

BACCALAUREUS EDUCATIONIS: (HONS): (FET): SPECIALISATION

Qualification code: BHEES2, BHEES3, BHEES4, BHEES5, BHEES6, BHEES7, BHEES8, BHEES9 - NQF Level 7

Campus where offered: Soshanguve North Campus (evening or block-mode classes)
 Last year of new intake: 2019
 Teach-out (phase-out) date: 31 December 2022

Students registered for this qualification should complete their studies according to the teach-out date prescribed for the qualification, subject to the stipulations of Regulation 3.1.11 and 3.1.13 in the Students' Rules and Regulations.

Information on phased-out programmes can be obtained from the TUT website, www.tut.ac.za.

Key to asterisks:

* Information does not correspond to information in Report 151.
 (Deviations approved by the Senate in May 2009 and September 2011.)

CURRICULUM

Consult the 2019 Faculty Prospectus for the full contents of the qualification.

Subjects are offered as determined by the Head of the Department.

YEAR SUBJECTS

CODE	SUBJECT	CREDIT	PREREQUISITE SUBJECT(S)
EMN500T	Educational Management V	(0,100)	
RMD100Q	Research Methods and Techniques	(0,100)	
TED510T	Theory of Education V	(0,200)	

ONE OF THE FOLLOWING OPTIONS:

OPTION 1: CONSUMER STUDIES (BHEES6)

(Managed by the Department of Mathematics, Science and Business Education)

SDR500T Subject Didactics: Consumer Studies V (0,200)*

plus one* of the following subjects:

CSS400T	Consumer Studies IV	(0,400)*	Consumer Studies III
HTK400T	Hotelkeeping and Catering IV	(0,400)*	Hotelkeeping and Catering III

OPTION 2: ECONOMICS AND MANAGEMENT SCIENCES (BHEES2)

(Managed by the Department of Mathematics, Science and Business Education)

One* of the following subjects:

ACC400T	Accounting IV	(0,400)*	Accounting III
BMN410B	Business Management IV	(0,400)*	Business Management III
CAY400T	Computer Applications Technology IV*	(0,400)*	Computer Applications Technology III
CMS400T	Computer Science IV	(0,400)*	Computer Science III
ECN400B	Economics IV	(0,400)*	Economics III
MAT420E	Mathematics IV	(0,400)*	Mathematics III



plus one of the following subjects related to one of the optional subjects chosen above:

SBM500T	Subject Didactics: Business Management V	(0,200)*
SCU500T	Subject Didactics: Computer Science V	(0,200)*
SDA500T	Subject Didactics: Accounting V	(0,200)*
SEC500T	Subject Didactics: Economics V	(0,200)*
SMA500T	Subject Didactics: Mathematics V	(0,200)*
SSS500T	Subject Didactics: Skills Subjects V	(0,200)*

OPTION 3: GENERAL (BHEES3)

(Managed by the Department of Mathematics, Science and Business Education)

Any one* subject (0,400* credit) and one related Subject Didactics subject (0,200* credit) from the other options mentioned.

OPTION 4: LANGUAGE (BHEES4)

(Managed by the School of Education)

One* of the following subjects:

AFE400T	Afrikaans (Education) IV	(0,400)*	Afrikaans (Education) III
ENE400T	English (Education) IV	(0,400)*	English (Education) III
SNE400T	Northern Sotho (Education) IV	(0,400)*	Northern Sotho (Education) III
TWE400T	Tswana (Education) IV	(0,400)*	Tswana (Education) III

plus one of the following subjects related to one of the optional subjects chosen above:

SLW500T	Subject Didactics: Tswana V	(0,200)*
SLX500T	Subject Didactics: English V	(0,200)*
SLY500T	Subject Didactics: Afrikaans V	(0,200)*
SLZ500T	Subject Didactics: Northern Sotho V	(0,200)*

OPTION 5: NATURAL SCIENCES (BHEES7)

(Managed by the Department of Mathematics, Science and Business Education)

One* of the following subjects:

BIE400T	Biology (Education) IV	(0,400)*	Biology (Education) III
CMS400T	Computer Science IV	(0,400)*	Computer Science III
FWS400T	Physical Science IV	(0,400)*	Physical Science III
MAT420E	Mathematics IV	(0,400)*	Mathematics III

plus one of the following subjects related to one of the optional subjects chosen above:

SCU500T	Subject Didactics: Computer Science V	(0,200)*
SDB500T	Subject Didactics: Biology V	(0,200)*
SDG500T	Subject Didactics: General Science V	(0,200)*
SMA500T	Subject Didactics: Mathematics V	(0,200)*
SPS500T	Subject Didactics: Physical Science V	(0,200)*

OPTION 6: TECHNICAL (BHEES8)

(Managed by the Department of Technology and Vocational Education)

One* of the following subjects:

CVY400T	Civil Technology IV*	(0,400)*	Civil Technology III
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EGD400T	Engineering Graphics and Design IV*	(0,400)*	Engineering Graphics and Design III
ELY400T	Electrical Technology IV*	(0,400)*	Electrical Technology III
MAT420E	Mathematics IV	(0,400)*	Mathematics III
MHY400T	Mechanical Technology IV*	(0,400)*	Mechanical Technology III

plus one of the following subjects related to one of the optional subjects chosen above:

SCU500T	Subject Didactics: Computer Science V	(0,200)*	
SEG500T	Subject Didactics: Engineering Graphics and Design V*	(0,200)*	
SMA500T	Subject Didactics: Mathematics V	(0,200)*	
SUT500T	Subject Didactics: Technical V	(0,200)*	

OPTION 7: TECHNOLOGY (BHEES9)
(Managed by the Department of Technology and Vocational Education)

One* of the following subjects:

CMS400T	Computer Science IV	(0,400)*	Computer Science III
MAT420E	Mathematics IV	(0,400)*	Mathematics III
TCD400T	Technological Design IV	(0,400)*	Technological Design III
THE400T	Technology IV	(0,400)*	Technology (Senior Phase) III

plus one of the following subjects related to one of the optional subjects chosen above:

SCU500T	Subject Didactics: Computer Science V	(0,200)*	
SMA500T	Subject Didactics: Mathematics V	(0,200)*	
SUE500T	Subject Didactics: Technology V	(0,200)*	

OPTION 8: VOCATIONAL GUIDANCE (BHEES5)
(Managed by the Department of Educational Foundation)

SDU500T	Subject Didactics: School Guidance and Counselling V	(0,200)*	
SGC400T	School Guidance and Counselling IV	(0,400)*	School Guidance and Counselling III

TOTAL CREDITS FOR THE QUALIFICATION: **1,000**

SUBJECT INFORMATION (OVERVIEW OF SYLLABUS)

The syllabus content is subject to change to accommodate industry changes. Please note that a more detailed syllabus is available at the Department or in the study guide that is applicable to a particular subject. At time of publication, the syllabus content was defined as follows:

A

ACCOUNTING IV (ACC400T) 1 X 3-HOUR PAPER
(Subject custodian: Department of Mathematics, Science and Business Education)

Advanced company financial statements, comparative figures, abnormal and extraordinary items with tax implications, deferred taxation, instalment sales, valuations, liquidations and amalgamations, reconstructions, leases, and grouping statements. (Total tuition time: ± 75 hours)

AFRIKAANS (EDUCATION) IV (AFE400T)**2 X 3-HOUR PAPER****(Subject custodian: Department of Applied Languages)**

Language Studies: literary theory. Introduction to comparative literature study. Syntax. Description and interpretation of complex sentences in Afrikaans. Language ecology. The abuse of Afrikaans to mislead and combating that phenomenon. Psycholinguistics: second-language acquisition with the emphasis on Afrikaans as second language. Morphology: the structure of Afrikaans words. Literature Studies: Afrikaans poetry: works by van Wyk Louw, Opperman, Coussons and Stockenström. Afrikaans prose. Modern prose. Afrikaans drama: a symbiotic interpretation of modern Afrikaans plays, the handling of social codes and querying the patriarchal world. (Total tuition time: ± 75 hours)

B**BIOLOGY (EDUCATION) IV (BIE400T)****1 X 3-HOUR PAPER****(Subject custodian: Department of Mathematics, Science and Business Education)**

The physiology of animals and plants relating to internal transport, water relations, excretion, chemical and nervous control, nutrition and energy transformation (photosynthesis and cell respiration). (Total tuition time: ± 100 hours)

BUSINESS MANAGEMENT IV (BMN410B)**1 X 3-HOUR PAPER****(Subject custodian: Department of Mathematics, Science and Business Education)**

Strategic management. Advanced theoretical aspects and practical applications of all the functions of the enterprise through case studies and problem-solving techniques. (Total tuition time: ± 75 hours)

C**CIVIL TECHNOLOGY IV (CVY400T)****1 X 3-HOUR PAPER****(Subject custodian: Department of Technology and Vocational Education)**

The emphasis is on basic technical knowledge and skills in the civil field of specialisation. Theory and practical skills are integrated through experiments and processes conducted in workshops and laboratories. Students identify problems, and, through the technological design process, solve those problems by undertaking projects in laboratories and workshops. (Total tuition time: ± 100 hours)

COMPUTER APPLICATIONS TECHNOLOGY IV (CAY400T)**1 X 3-HOUR PAPER****(Subject custodian: Department of Technology and Vocational Education)**

Advanced Desktop Publishing (DTP), kerning, word and letter spacing, leading, assignment for newsletters, flyers and page layout, mail merge, macros, style sheets, advanced features (equations, columns, etc.), advanced sort features, organisation of documents, administration of files. Theory, protecting computer equipment and files, controlling access to computer information systems, protecting microcomputers, introduction to system analysis and programme development. Other applications: Excel, PowerPoint and a database program. Internet and web design (documents etc.). (Total tuition time: ± 100 hours)

COMPUTER SCIENCE IV (CMS400T)**1 X 3-HOUR PAPER****(Subject custodian: Department of Technology and Vocational Education)**

The computer as a teaching aid. Principles of educational instruction (Computer-Aided Instruction (CAI)) Design of CAI courseware. Data communications. Overview of contents of current school syllabi. Data processing in use. (Total tuition time: ± 100 hours)

CONSUMER STUDIES IV (CSS400T)**1 X 3-HOUR PAPER****(Subject custodian: Department of Mathematics, Science and Business Education)**

Advanced interior design and flower arranging. Basic knowledge of some South African artists, colour, paint and decoration of walls, rugs, including oriental rugs. Antique furniture for interior design. The selection and acquisition of special items and decorating with special items. Restaurant services food and beverage service. (Total tuition time: ± 75 hours)



E**ECONOMICS IV (ECN400B) 1 X 3-HOUR PAPER**
(Subject custodian: Department of Mathematics, Science and Business Education)

Labour economics, interaction of monetary and fiscal policies, economic consequences of government debt, advanced treatment of monetary and fiscal policy. Poverty, equality and efficiency, trends in poverty, cost of equality, anti-poverty policies, welfare state and negative income tax. Alternative economic systems, evolution of economic thought: mainstream economics/modern critiques, crisis in capitalism. Current international economic problems, e.g. exchange rate system under siege. (Total tuition time: ± 75 hours)

EDUCATIONAL MANAGEMENT V (EMN500T) 1 X 3-HOUR PAPER
(Module/Subject custodian: Department of Educational Foundation)

Advanced views on the tasks, disciplines and management areas of educational management. (Total tuition time: ± 50 hours)

ELECTRICAL TECHNOLOGY IV (ELY400T) 1 X 3-HOUR PAPER
(Subject custodian: Department of Technology and Vocational Education)

The emphasis is on basic technical knowledge and skills in the electrical field of specialisation. Theory and practical skills are integrated through experiments and processes conducted in workshops and laboratories. Students identify problems, and, through the technological design process, solve those problems by undertaking projects in laboratories and workshops. (Total tuition time: ± 100 hours)

ENGINEERING GRAPHICS AND DESIGN IV (EGD400T) 1 X 3-HOUR PAPER
(Subject custodian: Department of Technology and Vocational Education)

Graphic representation, using various techniques, such as orthographic and isometric representation of ideas, as a basic condition for designing and making technology products and processes in the workshop or laboratory. Practical work. (Total tuition time: ± 100 hours)

ENGLISH (EDUCATION) IV (ENE400T) 2 X 3-HOUR PAPER
(Subject custodian: Department of Applied Languages)

Literature: Novels and short stories. Drama. Folklore and folktales. Oral traditional poetry. Modern poetry. Literature history. Linguistics: a comparison of English with the phonology and morphology of the Nguni languages. The ability to read. Phonology and phonetics. Morphology. (Total tuition time: ± 75 hours)

H**HOTELKEEPING AND CATERING IV (HTK400T) 1 X 3-HOUR PAPER**
(Subject custodian: Department of Mathematics, Science and Business Education)

Quantity catering: Quantity catering, including menus, restaurant interior, table lying, styles of service, types of functions, work schedules, waiter service, service of alcoholic beverages and tobacco. Administration: Large-scale food preparation administration, including purchasing, receiving, storing, issuing, production planning, waste control, recipes. Food service budget. Cost control. (Total tuition time: ± 100 hours)

M**MATHEMATICS IV (MAT420E) 1 X 3-HOUR PAPER**
(Subject custodian: Department of Mathematics, Science and Business Education)

Plane curve, parametric equations and polar coordinates. Lines and planes in 3-D space, vector spaces, linear transformations, multiple integration, Laplace transforms and Fourier series. (Total tuition time: ± 75 hours)

MECHANICAL TECHNOLOGY IV (MHY400T) 1 X 3-HOUR PAPER
(Subject custodian: Department of Technology and Vocational Education)

Basic technical knowledge and skills in the mechanical field of specialisation is emphasised. Theory is integrated with practical skills through experiments and processes conducted in workshops and laboratories. Students identify problems, and through the technological design process, solve those problems by undertaking projects in laboratories and workshops. (Total tuition time: ± 100 hours)



N**NORTHERN SOTHO (EDUCATION) IV (SNE400T)****2 X 3-HOUR PAPER****(Subject custodian: Department of Applied Languages)**

Literature: Novel and short stories. Drama. Folklore and folktales. Oral traditional poetry. Modern poetry. Literature history. Linguistics: the Nguni languages: comparison of phonology and morphology, ability to read. Phonology and phonetics. Morphology. (Total tuition time: ± 75 hours)

P**PHYSICAL SCIENCE IV (FWS400T)****1 X 3-HOUR PAPER****(Subject custodian: Department of Mathematics, Science and Business Education)**

Vibrations and waves: sound waves, electromagnetic waves, optical instruments, spectra. Chemical energetics: entropy, the Gibbs function, introductory electrochemistry, advanced electrochemistry. Chemical reactions: classification of reactions, the equilibrium constant, acids and bases, reaction kinetics. (Total tuition time: ± 100 hours)

R**RESEARCH METHODS AND TECHNIQUES (RMD100Q)****1 X 3-HOUR PAPER****(Subject custodian: Department of Educational Foundation)**

The role and value of research in education. How elementary statistics can be a resource in teaching and research. (Total tuition time: ± 50 hours)

S**SCHOOL GUIDANCE AND COUNSELLING IV (SGC400T)****1 X 3-HOUR PAPER****(Subject custodian: Department of Educational Foundation)**

Advanced school guidance and counselling. (Total tuition time: ± 75 hours)

SUBJECT DIDACTICS: ACCOUNTING V (SDA500T)**CONTINUOUS ASSESSMENT****(Subject custodian: Department of Mathematics, Science and Business Education)**

Microteaching, teaching science and the teaching environment, using a learning model. Curriculum development. Didactic principles applied in Accounting: subject applications on the computer, multimedia teaching. Practical work, setting of Grade 12 question papers with memoranda, creating teaching media. Group dynamics. (Total tuition time: ± 50 hours)

SUBJECT DIDACTICS: AFRIKAANS V (SLY500T)**CONTINUOUS ASSESSMENT****(Subject custodian: Department of Applied Languages)**

Practical application of advanced microteaching principles, design and application of advanced teaching models, meso- to macro-level curriculum development, multimedia teaching, professional development of the Afrikaans language teacher, organisation and administration of an Afrikaans language laboratory. (Total tuition time: ± 50 hours)

SUBJECT DIDACTICS: BIOLOGY V (SDB500T)**CONTINUOUS ASSESSMENT****(Subject custodian: Department of Mathematics, Science and Business Education)**

Microteaching, teaching science and the teaching environment, using learning models. Curriculum development. Didactics principles applied in biology. Subject applications on the computer, multi-teaching and practical work of setting Grade 12 question papers in line with the national curriculum. (Total tuition time: ± 50 hours)

SUBJECT DIDACTICS: BUSINESS MANAGEMENT V (SBM500T)**CONTINUOUS ASSESSMENT****(Subject custodian: Department of Mathematics, Science and Business Education)**

Microteaching, teaching science and the teaching environment, using a learning model. Curriculum development. Didactic principles applied in business management. Subject applications on the computer. Practical work, setting of Grade 12 question papers with memoranda, creating teaching media. Group dynamics, multimedia teaching. (Total tuition time: ± 50 hours)



- SUBJECT DIDACTICS: COMPUTER SCIENCE V (SCU500T) CONTINUOUS ASSESSMENT**
(Subject custodian: Department of Technology and Vocational Education)
 On completion of this subject, students should know how to use computer-based training in computer science and related subjects, as well as more advanced teaching and learning media, and be able to design and apply advanced teaching models and methodologies. (Total tuition time: ± 50 hours)
- SUBJECT DIDACTICS: CONSUMER STUDIES V (SDR500T) CONTINUOUS ASSESSMENT**
(Subject custodian: Department of Technology and Vocational Education)
 On completion of this subject, students should be able to use more advanced teaching and learning media; design and apply advanced teaching models and methodologies; use subject didactic terminology and teaching strategies (OBE); prepare practical work; and set question papers and memoranda for Grades 8 to 12. (Total tuition time: ± 50 hours)
- SUBJECT DIDACTICS: ECONOMICS V (SEC500T) CONTINUOUS ASSESSMENT**
(Subject custodian: Department of Mathematics, Science and Business Education)
 Microteaching, teaching science and the teaching environment, using a learning model. Curriculum development. Didactic principles applied in Economics. Subject applications on the computer, multimedia teaching. Practical work, setting of Grade 12 question papers with memoranda, creating teaching media. Group dynamics. (Total tuition time: ± 50 hours)
- SUBJECT DIDACTICS: ENGINEERING GRAPHICS AND DESIGN V (SEG500T) CONTINUOUS ASSESSMENT**
(Subject custodian: Department of Technology and Vocational Education)
 Microteaching, teaching science and the teaching environment, using a learning model. Curriculum development. Didactic principles applied in technical subjects. Subject applications on the computer, multimedia teaching. Practical work, setting of Grade 12 question papers with memoranda, creating teaching media. Marking of projects and practical work. Group dynamics. (Total tuition time: ± 50 hours)
- SUBJECT DIDACTICS: ENGLISH V (SLX500T) CONTINUOUS ASSESSMENT**
(Subject custodian: Department of Applied Languages)
 Practical application of advanced microteaching principles, design and application of advanced teaching models, meso- to macro-level curriculum development, multimedia teaching, professional development of the English language teacher, organisation and administration of an English language laboratory. (Total tuition time: ± 50 hours)
- SUBJECT DIDACTICS: GENERAL SCIENCE V (SDG500T) CONTINUOUS ASSESSMENT**
(Subject custodian: Department of Mathematics, Science and Business Education)
 Planning in the short and medium term, subject policy, role of HED, subject meetings, professional development. (Total tuition time: not available)
- SUBJECT DIDACTICS: MATHEMATICS V (SMA500T) CONTINUOUS ASSESSMENT**
(Subject custodian: Department of Mathematics, Science and Business Education)
 Microteaching, teaching science and environmental topics using learning models. Curriculum development and didactic principles applied in the subject Mathematics. Practical work at GET schools, projects related to GET schools. (Total tuition time: ± 50 hours)
- SUBJECT DIDACTICS: NORTHERN SOTHO V (SLZ500T) CONTINUOUS ASSESSMENT**
(Subject custodian: Department of Applied Languages)
 Practical application of advanced microteaching principles, designing and applying advanced teaching models, meso- to macro-level curriculum development, multimedia teaching, professional development of the Northern Sotho language teacher, organisation and administration of a Northern Sotho language laboratory. (Total tuition time: ± 50 hours)
- SUBJECT DIDACTICS: PHYSICAL SCIENCE V (SPS500T) CONTINUOUS ASSESSMENT**
(Subject custodian: Department of Mathematics, Science and Business Education)
 Microteaching, teaching science and the teaching environment, using a learning model. Curriculum development. Didactic principles applied in Physical Science. Subject applications on the computer, multimedia teaching. Practical work, setting of Grade 12 question papers with memoranda, creating teaching media. Group dynamics. (Total tuition time: ± 50 hours)



SUBJECT DIDACTICS: SCHOOL GUIDANCE AND COUNSELLING V (SDU500T)

CONTINUOUS ASSESSMENT

(Subject custodian: Department of Educational Foundation)

Microteaching, teaching science and the teaching environment, using a learning model. Curriculum development. Didactic principles applied in Mathematics. Subject applications on the computer, multimedia teaching. Practical work. Group dynamics. (Total tuition time: ± 50 hours)

SUBJECT DIDACTICS: SKILLS SUBJECTS V (SSS500T)

CONTINUOUS ASSESSMENT

(Subject custodian: Department of Educational Foundation)

Microteaching, teaching science and the teaching environment, using a learning model. Curriculum development. Didactic principles applied in Mathematics. Subject applications on the computer, multimedia teaching. Practical work, setting of Grade 12 question papers with memoranda, creating teaching media. Group dynamics. (Total tuition time: ± 50 hours)

SUBJECT DIDACTICS: TECHNICAL V (SUT500T)

CONTINUOUS ASSESSMENT

(Subject custodian: Department of Technology and Vocational Education)

Microteaching, teaching science and the teaching environment, using a learning model. Curriculum development. Didactic principles applied in technical subjects. Subject applications on the computer, multimedia teaching. Practical work, setting of Grade 12 question papers with memoranda, creating teaching media. Marking of projects and practical work. Group dynamics. (Total tuition time: ± 50 hours)

SUBJECT DIDACTICS: TECHNOLOGY V (SUE500T)

CONTINUOUS ASSESSMENT

(Subject custodian: Department of Technology and Vocational Education)

Microteaching, teaching science and the teaching environment, using a learning model. Curriculum development. Didactic principles applied in technical subjects. Subject applications on the computer, multimedia teaching. Practical work, setting of Grade 12 question papers with memoranda, creating teaching media. Marking of projects and practical work. Group dynamics. (Total tuition time: ± 50 hours)

SUBJECT DIDACTICS: TSWANA V (SLW500T)

CONTINUOUS ASSESSMENT

(Subject custodian: Department of Applied Languages)

Practical application of advanced microteaching principles, design and application of advanced teaching models, meso- to macro-level curriculum development, multimedia teaching, professional development of the Tswana language teacher, organisation and administration of a Tswana language laboratory. (Total tuition time: ± 50 hours)

T

TECHNOLOGICAL DESIGN IV (TCD400T)

1 X 3-HOUR PAPER

(Subject custodian: Department of Technology and Vocational Education)

The advanced application of design practice, drawing practice and computer-aided drawing in a technological environment. Multimedia applications, using the computer as a communication tool. (Total tuition time: ± 75 hours)

TECHNOLOGY IV (THE400T)

1 X 3-HOUR PAPER

(Subject custodian: Department of Technology and Vocational Education)

Basic technical knowledge and skills in the electrical/mechanical and/or civil fields of specialisation. Theory is integrated with practical skills through experiments and processes conducted in workshops and laboratories. Students identify problems, and through the technological design process, solve those problems by manufacturing projects in laboratories and workshops. (Total tuition time: ± 100 hours)

THEORY OF EDUCATION V (TED510T)

1 X 3-HOUR PAPER

(Subject custodian: Department of Educational Foundation)

Advanced issues in theory of education. (Total tuition time: ± 50 hours)

TSWANA (EDUCATION) IV (TWE400T)

2 X 3-HOUR PAPER

(Subject custodian: Department of Applied Languages)

Literature: novels and short stories. Drama. Folklore and folktales. Oral traditional poetry. Modern poetry. Literature history. Linguistics: the Nguni languages: comparison of phonology and morphology, ability to read. Phonology and phonetics. Morphology. (Total tuition time: ± 75 hours)

