed Hons, M.Ed, PHD (UNIZULU)
	Dr Z.S. Gumede, N Dip in Language Practice (TUT), B Tech in Language Practice (TUT), PGCE (UNISA), M Tech in Languages (TUT), PhD (Unizulu)
	Mr C Makwara, B Comm Hons: Education (UZ); MBA

Midlands State University (ZIM) MA (Development Studies) (MSU Zim); BA Hons (Develoment Studies) (UNISA) PGDipHE (Academic Development) (RU)

Mr K Naidoo, BEd; B.Sc. (UDW); NHD: Post SchEd (ML Sultan); M.Ed (UKZN)

Ms E Khonyane, B Ed; BA; UED (Fort Hare)

Mr E Conradie, HDE (TN); FDE (NCE); BEd (Hons) (UNP); M Ed (UKZN)

Mr R Holmes, HDE (UN); NTD (PMB. T) NCT (Olifants; B Ed Hons (UNP) M Ed (UKZN)

Mr B Tarr, SSTC (NOSA); NTTD (Dept. of Manpower); NTD (TN); FDE (NCE)

Mr P Mosito, BA (Vista); BA HONS (Wits); MA (Unisa).

Ms Zulu S, BEd (Wits), BSc with honors Science education (Wits), MEd (Wits)

Ms ZP Sithole, BEd (DUT) and MEd (UOM- University of Mysore, India)

Mr X.W Zulu BA in Education (Unitra), BEd(Hons) Educ Management and policies (TUT), Med Education Management and Policies(WSU).

Science Lab Technician Vacant

Computer Technician Mr R V Kwanini, B. Sc Information Technology (CTI Durban-Greenwich University); MCSE Server Infrastructure; MCSA Windows Server; MCSA SQL Server; MSCE Cloud; A+; N+

Secretary Ms U Rampersadh, BTech Degree (Commercial Administration) (MLST)

Administrative Assistant Ms Sandra Khonyane, BA Library and Information Science (Fort Hare); BA (Hons) Library Information Science (UCT).

ADULT AND COMMUNITY EDUCATION UNIT

Lecturers	Mr M Shozi BA (NU), PG Dip (Ad Ed) (NU), B Tech (Tech Natal), M Soc Sci (UKZN)
	Ms Z Thusi-Sefatsa BA (NU), PG Dip (Ad Ed) (NU), PG Dip (Mngmt) (Monash SA), PG Dip (L Law) (UJ), MA (UKZN)
Coordinator of Unit	Dr Sandra Land, BA (NU), HDE (NU), BA Hons (UNISA), MA (UKZN) PhD (UKZN)
Associate Proffessor	Dr Tabitha Mukeredzi Secondary Teachers Diploma (GTC) BEd (UZ), BEd Hons (UKZN) MA (Melbourne) PhD (UKZN) Post Doc (UKZN)
Retired Professor	Prof Julia Preece, BA Hons (Birmingham), PGCE (Birmingham), BPhil (Birmingham), MEd (Warwick), PhD (Lancaster)
Administrative Assistant	Ms X Xaba Nat Dip (Office Mngt & Tech) (DUT), B Tech (Office Mngt &Tech) (DUT)

3. PROGRAMMES OFFERED BY THE SCHOOL

A programme is offered in this School:

Qualification	**SAQA NLRD Number**
Bachelor of Education (SP & FET) [BEd], (EMS, Lang, NS, TECH)	109294
Bachelor of Education (FET) [BEd], Phasing out (EMS 80246, NS 80247, TECH 80248)	73076
Bachelor of Education Honours [Technology Education]	99644
Doctor of Education [DEd]	1533

Adult and Community Education Unit:

Master of Education in Adult and Community	101910

4. PROGRAMME INFORMATION AND RULES

MAXIMUM AND MINIMUM DURATION OF THE PROGRAMMES

NAME OF QUALIFICATION	MINIMUM	MAXIMUM
Advanced Diploma in Adult and Community Education and Training Teaching	**1 year**	**2 years**
Bachelor of Education in FET Teaching	**4 years**	**6 years**
Bachelor of Education in SP and FET Teaching	**4 years**	**6 years**
Bachelor of Education in Technology Education	**2 years**	**4 years**
Master of Education in Adult and Community Education	**1 year**	**3 years**
Doctorate in Education	**2years**	**4 years**

NAME OF QUALIFICATION	NQF LEVEL	CREDITS	PURPOSE
Bachelor of Education Degree in FET Teaching	**6**	**480**	To prepare and empower future teachers for a career in teaching at the FET band and to develop them for further studies.
Bachelor of Education Degree in SP and FET Teaching	**7**	**508**	To prepare and empower future teachers for a career in teaching at the SP and FET bands and to develop them for further studies.
Advanced Diploma in Adult and Community	**7**	**128**	To enable students with degrees or diplomas

Education and Training Teaching			relevant to adult, post school, or community education to become professionally qualified as adult and community educators or lecturers.
Bachelor of Education Honours Degree in Technology Education	**8**	**120**	The Bachelor of Education Honours Degree in Technology Education is a postgraduate degree in education that is intended to prepare students for research based postgraduate study in the field of Technology Education. This will serve to consolidate and deepen the educator's expertise in Technology Education and develop research capacity in the methodology and techniques in this area. This qualification will demand a high level of intellectual independence and theoretical engagement thus preparing the student for access to further study in the Masters and Doctoral programmes.
Master of Education in Adult and Community Education	**9**	**180**	The purpose of this Master's degree is to prepare students to become researchers and possibly leaders in the academic field of Adult, Post School and Community Education. It will therefore equip students with research expertise and the post graduate academic development necessary to lecture in academic

			institutions, and to involve themselves in research initiatives in the various fields associated with adult, community and post school education.
Doctorate in Education	**10**		

MINIMUM ADMISSION REQUIREMENTS

BACHELOR OF EDUCATION DEGREE IN FET/ SP & FET OR TEACHING

1. A National Senior Certificate (NSC) as certified by the Council for General and Further Education and Training (Umalusi) with endorsement for entry into Bachelor studies **OR**
2. A National Senior Certificate with Matriculation Exemption for students who matriculated before 2008 **OR**
3. recognized National Diplomas or certificates in education or relevant fields
4. A minimum of 28 points excluding Life Orientation
5. 2x approved languages one of which must be English. Students who matriculated before 2008 must have either an "E" symbol on the Higher Grade or a "C" symbol on the Standard Grade for English. Students who matriculated after 2008 must have a Level 4 pass in English

CRITERIA FOR SELECTION OF STUDENTS INTO THE B ED PROGRAMME

1. Students who matriculated before 2008 choosing the EMS area of specialisation must pass Accounting at NQF Level 4 (Matric) with either an "E" symbol on the Higher Grade or a "C" symbol on the Standard Grade. Students who matriculated after 2008 must have a "Level 4" pass in Accounting

2. Students who matriculated before 2008 choosing the Languages area of specialisation must pass Languages {any two of the following: English (HL, FAL) and IsiZulu (HL, FAL)} at NQF Level 4 (Matric) with either an "E" symbol on the Higher Grade or a "C" symbol on the Standard Grade. Students who matriculated after 2008 must have a "Level 4" pass in Languages {any two of the following: English (HL, FAL) and IsiZulu (HL, FAL)}

3.Students who matriculated before 2008 choosing the Natural Science area of specialisation must pass Mathematics and Physical Sciences or Life Sciences

with an E" symbol on the Higher Grade or a "C" symbol on the standard grade. Students who matriculated after 2008 must have a "Level 4" pass in mathematics and Physical Sciences or Life Sciences

4. Students who matriculated before 2008 choosing the Civil Technology area of specialisation must pass Mathematics OR Technical Mathematics OR Mathematical Literacy **OR** Technical Science with an "E" symbol on the Higher Grade or a "C" symbol on the Standard Grade. Students who matriculated after 2008 must have a "Level 4" pass in Mathematics OR Technical Mathematics OR Mathematical Literacy **OR** Technical Science. If Electrical Technology is chosen, students must have a "Level 4" pass in Mathematics or a "E" symbol on the higher grade or a "C" symbol on the standard grade. Students who matriculated before 2008 choosing the Mechanical Technology area of specialisation must pass Mathematics **OR** Technical Mathematics OR Mathematical Literacy **OR** Technical Science **OR** Physical Sciences with an "E" symbol on the Higher Grade or a "C" symbol on the Standard Grade. Students who matriculated after 2008 must have a "Level 4" pass in Mathematics **OR** Technical Mathematics OR Mathematical Literacy **OR** Technical Science **OR** Physical Sciences.

5. A National Certificate (Vocational) NCV, Level 4 with the following minimum requirements:
   (i) at least 60% in three fundamental subjects including English and;
   (ii) at least 70% in four compulsory vocational subjects, chosen from the National Certificate (Vocational) NCV, Level 4 subjects

6. An N6 certificate with relevant subject combinations. Students must have a 60% pass in all subjects. In addition, the student must have a NSC certificate with English Level 3 or an "E" symbol on the higher grade or a "C" symbol on the standard grade.

7. **ADMISSION BASED UPON WORK EXPERIENCE, AGE AND MATURITY**

a) A student may subject to such requirements as the Senate may determine, be admitted to the Bachelor of Education Degree, who is in possession of a National Senior Certificate, Senior Certificate or an equivalent certificate, but lacks minimum requirements for admission to the degree provided that:

i) The person shall have reached the age of 23 in the first year of registration and shall have at least:
   - 3 years' appropriate work experience or
   - capacity for the proposed instructional programme which shall be assessed by a Senate-approved admission test; and the person has obtained

ii) a conditional certificate of exemption from the

Matriculation Board (when in possession of the Senior Certificate (SC); OR has met

iii) the requirements of the Senate discretionary admission (when in possession of the NSC or equivalent) where Senate is satisfied the applicant has shown sufficient academic ability to ensure success, and that the person's standard of communication skills and/or work experience are such that the person, in the opinion of the Senate, should be able to complete the proposed instructional programme successfully

iv) the person's application for admission in terms of Rule G7(3) is approved prior to registration

v) **APPLICANTS MUST SUBMIT THEIR APPLICATION AT LEAST 4 MONTHS BEFORE THE COMMENCE OF THE ACADEMIC YEAR**

ADVANCED DIPLOMA IN ADULT AND COMMUNITY EDUCATION AND TRAINING TEACHING

This is a 128-credit HEQSF level 7 qualification that is run at the Indumiso campus in Pietermaritzburg. It is semesterised and may be offered full time over one year, or part time over two years according to student needs. It allows specialisation in a particular vocational field or subject offered in Adult and Community Education and Training (ACET).

In order to be considered as students of this Advanced Diploma, applicants must hold a Bachelor's degree or a 360 credit Diploma at NQF level 6 in any field relevant to adult, post school, or community education
OR
have been granted Advanced Standing via Recognition of Prior Learning equivalent to the admission requirements described in a) above.

Applicant Selection

Meeting or exceeding the admission requirements above does not guarantee acceptance. Only a limited number of students can be accepted and final selection will be based on an interview and /or a selection task.

Registration will be done within the faculty, at our offices at the start of each semester.

BACHELOR OF EDUCATION HONOURS DEGREE IN TECHNOLOGY EDUCATION

To be admitted to the Honours programme, a student must have an appropriate four- year professional teaching degree preferably with Technology or equivalent as a major or a related qualification **OR** an appropriate Bachelor's Degree and a recognized professional teaching qualification for example a Postgraduate Certificate in Education **OR** an Advanced Diploma in Education

1. **Suitable Candidate Selection**
    - Candidates must apply for admission to this qualification directly to the department only for 2019. For all other subsequent years, admission must be made through CAO.
    - Applicants may be recognized for the entry to the qualification provided that they have met the following criteria:

Proof of relevant academic competence, namely a mark of 65% average in the majors of a prior degree or in the case of a diploma, a 65% average for all the subjects/modules.

MASTER OF EDUCATION IN ADULT AND COMMUNITY EDUCATION

This is a 180-credit HEQSF level 9 qualification that is run at the Indumiso Campus in Pietermaritzburg.

In order to be considered for admission into this programme, applicants must

a) hold a qualification (such as an Honours degree or Postgraduate Diploma) at HEQSF level 8, or its equivalent, in a field relevant in some way to Adult, Community or Post School Education. Alternatively,
b) have been granted Advanced Standing or Recognition via Prior Learning equivalent to the admission requirements described in a) above.

Applicant Selection

Meeting or exceeding the admission requirements above does not guarantee acceptance. Only a limited number of students can be accepted and final selection will be based on an interview and /or a selection task.

Minimum time of study required for completion of this degree is one year, and maximum time of study is three years.

Registration will be done within the faculty, at our offices at the start of each year.

DOCTORATE IN EDUCATION

Master's Degree in Education with a minimum of 60% pass mark OR Master's degree (a minimum of 60%) with an Advanced Diploma / Certificate in Education OR Master's degree in a relevant and appropriate area (a minimum of 60% pass mark) **AND** a minimum of five years teaching experience may be considered through the RPL route.

PROGRESSION RULES

BACHELOR OF EDUCATION DEGREE IN FET/ SP & FET TEACHING

In addition to the requirements of Rule G17, the following rules shall apply:

(a) To pass a year of study, all subjects as prescribed in the Instructional Programme must be passed with the exception of conditions (b) and (c) below

(b) (i) The pass mark for continuous assessment (CA) modules at any level of study (eg. General Subject Didactics, Skills and Life Orientation/ Life Skills and Communication) is 50%.

(ii) However, a student who fails to comply with b(i) in any one or more of these subjects has to repeat and pass the subject/s by the third year of study with the exception of Skills and Life Orientation/ Life Skills which may be carried into the fourth year of study, provided no other subjects have been failed

(iii) If after a supplementary examination a student still fails, it is the responsibility of the student to re-register for the failed subject and pass. No special arrangement for this will be made on the time-table.

(c) The elective which does not continue beyond the first year:

If a student fails the third major in the first year of study, he/she can still proceed to the next level of study provided no other subjects have been failed. The student is allowed to carry the failed major until third year notwithstanding the fact that if other subjects are failed, the student will not be allowed to proceed to the next year of study.

ALL subjects with the exception of Skills and Life Orientation/ Life Skills must be passed by the third year. If the student has an outstanding subject besides Skills and Life Orientation/ Life Skills, he/she cannot proceed to the fourth year of study. The student will have to repeat the year

(d) No student will be allowed to register for the next level of a subject without passing the previous level nor will the students be allowed to register for two levels of a subject simultaneously.

(e) In order for students to be promoted to the Second level of study, a student must pass the following subjects:
Education 101
WIL 102

4 semesters of 2 Majors (Teaching specialization subjects)

(f) In order to be promoted to the second, third and fourth year of study, a student must pass ALL Education modules for the respective year levels, and ALL Majors (Teaching Specialization subjects)

ADVANCED DIPLOMA IN ADULT AND COMMUNITY EDUCATION AND TRAINING TEACHING

All modules in this Advanced Diploma are on the same level, and there are no pre-requisites or co-requisites. Therefore, there are no restrictions on the order in which modules are completed.

BACHELOR OF EDUCATION HONOURS IN TECHNOLOGY EDUCATION

YEAR	COMPULSORY	ELECTIVE	
I			
Study Period I	• Modern Technology and Communication in Technology Education		**Only offered in semester one. Can fail any one of these subjects and still register for semester two**
	• International and national perspectives of Technology education		

Study Period 2	• Understanding Research **Pre-requisite for Independent Research Project Part One**		**Must pass**
		Select One *Drawing in the context of Mechanical, Civil, and Electrical Technology *Integrated Systems in Technology Education	**Only offered in semester two. Can fail either one and still register for next semester**
2			
Study Period 3	Independent Research Project Part One **Pre-requisite for Independent Research Project Part Two**		**Must Pass**
		Select One *Computer-Aided Design in the context of Mechanical, Civil and Electrical Technology *Material and Structures in Technology Education	**Only offered in semester one. Can fail either one and still register for next semester**
Study Period 4	Independent Research Project Part Two		**Must pass**

MASTER OF EDUCATION IN ADULT AND COMMUNITY EDUCATION

Since this degree consists of only one module (Development of Dissertation) there are no particular rules of progression between registration and the completion of the module.

DOCTORATE IN EDUCATION

PROGRAMME STRUCTURE

Bachelor of Education in FET Teaching in Technology Education: First Year

Code	Subjects:	Compulsory		Annual	Assessment Method	NQF Level	Pre-requisite
CVTC101 ELTC101 MCTC101 EGDS101 MTMC101	Select ONE: Civil Technology OR Electrical Technology OR Mechanical Technology Engineering Graphics and Design Mathematics Mathematical Literacy Physical Science		Select 3	✓ ✓	Examinations	5	See Criteria for selection

Bachelor of Education in SP and FET Teaching in Technology Education: First Year (S1)

Code	Subjects:	Compulsory		Semester	Assessment Method	NQF Level	Pre-requisite
	Civil Technology 101 Electrical Technology 101 Mechanical Technology 101	*Mathematics Compulsory if Electrical Technology is chosen	Select 1 of 3	✓	Examinations Examinations Examinations	5 5 5	See Criteria for selection
	Engineering Graphics and Design 101 Mathematics 101 Mathematical Literacy 101 Physical Sciences 101 Technical Mathematics 101 Technical Science 101		Select 2 of 5	✓	Examinations	5	

Bachelor of Education in SP and FET Teaching in Technology Education: First Year (S2)

Code	Subjects:	Compulsory		Semester	Assessment Method	NQF Level	Pre-requisite
	Civil Technology 102 Electrical Technology 102 Mechanical Technology 102	*Mathematics Compulsory if Electrical Technology is chosen	Select 1 of 3 similar to S1	✓	Examinations Examinations Examinations	5 5 5	See Criteria for selection
	Engineering Graphics and Design 102			✓	Examinations	5	See Criteria for selection
	Mathematics 102 Mathematical Literacy 102		Select 2 of 5	✓	Examinations	5	See Criteria for selection

	Physical Sciences 102 Technical Mathematics 102 Technical Science 102		similar to S1				

Bachelor of Education in FET Teaching in EMS Education: First Year							
Code	**Subjects:**	**Compulsory**		**Annual**	**Assessment Method**	**NQF Level**	**Pre-requisite**
ACCT101 ECON101 CAPT101 BSMN101 MTHL101 MTMC101	Accounting Economics Computer Application Technology Business Management Mathematical Literacy or Mathematics		Select 3	✓	Examinations	5	See Criteria for selection

Bachelor of Education in SP and FET Teaching in EMS Education: First Year (S1)							
Code	**Subjects:**	**Compulsory for SP**		**Semester**	**Assessment Method**	**NQF Level**	**Pre-requisite**
	Accounting 101 Economics 101 Business Studies 101 Mathematical Literacy 101 or Mathematics 101	Accounting 101 Economics 101 Business Studies 101	Select 3 + 1	✓	Examinations	5	See Criteria for selection

Bachelor of Education in SP and FET Teaching in EMS Education: First Year (S2)							
Code	**Subjects:**	**Compulsory for SP**		**Semester**	**Assessment Method**	**NQF Level**	**Pre-requisite**
	Accounting 102 Economics 102 Business Studies 102 Mathematical Literacy 102 or Mathematics 102	Accounting 102 Economics 102 Business Studies 102	Select 3 + 1 similar to S1	✓	Examinations	5	See Criteria for selection

Bachelor of Education in FET Teaching in Natural Sciences Education : First Year							
Code	**Subjects:**	**Compulsory**		**Annual**	**Assessment Method**	**NQF Level**	**Pre-requisite**
MTMC101 PHSE101 CHED101 BIOE10	Mathematics Physics Chemistry Biology		Select 3	✓	Examinations	5	See Criteria for selection

Bachelor of Education in SP and FET Teaching in Natural Sciences Education : First Year (S1)							
Code	**Subjects:**	**Compulsory for SP**		**Semester**	**Assessment Method**	**NQF Level**	**Pre-requisite**
	Mathematics 101 Physical Sciences 101 Life Sciences 101 Information Technology 101	Physical Sciences 101 Life Sciences 101	Choose 3 of 5	✓	Examinations	5	See Criteria for selection

Bachelor of Education in SP and FET Teaching in Natural Sciences Education : First Year (S2)							
Code	**Subjects:**	**Compulsory for SP**		**Semester**	**Assessment Method**	**NQF Level**	**Pre-requisite**
	Mathematics 102 Physical Sciences 102 Life Sciences102 Information Technology 102	Physical Sciences 102 Life Sciences 102	Choose 3 of 5 similar to S1	✓	Examinations	5	See Criteria for selection

Bachelor of Education in SP and FET Teaching in Languages Education : First Year (S1)							
Code	**Subjects:**	**Compulsory**		**Semester**	**Assessment Method**	**NQF Level**	**Pre-requisite**
	English Home Language 101 IsiZulu Home Language 101 English First Additional Language 101 IsiZulu First Additional Language 101		Select 3	✓	Examinations	5	See Criteria for selection

Bachelor of Education in SP and FET Teaching in Languages Education : First Year (S2)							
Code	**Subjects:**	**Compulsory**		**Semester**	**Assessment Method**	**NQF Level**	**Pre-requisite**
	English Home Language 102 IsiZulu Home Language 102 English First Additional Language 102 IsiZulu First Additional Language 102		Select 3 similar to S1	✓	Examinations	5	See Criteria for selection

Bachelor of Education in FET Teaching in Technology Education: Second Year							
Code	**Subjects:**	**Compulsory**		**Annual**	**Assessment Method**	**NQF Level**	**Pre-requisite**
CVTC101 ELTC101 MCTC101 EGDS201 MTMC201 MTHL201	Civil Technology Electrical Technology Mechanical Technology Engineering Graphics and Design Mathematics Mathematical Literacy		Continue with 2 of the 3 subject selected in First Year	✓	Examinations	6	1st year level

Bachelor of Education in SP and FET Teaching in Technology Education: Second Year (S1)							
Code	**Subjects:**	**Compulsory**		**Semester**	**Assessment Method**	**NQF Level**	**Pre-requisite**
	Civil Technology 201 Electrical Technology 201 Mechanical Technology 201	*Mathematics Compulsory if Electrical Technology is chosen	Continue with 1 of the 3 subject selected in First Year	✓	Examinations	6	1st year level
	Engineering Graphics and Design 201 Mathematics 201 Mathematical Literacy 201 Technical Mathematics 201 Technical Science 201		Continue with 2 of the subjects selected in First Year	✓	Examinations	6	1st year level

Bachelor of Education in SP and FET Teaching in Technology Education: Second Year (S2)							
Code	**Subjects:**	**Compulsory**		**Semester**	**Assessment Method**	**NQF Level**	**Pre-requisite**
	Civil Technology 202 Electrical Technology 202 Mechanical Technology 202	*Mathematics Compulsory if Electrical Technology is chosen	Continue with 1 of the 3 subject selected	✓	Examinations	6	1st year level

			in First Year				
	Engineering Graphics and Design 202 Mathematics 202 Mathematical Literacy 202 Technical Mathematics 202 Technical Science 202		Continue with 2 of the subjects selected in First Year	✓	Examinations	6	Ist year level

Bachelor of Education in FET Teaching in EMS Education: Second Year							
Code	**Subjects:**	**Compulsory**		**Annual**	**Assessment Method**	**NQF Level**	**Pre-requisite**
ACCT201 ECON201 CAPT201 BSMN201 MTMC201 MTHL201	Accounting Economics Computer Application Technology Business Management Mathematics Mathematical Literacy		Continue with 2 of the 3 subjects selected in first year	✓	Examinations	6	Ist year level

Bachelor of Education in SP and FET Teaching in EMS Education: Second Year (S1)							
Code	**Subjects:**	**Compulsory**		**Semester**	**Assessment Method**	**NQF Level**	**Pre-requisite**
	Accounting 201 Economics201 Business Studies 201 Mathematics 201 Mathematical Literacy 201		Continue with 3 of the 4 subjects selected in first year	✓	Examinations	6	Ist year level

Bachelor of Education in SP and FET Teaching in EMS Education: Second Year (S2)							
Code	**Subjects:**	**Compulsory**		**Semester**	**Assessment Method**	**NQF Level**	**Pre-requisite**
	Accounting 202 Economics 202 Business Studies 202 Mathematics 202 Mathematical Literacy202		Continue with 3 of the 4 subjects selected in first year	✓	Examinations	6	Ist year level

Bachelor of Education in FET Teaching in Natural Sciences Education: Second Year						
Code	**Subjects:**		**Annual**	**Assessment Method**	**NQF Level**	**Pre-requisite**
PHSE201 CHED201 BIOE201 MTMC201	Physics Chemistry Biology Mathematics	Continue with 2 of the 3 subjects selected in first year	✓	Examinations	6	Ist year level

Bachelor of Education in SP and FET Teaching in Natural Sciences Education: Second Year (S1)							
Code	**Subjects:**	**Compulsory**		**Semester**	**Assessment Method**	**NQF Level**	**Pre-requisite**
	Mathematics 201 Physical Sciences 201 Life Sciences 201 Information Technology 201		Continue with 2 of the subjects selected in First Year	✓	Examinations	6	Ist year level

Bachelor of Education in SP and FET Teaching in Natural Sciences Education: Second Year (S2)

Code	Subjects:	Compulsory		Semester	Assessment Method	NQF Level	Pre-requisite
	Mathematics 202 Physical Sciences 202 Life Sciences 202 Information Technology 202		Continue with 2 of the subjects selected in First Year	✓	Examinations	6	1st year level

Bachelor of Education in SP and FET Teaching in Languages Education : Second Year (S1)							
Code	Subjects:	Compulsory		Semester	Assessment Method	NQF Level	Pre-requisite
	English Home Language 201 IsiZulu Home Language 201 English First Additional Language 201 IsiZulu First Additional Language 201		Continue with 2 of the subjects selected in First Year	✓	Examinations	6	1st year level

Bachelor of Education in SP and FET Teaching in Languages Education : Second Year (S2)							
Code	Subjects:	Compulsory		Semester	Assessment Method	NQF Level	Pre-requisite
	English Home Language 202 IsiZulu Home Language 202 English First Additional Language 202 IsiZulu First Additional Language 202		Continue with 2 of the subjects selected in First Year	✓	Examinations	6	1st year level

Bachelor of Education in FET Teaching in Technology Education : Third Year							
Code	Subjects:	Compulsory		Annual	Assessment Method	NQF Level	Pre-requisite
CVTC301 ELTC301 MCTC301 EGDS201 MTMC201 MTHL201	Civil Technology Electrical Technology Mechanical Technology Engineering Graphics and Design Mathematics Mathematical Literacy		Continue with 2 of the 3 subject selected in second year	✓	Examinations	7	2nd year level

Bachelor of Education in SP and FET Teaching in Technology Education : Third Year (S1)							
Code	Subjects:	Compulsory		Semester	Assessment	NQF	Pre-

					Method	Level	requisite
	Civil Technology 301 Electrical Technology 301 Mechanical Technology 301	*Mathematics compulsory if Electrical Technology is chosen	Continue with 1 subject selected in Second Year	✓	Examinations	7	2nd year level
	Engineering Graphics and Design 301 Mathematics 301 Mathematical Literacy 301 Technical Mathematics 301 Technical Science 301		Continue with 1 subject selected in Second Year	✓	Examinations	7	2nd year level

Bachelor of Education in SP and FET Teaching in Technology Education : Third Year (S2)							
Code	**Subjects:**	**Compulsory**		**Semester**	**Assessment Method**	**NQF Level**	**Pre-requisite**
	Civil Technology 302 Electrical Technology 302 Mechanical Technology 302	*Mathematics compulsory if Electrical Technology is chosen	Continue with 1 subject selected in Second Year	✓	Examinations	7	2nd year level
	Engineering Graphics and Design 302 Mathematics 302 Mathematical Literacy 302 Technical Mathematics 302 Technical Science 302		Continue with 1 subject selected in Second Year	✓	Examinations	7	2nd year level

Bachelor of Education in FET Teaching in EMS Education: Third Year						
Code	**Subjects**		**Annual**	**Assessment Method**	**NQF Level**	**Pre-requisite**
ACCT301 ECON301 CAPT301 BSMN301 MTMC301 MTHL301	Accounting Economics Computer Application Technology Business Management Mathematics Mathematical Literacy	Continue with 2 subjects selected in second year	✓	Examinations	7	2nd year level

Bachelor of Education in SP and FET Teaching in EMS Education: Third Year (S1)							
Code	**Subjects:**	**Compulsory**		**Semester**	**Assessment Method**	**NQF Level**	**Pre-requisite**
	Accounting 301 Economics 301 Business Studies 301 Mathematics 301 Mathematical Literacy 301		Continue with 3 of the 4 subjects selected in second year	✓	Examinations	7	2nd year level

Bachelor of Education in SP and FET Teaching in EMS Education: Third Year (S2)							
Code	**Subjects:**	**Compulsory**		**Semester**	**Assessment Method**	**NQF Level**	**Pre-requisite**
	Accounting 302 Economics 302 Business Studies 302 Mathematics 302		Continue with 3 of the 4 subjects	✓	Examinations	7	2nd year level

	Mathematical Literacy 302		selected in second year				

Bachelor of Education in FET Teaching in Natural Sciences Education: Third Year						
Code	**Subjects:**		**Annual**	**Assessment Method**	**NQF Level**	**Pre-requisite**
PHSE301 CHED301 BIOE301 MTMC301	Physics Chemistry Biology Mathematics	Continue with 2 subjects selected in second year	✓	Examinations	7	2nd year level

Bachelor of Education in SP and FET Teaching in Natural Sciences Education: Third Year (S1)							
Code	**Subjects:**	**Compulsory**		**Semester**	**Assessment Method**	**NQF Level**	**Pre-requisite**
	Mathematics 301 Physical Sciences 301 Life Sciences 301 Information Technology 301		Continue with 2 of the subjects selected in Second Year	✓	Examinations	7	2nd year level

Bachelor of Education in SP and FET Teaching in Natural Sciences Education: Third Year (S2)							
Code	**Subjects:**	**Compulsory**		**Semester**	**Assessment Method**	**NQF Level**	**Pre-requisite**
	Mathematics 302 Physical Sciences 302 Life Sciences 302 Information Technology 302		Continue with 2 of the subjects selected in Second Year	✓	Examinations	7	2nd year level

Bachelor of Education in SP and FET Teaching in Languages Education : Third Year (S1)							
Code	**Subjects:**	**Compulsory**		**Semester**	**Assessment Method**	**NQF Level**	**Pre-requisite**
	English Home Language 301 IsiZulu Home Language 301 English First Additional Language 301 IsiZulu First Additional Language 301		Continue with 2 of the subjects selected in Second Year	✓	Examinations	7	2ndyear level

Bachelor of Education in SP and FET Teaching in Languages Education : Third Year (S2)							
Code	**Subjects:**	**Compulsory**		**Semester**	**Assessment Method**	**NQF Level**	**Pre-requisite**
	English Home Language 302 IsiZulu Home Language 302 English First Additional Language 302		Continue with 2 of the subjects	✓	Examinations	7	2nd year level

	IsiZulu First Additional Language 302		selected in Second Year				

STRUCTURE OF THE ADVANCED DIPLOMA IN ADULT AND COMMUNITY EDUCATION AND TRAINING TEACHING

Code	Subjects	*C/E	Semester	Assessment	NQF level	Pre-requisite	Cre
HTAC101	History and Theories of Adult and Community Education	C	SP1	Continuous	7	Nil	16
ACDS101	Academic skills	C	SP1	Continuous	7	Nil	16
ACPS101	Adult, community and post school education in South Africa: Policy and Practice	C	SP1	Continuous	7	Nil	16
CIDA101	Curriculum, instructional design, and assessment in ACET	C	SP1	Continuous	7	Nil	16
TMCI101	Teaching methodologies for Communication and Language: African languages	E	SP2	Continuous	7	Nil	16
TMCE101	Teaching methodologies for Communication	E	SP2	Continuous	7	Nil	16

	and Language: English						
TMML101	Teaching methodologies for Mathematics and Mathematical Literacy	E	SP2	Continuous	7	Nil	16
TMIT101	Teaching methodologies for ICT	E	SP2	Continuous	7	Nil	16
TMLO101	Teaching methodologies for Life Orientation	E	SP2	Continuous	7	Nil	16
TMNS101	Teaching methodologies for Natural Sciences	E	SP2	Continuous	7	Nil	16
TMHC101	Teaching methodologies for Ancillary Health Care	E	SP2	Continuous	7	Nil	16
TMSS101	Teaching methodologies for Social Studies	E	SP2	Continuous	7	Nil	16
TMEC101	Teaching methodologies for Early Childhood Educational Development	E	SP2	Continuous	7	Nil	16
TMEM101	Teaching methodologies for Economic and Management Sciences	E	SP2	Continuous	7	Nil	16

TMCM101	Teaching methodologies for Community Education	E	SP2	Continuous	7	Nil	16
PPFD101	Practicum portfolio development	E	SP2	Continuous	7	Nil	32

C = Compulsory E= Elective

STRUCTURE OF THE BACHELOR OF EDUCATION HONOURS IN TECHNOLOGY EDUCATION

Bachelor of Education Honours in Technology Education

Name of subject	**Subject Code**	**Study Level**	**NQF Level**	**Module Credits**	**C/E***	**Pre-Req.**	**Co-Req**	**Exam****
Modern Technology and Communication in Technology Education	MTTE 101	1	8	12	C	Nil	Nil	No
International and national perspectives of Technology education	INPT 101	1	8	16	C	Nil	Nil	Yes
Understanding Research	UNRS 101	2	8	12	C	Nil	Nil	Yes
Select one Drawing in the context of	DMCE 101	2	8	24	E	Nil	Nil	Yes

Mechanical, Civil, and Electrical Technology								
Integrated Systems in Technology Education	ISTE 101	2	8	24	E	Nil	Nil	Yes
Independent Research Project Part One	IRJP 101	3	8	16	C	UNRS 101	Nil	No
Select One								
Computer-Aided Design in the context of Mechanical, Civil and Electrical Technology	CADT 101	3	8	24	E	Nil	Nil	Yes
Material and Structures in Technology Education	MSTE 101	3	8	24	E	Nil	Nil	Yes
Independent Research Project Part Two	IRJP 102	4	8	16	C	IRJP 101	Nil	No

STRUCTURE OF THE MASTER OF EDUCATION IN ADULT AND COMMUNITY EDUCATION

Code	Subjects	*C/O	Semester/ Annual	Assessment	NQF level	Pre-requisite	Cr
DISS511	DISSERTATION 1ST REGISTRATION	C	P0	Summative external	9		
DISS521	DISSERTATION 2ND REGISTRATION	C	P0	Summative external	9		**18**
DISS531	DISSERTATION 3RD REGISTRATION	C	P0	Summative external	9		

6. ASSESSMENT RULES

All assessments rules shall be accordance with the Assessment policy of the INSTITUTION

ASSESSMENT RULES FOR ADVANCED DIPLOMA IN ADULT AND COMMUNITY EDUCATION AND TRAINING TEACHING ADACE1

Assessment is continuous, with no written exam at the end of semesters. In each of the four 16 credit compulsory modules and two 16 credit elective modules, assessment will be based on three coursework assignments. The first two assignments make up 50% of the final mark, and the third assignment will count for the remaining 50% of the final mark. The pass mark for all subjects is 50%. A student who does not perform to an acceptable level in an assessment is entitled to one (1) additional opportunity to improve his/her mark.
For the WIL component, students will receive formative assessment from assigned supervisors during the compilation of their practicum portfolios. Assessment of the completed portfolios will be summative and result in a final mark for this 32 credit module.

ASSESSMENT RULES FOR MASTER OF EDUCATION IN ADULT AND COMMUNITY EDUCATION

Assessment is formative, through continual feedback from supervisor/s to students on successive drafts of work, first on the development of a proposal, and then of a dissertation. Feedback will be critical but aimed to clarify the criteria against which the student's work is assessed. It will also support the development of intellectual engagement, independence, confidence, and effective reflection.
Dissertations are examined externally.

7. RE-REGISTRATION RULES

This rule must be read in conjunction with Rule G1 (2) in the General Handbook of the University:

a) A student will be refused re-registration at the School of Education if she/he due to unsatisfactory academic progress, to complete the instructional programme for which he/she is, or has not most recently been registered within the maximum period for registered study stipulated in the relevant rules (Rule G19 to G25) in the General Handbook for Students refers.

8. ACADEMIC MONITORING AND SUPPORT GUIDELINES FOR STUDENTS AT RISK

MISSION

The intent of Academic monitoring and support is to enhance student engagement in the learning process, encourage higher levels of academic performance, further critical thinking skills and to support and assist underperforming students. The School of Education acknowledges that academic monitoring and support is important for academic success.

AIM

These guidelines commit the School of Education to identify under-performing students timeously and to provide the necessary academic support to assist students to graduate in the minimum time possible. Appropriate interventions and systems of support are expected to reduce dropout rates and exclusions and to improve throughputs and completion rates.

SCOPE OF THESE GUIDELINES

These guidelines apply to all students registered in the School of Education. The students that are assessed as academically underperforming are classified by the School of Education as being "STUDENTS AT RISK" .

STAFF RESPONSIBILITY

Staff have the responsibility of delivering quality teaching and assessment, ensuring that students have the opportunity and means to assess and monitor their performance on a regular basis, identifying underperforming students timeously and providing these students with appropriate academic support. Co-coordinators of focus areas need to take an active role in assuring that staff identify such students timeously.

STUDENT RESPONSIBILITY

Students are expected to assume responsibility for their own learning by committing themselves fully to their studies, monitoring their academic performance on a regular basis, informing relevant academic staff of the difficulties they may be experiencing and to take advantage of all the resources and support made available to them in order to improve their academic performance and complete their studies successfully and preferably in the minimum time recommended for their qualification but not exceeding the maximum duration allowed.

THE GUIDELINES

Student's performance after each assessment will be assessed to identify studentsents who who are underperforming in a subject. Underperformance is identified as attaining a mark less than 50% in any assessment. According to Rule G14 in the General Handbook for students, 50% is the final pass mark for all subjects in an examination hence this standard will be maintained

The names of "At Risk Student" will be submitted to the Programme Coordinator after each assessment. The committee will then interview the student together with the subject lecturer and the focus area coordinator to determine the reason for the underperformance.

Depending on the reason for the underperformance, the committee together with the focus area coordinator and the subject lecturer will take a decision on what intervention strategy is required to support and assist the student. The Academic Monitoring

and Support Committee will carefully monitor the performance of all "Students at Risk" by holding regular meetings with the subject lecturer and the student to determine whether the intervention strategies have been effective. However, if underperformance persists after all attempts have been made to support and assist the student, then the Programme coordinator will have to meet with teaching and Learning committee (TLC) and make a decision. Students will be referred to Rule G 17 in the Handbook.

"G 17 UNSATISFACTORY ACADEMIC PROGRESS

(1) A student will be refused re-registration at the Institution for any instructional programme if he/she is unable, due to unsatisfactory academic progress, to complete the instructional programme for which he/she is, or has most recently registered, within the maximum period of registered study stipulated in the relevant Rule (Rule G19 to G25 refer)

(2) Notwithstanding Rule G17(1), the executive Committee of the relevant Faculty Board may, in circumstances which they deem exceptional, grant a student a further period/s of registration for completion of any instructional programme.

(3) A student may appeal against the application of Rule G17(1) in accordance with Rule G1(8)"

TEACHING AND LEARNING COMMITTEE

The Teaching and Learning Committee is headed by the coordinator for the Teaching and Learning Committee who will be assisted by the School of Education programme coordinator and all Focus Area Co-ordinators.

9. INDICATIVE CONTENT

NB: Students to read this section in conjunction with the relevant student guides.

Core Modules are Compulsory for all B Ed Students: SP and FET

EDUCATION I

1st Semester

1. Education and Its Purpose
2. Basic Educational Concepts (Formal, Non-Formal and Informal Education)
3. Introduction to:
   - Philosophy of Education
   - Psychology of Education (theories of Human Development)
   - History and Comparative Education
   - Sociology of Education
4. Curriculum Design (OBE: NCS)

EDUCATION II

1st Semester

1. **Issues in Education [Gender, Equity and Inclusive Education]**

   What is Inclusive Education?

   An overview of the conceptual and operational framework that informs the strategy of inclusive education.

   Discussions on inclusive education will include:

   - The shift from categories of disability to levels of support
   - The description and role of full-service schools
   - The description and role of resource centers and their role in the implementation of inclusive education

   Multicultural Education

   Gender Issues in Education

   Quality Education

2. **Theories of Human Development II: Piaget —Cognitive Development**
   - Kohlberg's Theory —Moral Development
   - Vygotsky —The Zone of proximal development

- Maslow —Hierarchy of needs

3. **Information Processing Approach: (a self-study)**

EDUCATION III

1st Semester

1. **Concept of Research**
2. **Research Processes**
   Defining a research problem
   Problem Identification
   Delimiting a research problem
3. **Approaches to research**
   Qualitative Research
   Quantitative Research
4. **Types of Research**
5. **Hypothesis/Research question**
6. **Literature Review**
7. **Research Designs**
8. **Sampling Techniques**
9. **Measuring Instruments**
10. **Data collection, organization and presentation**
11. **Measure of Central Tendency**

12. **Leadership and Management**
    What is classroom management
    Effective classroom management
    Planning a classroom management task
    Managing change in Education
    Parent involvement and classroom management
    Collegiality (teaching, mentoring and support)

EDUCATION III

2nd Semester

13. **Education Policies**
    General Legislation
    Bill of Rights
    Labour Relations Act
    Employment Equity Act
14. **National Education Policy Act (84/1996)**
    National Policy on HIV/AIDs for learners and educator in public schools and students and educators in FET Institutions. Norms and standards for Educators
15. **South African Schools Act (84/1996)**
    Learners representative Councils
    The formation and the role of School Governing Bodies (SGBs).
    Guidelines for consideration of Governing Bodies
    In adopting a code of conduct for learners.
    National Norms and standards for School funding
    Exemption of parents from paying fees
    Employment of Educators Act
    South African Council of Educators Act (SACE)

EDUCATION IV

2nd Semester

1. Partnerships in Education:
   - Role of Industry in Education
   - Role of Parents/Community in Education
   - Role of Government in Education
   - Role of SACE
2. Education and Law
3. Leadership and Management
4. Ethical issues in Education
   - Ethics of Justice
   - Ethics of Care
   - Ethics in the Workplace
   - Ethics and the South African Code of Conduct for Educators
5. Submission of research projects

PROFESSIONAL STUDIES I

1st Semester

1. Introduction to Didactics
2. What is teaching?
3. Teaching environment
4. Teaching approaches
   - Traditional approaches
   - OBE as an approach to teaching and learning
5. Introduction to Teaching and Learning Strategies
6. Teaching Methods
7. General Teaching Skills
8. Introduction to Media Applications

PROFESSIONAL STUDIES II

1st Semester

1. Micro-Teaching
   Introduction to Outcomes
   Designing Lesson Plans
   Teaching and Learning Media Applications
   Collaborative Teaching
2. Classroom Management
3. Outcomes Based Assessment (OBA)
4. Teaching Large Groups

PROFESSIONAL STUDIES III

1st Semester

1. Micro-Teaching
   * Teaching and Learning Strategies
   * Questioning Techniques
   * Development of Media and production of teaching materials
2. Curriculum Development: Planning Work Programmes for different learning areas
3. Assessment Approaches and Principles

4. Balancing a Question Paper
5. Quality Assurance in Education

PLANNING A LEARNING PROGRAMME
New Curriculum Framework
Levels of Planning

PROFESSIONAL STUDIES IV

2nd Semester

1. Discipline in Education: Legislation around discipline in School
2. Decentralised School Governance: School Governing Bodies and their role
3. Portfolio Development Project

WORK INTEGRATED LEARNING (WIL)

2nd Semester

1. 4 weeks: Academic Literacy and Micro-Teaching.
2. Portfolio and Logbook.

WORK INTEGRATED LEARNING (WIL)

2nd Semester

1. 4 weeks: Guided Observation
2. Portfolio and Logbook.

WORK INTEGRATED LEARNING (WIL)

2nd Semester

1. 4 weeks: Guided Observation and Collaborative Teaching
2. Portfolio and Logbook.

WORK INTEGRATED LEARNING (WIL)

1st Semester

1. 3 months, full time teaching
2. Portfolio and Logbook.
3. An experienced senior educator to be appointed as a mentor.
4. Students must comply with rules and regulations of the institution in which they are placed and are required to comply with DoE and the SACE: Code of Conduct for Educators.

Fundamental Modules are Compulsory for all students

COMMUNICATION IN ENGLISH (LANGUAGE X)

2nd Semester

1. The Communication types, processes and barriers
2. Academic and reflecting writing
3. Approaches to reading
4. Listening and feedback
5. Oral communication
6. Referencing methods
7. Organisational Communication
8. Intercultural communication
9. Report writing
10. Non-verbal communication
11. Speaking in groups and meetings

12. How we read/improving your reading skills
13. Text analysis
14. Organisational Correspondence: Application of writing skills
15. Linguistic issues and topics
16. Aspects Regarding Language Usage in The Context of the Teaching and Learning situation
17. Legislation and Professional issues pertaining to teaching and learning
18. Scientific investigations into linguistic issues

LIFE SKILLS I

1st Semester

1 Religion
2 Basic Study Methods
3 Community Involvement
4. Role of the Individual in the Economy
5. Entrepreneurship
6. Computer Literacy 1
   - Basic Concepts: Theory
   - The Operating System: Windows XP
   - Managing diskettes, drives and files
   - Impact of Computer Technology on socio-economic, environmental, political and eethical issues.
   - Word Processing: Microsoft Word 2003
   - Use of the Internet and Email

LIFE SKILLS II

1st Semester

1. Comparative Religion Views
2. Self-Management Skills
3. Meeting Procedures
4. Computer Literacy
5. Loss Control
6. Computer Literacy
   - Word Processing: Microsoft Word 2003
   - Spreadsheet: Microsoft Excel 2003
   - Education Documents and lesson plans: Tables, Documents of meetings, Job
   - Application, Legal Documents
   - Guide to the Internet and Email

LIFE SKILLS III

1st Semester

1. Personal Development and Well-Being
2. Citizenship Education
3. Careers and Career Choices
4. Recreation and Physical Well-being
5. School Sports
   Athletics
   Soccer/Netball
   Volleyball
   Tennis (lawn/table)
   Basketball

Indigenous Games
6. Outdoor Sport

Additional optional language subjects

COMMUNICATION IN ISIZULU (LANGUAGE Y1)

2nd Semester

1. IsiZulu njengolunye lwezilimi zabantu abamnyama eAfrika eseNingizimu
2. Ukubhala
3. Ukukhuluma
4. Ukulalela

1. Ukubhala
   - Ukukhombisa inhlonipho lapho ubhala noma ukhuluma
   - Ulimi lwesimo
   - Amagama anembayo
2. Ukukhuluma
   - Inkulumo eyongayo neyonga amagama
   - Imiyalezo ethunyelwa yisitho zomzimba lapho ukhuluma
   - Ukuqikelela ukuthi kuzwakale kahle okushoyo
   - Ulimi nozwelomagama
   - IsiZulu soqobo
3. Ukufunda
   - Izinhlobo zezindlela zokufunda
   - Ukufunda okufanelene nohlobo lombhalo
   - Izinhlobo zemibhalo yesiZulu
   - Ukufingqa inkulumo
4. Ukwenza ucwaningo

General Education Modules are Compulsory for all B Ed Students

ENGLISH FOR THE ARTS

2nd Semester

Theoretical Approaches to Language
Social Context of Language
Structures of the English Language
Receptive and Productive skills
Semantics
Text and Discourse Analysis
Academic Writing and Verbal Presentation.

CORNERSTONE

2nd Semester

The concept of journeys across time, space, and human relationships will be developed taking the journey of the uMngeni River (which is close to all DUT campuses) as a metaphor.

The metaphor of the journey will be sustained across the module and will be applied to personal journeys, historical, political and environmental journeys, and social journeys, with a specific focus on gender. Each section will draw in issues of ethics, diversity and critical citizenry. The design team may later take a different metaphor or theme, but with the same outcomes and attributes.

The final section of the module will identify and integrate learning from earlier sections, and examine implications for further learning. At each stage of the module, activities such as the weekly online journal and class discussion will involve reflection and build communicative practices. There will be a concluding section in which students will identify their learning and examine the implications for their roles as students and as citizens.

INTRODUCTION TO BASIC ISIZULU

2nd Semester

Pragmatic components: greeting, introduction, asking for directions, descriptions, stating preferences, beach, talking about the weather, garden, school, hospital, kitchen and cooking and events.

Linguistic components : Articles reading and translation, nouns, pronouns, class nouns, gender (e.g., girl/boy, wife/husband, etc.), plurality, conjugation, adjectives, interrogation, adverbs, negation, tenses, numbers, diminutives, prepositions, relatives, exclamations description, augmentatives, vowel and consonant sounds, locatives, linking, verbs, accents, ideophones, etc.
Cultural components: Forms of address, recreational activities, cultural sites, family structure, food and eating habits, traditional utensils, arts and festivities, clothing, traditional attires and artefacts kingdom, surnames and praise names.

INTRODUCTION TO BASIC FRENCH

2nd Semester

Pragmatic components: greeting, introduction, asking for directions, descriptions, stating preferences, talking about the weather and events.

Linguistic components : Articles, gender, plurality, conjugation, interrogation, negation, numbers, description, vowel and consonant sounds, linking, accents.
Cultural components: Forms of address, recreational activities, cultural sites, family structure, food and eating habits, arts and festivities

INTRODUCTION TO BASIC MANDARIN

2nd Semester

Major communicative functions such as greetings, thanks, apologies and farewells. Body language or material objects to enhance every day. Communication situations.
Basic and simple ways of social interactions. Simple topics related to family and personal life, or hobbies. Simple topics related to everyday life, such as numbers, time, dates and currency.
Basic writing in characters.
Basic Chinese cultural elements, Commonalities and differences between Chinese culture and their own culture.

INTRODUCTION TO BASIC PORTUGUESE

2nd Semester

Sociocultural Content: Cultural Diversity in Lusophone Countries (gastronomy, traditions, visual arts, music, dance, handcraft, celebrations, architecture, literature and tales, fashion, historical heritage)

Sociolinguistic Content: Politeness forms for greetings and introductions, asking for repetition, requesting, apologising, congratulating and wishing well, thanking and saying goodbye. European Portuguese and Brazilian Portuguese.

Pragmatic Content: requesting, talking about time and weather, describing places, people and hobbies, asking and giving directions and instructions, stating preferences and opinions, suggesting, booking by phone, make an appointment, ordering, buying and selling.

Linguistic Content:

- Phonetics: alphabet and pronunciation
- Orthography: accentuation and punctuation
- Lexis and Semantics: key words and set phrases in time, climate, landscapes, meals, food, objects, money and prices, house objects and parts, public places, services, directions, human body, clothing and colours, hobbies, transports.
- Morphology and Syntax: variation in gender and number of articles, nouns, adjectives and pronouns, personal pronouns, contractions, verb conjugation, negative and interrogative.

VALUES IN THE WORKPLACE

2nd Semester

The module will begin with a reflection on personal values and move to a discussion on how they intersect with values in the workplace. Small group discussions will be formed around how to build positive values in the workplace and the vital themes of ethics, respect, interconnectedness, honesty, creativity and human diversity will form the basis for building "sacred spaces at work." This will set the tone to unpack issues around leadership values and ethics and ethical decision making. The final section of the module will integrate all these aspects and students will be required to identify the implications of what they have learnt to develop social responsibility and their roles as citizens.

EQUALITY AND DIVERSITY

2nd Semester

Concepts and terminology – e.g. diversity, equality, inclusion, power, oppression
Parameters of diversity as listed in section 9 of the SA Constitution
Prejudice, discrimination and inequality
The diversity competence continuum
Steps to develop competence/sensitivity in relation to diverse other selected topics.

ENTREPRENEURIAL EDGDE

1st Semester

Small Business and Entrepreneurship – the language, differences, need and statistics
Supporting organisations and policies
The entrepreneurial profile
Creativity, innovation, self-awareness and Technopreneurship
Introduction to business structures
Introduction to business functions (Marketing, Finance, HR & Operations).
Introduction to the Feasibility Study and Business Plan.

CRITICAL THINKING

1st Semester

Practical and Theoretical Work: What is Critical thinking, and problem solving, why is it important? Steps (processes and procedures) to becoming a critical thinker and a problem solver in any situation, types of tasks (that promote critical thinking and problem solving), credibility and Relevance, validity and Truth, argument- developing and assessing arguments and computer applications in executing some of critical thinking skills and abilities. e.g. creating, synthesizing; planning; designing etc.

Bachelor of Education in Senior Phase and Further Education and Training Teaching in Economic and Management Sciences

ACCOUNTING I (ACCT 101)

1st Semester

1. Introduction to Accounting and Nature of Accounting
2. Accounting Concepts Procedures and Principles according to GAAP
3. Users of Financial Information to make informed decisions.
4. Basic business calculations e.g. VAT, Cost Price, Discounts and Percentages.
5. Book-Keeping: CRJ, CPJ, DJ, DAJ, CJ, CAJ, PCT, GJ/posting to ledgers, preparing of trial balances, income statements and balance sheets.

2nd Semester

6. Year adjustments of a sole trading.
7. Perpetual and periodic inventory systems.
8. Bank Reconciliation procedures.
9. Analyzing financial statements

ACCOUNTING II (ACCT 201)

1st Semester

1. Partnerships: Formation, financial statements, liquidation, conversion to a company.
2. Departmental Accounting: Cost allocation departmental journals, departmental financial Statements, inter-departmental transfers.
3. Cash Budgets: Preparing cash budgets from given information
4. Asset Disposal

2nd Semester

5. Non Profit Organisations
6. Specific Subject Didactics

ACCOUNTING III (ACCT 301)

1st Semester

1. Companies: Financial statements, disclosure of information by way of notes.
2. Cash flow: Use given information from previous years and additional information.
3. Partnerships: Dissolution of a partnership, retirement and insolvency of partners, sales as a going concern, conversion to a company.
4. Non Profit Organisations

2nd Semester

5. Branch Accounting
6. Specific Subject Didactics

BUSINESS STUDIES I

1st Semester

1. **Introduction to Business Management as a Science**
   The business world and business management
   Needs and needs satisfaction
   The main economic systems
   Needs satisfying institutions of the free market
2. **Entrepreneurship**
   What is entrepreneurship?
   What entrepreneurs do and why they do it?
   The role of entrepreneurs in society
   The small business
   The entrepreneurial process
   Skills required for entrepreneurship
3. **The establishment of a business**
   Legal forms of ownership and their formation in South Africa
4. **The business environment**
   The organization and environment change
   The three sub-environments [micro, market and macro environments]
5. **The general management principles**
   The role of management
   Different levels and types of management in businesses
   Skills at different managerial levels
   The role of managers
6. **The basic elements of planning**
7. **Organizing management**
8. **Leadership —leading people in the organization**
9. **Meeting human resource requirements and developing effectiveness in HR**
10. **The legal environment and human resources**
11. **Controlling the management process-the importance of control**
    The control process
    The focus of control
    The characteristics of an effective control system

2nd Semester

1. **The marketing process**
   Evolution of marketing thought
   Defining marketing
   The components of the marketing process
   Marketing research
2. **The marketing instruments**
   The key to the market; product decisions, brand decisions
   Price decisions, distribution decisions, marketing communication decisions
3. **The integrated marketing strategy**
   The marketing concept
   Marketing strategy during the product life cycle
   Marketing planning and control

4. **Public Relations**
   The nature of public relations
   Public relations management
   The communication programme
5. **The financial function and financial management**
   Concepts in financial management
   The objective and fundamental principles of financial management
6. **Asset management: the investment decision**
   The management of current assets
   Long-term investment decisions and capital budgeting
7. **The operations management function**
8. **The purchasing and supply function**
9. **Contemporary issues in business management**

BUSINESS STUDIES II

1st Semester

1. **Managers and management, Managing in today's world**
   Functions of management
   Levels of managers and their essential roles
   Skills necessary for becoming successful managers
2. **Foundations of planning, foundations of decision making**
   Benefits and drawbacks of planning
   Types of plans and the steps of the strategic management process
   Steps in the decision making process
   Approaches to decision making
3. **Technology and operations, basic organizational design**
   Formula for calculating productivity
   Technology versus work obsolescence
   Elements of organizational structure
   Ways organizations may departmentalize
   Types of organizational structures
4. **Leadership and trust, Communication and interpersonal skills**
   Theories on leadership
   Communication process
   Communication barriers
   Delegation and conflict

2nd Semester

1. **Competing with operations, Process Management**
   Operations as a function
   The role of operations strategy as a source of competitive strength in a global market place
   Main process decisions and how they must relate to volume
   Meaning of automation and economies of scope
2. **Managing processes and managing technology**
   Major activities associated with successful project processes
   Network of interrelated activities in a project
   The sequence of critical activities that determine the duration of a project
   Probability of completing a project on time

Meaning of technology
Fundamental role of the computer and information technology
Factors that managers must consider when making technological choices

3. **Quality, capacity and location as well as layout**
   The principle of TQM
   Control charts
   Measuring capacity
   Capacity gaps
   Economies and diseconomies of scale
   Basic layout types
   Factors affecting choice of location

4. **Supply chain-management and forecasting**
   Nature of supply-chain management for both manufacturers and service providers
   Supply chain dynamics
   Demand patterns that combine to produce a demand line series
   Forecasting techniques

BUSINESS STUDIES III

1st Semester

1. **The goal of financial management**
   Forms of business organizations,
   Functions of financial manager,
   Analysis of financial statements,
   Determining the influence of risk on the required rate of return,
   The role of time value for money and
   Capital budgeting techniques

2. **Understanding marketing management**
   Defining marketing in the 21st century,
   Developing marketing strategies and plans,
   Capturing marketing insights,
   Gathering information and scanning and environment
   Conducting marketing research and
   Forecasting demand

3. **Building strong brands:**
   Creating brand equity, [what is brand equity? building brand equity, measuring brand equity, devising a branding strategy and customer equity].
   Crafting the brand positions
   Developing and communication a positioning strategy
   Product life-cycle marketing strategies, and
   Dealing with competition

4. **Shaping the market offering:**
   Setting product strategy
   Product characteristics and classifications, differentiation, product and brand relationships, packaging, labeling, warranties and guarantees,
   designing and managing services, the nature of services,
   marketing strategies for service firms,
   managing service quality,

managing service brands,
managing product-support services,
developing pricing strategies and program,
understanding pricing,
setting the price,
adapting the price,
initiating and responding to price changes

2nd Semester

5. **Delivering Value:**
   Designing and managing value networks and channels,
   Marketing channels and value networks,
   The role of marketing channels,
   Channel-design decisions,
   Channel-management decisions,
   Channel integration and systems,
   Conflict, co-operation and competition
   E Commerce marketing practices
   Managing retailing,
   Wholesaling and market logistics
6. **Creating successful long-term growth:**
   Introducing new market offerings,
   New product options,
   Challenges in new-product development,
   Organizational arrangements,
   Managing the development process and
   Tapping into global markets

ECONOMICS I

1st Semester

1. Numeracy and Graphical Skills
2. Introductory Concepts
3. Circular Flow of Economic Activity in a Two - Sector Model
4. The Goods Market
5. Elasticity
6. The Labour Market
7. Production and Costs
8. Market Structures: Perfect Competition
9. Market Structures: Monopoly
10. Numeracy and Graphical Skills
11. Introductory Concepts

2nd Semester

12. Circular Flow of Economic Activity in a Two - Sector Model
13. The Goods Market
14. Elasticity
15. The Labour Market
16. Production and Costs
17. Market Structures: Perfect Competition

18. Market Structures: Monopoly

ECONOMICS I

1st Semester

1. Consumer Behaviour
2. Production
3. Market structures and Economics Behaviour
4. Alternative theories of the firm

2nd Semester

MACRO-ECONOMICS

1. The Keynesian model
2. The IS-LM Model
3. The Foreign Sector
4. The Aggregate Demand (AD) and Aggregate Supply (AS) approach: AD model
5. Different Schools of Thought on Microeconomic Theory and Politics

ECONOMICS III

1st Semester

1. Economic Policy in South Africa
2. Cost Benefit Analysis
3. Welfare Economics
4. Elasticity (Advanced)
5. Production Economics – Isocosts & Isoquant

2nd Semester

1. Labour Economics
2. Public Economics
3. International trade
4. Balance of Payments and Exchange rates
5. Economic Growth

SUBJECT DIDACTICS: (SENIOR PHASE) EMS

1st Semester

- The nature of the learning area as defined in the National Curriculum Statement.
- Teaching, learning and assessment in the learning area.
- Common misconceptions in the learning area and strategies to overcome these.
- Designing a comprehensive learning programme in the learning area, producing teaching material, and designing assessment tasks in line with the national curriculum statement.
- Communication effectively towards the learning area.
- Drawing up specific teaching techniques relevant to each learning area.
- Reflecting on teaching experience, and on observation of present experienced teachers at work.

SUBJECT DIDACTICS: ECONOMICS, ACCOUNTING AND BUSINESS STUDIES

2nd Semester

- The nature of the learning area as defined in the National Curriculum Statement.
- Teaching, learning and assessment in the learning area.
- Common misconceptions in the learning area and strategies to overcome these.
- Designing a coherent learning programme in the learning area, producing teaching resources, and designing assessment tasks in line with the national curriculum statement.
- Communication in the learning area. Specialized teaching techniques relevant to each learning area.

Bachelor of Education in Senior Phase and Further Education and Training Teaching in Natural Sciences

Electives

INFORMATION TECHNOLOGY I

1st Semester

1. **Open and close one or more documents**
   Create a new document with or without using a template
   Save a document under a different name or in a different location or as a different type
   Use the help function and on-line help
   Change view types
   Enter and edit data
   Select data using a keyboard and/or a mouse
   Copy, move and delete selected information using copy and paste tools and methods
   Apply the basic font styles of bold, italics and underlining
   Change the font type, colour, size and effects (including subscript and superscript)
   Align to left, right and centre
   Find and replace
   Use a spell and grammar check
   Copy information or objects between applications (including OLE techniques)
   Input data from different formats
   Use the undo and re-do functions
   Change document orientation (portrait and landscape), margins and paper size
   Add headers and footers including page numbers, date, path and file name
   Proofread in terms of layout, presentation and accuracy
   Preview a selection to print
   Choose print output options such as range of pages, number of copies, odd or even pages, print quality and any other applicable printer options
   Insert and manipulate objects in an application including clip art, charts and organisation charts
   Use templates and wizards
   Use the drawing tools
   Import / Export data

2 **Specific word processing skills**
   Use a word processing programme to an advanced level to manipulate text and graphics
   Input data using various input devices, methods and procedures

Enter, edit and format text and graphics
Create visual and printed matter
Design and layout documents
Use and manipulate columns
Apply and copy styles and formats
Insert special characters or symbols
Use automatic hyphenation
Show non-printing characters
Insert, remove and manipulate line breaks, page breaks and section breaks
Indent paragraphs (left, right, first line, hanging)
Apply spacing within and between lines and paragraphs
Use tabs (left, centre, right, decimal, leader, bar)
Use bullets and styles of bullets in a multilevel list
Add borders and shading
Create, manipulate and format a table with cells, rows and columns
Use table properties
Convert text to table and vice versa
Perform a mail merge by creating a form letter and using an internal or external data source such as a spreadsheet or table
Use track changes
Insert reference
Insert table of contents
Insert auto text, fields, and comments
Create, use and manipulate forms
Compare and merge documents

3 Specific spreadsheets skills:

Process basic numerical data using a spreadsheet programme
Insert, copy, delete and format rows and columns
Work with cells and ranges
Format cells and worksheets
Use basic formulas
Use basic functions
Mathematical functions such as sum, round, sqrt, power, sumif
Statistical functions such as average, min, max, count, large, small, mode, median, countif
Date and time functions such as date, day, now, today
Text functions such as left, right, mid, len, value, text
Logical functions such as If
Create and edit charts
Use relative and absolute cell reference
Insert, delete and change the format of rows, columns and cells
Select adjacent and non-adjacent ranges
Sort
Insert, copy, delete and rename worksheets
Work with and between worksheets
Use the auto fill tool
Use the basic mathematical operators (addition, subtraction, multiplication, division) in formulas
Interpret standard error values associated with using formulas
Format and round of numbers
Format date and text data

Split and merge cells
Manipulate text with wrapping and cell content orientation
Add borders, colours and other effects to a cell range
Create different types of charts and graphs (column chart, bar chart, line)
Change colours, labels, legends, titles and axes in a graph
Display gridlines, row and column headings and title rows for printing purposes

4 Specific database skills:
Create single table data sources to generate forms, queries and reports using a database programme
Create a single table data source
Understand database organisation including records, tables, fields, data types, indexes and primary keys
Manipulate tables, records and fields
Work with field properties including default values, validation rules, input mask
Construct databases and basic table relationships
Filter, group and sort records
Create and design forms, queries and reports
Specify criteria in a query using the relational operators
Add extra fields with calculations in forms, queries and reports

2nd Semester

5 End-user computer application programme of own choice:
Presentations or web authoring tools or desktop publishing software or any other application software of own choice
Enter, edit and format text, numbers and graphics
Application of good design principles

6 Integration
Integration of end-user computer application programmes
Work between spreadsheet, database and word processor

7 Email
Create, open, delete, send, forward, reply, flag
Open attachments
Save attachments
Attach documents to mail
Send carbon copies
Sort
Set up and use an address book
Message rules

8 Internet:
Find a web site by using an URL
Follow hyperlinks
Use search engine to find information
Keywords
Evaluation of web sites
Download files
Save information to a disk

INFORMATION TECHNOLOGY II

1st Semester

1 Computers in all walks of life

General concepts of information technology including hardware, software and networked environments
Types of computer systems
Typical components and characteristics of a computer
Input and output devices
Types of system software and application software.
Computer ethics, security and viruses.
Impact of computers on the environment and society.
Safety and health issues.
File management and trouble-shooting simple end-user computer-related hardware and software problems.
Utilising the features of a typical operating system.

2 Graphics at an advanced level, using a word processing programme:

- proficiency in the input of data;
- entering, editing and formatting text, numbers and graphics;
- creation of visual and printed matter;
- design and layout of documents;
- use of templates.

3 Basic processing of numerical data, using a spreadsheet programme:

- working with cells and ranges;
- formatting cells and worksheets;
- basic functions and formulae, including SUM, AVERAGE, COUNT, IF, COUNTIF, MIN, MAX;
- creating and editing charts.

4 Creation of single-table data sources to generate forms, queries and reports, using a database programme:

- creation of a single-table data source;
- manipulation of records and fields;
- generation of forms, queries and reports.

5 Presentations or web authoring tools or desktop publishing software or any other application software of own choice:

- entering, editing and formatting text, numbers and graphics;
- application of good design principles.

6 Integration of end-user computer application programmes:

- working between applications;
- linking and exchanging (importing/exporting) data with other applications.

7 Effective communication of information:

- different types of communication tools;
- different modes of communication;
- use different modes and tools of communication;
- select appropriate communication modes and tools.

8 Task definition:

- recognising information needs;

- defining problems;
- identifying the type and amount of information needed to solve problems.

2nd Semester

9 **Information-finding strategies:**

- considering possible information sources (e.g. various types of electronic resources for data gathering including databases, CD-ROM resources, commercial and Internet online resources, electronic reference works, community and government information electronic resources) as well as primary resources including interviews, surveys, experiments and documents that are accessible through electronic means;
- developing a plan/strategy for searching;
- identifying and applying specific criteria for evaluating resources;
- identifying and applying specific criteria for constructing meaningful data gathering tools;
- using a computer to generate modifiable flow charts, timelines, organisational charts and calendars which will help the student to plan and organise complex or
- group information problem-solving tasks;
- using a computer or other devices to manage the process (e.g. track contacts and create to-do lists and schedules).

10. Access information:

- locating information from a variety of resources using appropriate computer resources and available technologies;
- accessing specific information found within individual sources by using organisational systems and
- tools specific to electronic information sources that assist in finding specific and general information.

11 Use of information:

- engaging with information to determine its relevance;
- extracting relevant information through, for example, citations, note taking and summaries;
- processing and analysing statistical data;
- saving and backing up data gathered.

12 Synthesis:

- organising results of information gathering and processing;
- presenting results by selectively creating or generating printed reports, computer-generated graphics, charts, tables and graphs, original databases, electronic slide shows, overhead transparencies, Web pages, etc.

13 Evaluation of the effectiveness and efficiency of information management:

- content, format and design;
- spell and grammar checking capabilities;
- legal principles and ethical conduct related to information technology with special attention to copyright and plagiarism;
- netiquette when using Internet, e-mail, etc.
- information problem-solving process (efficiency)

INFORMATION TECHNOLOGY III

1st Semester

Advanced word processing and formatting skills.

Advanced desktop publishing skills
Multimedia presentations using text, sound, video, animation and graphics are designed and created.
Single table data source, simple forms, queries and reports are created and generated sing a database program.
Proof readers signs, i.e. manuscript signs are interpreted and applied.
Written and electronic layout and editing instructions are interpreted to produce accurate output in a competent fashion.
Advanced integration techniques are demonstrated using multi-and appropriate programs.
Various forms of data are located, collected, analysed and critically evaluated using technologies and relevant methods.
Information is organised, recorded and summarised in appropriate electronic formats.
Information is presented and communicated in a professional fashion.
Paragraphs —numbered main-, sub, sub-sub paragraphs and bullets.
Correspondence —Business letters, circulars and official letters
Job Application —Letters of application/Appointment/Rejection
Testimonial and Curriculum Vitae
Programs Portrait, A5 Landscape, A4 landscape divided into three columns

2nd Semester

Tables —created in Microsoft Word
Documents for meetings —Notice of meeting with an agenda, Minutes
Templates and Wizards
Microsoft Excel —Formulas, Charts, integration
Microsoft Access —Create table and edit, queries, forms and reports
Microsoft Publisher —Create posters, invitation cards
Microsoft PowerPoint —slideshows application skills
Theory and Basic Concepts —Computer hardware, software, networks, computer ethics, viruses and Social issues.
Speed and accuracy — (40 wpm)
Research Project —integrating all software packages (Research process and Presentation)

MATHEMATICS I

1st Semester

1. General Algebra —1st, 2nd and 3rd degree/inequalities equations, remainder/factor theorem
2. Function graphs and Transformation - Exploration
   Algebraic and graphical solutions to equations
   Simultaneous intersections
3. Polynomial and rational functions/equations
4. Algebraic and Graphical representation of exponential and logarithmic functions

2nd Semester

5. Trigonometric Functions, identities, equations, graphs and simple harmonics
6. Analytical Geometry

MATHEMATICS II

1st Semester

1. Differential Calculus
2. Sequences, series and progressions
3. Analytical Trigonometry
4. Complex Numbers

5. The analytical Geometry of the conic sections
6. Introduction to Integral Calculus

2nd Semester

7. Permutations, Combinations and Probability
8. Application of didactic principles to school grades 10 and 11 content

MATHEMATICS III

1st Semester

1. Further Differential Calculus
2. Linear Algebra
3. Vectors Algebra
4. Focus on the Algebra of Transcendental Functions

2nd Semester

5. Implicit differentiation and first order equations
6. Further series —infinite, power, binomial expansion
7. Didactic principles applied to school grade 12 NCS content

LIFE SCIENCES I

1st Semester

1.. Introduction to Microscope and Laboratory equipment
   a. Investigating phenomenon in Biological Sciences
      Identify parts of a microscope
      Prepare slides/wet mouths
      Use microscope
      Identify structures under microscope
      Identify various laboratory equipment
   b. Constructing of knowledge in Biological Sciences
      Parts of microscope and their functions
      Use of various laboratory equipment
   c. Application of Biological Sciences
      History of microscope development and applications
      The electron microscope and its value and applications

2. General Ecology

2.1 Investigating phenomenon in Biological Sciences

Use of field guides for identifying species
Investigate community structure within a habitat and changes that take place within the habitat
Use of sampling methods:

- quadrats
- transects
- traps
- direct observation

Importance of random sampling
Identification and investigation of primary and secondary succession
Investigate soil properties

2.2. Constructing of knowledge in Biological Sciences

Ecological terms
Biotic and abiotic factors
Interaction in ecosystem

Energy transfer
Special relationships
Succession
Soil Study

2.3. Application of Biological Sciences in Society

Human influence on community structure:

- Iron age settlement
- Industrialisation
- Urbanisation
- Farming practices
- Role of culling of animals

Parasitic infections; incidences in South Africa and relationship to sanitation, play habits.

3. Aquatic Ecosystems

3.1 Investigating phenomenon in Biological Sciences

Identify water plants and animals
Investigate water pollution and its effects on plant and animal life

3.2 Constructing of knowledge in Biological Sciences

Differences between terrestrial and aquatic systems
Abiotic factors that have an effect on aquatic systems and their effect;
Succession in aquatic systems;
Marine ecosystems, definition and types:
Dunes formation and salt spray effect on plants

3.3. Application of Biological Sciences

Management of water pollution;
Effect of uncontrolled sand mining;
Dune mining
Ecotourism

4. Population and Community Ecology

4.1. Investigating phenomenon in Biological Sciences

Experiments in investigating population size and movements;
Graphical representations
Investigate distribution patterns

4.2 Constructing of knowledge in Biological Sciences

Population dynamics and population parameters;
Population growth patterns and factors affecting population size;
Estimation of population size;
Survival strategies;
Competition

4.3 Application of Biological Sciences

Human population:

- Reasons for exponential growth in a natural system
- Interpret age and gender structure
- Human demands versus conversation needs [conservation of natural environment, hunting industry, sustainable harvesting of natural resources, creation and management of game reserves]
- Value systems with reference to biodiversity

Wild Life management

2nd Semester

5. Pollution and Conservation

5.1 Investigating phenomenon in Biological Sciences

Conservation bodies and their roles;

Conservation need in the local area and on a national level.

Investigating pollution in local area and at national level.

5.2 **Constructing of knowledge in Biological Sciences**

Definition and causative factor of pollution;

Identification of pollution

Causes of water pollution:

- Household wastes and sewage
- Industrial pollution
- Oil pollution
- Chemical pollution
- Farming and soil erosion

Preventive measures

Conservation and preservation of soil, air, water and natural resources, wilderness, etc

5.3 Application of Biological Sciences

Preventing pollution

Joining of conversation body

Active lobbying against pollution

6. Plant Water Relationship

6.1. Investigating phenomenon in Biological Sciences

Experiments to demonstrate diffusion and osmosis

Demonstration:

- Water movement through xylem,
- Transpiration of water through leaves,
- Factors that bring about movement of water in plants
- Factors affecting transpiration in plant

6.2 Constructing of knowledge in Biological Sciences

Definition of diffusion and osmosis;

Uptake of water and mineral salts into a root and their transport to the leaves;

Transpiration

Definition and comparison with other types

Effect of variation in temperature, humidity and light intensity

Wilting

6.3 Application of Biological Sciences in Society

Applications in agriculture

LIFE SCIENCES II

1st Semester

1. Biodiversity and Classification

1.1 Investigating phenomenon in Biological Sciences

Demonstrate principles of classification;

Classify organisms into groups

Understanding distribution maps of species in South Africa

1.2 Constructing of knowledge in Biological Sciences

Extent of biodiversity and endemism in South Africa;
Classification schemes;
Introduction to the main groups of animals and plants;

1.3 Application in Society

History of classification;
Some examples of classification systems
Naming things in science
Linnaeus and his classification system
Threats to biodiversity in South Africa
Value of retaining biodiversity

2. Plant Diversity

2.1. Investigating phenomenon in Biological Sciences

Examine examples for the different groups of plants;
Compare morphology
Compare monocotyledon and dicotyledonous plants and their flowers
Interpret phylogenetic tree representing evolutionary history

2.2. Constructing of knowledge in Biological Sciences

Structural plan and modifications
Habitat, external structure, nutrition and life cycle in examples of:

- Viruses
- Bacteria
- Mycophyta: Yeast cell and Bread mould
- Phycophyta: ***Chorella*** and ***Spirogyra***
- Bryophta: Moss —***Funaria sp***
- Pteridophyta: Ferns —***Dryopteris sp***
- Cycadophyta: Cycad
- Spermatophyta:
  Gymnospermae —***Pinus sp***
  Angiospermae —a Monocot and a Dicot plant

2.3. Application in Society

Ancient and unique plant groups in Southern Africa, theft of plants and ecotourism;
Agricultural plants;
Medicinal plants;
Ecological importance;
Economic importance

2nd Semester

3. Animal Diversity

3.1. Investigating phenomenon

Interpret phylogenetic tree;
Identify South African examples of the different phyla;
Examine external features of examples
Illustrate biodiversity of the phyla and classes

3.2. Constructing of knowledge

Body plans and symmetry in different phyla; modifications.
Habitat of different examples;
External structure, nutrition;
Reproduction/Life Cycle
- Protozoa: ***Amoeba sp.,***
- ***Trypanosama sp., Paramecium sp.***
- Coelenterata: ***Hydra*** *and* ***Aurelia***
- Platyhelminthes: ***Planaria*** and ***Taenia sp.***
- Nematoda: ***Ascaris sp.***
- Annelida: Earthworm and leeches
- Arthropoda: Characteristic features and examples of different classes; locust
- Molusca: Snail
- Echinodermata: Star fish
- Chordata: Cartilaginous fish, bony fish, frog, lizard, bird, rat/rabbit

3.3 Application in Society

Parasites: distribution, prevalence, effects on hosts, treatment, reducing spread
Arthropods as parasites and vectors of pathogens
Role of invertebrates in agriculture and the ecosystem
Animal farming and sustainable use, economic and employment opportunities
Poaching
Evolutionary implications

4. BioGeography

4.1. Investigating phenomenon in Biological Sciences

Worldwide distribution of animals [ostrich, emu, rhea, moa, kangaroo
Worldwide distribution of some plants

4.2 Constructing of knowledge

Diversity within continents
Specific animals and plants on land masses and islands

4.3 Application in Society

Nature of science
Charles Darwin's explanation
Speciation

LIFE SCIENCES III

1st Semester

1. Organic and Inorganic Compounds

1.1 Investigating phenomenon in Biological Sciences

Construct simple and complex molecules;
Experiments on enzyme action;
Food tests

1.2 Constructing of knowledge in Biological Sciences

Inorganic compounds: Water, Macro and Micronutrients;
Carbohydrates
Proteins
Fats
Nucleic acids
Enzymes and Vitamins

1.3 Applying in Biological Sciences in Society

Diseases in respect of micronutrients
Fertilizers in agricultural farms and related problems
Deficiency diseases in respect of carbohydrates, proteins and fats;
Saturated and unsaturated fats- heart diseases and cholesterol

2. Genetics and Hereditary

2.1. Investigating phenomenon

Models of RNA and DNA;
Examine extractions of DNA using simple processes;
Cell division —practical investigation
Investigations of human genome, genetic disease and genetic engineering
Investigation of the causes, prevalence and treatment of cancer

2.2. Constructing of knowledge

Structure of DNA and RNA;
DNA replication;
Transcription;
Translation;
Mutations
Cell division
Hereditary and inheritance including sex chromosomes, sex-linked diseases and solving simple genetic problems

2.3. Application in Society

Historical developments: DNA structure and Mendel's experiments;
DNA fingerprinting;
Importance of DNA sequencing;
Abnormalities in meiosis and consequences and attitudes;
Polyploidy and its importance in agriculture;
Discovery of the principles of hereditary and genes;
Medicinal and agricultural applications of genetic engineering;
Genetics diseases, beliefs, attitudes and values;
Genetic counseling;
Ethics and legislation in genetic testing and engineering

3. Cytology

3.1 Investigating phenomenon in Biological Sciences

Investigations of plant and animal cells;
Microscopic/models/micrographs

3.2 Constructing of knowledge in Biological Sciences

Characteristics of cells and cell components;
Molecular make up of cells;
Cell structure, adaptations and functions

3.3 Application in Society

The cell theory
In-vitro experimentations
Cell tissue culture

2nd Semester

4. Plant and Animal Tissue

4.1 Investigating phenomenon in Biological Sciences

Examine and identify plant and animal tissues
Draw observed cells to show specialized structure
Investigate fields in biotechnology related to plant and animal tissues [cloning, stem cell research]

4.2 Constructing of knowledge

Concept of tissues;
Location and relationship between structure and function of:

- Plant tissues: epidermis, parenchyma, chlorenchyma, collenchymas, Sclerenchyma, xylem and phloem
- Animal tissues: epithelial, connective, muscle and nerve

4.3 Application in Society

IKS and Technology
Traditional technology —traditional medicine and healers
Medical Technology —immunity, antibiotics and blood transfusion
Research in cloning, tissue and stem cell cultures
Current trends in tissue research

5. Plant and Animal Organs

1.1 Investigating phenomenon in Biological Sciences

Observation, interpretation and drawing of plant and animal organs

1.2 Constructing of knowledge in Biological Sciences

Concept of organs
External and internal structure in relation to function, of the following organs:

- Plant: Leaf, root or stem
- Animal: Lungs, Kidney or brain

5.3. Application in Society

Organ transplants
Plant grafting

6.1 Mammalian Body Systems

Skeletal (Supporting) system

6.1.1 Investigating phenomena

Study of skeletons of vertebrates
Analysis of X-rays of human bones
Study of long bone structure
Experiments —minerals and organic fibres in bones
Structure of skeletal muscles
Models; Antagonistic muscles

6.1.2 Constructing knowledge

Identify bones of axial and appendicular skeleton
Functions of different parts
Structure of a long bone
Joints
Antagonistic muscles and functioning

6.1.3 Application in Society

Diseases of the muscle-skeletal
Injuries
Importance of exercise

6.2 Human circulatory system

6.2.1 Investigating phenomena

Dissection of mammalian heart
Measuring pulse rate and the effects of exercise
Identifying different blood vessels

6.2.2 Constructing of knowledge in Biological Sciences

Closed and open blood systems
Different blood circuits
Structure and protection of the heart
Structure of blood vessels and differences
The cardiac cycle
Control of heart beat and rate

6.2.3 Application in Society

Cardiovascular diseases
Blood transfusions and blood types
Heart transplants

6.3 The Lymphatic System

6.3.1 Investigating phenomenon in Biological Sciences

Identifying lymph nodes in the human body

6.3.2 Constructing of knowledge in Biological Sciences

Blood and lymph as tissues
Relationship between lymphatic system and blood system
Structure of lymph glands and function of glands
General functions of the lymphatic system

6.4 Respiratory System in Man

6.4.1 Investigating phenomenon in Biological Sciences

Measurement and comparison of breathing depth and interpretation
Structure of lung —dissection
Experiments on:
- inspiration and expiration
- expired air contains carbon dioxide

Effect of altitude and air pollution health and activities

6.4.2 Constructing of knowledge in Biological Sciences

Distinction between cellular respiration, breathing
Requirements for efficient gaseous exchange
Parts of and structure of the respiratory system in mammals
Mechanism of breathing
Gaseous exchange and the transport of gases

6.4.3 Application in Society

Respiratory disorders and diseases
Effects of smoking
Artificial respiration

PHYSICAL SCIENCES I

1st Semester

Introduction and Mathematical Concepts
Kinematics in one dimension and two dimensions
Forces and Newton's Laws of motion
Impulse and momentum
Work Energy and Power

2nd Semester

Elementary statistics, precision and accuracy significant figures
Technical report writing
Laboratory practice and safety
Introduction to analytical chemistry
Sampling and sample handling
Introduction to volumetric and gravimetric analysis.
Matter and energy
Solutions
Acids and Bases
Redox, Electrochemistry
Chemical reaction rates and equilibrium
Introduction to inorganic chemistry
Introduction to organic chemistry

PHYSICAL SCIENCES II

1st Semester

Magnetic forces
Electromagnetic induction
Simple Harmonics Motion and Elasticity
Fluids
Waves and Sound
Particles and Waves

2nd Semester

Chemical Bonding
Properties of Gases
Physical Properties of Colloids and Solutions
Chemical Thermodynamics
Chemical Equilibria
Acids and Bases
Solubility
Nomenclature of Alkyl Substituents

PHYSICAL SCIENCES III

1st Semester

Electric circuits
Alternating current circuits
Electronics
Electromagnetic Waves
Interference and Wave Nature of light

Nature of the Atoms
Nuclear Physics and Radioactivity

2nd Semester

Electrochemistry
Chemical Kinetics
Solubility and Complexion Equilibria
The transition metals
Hydrogen, oxygen, nitrogen, phosphorous, sulphur and halogens
Organic Chemistry

SUBJECT DIDACTICS: (SENIOR PHASE) NATURAL SCIENCES

1st Semester

Broad introduction to the concept of energy; history of development of discussions energy; conserving energy as a resource; the various forms of energy, e.g. gravitational, internal, chemical, solar, thermal, mechanical, nuclear; energy conversion; relationship between energy, work and power; energy and change.

Classification of fauna; Reproduction in social context; Nutrition in flora and fauna; The circulatory system as a transport medium; Waste elimination and the role of water; Population studies; Biodiversity; Pollution; The cell. module.

Particle nature of matter; Chemical bonding & chemical reactions; Structure and uses of different types of materials (e.g. glass, plaster, oils, minerals, paints).

SUBJECT DIDACTICS: (FET) PHYSICAL SCIENCES, LIFE SCIENCES, INFORMATION TECHNOLOGY AND MATHEMATICS

2nd Semester

The nature of the learning area as defined in the National Curriculum Statement.
Teaching, learning and assessment in the learning area.
Common misconceptions in the learning area and strategies to overcome these.
Designing a comprehensive learning programme in the learning area, producing teaching material, and designing assessment tasks in line with the national curriculum statement.
Communication effectively towards the learning area.
Drawing up specific teaching techniques relevant to each learning area.
Reflecting on teaching experience, and on observation of present experienced teachers at work.

Bachelor of Education in Senior Phase and Further Education and Training Teaching in Technology

MATHEMATICAL LITERACY

1st Semester

1. Numbers, Operations and Finance
2. Functional Relationships
3. Graphs
4. Shape, Space, and Measurement

2nd Semester

5. Solids
6. Data Handling

MATHEMATICAL LITERACY

1st Semester

1. Numerical solution of rate
2. Parameter and surface area of 2 D-shape
3. Functional relationships
4. Scale drawing

2nd Semester

5. Interpretation of Data
6. Financial Mathematics

MATHEMATICAL LITERACY

1st Semester

1. Working with formulae
2. Taxation and inflation
3. Parameter, surface area and volume of 3D-shape
4. Interpretation of table and graph
5. Data interpretation
6. Statistical Methods

2nd Semester

7. Grids and Maps
8. Data Display
9. Budget and Banking

CIVIL TECHNOLOGY I
MECHANICAL TECHNOLOGY I

1. Technological processes
2. Structures
3. Electrical Systems and Control
4. Mechanical Systems and Control
5. Processing
6. Indigenous Technology
7. Impact of Technology

MECHANICAL TECHNOLOGY II

1st Semester

1. Safety
2. Tools
3. Materials
4. Terminology
5. Joining Methods

2nd Semester

6. Mechanics
7. Maintenance
8. Systems

9. Heat Engines

MECHANICAL TECHNOLOGY III

1st Semester

1. Safety
2. Tools
3. Materials
4. Terminology
5. Joining Methods

2nd Semester

6. Mechanics
7. Maintenance
8. Systems and Control
9. Turbines

MATHEMATICS (SEE NATURAL SCIENCES ELECTIVES)

TECHNICAL MATHEMATICS I

1st Semester

1. Algebraic expressions
2. Exponents
3. Number patterns
4. Equations and
5. inequalities
6. Trigonometry
7. Functions
8. Trigonometric functions
9. Euclidean Geometry

TECHNICAL MATHEMATICS I

2nd Semester

1. Analytical Geometry
2. Finance and growth
3. Statistics
4. Trigonometry
5. Euclidean Geometry
6. Measurement
7. Probability.
8. Analytical Geometry

TECHNICAL MATHEMATICS II

1st Semester

1. Exponents and surds

2. Equations and
3. inequalities
4. Number patterns
5. Analytical Geometry
6. Functions
7. Trigonometry (reduction
8. formulae, graphs,
9. equations)

TECHNICAL MATHEMATICS II

2nd Semester

1. Measurement
2. Euclidean Geometry
3. Trigonometry (sine,
4. area,
5. cosine rules)
6. Probability
7. Finance,
8. Statistics

TECHNICAL MATHEMATICS III

1st Semester

1. Patterns, sequences and
2. series
3. Functions and inverse
4. functions
5. Exponential and
6. logarithmic functions
7. Finance, growth and
    a. decay
8. Trigonometry - compound
    a. Angles
9. Trigonometry 2D and 3D
10. Polynomial functions
11. Differential calculus

TECHNICAL MATHEMATICS III

2nd Semester

- Analytical Geometry
- Geometry
- Statistics (regression and
- correlation)
- Counting and Probability

TECHNICAL SCIENCE I

1st Semester

1. Revise Matter & classification
2. States of Matter and the Kinetic Molecular Theory
3. The Atom: basic building block of all matter
4. Periodic Table
5. Chemical bonding
6. Transverse pulses on a string or spring
7. Transverse waves
8. Longitudinal waves
9. Sound
10. Electromagnetic Radiation
11. Waves, legends and folklores

TECHNICAL SCIENCE I

2nd Semester

1. Particles substances are made of atoms and compounds
2. Physical and Chemical Change
3. Representing chemical change
4. Magnetism
5. Electrostatics
6. Electric circuits
7. Reactions in aqueous solution
8. Quantitative aspects of chemical change
9. Vectors and scalars
10. Motion in one dimension
11. Instantaneous speed and velocity and the equations of motion
12. Energy
13. The hydrosphere

TECHNICAL SCIENCE II

1st Semester

1. Vectors in two dimensions
2. Newton's Laws and Application of Newton's Laws.
3. Atomic combinations: molecular structure
4. Intermolecular forces
5. Geometrical optics
6. 2D and 3D Wave fronts
7. Ideal gases and thermal properties

TECHNICAL SCIENCE II

2nd Semester

1. Quantitative aspects of chemical change
2. Electrostatics
3. Electromagnetism

4. Electric circuits
5. Energy and chemical change
6. Types of reaction
7. Exploiting the lithosphere or earth's crust.

TECHNICAL SCIENCE III

1st Semester

1. Momentum & Impulse
2. Vertical projectile motion in one dimension (1D)
3. Organic molecules
4. Work, Energy & Power
5. Doppler Effect (relative motion between source observer)
6. Rate and Extent of Reaction

TECHNICAL SCIENCE III

2nd Semester

1. Chemical Equilibrium
2. Acids and Bases
3. Electric circuits
4. Electrodynamics
5. Optical phenomena and properties of materials
6. Electrochemical reactions
7. Chemical industry.

ENGINEERING GRAPHICS AND DESIGN I

1st Semester

1. **Introduction to Technological Design**
   Discuss the scope, educational and career opportunities related I to EGD. Include human rights, gender, inclusivity and HIV/AIDS issues.
2. **Drawing principles as contained in the SANS code of practice as related to basic civil, electrical and mechanical drawing**.
   Practice line types according to the SANS Code of Practice (0111 & 0142 (elect) & 0143) and their application to: outline, construction, cutting plane line, line hatching, hidden detail and; line.
   Practice the general lettering requirements according to the SANS code of practice.
3. **Free-hand drawing**
   Practice the four basic hand movements need to reproduce proportional single, multi view and pictorial drawings using grid sheets and plain paper.
4. **Setting up a Drawing Sheet**
   Paper sizes
   Set up a drawing sheet showing all relevant information, e.g. Name and. title blocks, appropriate symbols etc.

5. Instrument Drawing

Discuss, research and present in an appropriate form the dangers of the irresponsible use of sharp

instruments that could cause bleeding and the transfer of HIV/AIDS Geometrical Constructions (need to know basis). Bisecting an angle, line, line division, circle through three points, perpendiculars, angles, line tangents, arc tangents, inscribed and circumscribed circle, polygons) 3.4.5.6.8, circle and ellipse.
Scale drawings. (2:1, 1:1, 1:2, 1:5, 1:10, 1:20, 1:50, 1:100)

6. Orthographic
1st and 3rd angle orthographic projections as applied to simple castings from industry.

7. Projection (no sectional views)
Construction of polygons

8. Mechanical Drawings
Prisms, pyramid, cylinders and cones. The axis of the solids must include examples to be perpendicular, parallel and inclined to one principal plane.

9. Civil Drawings
Insert annotation, dimensioning and scale. Include floor plans and elevations that include: windows, doors and fixtures such as WC, bath, sink, shower, cupboard.
Apply colour coding according to building practice.
Show site plan and schedule of specifications. Include electrical, plumbing and drainage detail.

10 Descriptive geometry
Determine the orthographic views of points and line segments
Segments that are: perpendicular, inclined and oblique.
Determine the true length of a line segment and the true inclination of a line segment to the HP and VP using different methods, e.g. projection and construction methods.

11. Electrical Drawing
Use given electrical and electronic component symbols to draw simple circuit diagrams.
Draw parallel and series circuit diagrams that are relevant to; electrical appliances, house wiring etc. Include notes were appropriate and draw systems diagrams.
Draw wiring diagrams on floor plans of buildings.
Represent these as circuit diagrams and draw block diagrams.

12. Principles of Sectioning
Draw sectional views in 1st and 3rd angle of simple castings from Industry. Include the following: SANS code of practice, dimensioning techniques, title, notes and symbol of projection.

2nd Semester

13. Mechanical Drawing
Draw outside, sectional, half sectional and part sectional views of simple assemblies that include temporary fasteners. SANS code of practice, dimensioning techniques, title, notes and symbol of projection.
Draw outside, sectional, half sectional and part sectional multi-views of complex assemblies that include fasteners.
SANS code of practice, dimensioning techniques, title, notes and symbol of projection. Insert welding, machining and surface treatment symbols relevant to steel work.
Draw the sectional orthographic views of geometrical solids.

14. Solid Geometry
Prisms, pyramids, cylinders and cones. The axis of the solids must be perpendicular, parallel and inclined to one principal plane.
Combination of right regular geometrical solids.

True shapes

15. Civil Drawings

All applications only need to include single story dwellings
Draw elevations and sectional elevation showing foundation to slab.
Draw elevations and sectional elevation showing foundation to ceiling
Draw elevations and sectional elevation showing foundation to roof. includes roof trusses.

16. Principles of Pictorial Drawing

Draw simple oblique drawings. Include the circle in the front view only.
Draw simple to complex Isometric drawings including circles. (one point)
Produce 1-point perspective drawings of simple castings and single storey dwellings.
Produce 1-point perspective drawings of simple single story dwellings.
HL, PP and SP can be varied to provide among others a bird's eye and worms eye view.

17. Computer technology [CAD]

List the electronic and computer technologies that impact on graphical communication.
Evaluate the advantages and disadvantages of electronic and computer technologies that impact on graphical communication
Computer hardware, operating systems, software and file types and file management
CAD software
CAD drawing and printing templates (including layers) and modify functions
Computer peripherals

18. **The Design process:**

Apply the design process to the civil, electrical and mechanical

Problem identification and concept sketches
Analyze
Working drawings
Synthesizing
Model making where possible (optional)
Evaluation
Design a floor plan of a dwelling according to given specifications.
Design a simple mechanical product according to given specifications.

19. Visualization cognitive and perceptual exercises

Analyze drawings and answer questions based on single multi-view and pictorial drawings within the context of civil, electrical and mechanical.
Visualization of cognitive and perception exercises

ENGINEERING GRAPHICS AND DESIGN II

1st Semester

1. Introduction to Technological Design

Discuss the advantages/disadvantages of electronics/computer technologies that impact on graphical communication.
Discuss the challenges regarding human rights, gender, and HIV/AIDS in career opportunities in the engineering graphics and design field.

2. Drawing Principles

Application of line types according to the SANS Code of Practice (0111 & 0142 (elect) & 0143) and their application in pencil drawings and CAD.
Application of the general lettering requirements according to the SANS code of practice.

3. Free-hand drawing

Application of the four basic hand movements needed to reproduce proportional single, multi view and pictorial drawings without the use of grid sheets and plain paper.

4. Setting up a Drawing Sheet

Set up a drawing sheet showing all relevant information, e.g. name and. title blocks, appropriate symbols etc. in CAD

5. Instrument Drawing

Discuss and demonstrate the use and care of instruments used specifically for Loci and assembly drawing.

Application of scale drawings in civil and mechanical drawings.

6. Loci

Apply the principles of the Helix to relevant to civil and mechanical application. Helical applications such as spiral chutes, handrail for a spiral staircase, coil spring in a shock assembly, screw threads.

Apply the principals of the Cam to relevant civil and mechanical application.

Apply the principles of Cams relevant to civil and mechanical application.

Cams that impart movement on wedge and roller ended followers.

7. Orthographic Projection

1st and 3rd angle orthographic projections as applied to simple castings from Industry.

8. Mechanical Drawings

Determine the curve of interpenetration of two objects that penetrate or are joined.

Determine the surface development of the transition pieces and containers.

9. Civil Drawings

Insert annotation, dimensioning and scale. Include floor plans and elevations that include: windows, doors and fixtures such as WC, bath, sink, shower, and cupboard.

Apply colour coding according to building practice.

Show site plan and schedule of specifications. Include electrical, plumbing and drainage detail.

10. Descriptive geometry

Determine the true length and the true inclination of a line segment to solve authentic problems.

2nd Semester

11. Electrical Drawing

Draw parallel and series circuit diagrams that are relevant to; electrical appliances, house wiring etc. Include notes were appropriate and draw systems diagrams.

12. Solid Geometry

Draw the sectional orthographic views of geometrical solids.

Combination of right regular geometrical solids.

True shapes in auxiliary views

13. Civil Drawings

Draw elevations and sectional elevation showing foundation to roof.

Basic roof design

14. Principles of Pictorial Drawing

Produce 1 point and 2-point perspective drawings of complex castings and single and double storey dwellings

15. Computer technology [CAD]

Knowledge of computer hardware, operating systems, software and file types and file management

Advantages and uses of CAD software

Application of basic CAD draw, edit and modify functions.

CAD drawing in layers.

Development on questions, model answers and notes for the learner.

Application of all the sections of work in the drawing syllabus

16. The Design process:

Apply the design process to the civil, electrical and mechanical technologies

Apply the design process in the design a floor plan of a dwelling and a simple mechanical product according to given specifications.

Presentation of the design using various graphical methods.

Application of correct SANS Code of Practice (0111 & 0142 (elect) & 0143)

Application of the design process in the design of lesson plans, lesson notes, student notes and tests.

17. Visualization cognitive and perceptual exercises

Analyze drawings and answer questions based on single multi-view and pictorial drawings within the context of civil, electrical and mechanical.

Visualization of cognitive and perception of complex exercises.

ENGINEERING GRAPHICS AND DESIGN III (EGDS 301)

1st Semester

1. Introduction to Technological Design

Discuss the advantages/disadvantages of electronics/computer technologies that impact on graphical communication.

Discuss the challenges regarding human rights, gender, and HIV/AIDS in career opportunities in the engineering graphics and design field.

2. Drawing Principles

Application of line types according to the SANS Code of Practice (0111 & 0142 (elect) & 0143) and their application in pencil drawings and CAD.

Application of the general lettering requirements according to the SANS code of practice.

3. Free-hand drawing

Application of the four basic hand movements needed to reproduce proportional single, multi view and pictorial drawings without the use of grid sheets and plain paper.

4. Setting up a Drawing Sheet

Set up a drawing sheet showing all relevant information, e.g. name and. title blocks, appropriate symbols etc. in CAD

5. Instrument Drawing

Discuss and demonstrate the use and care of instruments used specifically for Loci and assembly drawing.

Application of scale drawings in civil and mechanical drawings.

6. Loci

Apply the principles of the Helix to relevant to civil and mechanical application. Helical applications such as spiral chutes, handrail for a spiral staircase, coil spring in a shock assembly, screw threads.

Apply the principals of the Cam to relevant civil and mechanical application.
Apply the principles of Cams relevant to civil and mechanical application.
Cams that impart movement on wedge and roller ended followers.

7. Orthographic Projection

1st and 3rd angle orthographic projections as applied to simple castings from Industry.

8. Mechanical Drawings

Determine the curve of interpenetration of two objects that penetrate or are joined.
Determine the surface development of the transition pieces and containers.

9. Civil Drawings

Insert annotation, dimensioning and scale. Include floor plans and elevations that include: windows, doors and fixtures such as WC, bath, sink, shower, and cupboard.
Apply colour coding according to building practice.
Show site plan and schedule of specifications. Include electrical, plumbing and drainage detail.

10. Descriptive geometry

Determine the true length and the true inclination of a line segment to solve authentic problems.

2nd Semester

11. Electrical Drawing

Draw parallel and series circuit diagrams that are relevant to; electrical appliances, house wiring etc. Include notes were appropriate and draw systems diagrams.

12. Solid Geometry

Draw the sectional orthographic views of geometrical solids.
Combination of right regular geometrical solids.
True shapes in auxiliary views

13. Civil Drawings

Draw elevations and sectional elevation showing foundation to roof.
Basic roof design

14. Principles of Pictorial Drawing

Produce 1 point and 2-point perspective drawings of complex castings and single and double storey dwellings

15. Computer technology [CAD]

Knowledge of computer hardware, operating systems, software and file types and file management
Advantages and uses of CAD software
Application of basic CAD draw, edit and modify functions.
CAD drawing in layers.
Development on questions, model answers and notes for the learner.
Application of all the sections of work in the drawing syllabus

16. The Design process:

Apply the design process to the civil, electrical and mechanical technologies

Apply the design process in the design a floor plan of a dwelling and a simple mechanical product according to given specifications.
Presentation of the design using various graphical methods.
Application of correct SANS Code of Practice (0111 & 0142 (elect) & 0143)
Application of the design process in the design of lesson plans, lesson notes, student notes and

tests.

17. Visualization cognitive and perceptual exercises

Analyze drawings and answer questions based on single multi-view and pictorial drawings within the context of civil, electrical and mechanical.

Visualization of cognitive and perception of complex exercises.

Electrical Technology 101

1st Semester

- **Occupational Health and Safety**

  Personal protection equipment

  Safety Practices in the work place

- **Basic Hand Tools**

  Basic hand tools

  Safety and tools

- **Electrical/Electronic Circuits**

  Atomic theory of electricity

  Ohm's law

  Theory of current law

  Series circuit as voltage divider

  Parallel circuit as a current divider

  Have electrical circuits with more than one output device in the circuit (series and parallel combinations)

  That shows how simple electronic circuits and devices are used to make an output respond to an input signal (e.g. resistors, light-emitting diodes, transistors, push or magnetic switches, thermistors, light dependent resistors).

  Temperature coefficient

  Identify and describe the characteristics of electronic components such as:

  - Resistors
  - Light dependent resistors
  - Capacitors
  - Inductors
  - PN-diodes
  - Light emitting diodes

  Transformers

  Earth leakage devices

  Distribution boards

  Energy and Power

2nd Semester

- **Digital Electronic systems**

  Shows how electrical circuits with more than one input or control device which will work based on different logic conditions ('AND', 'NOT' and 'OR' logic) and represents them using circuit diagrams, systems diagrams and truth tables.

  Convert binary numbers to decimals, hexadecimal, octal.

  Demonstrates knowledge and understanding of digital electronic systems:

  Identify and comprehend binary circuits and build binary circuits relating to electrical circuits

ELECTRICAL TECHNOLOGY 201

1st Semester

1. Safety and instruments

- Identify unsafe conditions and acts and apply
- Tools and instruments correctly.
- Identify unsafe conditions and acts when doing
- practical work and apply tools and instruments correctly to:
  Verify Kirchhoff's laws in AC-and DC circuits.
  Demonstrate the effect of single-phase AC on R, L and C components and investigate the effect of combinations of series circuits, including the effect of frequency changes
  Test insulation, continuity and earth continuity on equipment.
- Describe the Occupational Health and Safety (OHS) Act with reference to general unsafe actions, dangerous practices and unsafe conditions.
- Explain the Occupational Health and Safety (OHS) Act dealing with unsafe actions, dangerous practices and unsafe conditions.

2. Electrical applications

- Construct and comprehend single-phase circuits
- Construct and apply single-phase circuits.
- Describe the use and care of different types of tools and measuring instruments, such as pliers, screwdrivers, multimeters and continuity or insulation testers.
- Explain the use and care for instruments and their correct application and interpretation to ensure accurate measurements such as a multimeter, continuity or insulation tester, function generator and oscilloscope.
- Describe the principles of electricity with reference to:
  Atom theory
  Ohm's law and calculations
  Theory of current flow
  Series circuit as voltage divider
  Parallel circuit as a current divider
  Combination circuits
  Specific resistance
  Temperature coefficient
- Describe the principles of electrostatics with reference to capacitance and electrostatic charge.
- Identify and describe the characteristics of electronic components such as:
  Resistors
  Light dependent resistors
  Capacitors
  Inductors
  PN-diodes
  Light emitting diodes and transformers
- Explain the principles and effect of AC on resistor, inductor and capacitor components with reference to:
  Series combination circuits containing one resistor, one capacitor and one inductor
  Frequency changes
  Phasor and wave representation
  Resonance
  Calculations

2nd Semester

3. Electronics

- Construct and comprehend electronic circuits.
- Construct and apply electronic circuits.
- Describe the principles of electro-magnetism with reference to Faraday's law and Lenz's law and its application in a relay and DC motor.
- Describe the principles of operation and use of power sources like batteries and solar cells like internal resistance, capacity and VA rating.
- Describe the following logic concepts:
  Binary number systems
  Logic symbols
  Logic functions: AND, OR and NOT
- Describe and compare a variety of protective devices and applications such as fuses, miniature circuit breakers and earth leakage devices.
- Explain the principles of AC generation of a single-phase supply by a rotating conductor loop in a two-pole magnetic field.
- Explain the operating principles, characteristics curves and use of semi-conductor devices such as:
  PN diodes
  Bipolar transistors
  Thermistors

4. Digital electronics

Construct, comprehend and apply digital circuits.

Electrical Technology 301

1st Semester

- **Occupational Health and Safety**
  The consequences of the OHS act, risk assessment, human rights in the workplace, work ethics and emergencies

- **Three Phase Transformers**
  Principles of operation, calculations and application.

- **Three Phase Motors & Starters**
  Principle of operation, Testing and commissioning and starters

2nd Semester

- **RLC**
  The effect of AC on Series and parallel RLC Circuits

- **Amplifiers**
  Principle of operation and application of operational amplifiers

- **Communications**
  - Radio communications, antennas, modes of modulation, transmit

SUBJECT DIDACTICS: (SENIOR PHASE) TECHNOLOGY

1st Semester

Design / Communication in technology.
Structures.

Processing.
Systems and control.
Electrical Systems and Control.

SUBJECT DIDACTICS: (FET) PHYSICAL SCIENCES, MATHEMATICAL LITERACY, TECHNICAL SCIENCE, CIVIL TECHNOLOGY AND MATHEMATICS, TECHNICAL MATHEMATICS, ELECTRICAL TECHNOLOGY AND MECHANICAL TECHNOLOGY

2nd Semester

The nature of the learning area as defined in the National Curriculum Statement.
Teaching, learning and assessment in the learning area.
Common misconceptions in the learning area and strategies to overcome these.
Designing a comprehensive learning programme in the learning area, producing teaching material,
and designing assessment tasks in line with the national curriculum statement.
Communication effectively towards the learning area.
Drawing up specific teaching techniques relevant to each learning area.
Reflecting on teaching experience, and on observation of present experienced teachers at work.

Bachelor of Education in Senior Phase and Further Education and Training Teaching in Languages

ENGLISH HOME LANGUAGE I

1st Semester

Introduction to English Studies 101 – substantial reading of literature to develop reading, writing and expression skills.

2nd Semester

ENGLISH HOME LANGUAGE I

Introduction to English Studies 102 – substantial reading of literature to be able to interpret English literary and cultural material using appropriate vocabulary and academic methods of presentation.

ENGLISH HOME LANGUAGE II

1st Semester

Substantial reading of literature to get familiar with the ideas and practices of literary period study and genre analysis, leading to the development of creative and academic writing: an introduction.

ENGLISH HOME LANGUAGE II

2nd Semester

Substantial reading of literature to be equipped with literary period study skills and genre analysis leading to the development of creative and academic writing.

ENGLISH HOME LANGUAGE III

1st Semester

Focus on the skills and concepts of the relevant literary period study.
Formation of South African literatures i.e. drama, poetry and novels
Investigating the representation of colonial, postcolonial and/or post-apartheid identities in the work of selected authors.

ENGLISH HOME LANGUAGE III

2nd Semester

Rigorous creative and reading will take place to test the grasp of generic and styles of established writers.

ISIZULU HOME LANGUAGE I

1st Semester

Aspects of isiZulu grammar, culture and language awareness.

ISIZULU HOME LANGUAGE I

2nd Semester

Introduction to isiZulu morphology; introduction to isiZulu oral literature.

ISIZULU HOME LANGUAGE II

1st Semester

Introduction to morphology, phonology, syntax, phonetics and selected traditional and modern poetry.

2nd Semester

ISIZULU HOME LANGUAGE II

Advanced grammar, comparative Kintu, selected traditional and modern prose.

ISIZULU HOME LANGUAGE III

1st Semester

Creoles, pidgins, slang, vernaculars, isoglosses, dialects, hlonipha, Fanakalo, registers, national language, standard and nonstandard languages, modernization of the isiZulu language, language contact, borrowings and adoptive, challenges facing South African vernacular languages.

ISIZULU HOME LANGUAGE III

2nd Semester

Names and words will be studied from sociolinguistics, morphological and semantic points of view.

SUBJECT DIDACTICS: (SENIOR PHASE) LANGUAGES

1st Semester

The nature of the learning area as defined in the National Curriculum Statement.
Teaching, learning and assessment in the learning area.
Common misconceptions in the learning area and strategies to overcome these.
Designing a coherent learning programme in the learning area, producing teaching resources, and designing assessment tasks in line with the national curriculum statement.
Communication in the learning area. Specialized teaching techniques relevant to each learning area.

SUBJECT DIDACTICS: (FET) LANGUAGES

2nd Semester

The nature of the learning area as defined in the National Curriculum Statement.
Teaching, learning and assessment in the learning area.
Common misconceptions in the learning area and strategies to overcome these.
Designing a comprehensive learning programme in the learning area, producing teaching material,
and designing assessment tasks in line with the national curriculum

Core Modules are Compulsory for all B Ed Students: FET

ents EDUCATION I (EDUC 101)

1. Education and Its Purpose
2. Basic Educational Concepts (Formal, Non-Formal and Informal Education)
3. Introduction to:
   - Philosophy of Education
   - Psychology of Education (theories of Human Development)
   - History and Comparative Education
   - Sociology of Education
4. Curriculum Design (OBE: NCS)

EDUCATION II (EDUC 201)

1. **Issues in Education [Gender, Equity and Inclusive Education]**
   What is Inclusive Education?
   An overview of the conceptual and operational framework that informs the strategy of inclusive education.
   Discussions on inclusive education will include:
   - The shift from categories of disability to levels of support
   - The description and role of full-service schools
   - The description and role of resource centres and their role in the implementation of inclusive education

   Multicultural Education
   Gender Issues in Education
   Quality Education

2. **Theories of Human Development II: Piaget —Cognitive Development**
   - Kohlberg's Theory —Moral Development
   - Vygotsky —The Zone of proximal development
   - Maslow —Hierarchy of needs

3. **Information Processing Approach: Perkins (a self-study)**

EDUCATION III (EDUC 301)

1. **Concept of Research**
2. **Research Processes**
   Defining a research problem
   Problem Identification
   Delimiting a research problem
3. **Approaches to research**
   Qualitative Research
   Quantitative Research
4. **Types of Research**
5. **Hypothesis/Research question**
6. **Literature Review**
7. **Research Designs**
8. **Sampling Techniques**
9. **Measuring Instruments**
10. **Data collection, organization and presentation**
11. **Measure of Central Tendency**
12. **Leadership and Management**
    What is classroom management
    Effective classroom management
    Planning a classroom management task
    Managing change in Education
    Parent involvement and classroom management
    Collegiality (teaching, mentoring and support)
13. **Education Policies**
    General Legislation
    Bill of Rights
    Labour Relations Act
    Employment Equity Act
14. **National Education Policy Act (84/1996)**
    National Policy on HIV/AIDs for learners and educator in public schools and students and educators in FET Institutions. Norms and standards for Educators
15. **South African Schools Act (84/1996)**
    Learners representative Councils
    The formation and the role of School Governing Bodies (SGBs).
    Guidelines for consideration of Governing Bodies
    In adopting a code of conduct for learners.
    National Norms and standards for School funding
    Exemption of parents from paying fees
    Employment of Educators Act
    South African Council of Educators Act (SACE)

EDUCATION IV (EDUC 401)

1. Partnerships in Education:
   - Role of Industry in Education
   - Role of Parents/Community in Education
   - Role of Government in Education
   - Role of SACE
2. Education and Law

3. Leadership and Management
4. Ethical issues in Education
   - Ethics of Justice
   - Ethics of Care
   - Ethics in the Workplace
   - Ethics and the South African Code of Conduct for Educators
5. Submission of research projects

GENERAL SUBJECT DIDACTICS I (GSDI 101)

1. Introduction to Didactics
2. What is teaching?
3. Teaching environment
4. Teaching approaches
   - Traditional approaches
   - OBE as an approach to teaching and learning
5. Introduction to Teaching and Learning Strategies
6. Teaching Methods
7. General Teaching Skills
8. Introduction to Media Applications

GENERAL SUBJECT DIDACTICS II (GSDI 201)

1. Micro-Teaching
   Introduction to Outcomes
   Designing Lesson Plans
   Teaching and Learning Media Applications
   Collaborative Teaching
2. Classroom Management
3. Outcomes Based Assessment (OBA)
4. Teaching Large Groups

GENERAL SUBJECT DIDACTICS III GSDI 301)

1. Micro-Teaching
   * Teaching and Learning Strategies
   * Questioning Techniques
   * Development of Media and production of teaching materials
2. Curriculum Development: Planning Work Programmes for different learning areas
3. Assessment Approaches and Principles
4. Balancing a Question Paper
5. Quality Assurance in Education

PLANNING A LEARNING PROGRAMME

New Curriculum Framework
Levels of Planning

GENERAL SUBJECT DIDATICS IV (GSDI 401)

1. Discipline in Education: Legislation around discipline in School
2. Decentralised School Governance: School Governing Bodies and their role
3. Portfolio Development Project

WORK INTEGRATED LEARNING (WIL) (EXBE 101)

1. 4 weeks: Academic Literacy and Micro-Teaching.
2. Portfolio and Logbook.

WORK INTEGRATED LEARNING (WIL) (EXBE 201)

1. 4 weeks: Guided Observation
2. Portfolio and Logbook.

WORK INTEGRATED LEARNING (WIL) (EXBE 301)

1. 4 weeks: Guided Observation and Collaborative Teaching
2. Portfolio and Logbook.

WORK INTEGRATED LEARNING (WIL) (EXBE 401)

1. 6 months, full time teaching
2. Portfolio and Logbook.
3. An experienced senior educator to be appointed as a mentor.
4. Students must comply with rules and regulations of the institution in which they are placed and are required to comply with DoE and the SACE: Code of Conduct for Educators.

Fundamental Subjects are Compulsory for all students

COMMUNICATION IN ENGLISH I (LANGUAGE X) (COEN 101)

1. The Communication types, processes and barriers
2. Academic and reflecting writing
3. Approaches to reading
4. Listening and feedback
5. Oral communication
6. Referencing methods

COMMUNICATION IN ENGLISH II (LANGUAGE X) (CO EN 201)

1. Organisational Communication
2. Intercultural communication
3. Report writing
4. Non-verbal communication
5. Speaking in groups and meetings
5. How we read/improving your reading skills
6. Text analysis

COMMUNICATION IN ENGLISH III (LANGUAGE X) (COEN 301)

1. Organisational Correspondence: Application of writing skills
2. Linguistic issues and topics
3. Aspects Regarding Language Usage In The Context of The Teaching and Learning situation
4. Legislation and Professional issues pertaining to teaching and learning
5. Scientific investigations into linguistic issues

SKILLS AND LIFE ORIENTATION/ LIFE SKILLS I (SKLO 101)

1 Religion
2 Basic Study Methods
3 Community Involvement
4. Role of the Individual in the Economy
5. Entrepreneurship

6. Computer Literacy I
    - Basic Concepts: Theory
    - The Operating System: Windows XP
    - Managing diskettes, drives and files
    - Impact of Computer Technology on socio-economic, environmental, political and ethical issues.
    - Word Processing: Microsoft Word 2003
    - Use of the Internet and Email

SKILLS AND LIFE ORIENTATION/ LIFE SKILLS II (SKLO 201)

1. Comparative Religion Views
2. Self-Management Skills
3. Meeting Procedures
4. Computer Literacy
5. Loss Control
6. Computer Literacy
    - Word Processing: Microsoft Word 2003
    - Spreadsheet: Microsoft Excel 2003
    - Education Documents and lesson plans: Tables, Documents of meetings, Job
    - Application, Legal Documents
    - Guide to the Internet and Email

SKILLS AND LIFE ORIENTATION/ LIFE SKILLS III (SKLO 301)

1. Personal Development and Well-Being
2. Citizenship Education
3. Career and Career Choices
4. Recreation and Physical Well-being
5. School Sports
    - Athletics
    - Soccer/Netball
    - Volleyball
    - Tennis (lawn/table)
    - Basketball
    - Indigenous Games
6. Outdoor Sport

<u>Additional optional language subjects</u>

COMMUNICATION IN ISIZULU I (LANGUAGEY1) (COZU 101)

1. IsiZulu njengolunye lwezilimi zabantu abamnyama eAfrika eseNingizimu
2. Ukubhala
3. Ukukhuluma
4. Ukulalela

COMMUNICATION IN ISIZULU II (LANGUAGE Y1) (COZU 201)

1. Ukubhala
    - Ukukhombisa inhlonipho lapho ubhala noma ukhuluma
    - Ulimi lwesimo
    - Amagama anembayo
2. Ukukhuluma
    - Inkulumo eyongayo neyonga amagama

- Imiyalezo ethunyelwa yisitho zomzimba lapho ukhuluma
- Ukuqikelela ukuthi kuzwakale kahle okushoyo
- Ulimi nozwelomagama
- IsiZulu soqobo

3. Ukufunda
   - Izinhlobo zezindlela zokufunda
   - Ukufunda okufanelene nohlobo lombhalo
   - Izinhlobo zemibhalo yesiZulu
   - Ukufingqa inkulumo
4. Ukwenza ucwaningo

COMMUNICATION IN AFRIKAANS I (LANGUAGE Y2) (CMAF 101)

1. Speaking
   - Using appropriate words
   - Using the everyday expressions correctly
   - Using good idiomatic expressions
   - Making a distinction between "borrowed' words and genuine [suiwer] Afrikaans words
   - Getting to the point
2. Reading
   - Reading and pronouncing words properly
   - Observing punctuation marks
   - Showing understanding of what is being read
3. Writing
   - Writing words and sentences properly
   - Letter —writing
   - Writing passages to observe punctuation marks
4. Research to discover new words and expressions and their meaning

COMMUNICATION IN AFRIKAANS II (LANGUAGE Y2) (CMAF 201)

1. Advanced Oral Skills
2. Advanced Reading Skills
3. Advanced Listening Skills
4. Advanced Writing Skills

B Ed (FET): Specialisation Economics and Management Sciences
ACCOUNTING (EDUCATION) I (ACCT 101)

1. Introduction to Accounting and Nature of Accounting
2. Accounting Concepts Procedures and Principles according to GAAP
3. Users of Financial Information to make informed decisions.
4. Basic business calculations eg. VAT, Cost Price , Discounts and Percentages.
5. Book-Keeping: CRJ, CPJ, DJ, DAJ, CJ, CAJ, PCT, GJ/posting to ledgers, preparing of trial balances, income statements and balance sheets.
6. Year adjustments of a sole trading.
7. Perpetual and periodic inventory systems.
8. Bank Reconciliation procedures.
9. Analyzing financial statements

ACCOUNTING (EDUCATION) II (ACCT 201)

1. VAT
2. Partnerships: Formation, financial statements, dissolution, liquidation
3. Departmental Accounting: Cost allocation departmental journals, departmental financial Statements, inter-departmental transfers.
4. Cash Budgets: Preparing cash budgets from given information
5. Asset Disposal
6. Non Profit Organisations

ACCOUNTING (EDUCATION) III (ACCT 301)

1. Companies: Statutory Reporting, Financial statements, disclosure of information by way of notes.
2. Cash flow: Use given information from previous years and additional information.
3. Interpretation and Ratio Analysis
4. Manufacturing Accounting
5. Branch Accounting

BUSINESS MANAGEMENT (EDUCATION) I (BSMN 101)

Semester One

1. **Introduction to Business Management as a Science**
   The business world and business management
   Needs and needs satisfaction
   The main economic systems
   Needs satisfying institutions of the free market
2. **Entrepreneurship**
   What is entrepreneurship?
   What entrepreneurs do and why they do it?
   The role of entrepreneurs in society
   The small business
   The entrepreneurial process
   Skills required for entrepreneurship
3. **The establishment of a business**
   Legal forms of ownership and their formation in South Africa
4. **The business environment**
   The organization and environment change
   The three sub-environments [micro, market and macro environments]
5. **The general management principles**
   The role of management
   Different levels and types of management in businesses
   Skills at different managerial levels
   The role of managers
6. **The basic elements of planning**
7. **Organizing management**
8. **Leadership —leading people in the organization**
9. **Meeting human resource requirements and developing effectiveness in HR**
10. **The legal environment and human resources**

11. **Controlling the management process-the importance of control**
    The control process
    The focus of control
    The characteristics of an effective control system

Second Semester

1. **The marketing process**
    Evolution of marketing thought
    Defining marketing
    The components of the marketing process
    Marketing research
2. **The marketing instruments**
    The key to the market; product decisions, brand decisions
    Price decisions, distribution decisions, marketing communication decisions
3. **The integrated marketing strategy**
    The marketing concept
    Marketing strategy during the product life cycle
    Marketing planning and control
4. **Public Relations**
    The nature of public relations
    Public relations management
    The communication programme
5. **The financial function and financial management**
    Concepts in financial management
    The objective and fundamental principles of financial management
6. **Asset management: the investment decision**
    The management of current assets
    Long-term investment decisions and capital budgeting
7. **The operations management function**
8. **The purchasing and supply function**
9. **Contemporary issues in business management**

BUSINESS MANAGEMENT (EDUCATION) II (BSMN 201)

1. **Managers and management, Managing in today's world**
    Functions of management
    Levels of managers and their essential roles
    Skills necessary for becoming successful managers

2. **Foundations of planning, foundations of decision making**
    Benefits and drawbacks of planning
    Types of plans and the steps of the strategic management process
    Steps in the decision making process
    Approaches to decision making

3. **Technology and operations, basic organizational design**
    Formula for calculating productivity
    Technology versus work obsolescence
    Elements of organizational structure
    Ways organizations may departmentalize
    Types of organizational structures

4. **Leadership and trust, Communication and interpersonal skills**
   Theories on leadership
   Communication process
   Communication barriers
   Delegation and conflict

Second Semester

1. **Competing with operations, Process Management**
   Operations as a function
   The role of operations strategy as a source of competitive strength in a global market place
   Main process decisions and how they must relate to volume
   Meaning of automation and economies of scope

2. **Managing processes and managing technology**
   Major activities associated with successful project processes
   Network of interrelated activities in a project
   The sequence of critical activities that determine the duration of a project
   Probability of completing a project on time
   Meaning of technology
   Fundamental role of the computer and information technology
   Factors that managers must consider when making technological choices

3. **Quality, capacity and location as well as layout**
   The principle of TQM
   Control charts
   Measuring capacity
   Capacity gaps
   Economies and diseconomies of scale
   Basic layout types
   Factors affecting choice of location

4. **Supply chain-management and forecasting**
   Nature of supply-chain management for both manufacturers and service providers
   Supply chain dynamics
   Demand patterns that combine to produce a demand line series
   Forecasting techniques

BUSINESS MANAGEMENT (EDUCATION) III (BSMN 301)

1. **The goal of financial management**
   Forms of business organizations,
   Functions of financial manager,
   Analysis of financial statements,
   Determining the influence of risk on the required rate of return,
   The role of time value for money and
   Capital budgeting techniques

2. **Understanding marketing management**
   Defining marketing in the 21st century,
   Developing marketing strategies and plans,
   Capturing marketing insights,
   Gathering information and scanning and environment

Conducting marketing research and
Forecasting demand

3. **Building strong brands:**
   Creating brand equity, [what is brand equity?, building brand equity, measuring brand equity, devising a branding strategy and customer equity].
   Crafting the brand positions
   Developing and communication a positioning strategy
   Product life-cycle marketing strategies, and
   Dealing with competition

4. **Shaping the market offering:**
   Setting product strategy
   Product characteristics and classifications, differentiation, product and brand relationships, packaging, labeling, warranties and guarantees,
   designing and managing services, the nature of services,
   marketing strategies for service firms,
   managing service quality,
   managing service brands,
   managing product-support services,
   developing pricing strategies and program,
   understanding pricing,
   setting the price,
   adapting the price,
   initiating and responding to price changes

5. **Delivering Value:**
   Designing and managing value networks and channels,
   Marketing channels and value networks,
   The role of marketing channels,
   Channel-design decisions,
   Channel-management decisions,
   Channel integration and systems,
   Conflict, co-operation and competition
   E Commerce marketing practices
   Managing retailing,
   Wholesaling and market logistics

6. **Creating successful long-term growth:**
   Introducing new market offerings,
   New product options,
   Challenges in new-product development,
   Organizational arrangements,
   Managing the development process and
   Tapping into global markets

COMPUTER APPLICATIONS TECHNOLOGY (EDUCATION) I (CAPT 101)

1. Open and close one or more documents

Create a new document with or without using a template
Save a document under a different name or in a different location or as a different type
Use the help function and on-line help
Change view types
Enter and edit data
Select data using a keyboard and/or a mouse
Copy, move and delete selected information using copy and paste tools and methods
Apply the basic font styles of bold, italics and underlining
Change the font type, colour, size, and effects (including subscript and superscript)
Align to left, right and centre
Find and replace
Use a spell and grammar check
Copy information or objects between applications (including OLE techniques)
Input data from different formats
Use the undo and re-do functions
Change document orientation (portrait and landscape), margins and paper size
Add headers and footers including page numbers, date, path and file name
Proofread in terms of layout, presentation and accuracy
Preview a selection to print
Choose print output options such as range of pages, number of copies, odd or even pages, print quality and any other applicable printer options
Using templates and wizards
Using the drawing tools
Importing / Exporting data

2 Specific word processing skills

Use a word processing programme to an advanced level to manipulate text and graphics
Input data using various input devices, methods and procedures
Enter, edit and format text and graphics
Create visual and printed matter.
Design and layout documents
Use and manipulate columns
Apply and copy styles and formats
Insert special characters or symbols
Use automatic hyphenation
Show non-printing characters
Insert, remove and manipulate line breaks, page breaks and section break
Indent paragraphs (left, right, first line, hanging)
Apply spacing within and between lines and paragraphs
Use tabs (left, centre, right, decimal, leader, bar)
Use bullets and styles of bullets in a multilevel list
Add borders and shading
Create, manipulate and format a table with cells, rows and columns
Use table properties
Convert text to table and vice versa
Perform a mail merge by creating a form letter and using an internal or external data

source such as a spreadsheet or table
Use track changes
Insert reference
Insert table of contents
Insert auto text, fields, and comments
Create, use and manipulate forms
Compare and merge documents

3 **Specific spreadsheets skills:**
Process basic numerical data using a spreadsheet programme
Insert, copy, delete and format rows and columns
Work with cells and ranges
Format cells and worksheets
Use basic formulas
Use basic functions
Apply mathematical functions such as sum, round, sqrt, power, sumif
Apply statistical functions such as average, min, max, count, large, small, mode, median, countif
Date and time functions such as date, day, now, today
Text functions such as left, right, mid, len, value, text
Logical functions such as If
Create and edit charts
Use relative and absolute cell reference
Insert, delete and change the format of rows, columns and cells
Select adjacent and non-adjacent ranges
Sort
Insert, copy, delete and rename worksheets
Work with and between worksheets
Use the auto fill tool
Use the basic mathematical operators (addition, subtraction, multiplication, div sion) in formulas
Interpret standard error values associated with using formulas
Format and round of numbers
Format date and text data
Split and merge cells
Manipulate text with wrapping and cell content orientation
Add borders, colours and other effects to a cell range

Create different types of charts and graphs (column chart, bar chart, line) Change colours, labels, legends, titles and axes in a graph
Display gridlines, row and column headings and title rows for printing purposes

4 Specific database skills:
Create single table data sources to generate forms, queries and reports using a database programme
Create a single table data source
Understand database organisation including records, tables, fields, data types, indexes and primary keys
Manipulate tables, records and fields
Work with field properties including default values, validation rules, input mask Construct databases and basic table relationships
Filter, group and sort records
Create and design forms, queries and reports
Specify criteria in a query using the relational operators
Add extra fields with calculations in forms, queries and reports

5 End-user computer application programme of own choice:
Presentations or web authoring tools or desktop publishing software or any other application software of own choice
Enter, edit and format text, numbers and graphics
Application of good design principles

6 Integration
Integration of end-user computer application programmes
Work between spreadsheet, database and word processor

7 Email
Create, open, delete, send, forward, reply, flag
Open attachments
Save attachments
Attach documents to mail
Send carbon copies
Sort
Set up and use an address book
Message rules

8 Internet:
Find a web site by using an URL
Follow hyperlinks
Use search engine to find information
Keywords
Evaluation of web sites
Download files
Save information to a disk

COMPUTER APPLICATIONS TECHNOLOGY (EDUCATION) II (CAPT 201)

1 Computers in all walks of life

General concepts of information technology including hardware, software environments
Types of computer systems
Typical components and characteristics of a computer
Input and output devices
Types of system software and application software. Computer ethics, security, and viruses.
Impact of computers on the environment and society. Safety and health issues.
File management and trouble-shooting simple end-user computer-related hardware and software problems.
Utilising the features of a typical operating system.

2 **Graphics at an advanced level, using a word processing programme:**
Proficiency in the input of data.
Entering, editing and formatting text, numbers and graphics.
Creation of visual and printed matter.
Design and layout of documents;
Use of templates.

3 **Basic processing of numerical data, using a spreadsheet programme:**
Working with cells and ranges.
Formatting cells and worksheets.
Basic functions and formulae, including sum, average, count, if, countif, min, max;
Creating and editing charts.

4 **Creation of single-table data sources to generate forms, queries and reports, using a database programme:**
Creation of a single-table data source.
Manipulation of records and fields.
Generation of forms, queries, and reports.

5 **Presentations or web authoring tools or desktop publishing software or any other application software of own choice:**
Entering, editing and formatting text, numbers and graphics.
Application of good design principles.

6 **Integration of end-user computer application programmes:**
Working between applications.
Linking and exchanging (importing/exporting) data with other applications.

7 **Effective communication of information:**
Different types of communication tools.
Different modes of communication.
Use different modes and tools of communication.
Select appropriate communication modes and tools.

8 **Task definition:**
Recognising information needs.
Defining problems.
Identifying the type and amount of information needed to solve problems

9 **Information-finding strategies:**
Considering possible information sources (e.g. Various types of electronic resources for data gathering including databases, CD-ROM resources, commercial and internet online resources,

electronic reference works, community and government information electronic resources) as well as primary resources including interviews, surveys, experiments and documents that are accessible through electronic means;

Developing a plan/strategy for searching.

Identifying and applying specific criteria for evaluating resources.

Identifying and applying specific criteria for constructing meaningful data gathering tools.

Using a computer to generate modifiable flow charts, timelines, organisational charts and calendars which will help the student to plan and organise complex or

Group information problem-solving tasks.

Using a computer or other devices to manage the process (e.g. Track contacts and create to-do lists and schedules).

10. Access information:

Locating information from a variety of resources using appropriate computer resources and available technologies.

Accessing specific information found within individual sources by using organisational systems Tools specific to electronic information sources that assist in finding specific and general information.

11 Use of information:

Engaging with information to determine its relevance.

Extracting relevant information through, for example, citations, note taking and summaries.

Processing and analysing statistical data.

Saving and backing up data gathered.

12 Synthesis:

Organising results of information gathering and processing.

Presenting results by selectively creating or generating printed reports, computer- generated graphics, charts, tables and graphs, original databases, electronic slide shows, overhead transparencies, web pages, etc.

13 Evaluation of the effectiveness and efficiency of information management:

Content, format and design.

Spell and grammar checking capabilities.

Legal principles and ethical conduct related to information technology with special attention to copyright and plagiarism.

Netiquette when using internet, e-mail, etc.

Information problem-solving process (efficiency)

COMPUTER APPLICATIONS TECHNOLOGY (EDUCATION) III (CAPT 301)

Advanced word processing and formatting skills. Advanced desktop publishing skills

Multimedia presentations using text, sound, video, animation, and graphics are designed created.

Single table data source, simple forms, queries, and reports are created, and generating database program.

Proof-readers signs, i.e. manuscript signs are interpreted and applied.

Written and electronic layout and editing instructions are interpreted to produce accurate output in a competent fashion.

Advanced integration techniques are demonstrated using multi-and appropriate programs.

Various forms of data are located, collected, analysed, and critically evaluated using technologies and relevant methods.

Information is organised, recorded, and summarised in appropriate electronic formats.

Information is presented and communicated in a professional fashion.
Paragraphs —numbered main-, sub, sub-sub paragraphs and bullets.
Correspondence —Business letters, circulars and official letters J o b
Application —Letters of application/Appointment/Rejection
Testimonial and Curriculum Vitae
Programs Portrait, A5 Landscape, A4 landscape divided into three columns Tables —created in Microsoft Word
Documents for meetings —Notice of meeting with an agenda, Minutes
Templates and Wizards
Microsoft Excel —Formulas, Charts, integration
Microsoft Access —Create table and edit, queries, forms and reports
Microsoft Publisher —Create posters, invitation cards
Microsoft PowerPoint —slideshows application skills
Theory and Basic Concepts —Computer hardware, software, networks, computer ethics, viruses and Social issues.
Speed and accuracy — (40 wpm)
Research Project —integrating all software packages (Research process and Presentation)

ECONOMICS (EDUCATION) I (ECON 101)

1. Numeracy and Graphical Skills
2. Introductory Concepts
3. Circular Flow of Economic Activity in a Two - Sector Model
4. The Goods Market
5. Elasticity
6. The Labour Market
7. Production and Costs
8. Market Structures: Perfect Competition
9. Market Structures: Monopoly
10. Numeracy and Graphical Skills
11. Introductory Concepts
12. Circular Flow of Economic Activity in a Two - Sector Model
13. The Goods Market
14. Elasticity
15. The Labour Market
16. Production and Costs
17. Market Structures: Perfect Competition
18. Market Structures: Monopoly

ECONOMICS (EDUCATION) I (ECON 201)1. Consumer Behaviour

2. Production
3. Market structures and Economics Behaviour
4. Alternative theories of the firm

MACRO-ECONOMICS

1. The Keynesian model
2. The IS-LM Model
3. The Foreign Sector
4. The Aggregate Deman (AD) and Aggregate Supply (AS) approach: AD model
5. Different Schools of Thought on Microeconomic Theory and Polic

ECONOMICS (EDUCATION) III (ECON 301)

1. Economic Policy in South Africa
2. Labour Economics
3. Economic Development Subject Didactics

MATHEMATICS (EDUCATION) I (MTMC 101)

1. General Algebra —1st, 2nd and 3rd degree/inequalities equations, remainder/factor theorem
2. Function graphs and Transformation – Exploration
3. Algebraic and graphical solutions to equations and simultaneous intersections
4. Polynomial and rational functions/equations
5. Algebraic and Graphical representation of exponential and logarithmic functions
6. Trigonometric Functions, identities, equations, graphs and simple harmonics
7. Analytical Geometry Lines

MATHEMATICS (EDUCATION) II (MTMC 201)

1. Differential Calculus
2. Sequences, series and progressions
3. Analytical Trigonometry
4. Circle Geometry
5. Analytical Geometry Lines and Circles
6. Permutations, Combinations and Probability
7. Application of didactic principles to school grades 10 and 11 content

MATHEMATICS (EDUCATION) III (MTMC 301)

1. Further Differential Calculus
2. Linear Algebra
3. Vectors Algebra
4. Complex Numbers
5. Implicit differentiation and first order equations
6. Introduction to Integral Calculus
7. Further series —infinite, power, binomial expansion
8. Didactic principles applied to school grade 12 NCS content

B Ed (FET): Specialisation Natural Sciences

Electives

BIOLOGY (EDUCATION) I (BIOE 101)

2.. Introduction to Microscope and Laboratory equipment

a. Investigating phenomenon in Biological Sciences
   Identify parts of a microscope
   Prepare slides/wet mouths
   Use microscope
   Identify structures under microscope
   Identify various laboratory equipment

b. Constructing of knowledge in Biological Sciences
   Parts of microscope and their functions
   Use of various laboratory equipment

c. Application of Biological Sciences
   History of microscope development and applications
   The electron microscope and its value and applications

2. General Ecology

2.1 Investigating phenomenon in Biological Sciences

Use of field guides for identifying species
Investigate community structure within a habitat and changes that take place within the habitat
Use of sampling methods:

- quadrats
- transects
- traps
- direct observation

Importance of random sampling
Identification and investigation of primary and secondary succession
Investigate soil properties

2.2. Constructing of knowledge in Biological Sciences

Ecological terms
Biotic and abiotic factors
Interaction in ecosystem
Energy transfer
Special relationships
Succession
Soil Study

2.3. Application of Biological Sciences in Society

Human influence on community structure:

- Iron age settlement
- Industrialisation
- Urbanisation
- Farming practices
- Role of culling of animals

Parasitic infections; incidences in South Africa and relationship to sanitation, play habits.

3. Aquatic EcoSystems

3.1 Investigating phenomenon in Biological Sciences

Identify water plants and animals
Investigate water pollution and its effects on plant and animal life

3.2 Constructing of knowledge in Biological Sciences

Differences between terrestrial and aquatic systems
Abiotic factors that have an effect on aquatic systems and their effect;
Succession in aquatic systems;
Marine ecosystems, definition and types:
Dunes formation and salt spray effect on plants

3.3. Application of Biological Sciences

Management of water pollution;
Effect of uncontrolled sand mining;
Dune mining
Ecotourism

4. Population and Community Ecology

4.1. Investigating phenomenon in Biological Sciences

Experiments in investigating population size and movements;
Graphical representations
Investigate distribution patterns

4.2 Constructing of knowledge in Biological Sciences

Population dynamics and population parameters;
Population growth patterns and factors affecting population size;
Estimation of population size;
Survival strategies;
Competition

4.3 Application of Biological Sciences

Human population:

- Reasons for exponential growth in a natural system
- Interpret age and gender structure
- Human demands versus conversation needs [conservation of natural environment, hunting industry, sustainable harvesting of natural resources, creation and management of game reserves]
- Value systems with reference to biodiversity

Wild Life management

5. Pollution and Conservation

5.1 Investigating phenomenon in Biological Sciences
Conservation bodies and their roles;
Conservation need in the local area and on a national level.
Investigating pollution in local area and at national level.

5.2 Constructing of knowledge in Biological Sciences

Definition and causative factor of pollution;
Identification of pollution
Causes of water pollution:

- Household wastes and sewage
- Industrial pollution

- Oil pollution
- Chemical pollution
- Farming and soil erosion

Preventive measures
Conservation and preservation of soil, air, water and natural resources, wilderness, etc

5.3 Application of Biological Sciences
Preventing pollution
Joining of conversation body
Active lobbying against pollution

6. Plant Water Relationship
6.1. Investigating phenomenon in Biological Sciences
Experiments to demonstrate diffusion and osmosis
Demonstration:
- Water movement through xylem,
- Transpiration of water through leaves,
- Factors that bring about movement of water in plants
- Factors affecting transpiration in plant

6.2 Constructing of knowledge in Biological Sciences
Definition of diffusion and osmosis;
Uptake of water and mineral salts into a root and their transport to the leaves;
Transpiration
Definition and comparison with other types
Effect of variation in temperature, humidity and light intensity
Wilting

6.3 Application of Biological Sciences in Society
Applications in agriculture

BIOLOGY (EDUCATION) II (BIOE 201)
1. Bioversity and Classification
1.1 Investigating phenomenon in Biological Sciences
Demonstrate principles of classification;
Classify organisms into groups
Understanding distribution maps of species in South Africa

1.2 Constructing of knowledge in Biological Sciences
Extent of biodiversity and endemism in South Africa;
Classification schemes;
Introduction to the main groups of animals and plants;

1.3 Application in Society
History of classification;
Some examples of classification systems
Naming things in science
Linnaeus and his classification system
Threats to biodiversity in South Africa
Value of retaining biodiversity

2. Plant Diversity

2.1. Investigating phenomenon in Biological Sciences

Examine examples for the different groups of plants;
Compare morphology
Compare monocotyledon and dicotyledon plants and their flowers
Interpret phylogenetic tree representing evolutionary history

2.2. Constructing of knowledge in Biological Sciences

Structural plan and modifications
Habitat, external structure, nutrition and life cycle in examples of:

- Viruses
- Bacteria
- Mycophyta: Yeast cell and Bread mould
- Phycophyta: ***Chorella*** and ***Spirogyra***
- Bryophta: Moss —***Funaria sp***
- Pteridophyta: Ferns —***Dryopteris sp***
- Cycadophyta: Cycad
- Spermatophyta:
  Gymospermae —***Pinus sp***
  Angiospermae —a Monocot and a Dicot plant

2.3. Application in Society

Ancient and unique plant groups in Southern Africa, theft of plants and ecotourism;
Agricultural plants;
Medicinal plants;
Ecological importance;
Economic importance

3. Animal Diversity

3.1. Investigating phenomenon

Intrepret phylogenetic tree;
Identify South African examples of the different phyla;
Examine external features of examples
Illustrate biodiversity of the phyla and classes

3.2. Constructing of knowledge

Body plans and symmetry in different phyla; modifications.
Habitat of different examples;
External structure, nutrition;
Reproduction/Life Cycle

- Protozoa: ***Amoeba sp.,***
- ***Trypanosama sp., Paramecium sp***
- Coelenterata: ***Hydra*** *and* ***Aurelia***
- Platyhelminthes: ***Planaria*** and ***Taenia sp.***
- Nematoda: ***Ascaris sp.***
- Annelida: Earthworm and leeches
- Arthropoda: Characteristic features and examples of different classes; locust
- Molusca: Snail
- Echinodermata: Star fish
- Chordata: Cartilagenous fish, bony fish, frog, lizard, bird, rat/rabbit

3.3 Application in Society

Parasites: distribution, prevalence, effects on hosts, treatment, reducing spread
Arthropods as parasites and vectors of pathogens
Role of invertebrates in agriculture and the ecosystem
Animal farming and sustainable use, economic and employment opportunities
Poaching
Evolutionary implications

4. BioGeography

4.1. Investigating phenomenon in Biological Sciences

Worldwide distribution of animals [ostrich, emu, rhea, moa, kangaroo
Worldwide distribution of some plants

4.2 Constructing of knowledge

Diversity within continents
Specific animals and plants on land masses and islands

4.3 Application in Society

Nature of science
Charles Darwin's explanation
Speciation

BIOLOGY (EDUCATION) III (BIOE 301)

1. Organic and Inorganic Compounds

1.1 Investigating phenomenon in Biological Sciences

Construct simple and complex molecules;
Experiments on enzyme action;
Food tests

1.2 Constructing of knowledge in Biological Sciences

Inorganic compounds: Water, Macro and Micronutrients;
Carbohydrates
Proteins
Fats
Nucleic acids
Enzymes and Vitamins

1.3 Applying in Biological Sciences in Society

Diseases in respect of micronutrients
Fertilizers in agricultural farms and related problems
Difficiency diseases in respect of carbohydrates, proteins and fats;
Saturated and unsaturated fats- heart diseases and cholesterol

2. Genetics and Hereditary

2.1. Investigating phenomenon

Models of RNA and DNA;
Examine extractions of DNA using simple processes;
Cell division —practical investigation
Investigations of human genome, genetic disease and genetic engineering
Investigation of the causes, prevalence and treatment of cancer

2.2. Constructing of knowledge

Structure of DNA and RNA;
DNA replication;
Transcription;
Translation;
Mutations
Cell division
Hereditary and inheritance including sex chromosomes, sex-linked diseases and solving simple genetic problems

2.3. Application in Society

Historical developments: DNA structure and Mendel's experiments;
DNA fingerprinting;
Importance of DNA sequencing;
Abnormalities in meiosis and consequences and attitudes;
Polyploidy and its importance in agriculture;
Discovery of the principles of hereditary and genes;
Medicinal and agricultural applications of genetic engineering;
Genetics diseases, beliefs, attitudes and values;
Genetic counseling;
Ethics and legislation in genetic testing and engineering

3. Cytology

3.1 Investigating phenomenon in Biological Sciences

Investigations of plant and animal cells;
Microscopic/models/micrographs

3.2 Constructing of knowledge in Biological Sciences

Characteristics of cells and cell components;
Molecular make up of cells;
Cell structure, adaptations and functions

3.3 Application in Society

The cell theory
In-vitro experimentations
Cell tissue culture

4. Plant and Animal Tissue

4.1 Investigating phenomenon in Biological Sciences

Examine and identify plant and animal tissues
Draw observed cells to show specialized structure
Investigate fields in biotechnology related to plant and animal tissues [cloning, stem cell research]

4.2 Constructing of knowledge

Concept of tissues;
Location and relationship between structure and function of:

- Plant tissues: epidermis, parenchyma, chlorenchyma, collenchymas, Sclerenchyma, xylem and phloem
- Animal tissues: epithelial, connective, muscle and nerve

4.3 Application in Society

IKS and Technology
Traditional technology —traditional medicine and healers
Medical Technology —immunity, antibiotics and blood transfusion
Research in cloning, tissue and stem cell cultures
Current trends in tissue research

5. Plant and Animal Organs

1.1 Investigating phenomenon in Biological Sciences

Observation, interpretation and drawing of plant and animal organs

1.2 Constructing of knowledge in Biological Sciences

Concept of organs
External and internal structure in relation to function, of the following organs:
- Plant: Leaf, root or stem
- Animal: Lungs, Kidney or brain

5.3. Application in Society

Organ transplants
Plant grafting

6.1 Manmalian Body Systems

Skeletal (Supporting) system

6.1.1 Investigating phenomena

Study of skeletons of vertebrates
Analysis of X-rays of human bones
Study of long bone structure
Experiments —minerals and organic fibres in bones
Structure of skeletal muscles
Models; Antagonistic muscles

6.1.2 Constructing knowledge

Identify bones of axial and appendicular skeleton
Functions of different parts
Structure of a long bone
Joints
Antagonistic muscles and functioning

6.1.3 Application in Society

Diseases of the muscle-skeletal
Injuries
Importance of exercise

6.2 Human circulatory system

6.2.1 Investigating phenomena

Dissection of mammalian heart
Measuring pulse rate and the effects of exercise
Identifying different blood vessels

6.2.2 Constructing of knowledge in Biological Sciences

Closed and open blood systems
Different blood circuits
Structure and protection of the heart
Structure of blood vessels and differences
The cardiac cycle
Control of heart beat and rate

6.2.3 Application in Society

Cardiovascular diseases
Blood transfusions and blood types
Heart transplants

6.3 The Lymphatic System

6.3.1 Investigating phenomenon in Biological Sciences

Identifying lymph nodes in the human body

6.3.2 Constructing of knowledge in Biological Sciences

Blood and lymph as tissues
Relationship between lymphatic system and blood system
Structure of lymph glands and function of glands
General functions of the lymphatic system

6.4 Respiratory System in Man

6.4.1 Investigating phenomenon in Biological Sciences

Measurement and comparison of breathing depth and interpretation
Structure of lung —dissection
Experiments on:
- inspiration and expiration
- expired air contains carbon dioxide
Effect of altitude and air pollution health and activities

6.4.2 Constructing of knowledge in Biological Sciences

Distinction between cellular respiration, breathing
Requirements for efficient gaseous exchange
Parts of and structure of the respiratory system in mamm als
Mechanism of breathing
Gaseous exchange and the transport of gases

6.4.3 Application in Society

Respiratory disorders and diseases
Effects of smoking
Artificial respiration

CHEMISTRY (EDUCATION) I (CHED 101)

1. Elementary statistics, precision and accuracy significant figures
2. Technical report writing
3. Laboratory practice and safety
4. Introduction to analytical chemistry
5. Sampling and sample handling
6. Introduction to volumetric and gravimetric analysis.
7. Matter and energy
8. Solutions
9. Acids and Bases
10. Redox, Electrochemistry
11. Chemical reaction reates and equilibrium
12. Introduction to inorganic chemistry
13. Introduction to organic chemistry

CHEMISTRY (EDUCATION) II (CHED 201)

1. Chemical Bonding
2. Properties of Gases
3. Physical Properties of Colloids and Solutions
4. Chemical Thermodynamics

5. Chemical Equilibra
6. Acids and Bases
7. Solubility
8. Nomeclature of Alkyl Substituents

CHEMISTRY (EDUCATION) III (CHED 301)

1. Electrochemistry
2. Chemical Kinetics
3. Solubility and Complexion Equilibria
4. The transition metals
5. Hydrogen, oxygen, nitrogen, phosphorous, sulphur and halogens
6. Organic Chemistry

PHYSICS (EDUCATION) I (PHSE 101)

1. Introduction and Mathematical Concepts
2. Kinematics in one dimension and two dimensions
3. Forces and Newton's Laws of motion
4. Impulse and momentum
5. Work Energy and Power

PHYSICS (EDUCATION) II (PHSE 201)

1. Magnetic forces
2. Electromagnetic induction
3. Simple Harmonics Motion and Elasticity
4. Fluids
5. Waves and Sound
6. Particles and Waves

PHYSICS (EDUCATION) III (PHSE 301)

1. Electric circuits
2. Alternating current circuits
3. Electronics
4. Electromagnetic Waves
5. Interference and Wave Nature of light
6. Nature of the Atoms
7. Nuclear Physics and Radioactivity

MATHEMATICS (EDUCATION) I (MTMC 101)

1. General Algebra —1st, 2nd and 3rd degree/inequalities equations, remainder/factor theorem
2. Function graphs and Transformation – Exploration
3. Algebraic and graphical solutions to equations and simultaneous intersections
4. Polynomial and rational functions/equations
5. Algebraic and Graphical representation of exponential and logarithmic functions
6. Trigonometric Functions, identities, equations, graphs and simple harmonics
7. Analytical Geometry Lines

MATHEMATICS (EDUCATION) II (MTMC 201)

1. Differential Calculus
2. Sequences, series and progressions
3. Analytical Trigonometry
4. Circle Geometry
5. Analytical Geometry Lines and Circles

6. Permutations, Combinations and Probability
7. Application of didactic principles to school grades 10 and 11 content

MATHEMATICS (EDUCATION) III (MTMC 301)

1. Further Differential Calculus
2. Linear Algebra
3. Vectors Algebra
4. Complex Numbers
5. Implicit differentiation and first order equations
6. Introduction to Integral Calculus
7. Further series —infinite, power, binomial expansion
8. Didactic principles applied to school grade 12 NCS content

B Ed (FET): Specialisation Technology

Civil Technology 101 (CVTC 101)

1. General Safety

- Clothing
- Workshop and hand tools
- Preventing disease transmission in the workshop
- Machines
- Safe storage and housekeeping
- Fire

2. Foundations

- Definition of: ground bearing, dead load, imposed load.
- Setting out right angle corners
- Purpose and functions, Types of soil and soil conditions, Strip and step foundations, Foundation walls
- Description, sketches and location of: Pad foundations, Wide strip foundations, and short bored (auger) pile foundations.
- Reasons to compact soil

3. Concrete and Brickwork

- Site preparation, Mix proportions, purpose of admixtures to concrete, Slump test, Levelling and compacting of concrete, Placing, curing, testing and Classification of concrete.
- Alternate plan courses.

4. Civil services and Installation

- Drainage terms and definitions (Waste water, Waste water pipe, Waste fixture, Soil water, Soil water pipe, Soil fixture, Sewage, Drain).
- Drainage installation: Pipe arrangements: Explanation of pipe arrangements (Single stack and stub stack systems of plumbing. Sanitary fitments -Waste fixture, Sink, Shower, Bath, Wash trough).
- Hot water supply : Introduction to hot and cold water supply

5. Materials
6. Applied mechanics-Forces

- Graphical representation of a force, Resultant, Equilibrant ,Triangle of forces, Parallelogram of forces ,Polygon of forces, Moments

7. Woodworking

- Doors, centering ,roofs

8. Quantities

- Introduction to Quantities

Civil Technology 210 (CVTC 201)

1. Safety practices and regulations

- Tools (Construction), Excavations, Scaffolding

2. Formwork and Shoring
    - Drawing of formwork (Square, round and rectangular columns) and methods of erecting and supporting: Beams, Floor slab, Straight flight of stairs.
    - Shoring-Single line diagrams showing the components of dead and flying shores.
3. Reinforcement
    - Reinforcing in concrete for: floors, beams, cantilever beams and columns.
    - Requirements for materials used for reinforcing
4. CIVIL SERVICES
    - Storm water management and regulations.
    - Cold and hot water supply
    - Basic plumbing in a house
    - Drainage
5. Woodworking
6. Applied mechanics-Calculations of reactions of beams with a maximum of three point loads without an overhang (including spread loads)

Civil Technology 301 (CVTC 301)

1. Safety(Machinery and power tools)
2. Construction

- Excavating basements (Perimeter trench ,raking struts, cofferdams and diaphragm walls)
- Brick work (Cavity walls, Waterproofing for floors, roofs and walls)

3. Woodworking **(**Timber,joints,doors,windows,cutting list)
4. Civil Services (Private sewers**,** drainage joints, pipe connections, testing of pipes)
5. Instruments and materials
6. Applied mechanics**:** Centroids of irregular shapes consisting of a combination of squares, rectangles and triangles
7. Forces**:** link polygon
8. Quantities**:** Method of extracting quantities for a one - bedroom dwelling

MATHEMATICS (EDUCATION) I (MTMC 101)

1. General Algebra —1st, 2nd and 3rd degree/inequalities equations, remainder/factor theorem
2. Function graphs and Transformation – Exploration
3. Algebraic and graphical solutions to equations and simultaneous intersections
4. Polynomial and rational functions/equations
5. Algebraic and Graphical representation of exponential and logarithmic functions
6. Trigonometric Functions, identities, equations, graphs and simple harmonics
7. Analytical Geometry Lines

MATHEMATICS (EDUCATION) II (MTMC 201)

1. Differential Calculus
2. Sequences, series and progressions
3. Analytical Trigonometry
4. Circle Geometry
5. Analytical Geometry Lines and Circles
6. Permutations, Combinations and Probability
7. Application of didactic principles to school grades 10 and 11 content

MATHEMATICS (EDUCATION) III (MTMC 301)

1. Further Differential Calculus
2. Linear Algebra
3. Vectors Algebra
4. Complex Numbers
5. Implicit differentiation and first order equations
6. Introduction to Integral Calculus
7. Further series —infinite, power, binomial expansion
8. Didactic principles applied to school grade 12 NCS content

MATHEMATICAL LITERACY (EDUCATION) I (MTHL101)

1. Numbers, Operations and Finance
2. Functional Relationships
3. Graphs
4. Shape, Space, and Measurement
5. Solids
6. Data Handling

MATHEMATICAL LITERACY (EDUCATION) II (MTHL 201)

1. Numerical solution of rate
2. Parameter and surface area of 2 D-shape
3. Functional relationships
4. Scale drawing
5. Interpretation of Data
6. Financial Mathematics

MATHEMATICAL LITERACY (EDUCATION) II (MTHL 301)

1. Working with formulae
2. Taxation and inflation
3. Parameter, surface area and volume of 3D-shape
4. Interpretation of table and graph
5. Data interpretation
6. Statistical Methods
7. Grids and Maps
8. Data Display
9. Budget and Banking

MECHANICAL TECHNOLOGY I (MCTC 101)

1. Technological processes
2. Structures
3. Electrical Systems and Control
4. Mechanical Systems and Control
5. Processing
6. Indigenous Technology
7. Impact of Technology

MECHANICAL TECHNOLOGY II (MCTC 201)

1. Safety
2. Tools
3. Materials
4. Terminology
5. Joining Methods
6. Mechanics
7. Maintenance
8. Systems
9. Heat Engines

MECHANICAL TECHNOLOGY III (MCTC 301)

1. Safety
2. Tools
3. Materials
4. Terminology
5. Joining Methods
6. Mechanics
7. Maintenance
8. Systems and Control
9. Turbines

ENGINEERING GRAPHICS AND DESIGN I (EGDS 101)

1. **Introduction to Technological Design**
   Discuss the scope, educational and career opportunities related I to EGD. Include human rights, gender, inclusivity and HIV/AIDS issues.

2. **Drawing principles as contained in the SANS code of practice as related to basic civil, electrical and mechanical drawing**.
   Practice line types according to the SANS Code of Practice (0111 & 0142 (elect) & 0143) and their application to: outline, construction, cutting plane line, line hatching, hidden detail and; centre line.
   Practice the general lettering requirements according to the SANS code of practice.

3. **Free-hand drawing**
   Practice the four basic hand movements need to reproduce proportional single, multi view and pictorial drawings using grid sheets and plain paper.

4. **Setting up a Drawing Sheet**
   Paper sizes
   Set up a drawing sheet showing all relevant information, eg. Name and. title blocks, appropriate symbols etc.

5. **Instrument Drawing**
   Discuss, research and present in an appropriate form the dangers of the irresponsible use of sharp instruments that could cause bleeding and the transfer of HIV/AIDS Geometrical Constructions (need to know basis). Bisecting an angle, line, line division, circle through three points, perpendiculars, angles, line tangents, arc tangents, inscribed and circumscribed circle, polygons) 3. 4. 5. 6. 8, circle and ellipse.
   Scale drawings. (2:1, 1:1, 1:2, 1:5, 1:10, 1:20, 1:50, 1:100)

6. **Orthographic**
   1st and 3rd angle orthographic projections as applied to simple castings from industry

7. **Projection (no sectional views)**
   Construction of polygons

8. **Mechanical Drawings**
   Prisms, pyramid, cylinders and cones. The axis of the solids must include examples to be perpendicular, parallel and inclined to one principal plane.

9. **Civil Drawings**
   Insert annotation, dimensioning and scale. Include floor plans and elevations that include: windows, doors and fixtures such as WC, bath, sink, shower, cupboard.
   Apply colour coding according to building practice.
   Show site plan and schedule of specifications. Include electrical, plumbing and drainage detail.

10 **Descriptive geometry**
   Determine the orthographic views of points and line segments
   Segments that are: perpendicular, inclined and oblique.
   Determine the true length of a line segment and the true inclination of a line segment to the HP and VP using different methods, e.g. projection and construction methods.

11. **Electrical Drawing**
   Use given electrical and electronic component symbols to draw simple circuit diagrams.

Draw parallel and series circuit diagrams that are relevant to; electrical appliances, house wiring etc. Include notes were appropriate and draw systems diagram

Draw wiring diagrams on floor plans of buildings.
Represent these as circuit diagrams and draw block diagrams.

12. Principles of Sectioning

Draw sectional views in 1st and 3rd angle of simple castings from Industry. Include the following: SANS code of practice, dimensioning techniques, title, notes and symbol of projection.

13. Mechanical Drawing

Draw outside, sectional, half sectional and part sectional views of simple assemblies that include temporary fasteners. SANS code of practice, dimensioning techniques, title, notes and symbol of projection.

Draw outside, sectional, half sectional and part sectional multi-views of complex assemblies that include fasteners.

SANS code of practice, dimensioning techniques, title, notes and symbol of projection. Insert welding, machining and surface treatment symbols relevant to steel work.

Draw the sectional orthographic views of geometrical solids.

14. Solid Geometry

Prisms, pyramids and cylinders. The axis of the solids must be perpendicular, parallel and inclined to one principal plane.

True shapes and development.

15. Civil Drawings

All applications only need to include single story dwellings

Draw elevations and sectional elevation showing foundation to slab.

16. Principles of Pictorial Drawing

Draw simple to complex Isometric drawings including circles. (one point)

17. Visualisation cognitive and perceptual exercises

Analyze drawings and answer questions based on single multi-view and pictorial drawings within the context of civil, electrical and mechanical.

Visualization of cognitive and perception exercises

ENGINEERING GRAPHICS AND DESIGN II (EGDS 201)

1. **Loci**
   a. Helix
   b. Cams
   c. Cycloidal curves
   d. Link mechanisms
2. **Solid Geometry**
   a. Sectional views
   b. Auxiliary views
   c. True shapes
   d. Interpenetrations
   e. Developments
3. **Pictorial Drawing**
   a. Perspective
4. **Engineering Graphics & Design Didactics**
   a. Lesson planning
   b. Lesson presentation

ENGINEERING GRAPHICS AND DESIGN III (EGDS 301)

1. **Mechanical drawing**
   a. Development of transition pieces
   b. Dimensioning and annotation
   c. Auxiliary views
   d. Assembly drawings
2. **Civil drawing**
   a. Plan and elevations of dwellings
   b. Sectioned elevations
   c. Detailed drawings
3. **Pictorial drawing**
   a. Isometric drawings
   b. Sectioned isometric drawings
4. **Computer aided drawing**
   a. Mechanical drawing
   b. Civil drawing
   c. Isometric drawing
   d. Application in didactics
5. **Engineering Graphics & Design Didactics**
   a. Lesson plans preparation
   b. Lesson presentation

ELECTRICAL TECHNOLOGY 101

- **Occupational Health and Safety**
  - Personal protection equipment
  - Safety Practices in the work place
- **Basic Hand Tools**
  - Basic hand tools
  - Safety and tools
- **Electrical/Electronic Circuits**
  - Atomic theory of electricity
  - Ohm's law
  - Theory of current law
  - Series circuit as voltage divider
  - Parallel circuit as a current divider
  - Have electrical circuits with more than one output device in the circuit (series and parallel combinations)
  - That shows how simple electronic circuits and devices are used to make an output respond to an input signal (e.g. resistors, light-emitting diodes, transistors, push or magnetic switches, thermistors, light dependent resistors).
  - Temperature coefficient
  - Identify and describe the characteristics of electronic components such as:
    - Resistors
    - Light dependent resistors
    - Capacitors
    - Inductors
    - PN-diodes
    - Light emitting diodes
  - Transformers
  - Earth leakage devices
  - Distribution boards
  - Energy and Power
- **Digital Electronic systems**

Shows how electrical circuits with more than one input or control device which will work based on different logic conditions ('AND', 'NOT' and 'OR' logic) and represents them using circuit diagrams, systems diagrams and truth tables.
Convert binary numbers to decimals, hexadecimal, octal.
Demonstrates knowledge and understanding of digital electronic systems:
Identify and comprehend binary circuits and build binary circuits relating to electrical circuits

ELECTRICAL TECHNOLOGY 201

1. **Safety and instruments**
   - Identify unsafe conditions and acts and apply
   - Tools and instruments correctly.
   - Identify unsafe conditions and acts when doing
   - practical work and apply tools and instruments correctly to:

   Verify Kirchhoff's laws in AC-and DC circuits.
   Demonstrate the effect of single-phase AC on R, L and C components and investigate the effect of combinations of series circuits, including the effect of frequency changes
   Test insulation, continuity and earth continuity on equipment.

- Describe the Occupational Health and Safety (OHS) Act with reference to general unsafe actions, dangerous practices and unsafe conditions.
- Explain the Occupational Health and Safety (OHS) Act dealing with unsafe actions, dangerous practices and unsafe conditions.

2. Electrical applications

Construct and comprehend single-phase circuits
Construct and apply single-phase circuits.
Describe the use and care of different types of tools and measuring instruments, such as pliers, screwdrivers, multimeters and continuity or insulation testers.
Explain the use and care for instruments and their correct application and interpretation to ensure accurate measurements such as a multimeter, continuity or insulation tester, function generator and oscilloscope.

Describe the principles of electricity with reference to:

Atom theory
Ohm's law and calculations
Theory of current flow
Series circuit as voltage divider
Parallel circuit as a current divider
Combination circuits
Specific resistance

Temperature coefficient

- Describe the principles of electrostatics with reference to capacitance and electrostatic charge.
- Identify and describe the characteristics of electronic components such as

Resistors
Light dependent resistors
Capacitors
Inductors
PN-diodes
Light emitting diodes and transformers

- Explain the principles and effect of AC on resistor, inductor and capacitor components with reference to:

Series combination circuits containing one resistor, one capacitor and one inductor

Frequency changes

Phasor and wave representation
Resonance

Calculations

3. Electronics

- Construct and comprehend electronic circuits.
- Construct and apply electronic circuits.
- Describe the principles of electro-magnetism with reference to Faraday's law and Lenz's law and its application in a relay and DC motor.
- Describe the principles of operation and use of power sources like batteries and solar cells like internal resistance, capacity and VA rating.
- Describe the following logic concepts:

Binary number systems
Logic symbols
Logic functions: AND, OR and NOT

- Describe and compare a variety of protective devices and applications such as fuses, miniature circuit breakers and earth leakage devices.
- Explain the principles of AC generation of a single-phase supply by a rotating
- conductor loop in a two-pole magnetic field.
- Explain the operating principles, characteristics curves and use of semi-conductor
- devices such as:
  - PN diodes
  - Bipolar transistors
  - Thyristors

4. **Digital electronics**
   Construct, comprehend and apply digital circuits.

ELECTRICAL TECHNOLOGY 301

- **Occupational Health and Safety**
  The consequences of the OHS act, risk assessment, human rights in the workplace, work ethics and emergencies

- **Three Phase Transformers**
  Principles of operation, calculations and application.

- **Three Phase Motors & Starters**
  Principle of operation, Testing and commissioning and starters

- **RLC**
  The effect of AC on Series and parallel RLC Circuits

- **Amplifiers**
  Principle of operation and application of operational amplifiers

- **Communications**
  Radio communications, a99ntennas, modes of modulation, transmitters and receivers

INDICATIVE CONTENT FOR:

ADVANCED DIPLOMA IN ADULT AND COMMUNITY EDUCATION AND TRAINING TEACHING ADACE1

This qualification consists of four compulsory 16 credit modules, two elective 16 credit modules and a compulsory 32 credit practicum portfolio, making a total of 128 credits.

The four compulsory modules will be run in the first semester. Their purpose is to enable students to gain:

1. An understanding of the history and theories of adult and community education;
2. A sound grasp of the skills that are vital in academic practice, and a good understanding of how to foster these skills amongst adult learners;
3. Insight into the constitutional and policy framework of adult and post school education in South Africa, and how this relates to contexts of learners, and current models of practice and contemporary research;
4. The ability to translate curriculum into plans for learning and educational events that are appropriate to the content, context and purpose, and to suit assessment to the desired purpose.

In the second semester, the elective modules will be run. These will enable students to gain mastery of the two teaching methodologies they have selected. Also in the second semester, students must complete two weeks' observation and 8 week's practical teaching in contexts appropriate to ACET. They must use this observation and practical teaching as the basis for developing a portfolio of practice in which they integrate what they have learnt in the modules they have completed, and start to reflect on and learn from practice.

INDICATIVE CONTENT FOR:

MASTER OF EDUCATION IN ADULT AND COMMUNITY EDUCATION MEACE1

This is a research only degree, and therefore consists of only one module, called “Development of Dissertation”. Its purpose is to ensure that students can critically engage with literature, develop intellectual independence, analyse data logically, and report adequately on their findings. In this module, students will receive individual and group guidance in:

- conceptualising a research study
- developing a proposal
- reviewing literature
- designing and implementing a research plan
- data analysis and interpretation
- overall conclusions and reporting

The emphasis is on enabling students to become independent learners and researchers. Teaching is facilitative, sometimes involving group sessions, particularly in relation to the technical and academic aspects of Master’s level study such as referencing, proposal formulation, use of theoretical frameworks, conducting literature searches.