

**FACULTIES OF THE  
UNIVERSITY OF PRETORIA**

HUMANITIES  
NATURAL AND AGRICULTURAL SCIENCES  
LAW  
THEOLOGY  
ECONOMIC AND MANAGEMENT SCIENCES  
VETERINARY SCIENCE  
EDUCATION  
HEALTH SCIENCES  
ENGINEERING, BUILT ENVIRONMENT AND INFORMATION TECHNOLOGY



**FACULTY OF ENGINEERING, BUILT ENVIRONMENT  
AND INFORMATION TECHNOLOGY**

**SECTION I**

**(separate publication)**

**SCHOOL OF ENGINEERING**

- Industrial and Systems Engineering
- Chemical Engineering
- Electrical, Electronic and Computer Engineering
- Mechanical and Aeronautical Engineering
- Materials Science and Metallurgical Engineering
- Mining Engineering
- Civil Engineering

**GRADUATE SCHOOL OF TECHNOLOGY MANAGEMENT**

- Engineering and Technology Management

**SECTION II**

**(this publication)**

**SCHOOL FOR THE BUILT ENVIRONMENT**

- Architecture
- Construction Economics
- Town and Regional Planning

**SCHOOL OF INFORMATION TECHNOLOGY**

- Informatics
- Information Science
- Computer Science



<b>SCHOOL FOR THE BUILT ENVIRONMENT</b> <b>TABLE OF CONTENTS</b>
---

<b>ACADEMIC PERSONNEL</b> .....	1
<b>GENERAL INFORMATION</b> .....	3
Admission .....	3
Selection .....	3
Number restrictions .....	3
Statement of symbols .....	3
National Senior Certificate .....	3
Language of tuition .....	4
Bursaries and loans .....	4
Accommodation .....	4
Welcoming day, registration and start of the academic year .....	4
Prescribed books .....	4
Amendment of regulations and fees .....	4
<b>GLOSSARY OF TERMS</b> .....	4
<b>DEGREES CONFERRED IN THE SCHOOL FOR THE BUILT ENVIRONMENT</b> .....	6
<b>REGULATIONS FOR BACHELOR'S DEGREES</b> .....	7
Admission to degree study .....	7
Admission requirements for candidates with a National Senior Certificate (NSC) ...	7
Modules from other faculties .....	10
Academic literacy .....	10
Academic information management .....	10
Registration for a specific year .....	10
Registration of modules .....	10
Module credits for unregistered students .....	10
Examinations .....	10
Promotion requirements .....	13
<b>DEGREES IN THE DEPARTMENT OF ARCHITECTURE</b> .....	13
<b>Architecture</b> .....	13
BScArch .....	14
BArchHons .....	17
MArch(Prof) .....	18
MArch (Research) .....	20
PhD .....	20
<b>Interior Architecture</b> .....	21
BScInt .....	21
BIntHons .....	24
MInt(Prof) .....	26
MInt (Research) .....	27
PhD .....	28
<b>Landscape Architecture</b> .....	29
BScLArch .....	29
BLHons .....	32

ML(Prof) .....	34
ML (Research) .....	35
PhD.....	36
<b>Degrees in Applied Science in the Department of Architecture .....</b>	<b>37</b>
BScHons (Applied Science) .....	37
MSc (Applied Science) .....	39
<b>DEGREES IN THE DEPARTMENT OF CONSTRUCTION ECONOMICS .....</b>	<b>40</b>
BSc Quantity Surveying.....	40
BScHons Quantity Surveying .....	44
BSc Construction Management .....	46
BScHons Construction Management.....	50
BSc Real Estate .....	52
Master's programmes.....	55
Doctoral programmes.....	57
<b>DEGREES IN THE DEPARTMENT OF TOWN AND REGIONAL PLANNING .....</b>	<b>58</b>
BT&RP .....	58
Master's programmes.....	62
PhD.....	63
<b>ALPHABETICAL LIST OF MODULES .....</b>	<b>64</b>

**FACULTY OF ENGINEERING, BUILT ENVIRONMENT AND INFORMATION  
TECHNOLOGY**

**SCHOOL FOR THE BUILT ENVIRONMENT**

**ACADEMIC PERSONNEL AS AT 30 SEPTEMBER 2011**

**DEAN**

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**CHAIRMAN**

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 Le Roux, S.W., MArch PhD(Pretoria) PrArch .....Extraordinary Professor  
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Joubert, T., BSc(Hons)(QS)(Pretoria) .....	Lecturer
Lombard, I. BSc(Hons) (QS) (Pretoria).....	Lecturer
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PhD(Pretoria)	
Du Toit, J.L., BT&RP(Pretoria) MPhil DPhil (Stellenbosch) .....	Senior Lecturer
Landman, K., BArch(Free State) MCPUD(Cape Town) PhD(Newcastle).....	Senior Lecturer
Faling, C.W., BA Hons BT&RP(Pretoria) MSc(URP)(Natal) .....	Lecturer

**Head: Student Administration**

Jones, E.

<b>GENERAL INFORMATION</b>
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**Admission**

Any person, who wishes to register at the University for the first time or after an interruption of studies, should apply or reapply for admission. Application for admission to all undergraduate programmes closes on 30 June.

**Selection**

Selection takes place prior to admission to the following programmes in the School for the Built Environment:

**(a) All undergraduate programmes**

A restricted number of students are admitted to all undergraduate programmes.

**(b) Postgraduate programmes**

A restricted number of students are admitted to the following taught programmes: BArchHons, BIntHons, BLArchHons, BScHons (Applied Science), BScHons Quantity Surveying, BScHons Construction Management, MArch(Prof), MInt(Prof), ML(Prof), MSc (Applied Science), MSc Quantity Surveying, MSc Construction Management, MSc Real Estate and Master of Town and Regional Planning. Applications close on 31 October for South African students. Admission to the MSc and PhD programmes by research is subject to approval by the head of department and the dean.

**(c) International students**

Applications close on 31 August for international students.

International students wanting to be considered for selection must have their qualifications audited and verified by the South African Qualifications Authority (SAQA). Those candidates wanting to register for professional postgraduate degree programmes for purposes of professional registration must further have their qualifications verified by the relevant registering council as to the equivalence of the registration category. All costs are for the direct account of the applicant. All documentation must accompany the application and be submitted before the closing date.

**Note:** Contact details for the various bodies are to be found on the relevant departmental web page.

**Number restrictions**

If limited human resources and/or facilities are available, number restrictions will be applied.

**Statement of symbols**

When registering at this University for the first time, an undergraduate candidate must submit a statement of symbols obtained for subjects in the Grade 12 examination. Postgraduate students are required to submit an academic record.

**National Senior Certificate**

All undergraduate candidates who enrol at the University of Pretoria for the first time must show their original National Senior Certificate at the student administration of their faculty before the end of the first semester.

### **Language of tuition**

In conducting its general business, the University uses two official languages, namely Afrikaans and English.

In formal education, the language of tuition is either Afrikaans or English or both languages, taking the demand as well as academic justification and economic viability into consideration. However, it remains the student's responsibility to determine in which language a module and any further level of that module is presented. This information is published annually in the Timetable. The University reserves the right to change the language of tuition on short notice, depending on the size of the groups and the availability of lecturers. In respect of administrative and other services, a student may choose whether the University should communicate with him or her in Afrikaans or English.

### **Bursaries and loans**

Particulars of bursaries and loans are available on request.

### **Accommodation**

Applications for accommodation in university residences for a particular year may be submitted as from March 1 of the preceding year. Applications will be considered while vacancies exist, and prospective students are advised to apply well in advance. Please note that admission to the University does not automatically mean that lodging will also be available.

### **Welcoming day, registration and start of the academic year**

Details of the welcoming day to which all parents are cordially invited, and the subsequent programme for registration and start of the academic year during which all new first-year students **must** be present, are obtainable from the office of the Dean of Students.

### **Prescribed books**

Lists of prescribed books are not available. The lecturers will inform students regarding prescribed books at the commencement of lectures.

### **Amendment of regulations and fees**

The University reserves the right to amend the regulations and to change tuition fees without prior notification.

**Please note:** The fees advertised and thus levied in respect of a module or study programme presentation represents a combination of the costs associated with the formal services rendered (for example lectures, practical, access to laboratories, consumables used in laboratories, etc) as well as associated indirect overheads such as the provision of library and recreation facilities, security and cleaning services, electricity and water supply, etc. Therefore the fees in respect of a module or study programme presentation cannot simply be reconciled with the visible services that are rendered in respect of such module or programme.

## **GLOSSARY OF TERMS**

**academic year:** The duration of the academic year as determined by the University Council.

**admissions regulation:** A regulation compiled by the dean concerning the admission of students to a specific school, which includes a provision regarding the selection process.

**credit (or credit value):** A value unit linked to learning activities, calculated in accordance with the SAQA norm of **1 credit = 10 notional hours (learning hours)**. Credits are linked to modules and whole qualifications.

**curriculum:** A series of modules which form a programme, grouped together over a specified period of time and in a certain sequence according to the regulations.

**examination mark:** The mark a student obtains for an examination in a module, including practical examinations where applicable.

**final mark:** The mark calculated on the basis of the semester/year mark and the examination mark which a student obtains in a particular module according to a formula that is determined from time to time in the regulations for each module with the proviso that should no semester/year mark be required in a module, the examination mark serves as the final mark.

**Grade point average based on module credits:** an average mark that is calculated by multiplying the final mark achieved in a module with the credit value of that module and then dividing the sum of these values by the total of the credit values of all the modules for which a student was enrolled. The result of these calculations is a weighted average based on module credits.

**GS:** A combined (final) mark (semester/year mark plus examination mark) of 40% - 49%.

**learning outcome:** The end product of a specified learning process, i.e. the learning result (specific skills) that one intends to achieve at the end of the learning process.

**level of a module:** The academic level (year) of a module, which is indicated in the module code, which gives an indication of the complexity of the module.

**module:** An independent, defined learning unit, designed to result in a specific set of learning outcomes, and which is a component of a programme.

**module code:** Consists of an equal number of letters and digits, which indicate the name of the module, the year of study, the period of study and the level of the module.

**notional hours (learning hours):** The notional number of hours students should spend in mastering the learning content of a particular module or programme. The total number of learning hours for a module consists of the time needed for lectures, tutorials and practical (contact hours), as well as for self-tuition, examination preparation and any other activity required by the study programme. **(notional hours = credits (for a module) x 10)**

**NQF:** National qualifications framework. This is a national framework in which all SAQA-registered qualifications are listed, arranged on eight levels in accordance with the complexity of the qualification.

**programme:** This is a comprehensively planned, structured and coherent set of teaching and learning units (modules), designed to attain a specific set of predetermined learning outcomes at a specific exit level, which culminates in a student being awarded a particular qualification (diploma, degree).

**qualification:** In outcomes-based education, a qualification is a diploma or a degree which is obtained after attaining the learning outcomes as specified in a coherent learning programme, expressed as an accumulation of credits at specific levels.

**SAQA:** South African Qualifications Authority. This body has been established by law and has as its purpose the registration of qualifications, programmes and unit standards, in order to ensure that specific national and international criteria are achieved.

**semester/year mark:** The mark a student obtains during the course of a semester or a year for tests, class-work, practical work or any other work in a particular module as approved by regulation.

**student-centred learning:** Teaching and learning methodology, which facilitates the student's total own responsibility for the learning process. A prerequisite is that lectures, tutorials and practical be adapted so that active participation by students is always achieved.

**syllabus:** Summary of the contents of a module.

## DEGREES CONFERRED IN THE SCHOOL FOR THE BUILT ENVIRONMENT

The information regarding degree programmes here published are subject to change and may be amended prior to the commencement of the academic year in 2012.

The following degrees are awarded in the School for the Built Environment (minimum duration in brackets):

### DEPARTMENT OF ARCHITECTURE

- (i) Bachelor of Science Architecture – [BScArch] (3 years)
- (ii) Bachelor of Science Interior Architecture – [BScInt] (3 years)
- (iii) Bachelor of Science Landscape Architecture – [BScLArch] (3 years)
- (iv) Bachelor of Architecture Honours – [BArchHons] (1 year)
- (v) Bachelor of Interior Architecture Honours – [BIntHons] (1 year)
- (vi) Bachelor of Landscape Architecture Honours – [BLHons] (1 year)
- (vii) Master of Architecture (Professional) – [MArch(Prof)] (1 year)
- (viii) Master of Architecture – [MArch Research] (1 year)
- (ix) Master of Interior Architecture (Professional) – [MInt(Prof)] (1 year)
- (x) Master of Interior Architecture – [MInt Research] (1 year)
- (xi) Master of Landscape Architecture (Professional) – [ML(Prof)] (1 year)
- (xii) Master of Landscape Architecture – [ML Research] (1 year)
- (xiii) Doctor of Philosophy in Architecture, Landscape Architecture or Interior Architecture – [PhD] (1 year)
- (xiv) Bachelor of Science Honours in Applied Science – [BScHons (Applied Science)] (1 year)
- (xv) Master of Science in Applied Science – [MSc (Applied Science)] (1 year)

### DEPARTMENT OF CONSTRUCTION ECONOMICS

- (i) Bachelor of Science Quantity Surveying – [BScQS] (3 years)
- (ii) Bachelor of Science Honours Quantity Surveying – [BScHonsQS] (2 years)  
Bachelor of Science Construction Management – [BSc Construction Management] (3 years)
- (iii) Bachelor of Science Real Estate – [BSc Real Estate] (3 years)
- (v) Bachelor of Science Honours Construction Management – [BScHons Construction Management] (2 years)
- (vi) Master of Science Quantity Surveying – [MSc(QS)] Research (1 year)
- (vii) Master of Science Construction Management – [MSc Construction Management] Research (1 year)
- (viii) Master of Science Real Estate – [MSc Real Estate] Research (1 year);  
Coursework (2 years)
- (ix) Doctor of Philosophy – [PhD] (1 year)

### DEPARTMENT OF TOWN AND REGIONAL PLANNING

- (i) Bachelor of Town and Regional Planning – [BT&RP] (4 years)
- (ii) Master of Town and Regional Planning – [MT&RP] Research (2 years);  
Coursework (2 years)
- (iii) Doctor of Philosophy – [PhD] (2 years)

<b>REGULATIONS FOR BACHELOR'S DEGREES</b>
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**B.1 Admission to degree study**

General Regulations G.1 to G.15 are applicable to all bachelor's degrees. Where the general rules have vested authority in the Faculty to determine its own provisions, these provisions appear in this publication.

- (a) To register for a first bachelor's degree at the University, a candidate must, in addition to having a valid National Senior Certificate with admission for degree purposes, comply with the specific admission requirements for particular programmes and fields of study as prescribed in the admission regulations and the regulations of the faculty. Admission to the School for the Built Environment is based on the final matriculation examination results.
- (b) The following persons may also be considered for admission:
  - (i) A candidate who is in possession of a certificate which is deemed by the University to be equivalent to the required Grade 12 certificate with university endorsement.
  - (ii) A candidate who is a graduate from another tertiary institution or has been granted the status of a graduate of such an institution.
  - (iii) A candidate who passes an entrance examination, which is prescribed by the University from time to time.

**Abovementioned candidates are requested to contact the student administration at the faculty for more information regarding admission requirements.**

**Note:** A conditional exemption certificate does not grant admission to bachelor's study. However, in certain circumstances some of the faculties do accept a conditional exemption on the basis of mature age and prior learning. Candidates are advised to contact the student administration concerned in this regard.

- (c) The Senate may limit the number of students allowed to register for a programme, in which case the dean concerned may, at his discretion, select from the students who qualify for admission, those who may be admitted.
- (d) Subject to faculty regulations and the stipulations of General Regulations G.1.3 and G.62, a candidate will only be admitted to postgraduate studies if he or she is already in possession of a recognised bachelor's degree.

**B.2 Admission requirements for the Faculty of Engineering, Built Environment and Information Technology for candidates with a National Senior Certificate**

To be able to gain access to the faculty and specific programmes, prospective students must meet the requirements of the appropriate combinations of recognised NSC subjects as well as certain levels of achievement in the said subjects. In this regard the determination of an admission point score (APS) is explained and a summary of the faculty specific requirements, i.e. APS per programme and the specific subjects required per programme is provided.

**Determination of an Admission Point Score (APS, previous M-Score)**

The calculation is simple and based on a candidate's achievement in six 20-credit recognised subjects by using the NSC ratings, which is the "1 to 7 scale of achievement". Thus, the highest APS that can be achieved is 42.

Life orientation is excluded from the calculation determining the APS required for admission.

Rating code	Rating	Marks %
7	Outstanding achievement	80-100%
6	Meritorious achievement	70-79%
5	Substantial achievement	60-69%
4	Adequate achievement	50-59%
3	Moderate achievement	40-49%
2	Elementary achievement	30-39%
1	Not achieved	0-29%

Preliminary admission is based on the results obtained in the final Grade 11 examination. Final admission is based on Grade 12 results. Please note: The final Grade 12 results will be the determining factor with regard to admission.

### B.2.1 Specific admission requirements for the School for the Built Environment

- A valid National Senior Certificate with admission for degree purposes.
- The following minimum subject and level requirements for 2012:

Minimum requirements					
Degree	APS	Group A		Group B	
		Two languages	Mathematics	Physical Science	2 other subjects
BSc Architecture 12132002 <i>(Applications considered only if this field of study is indicated as first choice)</i> (A limited number of students are selected. An interview takes place.)	27	Comply with NSC minimum requirements; ADDITIONALLY one of these languages must be Afrikaans OR English at level 5 (60-69%).	4 (50-59%)	4 (50-59%)	Any two subjects
BSc Interior Architecture 12132008 <i>(Applications considered only if this field of study is indicated as first choice)</i> (A limited number of students are selected. An interview takes place.)	27	Comply with NSC minimum requirements; ADDITIONALLY one of these languages must be Afrikaans OR English at level 5 (60-69%).	4 (50-59%)	4 (50-59%)	Any two subjects

BSc Landscape Architecture 12132004 (A limited number of students are selected. An interview takes place.)	27	Comply with NSC minimum requirements; ADDITIONALLY one of these languages must be Afrikaans OR English at level 5 (60-69%).	4 (50-59%)	4 (50-59%) OR in any one of the following subjects: Life Sciences or Geography	Any two subjects
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Minimum requirements					
Degree	APS	Group A		Group B	
		Two languages	Mathematics	Physical science OR Accounting	2 other subjects
BSc Quantity Surveying  (A limited number of students are selected.)	27	Comply with NSC minimum requirements; ADDITIONALLY one of these languages must be Afrikaans OR English at level 5 (60-69%).	4 (50-59%)	4 (50-59%)	Any two subjects
BSc Construction Management  (A limited number of students are selected.)	27	Comply with NSC minimum requirements; ADDITIONALLY one of these languages must be Afrikaans OR English at level 5 (60-69%).	4 (50-59%)	4 (50-59%)	Any two subjects
BSc Real Estate  (A limited number of students are selected.)	27	Comply with NSC minimum requirements; ADDITIONALLY one of these languages must be Afrikaans OR English at level 5 (60-69%).	4 (50-59%)	4 (50-59%)	Any two subjects
Bachelor of Town and Regional Planning  (A limited number of students are selected.)	25	Comply with NSC minimum requirements; ADDITIONALLY one of these languages must be Afrikaans OR English at level 4 (50-59%).	4 (50-59%)	Any three subjects	

**B.3 Modules from other faculties**

A student who follows a module which is presented in another faculty, must acquaint him/herself and comply with the admission requirements of the module in question, sub minima requirements for tests/examinations, supplementary examination periods, etc.

**B.4 Academic literacy**

Academic literacy is presented as part of the specific study programme requirements. All first-year students who wish to register with the University are required to write an academic literacy test. On grounds of the results of this test, students who passed will be granted exemption from the EOT modules. Students who do not pass the test will be required to register for the EOT modules in order to obtain sufficient credits for degree purposes.

**B.5 Academic information management**

Academic information management (AIM 101) is presented as a compulsory module in the first semester.

**B.6 Registration for a specific year**

A student registers at the beginning of an academic year for all the modules he or she intends taking in that specific year (first-semester, second-semester and year modules). Changes may only be made to a curriculum at the beginning of the second semester with the approval of the dean.

**B.7 Registration of modules**

- (a) Final cut-off dates are set for the change of modules (removing or adding) for each academic year. Please consult the calendar of the University in this regard.
- (b) Should a student register for second semester modules at the beginning of a year of study, and it becomes evident at the end of the first semester, that he or she does not comply with the prerequisites of the second-semester modules, the registration of such modules will be cancelled. It is also the student's responsibility to ensure at the beginning of the second semester that the cancellation has been done.

**B.8 Module credits for unregistered students**

There are students who attend lectures, write tests and examinations and in this manner earn marks, but have either not registered for modules or have not registered as students at all. These marks will not be communicated to any student before he/she has provided proof of enrolment. A student cannot obtain any credits in a specific academic year for a module 'passed' in this manner during a previous academic year and for which he/she was not registered. This arrangement applies even where the student is prepared to pay the tuition fees.

**B.9 Examinations**

**9.1 Examinations, projects and mini-dissertations**

- (a) An examination in a module may be written and/or oral. Projects and mini-dissertations are prepared and examined as stipulated in the study guide of the module, in accordance with the regulations and procedures as described in 9.3 below.
- (b) The examinations for modules of the first semester are held in May/June, while all other examinations (second-semester modules and year modules) are held in October/November.

## 9.2 Examination admission

A minimum semester/year mark of 40% is required in order to be admitted to the final examination in a specific module, with the exception of first-semester modules at first-year level where a minimum semester mark of 30% is required for admission to an examination. In addition, all other examination admission requirements, applicable to the relevant module, must have been met.

## 9.3 Pass requirements

Refer to General Regulations G.11.1(a) and G.12.2.2.

- (a) In order to pass a module, a student must obtain an examination mark of at least 40% and a final mark of at least 50%. A student passes a module with distinction if a final mark of at least 75% is obtained. The final mark is compiled from the semester/year mark and the examination mark.
- (b) Calculation of the final mark: The semester/year mark must account for no less than 40% and no more than 60% of the final mark, with the exception of modules such as design and research projects and essays, as well as in modules where the development of general skills is the primary learning activity, where appropriate alternative norms are determined individually by schools or departments. The specific details and/or formula for the calculation of the final mark are set out in the study guide of each module. Also, a schedule listing this information (for all the modules presented in each school) will be compiled, for approval by the dean.
- (c) Calculation of the semester/year mark: The semester/year mark is compiled from formative assessment of learning activities such as assignments, presentations, practical and group projects, as well as from class tests and semester tests. For each module the specific formula for the calculation of the semester/year mark is determined by the lecturer(s) responsible for the presentation of the module and the details are given in the study guide of the module. Also, a schedule containing this information (for all the modules presented in each school) will be compiled, for approval by the dean. Refer also to General Regulation G.11.1(b).
- (d) For some modules, specific requirements in respect of certain components of the semester/year mark may be set, in order for a student to pass the module (for example that satisfactory performance in and attendance of practical classes are required). Thus, even if a pass mark is obtained in the module, a pass is not granted unless these requirements are met. For such modules these specific requirements are given in the study guide of the module. Also, a schedule containing this information (for all such modules presented in each school) will be compiled, for approval by the dean.
- (e) A student must comply with the subminimum requirements in subdivisions of certain modules. For such modules these specific requirements are given in the study guide of the module. Also, a schedule containing this information (for all such modules presented in each school) will be compiled, for approval by the dean.

#### **9.4 Ancillary examinations**

Refer to General Regulation G.12.3.

- 9.4.1** No ancillary or special examinations are granted in any design modules (all ONT modules) in the Department of Architecture.

#### **9.5 Supplementary examinations**

Refer to General Regulation G.12.4.

Except for first-semester modules in the first year where supplementary examinations are compulsory between 40% and 49%, a supplementary examination is only granted in instances where:

- (i) a final mark of between 45% and 49% was obtained;
- (ii) a final mark of between 40% and 44% was obtained and where the candidate also obtained either a semester mark or an examination mark of 50% or higher;
- (iii) a pass mark has been obtained, but the required subminimum in the examination section of the module or divisions thereof has not been obtained.

Regulations (i) to (iii) do not apply to third-year modules of any of the programmes in the Department of Architecture. No supplementary examinations are granted in any year of study for the design module (ONT modules).

#### **9.6 Special examinations (including the aegrotat)**

Refer to General Regulation G.12.5.

- (i) A medical certificate will not be accepted where it states that a student appeared ill or declared him/herself unfit to write the examination.
- (ii) The doctor must be consulted on or before the date on which the examination was scheduled.

#### **9.7 Other special examinations**

Refer to General Regulation G.12.6.

- (a) The dean may, at the recommendation of the head of department concerned, grant a special examination in a module to a student who failed such a module in the final year of study, and consequently either does not comply with degree requirements, or is unable to continue with studies in the final semester in a meaningful way. A student may at most, be admitted to one special examination in a year module or two special examinations in semester modules.
- (b) In order to be considered for a special examination, a student should have obtained a minimum final mark of 40% and should also have complied with all other examination admission requirements which are applicable to the relevant module.
- (c) A student must apply to the dean in writing before consideration will be given to admission to a special examination. Before a student may sit the examination, the head of department decides when the special examination will take place and may prescribe work which should be satisfactorily completed before the examination will take place.
- (d) The pass mark required for a special examination is 50%, a higher mark is not allocated and the semester/year mark is not taken into consideration.

### 9.8 Re-marking of examination scripts

Refer to General Regulation G.14.

### B.10 Promotion requirements

- (a) Students whose academic progress is not acceptable can be suspended from further studies. Refer to the following important regulations: General Regulation G.3 and/or Regulations B.11(d); B.16(d) or B.21(d), Department of Architecture or Regulations B.28(c) and B.30(c), B.32(c) Department of Construction Economics or Regulation B.39(c), Department of Town and Regional Planning.
- (b) A student who is excluded from further studies in terms of the stipulations of the abovementioned regulations will be notified in writing by the dean or admissions committee at the end of the relevant semester.
- (c) A student who has been excluded from further studies may apply in writing to the admissions committee of the School for the Built Environment for readmission on or before 12 January.
- (d) Should the student be readmitted by the admissions committee, strict conditions will be set which the student must comply with in order to proceed with studies.
- (e) Should the student not be readmitted to further studies by the admissions committee, he/she will be informed in writing.
- (f) Students who are not readmitted by the admissions committee have the right to appeal to the Senate Committee for Admission, Evaluation and Academic Support.
- (g) Any decision taken by the Senate Committee for Admission, Evaluation and Academic Support is final.

## DEGREES IN THE DEPARTMENT OF ARCHITECTURE

### DEGREES IN ARCHITECTURE

Architecture entails the design of buildings and the spaces between those buildings. It is the art and science that is employed in order to create a liveable environment, thus contributing towards the spiritual and material prosperity of the country. Architects are often independent thinkers, individualists and innovators. Although they are employed by organisations involved with development, investment, research, marketing, the industry or even education, many architects prefer to be independent consultants and entrepreneurs. BScArch is regarded as an exit level that enables the graduate to register as a candidate senior architectural technologist at the South African Council for the Architectural Profession. A senior architectural technologist is a professional person registered by the SACAP in terms of the Act on the Architectural Profession (Act 44 of 2000). Such practitioners provide assistance in the practices of the disciplines of architecture, interior architecture, landscape architecture and urban design where their responsibilities would be the documentation of projects, project administration and site management.

Students are advised to work in the offices of an architect or a landscape architect to gain practical experience during the university recesses.

A graduate wishing to become a professional architect must apply for and pursue a further two years of full-time studies in the professional degree programme. The Master of

Architecture (Professional) degree is recognised by the South African Council for the Architectural Profession as qualifying the graduate to register as a candidate professional architect in terms of the Act on the Architectural Profession (Act 44 of 2000).

<b>B.11 Bachelor of Science Architecture</b> <b>[BScArch] (Code 12132002)</b>
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**(a) Admission requirements**

See General information B.1, B.2 and B.3 in this publication.

**Note:** Students wishing to transfer to other programmes in the Department of Architecture must obtain written consent from the admissions committee.

**(b) Duration**

The minimum period of study is three years full-time. Candidates wishing to become professional architects must hereafter apply to register for the BArchHons (one year full-time) and thereafter the MArch(Prof) degree (one year full-time).

**(c) Curriculum**

Total credits: 414

Unless the dean, in consultation with the head of department decides otherwise, the following applies:

Code	Module	Prerequisites	Credits
<b>FIRST YEAR</b>			
<b>First semester</b>			
AAL 110	Earth studies 110	-	10
ARC 110	Elective module 110	-	6
AIM 101	Academic information management 101		4
EOT 110*	Academic literacy 110	-	6
KON 111	Construction 111	-	8
OML 110	Environmental studies 110	-	6
ONT 100	Design 100	-	30
	Total		70
<b>Second semester</b>			
EOT 120*	Academic literacy 120	-	6
KON 121	Construction 121	KON 111 GS	8
OKU 120	Design communication 120	-	6
OML 120	Environmental studies 120	-	6
ONT 100	Design 100	-	30
	Total		56

\*Students who did not pass the Academic literacy test must register for EOT 110 and 120 offered by the Unit for Academic Literacy. (See Regulation B.5.)

**SECOND YEAR**

**First semester**

AAL 210	Earth studies 210	-	8
JCP 201	Community-based project 201	-	4
KON 210	Construction 210	KON 111, 121	8
OML 210	Environmental studies 210	-	6
ONT 200	Design 200	AAL 110	30
		KON 111, 121	
		OML 110, 120	
		ONT 100	
STU 211	Theory of structures 211	-	8
	Total		64

**Second semester**

AAL 224	Earth studies 224	-	4
GGY 265	Geomorphology of the built environment 265	-	12
JCP 201	Community-based project 201	-	4
KON 220	Construction 220	KON 210 GS	8
OML 220	Environmental studies 220	-	6
ONT 200	Design 200	AAL 110	30
		KON 111, 121	
		OML 110, 120	
		ONT 100	
STU 221	Theory of structures 221	STU 211 GS	8
	Total		72

**THIRD YEAR**

**First semester**

BER 310	Business law 310	-	16
GGY 283*	Introductory GIS 283 (Capita selecta)	-	12
or			
OKU 313	Design communication 313	-	6
KON 310	Construction 310	KON 210, 220	8
OMG 310	History of the environment 310	-	6
OML 310	Environmental studies 310	-	6
ONT 300	Design 300	KON 210, 220	30
		OML 210, 220	
		ONT 200	
STU 311	Theory of structures 311	STU 211, 221	8
	Total		80

\*If this module is chosen the total credits = 86

**Second semester**

AAL 320	Earth studies 320	AAL 210	6
KON 320	Construction 320	KON 310 GS	8
OMG 320	History of the environment 320	-	6
OML 320	Environmental studies 320	OML 310 GS	6
ONT 300	Design 300	KON 210, 220	30
		OML 210, 220	
		ONT 200	

PJS 320	Practice management 320	-	8
STU 321	Theory of structures 321	STU 311 GS	8
	Total		72

The programme is set out below:

Year	Semester	PJS	STU	AAL	KON	ONT	OML	OMG	OKU
1	1	AIM 101	-	110	111	100	110	-	Elective module
	2		-	-	121	100	120	-	OKU 120
2	1	JCP 201	211	210	210	200	210	-	-
	2	JCP 201	221	GGY 265 AAL 224	220	200	220	-	-
3	1	BER 310	311	-	310	300	310	310	GGY 283 or OKU 313
	2	PJS 320	321	320	320	300	320	320	-

**(d) Promotion requirements**

A student is promoted to a subsequent year of study after acquiring all the prerequisite module credits of the preceding year of study.

A student is deemed to be in the year of study for which he or she is registered in Design.

If the student is not registered for Design the highest passed year of Design determines the year of study.

**Note:** Students not promoted to the next year of study must obtain the approval of the programme coordinator and the head of department to register for modules in the subsequent year of study. Students must re-apply for admission to the Department of Architecture in instances where:

- (i) a student is not promoted to the second year of study;
- (ii) a student after repeating any year of study, is not promoted to the following year of study.

**(e) Concurrent presentation**

Design and Construction must initially be examined in the same year.

**(f) Awarding of degree**

The degree is awarded to those students obtaining all the prescribed credits for the programme modules.

**(g) Degree with distinction**

The BScArch degree is conferred with distinction on a student who, at first registration, simultaneously passes both Design 300 and Construction 320 with distinction (minimum 75%) with the proviso that the degree is completed within the minimum prescribed time and all other final-year modules are passed on first registration without any supplementary/special examinations.

**B.12 Bachelor of Architecture Honours  
[BArchHons] (Code 12242003)**

Refer to General Regulations G.16 to G.29 and G.62.

**(a) Admission requirements**

A candidate for the degree programme Bachelor of Architecture Honours:

- (1) must be a graduate with a BScArch degree or an equivalent university degree;  
**or**
- (2) must have an appropriate recognised tertiary qualification.  
Such a candidate may be required, at the discretion of the head of department to take:
  - (i) an academic literacy test;
  - (ii) a computer skills test;**or**
- (3) must have a qualification deemed adequate by the head of department in consultation with the dean and obtain (where necessary) the approval of the Senate, and comply with any other prescribed requirements.

Candidates mentioned in (2) and (3) above may, at the discretion of the head of department, be required to be evaluated in prerequisite fields of knowledge and/or register for additional modules for non-degree purposes.

Candidates mentioned in (1), (2) and (3) above,

- (i) should preferably have had practical experience and/or have done and recorded an extended study excursion;
- (ii) are interviewed for selection;
- (iii) must present a portfolio and/or design journal which demonstrates the requisite level of proficiency and competency and is considered a record of their experience within the discipline;
- (iv) are selected on merit.

**Note:** A limited number of candidates are admitted to this programme.

**(b) Duration**

The minimum period of study is one year full-time.

**(c) Curriculum**

Unless the head of department, after consultation with the dean, decides otherwise, for those students wishing to hereafter continue with the MArch(Prof) degree, the following curriculum applies:

BArchHons	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Practice component	CPD 710 (6 credits) Systems and materials	CPD 720 (6 credits) The idea of building	CPD 740 (6 credits) Built environment modelling POU 720 (2 credits)	CPD 730 (6 credits) Professional practice
Theory component	RFS 710 (6 credits), RFS 720 (6 credits) & RFS 730 (6 credits) <i>May run separately or concurrently over quarters 1-3</i>			RFS 740 6 credits
Project component	RFP 711/721/731 (20 credits each) <i>Examined at the end of quarter 3</i>			RFP 710 20 credits

**(d) Admission to examinations and pass requirements**

The minimum pass mark is 50%. A minimum of 40% is required in the examination, with a minimum final mark of 50% to pass. If a module is not evaluated by examination a minimum coursework mark of 50% is required. If the module is not evaluated by coursework a minimum examination mark of 50% is required.

**(e) Awarding of degree**

The degree is awarded to those students who have obtained the prescribed credits. Those students admitted with conditions must comply with all of these before all the 700 series module credits and the degree are awarded.

**(f) Degree with distinction**

The degree is conferred with distinction if students registered for the degree for the first time, complete the degree within the minimum prescribed time and pass all modules with a weighted average of 75.

**MASTER'S PROGRAMMES IN ARCHITECTURE**

The degree may be obtained in one of two ways, namely by virtue of a dissertation and an examination or by virtue of a taught curriculum and a mini-dissertation. The requirements for the two options are set out below.

**B.13 Master of Architecture (Professional)  
[MArch(Prof)] (Code 12252005)**

Refer to General Regulations G.30 to G.44 and G.57 to G.62.

The Master of Architecture (Professional) is a taught master's degree for the purposes of registration as a candidate professional architect with the South African Council for the Architectural Profession in terms of act 44 of 2000 and is done by coursework, projects and a design investigation mini-dissertation and design project and discourse.

**(a) Admission requirements**

A candidate for the degree programme Master of Architecture (Professional):

- (1) must be a graduate with a BArchHons degree or an equivalent university degree;  
**or**
- (2) must have an appropriate recognised tertiary qualification at honours degree level;  
**or**
- (3) must have a qualification deemed adequate by the head of department in consultation with the dean and obtain (where necessary) the approval of the Senate and comply with any other prescribed requirements.

Candidates mentioned in (2) and (3) above may, at the discretion of the head of department, be required to be evaluated in prerequisite fields of knowledge and/or register for additional modules for non-degree purposes.

Candidates mentioned in (1), (2) and (3) above,

- (i) should preferably have had practical experience and/or have done and recorded an extended study excursion;
- (ii) are interviewed for selection;
- (iii) must present a portfolio and/or design journal which demonstrates the requisite level of proficiency and competency and is considered a record of their experience within the discipline;
- (iv) are selected on merit.

**Note:** A limited number of candidates are admitted to this programme.

**(b) Duration**

The minimum period of study is one year full-time.

**(c) Curriculum**

Unless the head of department, after consultation with the dean, decides otherwise, the following curriculum applies:

<b>MArch(Prof)</b>	
Practice component	<b>CPD 810</b> (10 credits) 1st quarter module Continuing practice development (The results for this module will only be made available in the 4th quarter)
Theory component	<b>DIT 801</b> (50 credits) Year module Design investigation
Project component	<b>DPD 801</b> (60 credits) Year module Mini-dissertation: Design project and discourse

**(d) Admission to examinations and pass requirements**

The minimum pass mark is 50%. A minimum of 40% is required in the examination, with a minimum final mark of 50% to pass. If a module is not evaluated by examination a minimum coursework mark of 50% is required. If the module is not evaluated by coursework a minimum examination mark of 50% is required.

**(e) Design topic**

The topic of the final design project (DIT 801 & DPD 801) must be approved by the head of department.

**(f) Awarding of degree**

The degree is awarded to those students who have obtained the prescribed credits. Those students admitted with conditions must comply with all of these before all the 700 series module credits and the degree are awarded.

**(g) Degree with distinction**

The degree is conferred with distinction on those students registering for the first time and obtaining a distinction (75%) simultaneously for both the Design investigation mini-dissertation (DIT 801) and the Design project and discourse (DPD 801) with the proviso that the degree is completed within the minimum prescribed time and all other final-year modules are passed on first registration.

**(h) Required publication**

General Regulation G.61. applies.

<b>B.14 Master of Architecture (Research) [MArch Research] (Code 12252002)</b>
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Refer to General Regulations G.30 to G.44 and G.57 to G.62.

By virtue of a dissertation and examination.

**Dissertation: ARG 890**

Total credits: 180

**(a) Admission requirements**

Candidates who wish to research a topic within the discipline of architecture and who are in possession of

- (i) a BArch or equivalent degree of four years or more;  
**or**
- (ii) an honours degree in Architecture, BArchHons, or equivalent;  
**or**
- (iii) a three-year degree with Design as major component and who successfully complete supplementary modules with the weighting equivalent of an honours degree as prescribed by the head of department;  
**or**
- (iv) who are deemed adequate by the head of department in consultation with the dean and obtained (where necessary) the approval of the Senate and complying with whatever additional requirements may be prescribed are admitted for the degree Master of Architecture (by research).

**(b) Duration and curriculum**

After a minimum of one year of registration, the student is to submit a dissertation for examination and have an oral examination of the dissertation in the related field of study.

**(c) Awarding of the degree**

The Master of Architecture degree is conferred on students obtaining a minimum of 50% for both the dissertation and oral examination.

**(d) Degree with distinction**

The Master of Architecture degree is conferred with distinction on students obtaining a minimum of 75% for both the dissertation and the oral examination.

**(e) Required publication**

General Regulation G.61. applies.

<b>B.15 Doctor of Philosophy [PhD] (Code 12262002)</b>
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Refer to General Regulations G.45 to G.62.

**Thesis: ARG 990** (360 credits)

- (a)** Candidates who have obtained a master's degree in Architecture or the UP MSc (Applied Science) are admitted to doctoral studies.

- (b) Candidates in possession of a master's degree by coursework may, at the discretion of the head of department, be required to pass supplementary modules prior to commencing of studies.
- (c) A PhD student must submit a thesis which deals with a topic from the discipline of architecture and which provides proof of advanced original research and/or creative work which makes a real and substantial contribution to the knowledge and/or practice of architecture.
- (d) A student must submit at least one draft article to a recognised journal for publication, before or concurrent with the submission of the thesis. The draft article must be based on the research undertaken for the thesis and must be acceptable to the supervisor.
- (e) The doctoral examination, either written or oral, **is compulsory**, and covers the content of the thesis as well as the field of study on which the thesis is based.

### DEGREES IN INTERIOR ARCHITECTURE

Interior architecture is the art and science of the design of designated spaces. It focuses on the needs of the user and the harmony between architectural spaces and the detailed design of spaces and life-style products. Graduates will have the ability to design interiors and products. Attention is given to the design process, building and material technology, building climate, ergonomics, history and visual communication within the context of society, economics, politics and technology. It is very important that students have the ability to visualise spaces, think three-dimensionally and solve problems creatively.

Students are advised to work in the offices of an architect or an interior architect during the university recesses to gain practical experience.

It is recommended that those graduates wishing to practice as interior designers pursue further studies, namely the one year, full-time honours degree programme in Interior Architecture.

A graduate wishing to become a professional Interior architect is advised to register for the MInt(Prof) degree programme.

#### B.16 Bachelor of Science Interior Architecture [BScInt] (Code 12132008)

- (a) **Admission requirements**  
Refer to General information B.1, B.2 and B.3 in this publication.  
**Note:** Students wishing to transfer to other programmes in the Department of Architecture must obtain written consent from the admissions committee.
- (b) **Duration**  
The minimum period of study is three years full-time. Candidates wishing to become professional Interior architects must hereafter apply to register for the BIntHons degree (one year full-time) and the MInt(Prof) degree (one year full-time). Those candidates wishing to become interior and product designers must hereafter register for the one year full-time honours degree programme in Interior Architecture [BIntHons].
- (c) **Curriculum**  
Total credits: 412

Unless the dean, in consultation with the head of department, decides otherwise, the following curriculum applies:

<b>Code</b>	<b>Module</b>	<b>Prerequisite</b>	<b>Credits</b>
<b>FIRST YEAR</b>			
<b>First semester</b>			
AAL 110	Earth studies 110	-	10
ARC 110	Elective module	-	6
AIM 101	Academic information management 101	-	4
EOT 110*	Academic literacy 110	-	6
KON 111	Construction 111	-	8
OML 110	Environmental studies 110	-	6
ONT 100	Design 100	-	30
	Total		70
<b>Second semester</b>			
EOT 120*	Academic literacy 120	-	6
KON 121	Construction 121	KON 111 GS	8
OKU 120	Design communication 120	-	6
OML 120	Environmental studies 120	-	6
ONT 100	Design 100	-	30
	Total		56
*Students who did not pass the Academic Literacy Test must register for EOT 110 and 120 offered by the Unit for Academic Literacy. (See Regulation B.5.)			
<b>SECOND YEAR</b>			
<b>First semester</b>			
AAL 210	Earth studies 210	-	8
JCP 201	Community-based project 201	-	4
KON 210	Construction 210	KON 111, 121	8
OML 210	Environmental studies 210	-	6
ONT 203	Design 203	AAL 110 KON 111, 121 OML 110, 120 ONT 100	30
TKS 212	Textiles 212	-	14
	Total		70
<b>Second semester</b>			
AAL 223	Earth studies 223	-	4
AAL 224	Earth studies 224	-	4
JCP 201	Community-based project 201	-	4
KON 220	Construction 220	KON 210 GS	8
OML 220	Environmental studies 220	-	6
ONT 203	Design 203	AAL 110 KON 111, 121 OML 110, 120 ONT 100	30
MST 223	Material Studies 223		
	Total		64

**THIRD YEAR****First semester**

BER 310	Business law 310	-	16
KON 310	Construction 310	KON 210, 220	8
OKU 313	Design communication 313	-	6
OMG 310	History of the environment 310	-	6
OML 310	Environmental studies 310	-	6
ONT 303	Design 303	KON 210, 220 OML 210, 220 ONT 203	30
MST 313	Material studies 313	TKS 212, MST 223	8
	Total		80

**Second semester**

AAL 320	Earth Studies 320	AAL 210	6
KON 320	Construction 320	KON 310 GS	8
OMG 320	History of the environment 320	-	6
OML 320	Environmental studies 320	OML 310 GS	6
ONT 303	Design 303	KON 210, 220 OML 210, 220 ONT 203	30
PJS 320	Practice management 320	-	8
MST 323	Material studies 323	MST 313	8
	Total		72

The programme is set out below:

Year	Semester	PJS	MST	AAL	KON	ONT	OML	OMG	OKU
1	1	AIM 101	-	110	111	100	110	-	Elective module
	2		-	-	121	100	120	-	OKU 120
2	1	JCP 201	TKS 212	210	210	203	210	-	-
	2	JCP 201	MST223	223 224	220	203	220	-	-
3	1	BER 310	313	-	310	303	310	310	OKU 313
	2	PJS 320	323	320	320	303	320	320	-

**(d) Promotion requirements**

A student is promoted to a subsequent year of study after acquiring all the prerequisite module credits of the preceding year of study. A student is deemed to be in the year of study for which he or she is registered in Design.

If the student is not registered for Design the highest passed year of Design determines the year of study.

**Note:** Students not promoted to the next year of study must obtain the approval of the programme coordinator and the head of department to register for modules in the subsequent year of study. Students must re-apply for admission to the Department of Architecture in instances where:

- (i) a student is not promoted to the second year of study;
- (ii) a student after repeating any year of study, is not promoted to the following year of study.

**(e) Concurrent presentation**

Design and Construction must initially be examined in the same year.

**(f) Awarding of degree**

The degree is awarded to those students who have obtained all the prescribed credits for the programme modules.

**(g) Degree with distinction**

The degree is conferred with distinction on a student who, at first registration, simultaneously passes both Design 303 and Construction 320 with distinction (75%) with the proviso that the degree is completed within the minimum prescribed time and all other final-year modules are passed on first registration without any supplementary/special examinations.

<b>B.17 Bachelor of Interior Architecture Honours [BlntHons] (Code 12242006)</b>
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Refer to General Regulations G.16 to G.29 and G.62.

**(a) Admission requirements**

A candidate for the degree programme Bachelor of Interior Architecture Honours:

- (1) must be a graduate with a BScInt degree or an equivalent university degree;  
**or**
- (2) must have an appropriate recognised tertiary qualification.  
Such a candidate may be required, at the discretion of the head of department to take:
  - (i) an academic literacy test;
  - (ii) a computer skills test;**or**
- (3) must have a qualification deemed adequate by the head of department in consultation with the dean and obtain (where necessary) the approval of the Senate and comply with any other prescribed requirements.

Candidates mentioned in (2) and (3) above may, at the discretion of the head of department, be required to be evaluated in prerequisite fields of knowledge and/or register for additional modules for non-degree purposes.

Candidates mentioned in (1), (2) and (3) above,

- (i) should preferably have had practical experience and/or have done and recorded an extended study excursion;
- (ii) are interviewed for selection;

- (iii) must present a portfolio and/or design journal which demonstrates the requisite level of proficiency and competency and is considered a record of their experience within the discipline;
- (iv) are selected on merit.

**Note:** The number of candidates admitted to this programme is restricted.

**(b) Duration**

The minimum period of study is one year full-time.

**(c) Curriculum**

Unless the head of department, after consultation with the dean, decides otherwise, for those students wishing hereafter to continue with the MInt(Prof) degree, the following curriculum applies:

BIntHons	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Practice component	CPD 710 (6 credits) Systems and materials	CPD 720 (6 credits) The idea of building	CPD 740 (6 credits) Built environment modelling POU 720 (2 credits)	CPD 730 (6 credits) Professional practice
Theory component	RFS 710 (6 credits), RFS 720 (6 credits) & RFS 730 (6 credits) <i>May run separately or concurrently over quarters 1-3</i>			RFS 740 (6 credits)
Project component	RFP 713/723/733 (20 credits each) <i>Examined at the end of quarter 3</i>			RFP 730 (20 credits)

**(d) Admission to examinations and pass requirements**

The minimum pass mark is 50%. A minimum of 40% is required in the examination, with a minimum final mark of 50% to pass. If a module is not evaluated by examination a minimum coursework mark of 50% is required. If the module is not evaluated by coursework, a minimum examination mark of 50% is required.

**(e) Awarding of degree**

The degree is awarded to those students who have obtained the prescribed credits. Those students admitted with conditions must comply with all of these before all the 700 series module credits and the degree are awarded.

**(f) Degree with distinction**

The degree is conferred with distinction if students registered for the degree for the first time, complete the degree within the minimum prescribed time and pass all modules with a weighted average of 75%.

## MASTER'S PROGRAMMES IN INTERIOR ARCHITECTURE

The degree may be obtained in one of two ways, namely by virtue of a dissertation and an examination or by virtue of a taught curriculum and a mini-dissertation. The requirements for the two options are set out below.

### **B.18 Master of Interior Architecture (Professional) [MInt(Prof)] (Code 12252007)**

Refer to General Regulations G.30 to G.44 and G.57 to G.62.

The Master of Interior Architecture (Professional) is done by coursework, a design investigation mini-dissertation and design project and discourse.

#### **(a) Admission requirements**

Candidates for the degree programme Master of Interior Architecture (Professional):

- (1) must be a graduate with a BIntHons degree or an equivalent university degree;  
**or**
- (2) must have an appropriate recognised tertiary qualification at honours degree level;  
**or**
- (3) must have a qualification deemed adequate by the head of department in consultation with the dean and obtain (where necessary) the approval of the Senate, and comply with any other prescribed requirements.

Candidates mentioned in (2) and (3) above may, at the discretion of the head of department, be required to be evaluated in prerequisite fields of knowledge and/or register for additional modules for non-degree purposes.

Candidates mentioned in (1), (2) and (3) above,

- (i) should preferably have had practical experience and/or have done and recorded an extended study excursion;
- (ii) are interviewed for selection;
- (iii) must present a portfolio and/or design journal which demonstrates the requisite level of proficiency and competency and is considered a record of their experience within the discipline;
- (iv) are selected on merit.

**Note:** A limited number of candidates are admitted to this programme.

#### **(b) Duration**

The minimum period of study is one year full-time.

#### **(c) Curriculum**

Unless the head of department, after consultation with the dean, decides otherwise, the following curriculum applies:

<b>MInt(Prof)</b>	
Practice component	CPD 810 (10 credits) 1st-quarter module Project brief development (The results for this module will only be made available in the 4th quarter)
Theory component	DIT 803 (50 credits) Year module Design investigation
Project component	DPD 803 (60 credits) Year module Mini-dissertation: Design project and discourse

- (d) **Admission to examinations and pass requirements**  
The minimum pass mark is 50%. A minimum of 40% is required in the examination, with a minimum final mark of 50% to pass. If a module is not evaluated by examination, a minimum coursework mark of 50% is required. If the module is not evaluated by coursework, a minimum examination mark of 50% is required.
- (e) **Design topic**  
The topic of the final design project (DIT 803 & DPD 803) must be approved by the head of department.
- (f) **Awarding of degree**  
The degree is awarded to those students having obtained the prescribed credits. Those students admitted with conditions must comply with all of these before all the 700 series module credits and the degree are awarded.
- (g) **Degree with distinction**  
The degree is conferred with distinction on those students registering for the first time and obtaining a distinction (75%) simultaneously for both the Design investigation mini-dissertation (DIT 803) and the Design project and discourse (DPD 803) with the proviso that the degree is completed within the minimum prescribed time and all other final-year modules are passed on first registration.
- (h) **Required publication**  
General Regulation G.61. applies.

<b>B.19 Master of Interior Architecture (Research)</b> <b>[MInt (Research)] (Code 12252004)</b>
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Refer to General Regulations G.30 to G.44 and G.58 to G.62.  
By virtue of dissertation and examination.

**Dissertation: INT 890**

Total credits: 180

- (a) **Admission requirements**  
Candidates who wish to research a topic within the discipline of interior architecture and who
- (i) are in possession of a BInt or equivalent degree of four years or more;
  - or**
  - (ii) are in possession of an honours degree in Interior architecture, BIntHons, or equivalent;

- or**
- (iii) are in possession of a three-year degree with Design as major component and who successfully complete supplementary modules with weighting equivalent of an honours degree as prescribed by the head of department;
- or**
- (iv) are deemed adequate by the head of department in consultation with the dean and obtained (where necessary) the approval of the Senate and complying with whatever additional requirements may be prescribed are admitted for the degree Master of Interior Architecture (by research).
- (b) Duration and curriculum**  
After a minimum of one year of registration the student submits a dissertation for examination and has an oral examination of the dissertation in the related field of study.
- (c) Awarding of the degree**  
The Master of Interior Architecture degree is conferred on students obtaining a minimum of 50% for both the dissertation and oral examination.
- (d) Degree with distinction**  
The Master of Interior Architecture degree is conferred with distinction on students obtaining a minimum of 75% in both the dissertation and the oral examination.
- (e) Required publication**  
General Regulation G.61. applies.

<b>B.20 Doctor of Philosophy [PhD] (Code 12262008)</b>
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Refer to General Regulations G.45 to G.62.

**Thesis: INT 990** (360 credits)

- (a) Candidates who have obtained a master's degree in Interior architecture or the UP MSc (Applied Science) are admitted to doctoral studies.
- (b) Candidates in possession of a master's degree by coursework may, at the discretion of the head of department, be required to pass supplementary modules prior to commencing of studies.
- (c) A PhD student must submit a thesis which deals with a topic from the discipline of interior architecture and which provides proof of advanced original research and/or creative work which makes a real and substantial contribution to the knowledge and/or practice of interior architecture.
- (d) A student must submit at least one draft article to a recognised journal for publication, before or concurrent with the submission of the thesis. The draft article must be based on the research undertaken for the thesis and must be acceptable to the supervisor.
- (e) The doctoral examination, either written or oral, **is compulsory**, and covers the content of the thesis as well as the field of study on which the thesis is based.

## DEGREES IN LANDSCAPE ARCHITECTURE

Landscape architecture is the science and art of the design of outside areas for the use and enjoyment of people. Parks, game reserves, recreational areas and marinas are only a few of the environments which the landscape architect designs. They create urban oases in the form of plazas and pedestrian routes, and design environments around shopping centres and residential developments. The landscape architect can join a private firm, start an own business, or accept employment in central, provincial or local government in departments that handle water usage and research, forestry, environmental matters, sport, recreational and fishing areas, and nature conservation. Students are advised to work in the offices of an architect or a landscape architect to gain practical experience during the university recesses.

BScLArch is a three-year degree and is regarded as an exit level that enables the graduate to register as a candidate landscape architectural technologist who is a professional person registered by the South African Council of the Landscape Architectural Profession in terms of the Act on the Landscape Architectural Profession (Act 45 of 2000). Such practitioners provide assistance in the practices of the disciplines of landscape architecture and urban design where their responsibilities would be the documentation of projects, project administration and site management. A graduate wishing to become a professional landscape architect must apply for and pursue a further two years of full-time studies in the relevant professional degree programme.

The Master of Landscape architecture (Professional) degree is recognised by the South African Council for the Landscape Architectural Profession as qualifying the graduate to register as a candidate professional landscape architect in terms of the Act on the Landscape Architectural Profession (Act 45 of 2000).

### B.21 Bachelor of Science Landscape Architecture [BScLArch] (Code 12132004)

**(a) Admission requirements**

Refer to General information B.1, B.2 and B.3 in this publication.

**Note:** Students wishing to transfer to other programmes in the Department of Architecture must obtain written consent from the admissions committee.

**(b) Duration**

The minimum period of study is three years full-time. Candidates wishing to become professional landscape architects must hereafter apply to register for the BLHons degree (one year full-time), and thereafter the ML(Prof) degree (one year full-time).

**(c) Curriculum**

Total credits: 422

Unless the dean, in consultation with the head of department, decides otherwise, the following curriculum applies:

<b>Code</b>	<b>Module</b>	<b>Prerequisite</b>	<b>Credits</b>
<b>FIRST YEAR</b>			
<b>First semester</b>			
AAL 110	Earth studies 110	-	10
ARC 110	Elective module	-	6
AIM 101	Academic information management 101	-	4
EOT 110*	Academic literacy 110	-	6
KON 111	Construction 111	-	8
OML 110	Environmental studies 110	-	6
ONT 100	Design 100	-	30
	<b>Total</b>		<b>70</b>
<b>Second semester</b>			
EOT 120*	Academic literacy 120	-	6
KON 121	Construction 121	KON 111 GS	8
OKU 120	Design communication 120	-	6
OML 120	Environmental studies 120	-	6
ONT 100	Design 100	-	30
	<b>Total</b>		<b>56</b>
*Students who did not pass the Academic Literacy Test must register for EOT 110 and 120 offered by the Unit for Academic Literacy. (See Regulation B.5.)			
<b>SECOND YEAR</b>			
<b>First semester</b>			
AAL 210	Earth studies 210	-	8
JCP 201	Community-based project 201	-	4
KON 210	Construction 210	KON 111, 121	8
OML 210	Environmental studies 210	-	6
ONT 202	Design 202	AAL 110 KON 111, 121 OML 110, 120 ONT 100	30
LAN 212	Landscape architecture 212	-	8
	<b>Total</b>		<b>64</b>
<b>Second semester</b>			
GGY 265	Geomorphology of the built environment 265	-	12
GKD 225	General soil science 225 (Capita selecta)	-	12
JCP 201	Community-based project 201	-	4
KON 220	Construction 220	KON 210 GS	8
OML 220	Environmental studies 220	-	6
ONT 202	Design 202	AAL 110 KON 111, 121 OML 110, 120 ONT 100	30
LAN 222	Landscape architecture 222	LAN 212 GS	8
	<b>Total</b>		<b>80</b>

**THIRD YEAR**

**First semester**

BER 310	Business law 310	-	16
GGY 283*	Introductory GIS 283 (Capita selecta)	-	12
KON 310	Construction 310	KON 210, 220	8
OMG 310	History of the environment 310	-	6
OML 310	Environmental studies 310	-	6
ONT 302	Design 302	KON 210, 220 OML 210, 220 ONT 202	30
PWT 312	Plant science 312	LAN 212, 222	8
	<b>Total</b>		<b>80</b>

\*If this module is chosen the total credits = 86

**Second semester**

AAL 320	Earth studies 320	AAL 210	6
KON 320	Construction 320	KON 310 GS	8
OMG 320	History of the environment 320	-	6
OML 320	Environmental studies 320	OML 310 GS	6
ONT 302	Design 302	KON 210, 220 OML 210, 220 ONT 202	30
PJS 320	Practice management 320	-	8
PWT 322	Plant science 322	PWT 312 GS	8
	<b>Total</b>		<b>72</b>

The programme is set out below:

Year	Semester	PJS	LAN	AAL	KON	ONT	OML	OMG	OKU
1	1	AIM 101	-	110	111	100	110	-	Elective module
	2		-	-	121	100	120	-	OKU 120
2	1	JCP 201	212	210	210	202	210	-	-
	2	JCP 201	222	GGY 265 GKD 225	220	202	220	-	
3	1	BER 310	PWT 312	-	310	302	310	310	GGY 283
	2	PJS 320	PWT 322	320	320	302	320	320	-

**(d) Promotion requirements**

A student is promoted to a subsequent year of study after acquiring all the prerequisite module credits of the preceding year of study.

A student is deemed to be in the year of study for which he or she is registered in Design.

If the student is not registered for Design the highest passed year of Design determines the year of study.

**Note:** Students not promoted to the next year of study must obtain the approval of the programme co-ordinator and the head of department to register for modules in the subsequent year of study. Students must re-apply for admission to the Department of Architecture in instances where:

- (i) a student is not promoted to the second year of study;
- (ii) a student after repeating any year of study, is not promoted to the following year of study.

**(e) Concurrent presentation**

Design and Construction must initially be examined in the same year.

**(f) Awarding of degree**

The degree is awarded to those students who have obtained all the prescribed credits for the programme modules.

**(g) Degree with distinction**

The BScLArch degree is conferred with distinction on a student who, at first registration, simultaneously passes Design 302 and Construction 320 with distinction (75%) with the proviso that the degree is completed within the minimum prescribed time and all other final-year modules are passed on first registration without any supplementary/special examinations.

<b>B.22 Bachelor of Landscape Architecture Honours [BLHons] (Code 12242004)</b>
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Refer to General Regulations G.16 to G.29 and G.62.

**(a) Admission requirements**

A candidate for the degree programme Bachelor of Landscape Architecture Honours:

- (1) must be a graduate with a BScLArch degree or an equivalent university degree;  
**or**
- (2) must have an appropriate recognised tertiary qualification. Such a candidate may be required, at the discretion of the head of department to take:
  - (i) an academic literacy test;
  - (ii) a computer skills test;**or**
- (3) must have a qualification deemed adequate by the head of department in consultation with the dean and obtain (where necessary) the approval of the Senate, and comply with any other prescribed requirements.  
Candidates mentioned in (2) and (3) above may, at the discretion of the head of department, be required to be evaluated in prerequisite fields of knowledge and/or register for additional modules for non-degree purposes.

Candidates mentioned in (1), (2) and (3) above,

- (i) should preferably have had practical experience and/or have done and recorded an extended study excursion;
- (ii) are interviewed for selection;
- (iii) must present a portfolio and/or design journal which demonstrates the requisite level of proficiency and competency and is considered a record of their experience within the discipline;
- (iv) are selected on merit.

**Note:** A limited number of candidates are admitted to this programme.

**(b) Duration**

The minimum period of study is one year full-time.

**(c) Curriculum**

Unless the head of department, after consultation with the dean, decides otherwise, for those students wishing to hereafter continue with the ML(Prof) degree, the following curriculum applies:

BLHons	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Practice component	CPD 710 (6 credits) Systems and materials	CPD 720 (6 credits) The idea of building	CPD 740 (6 credits) Built environment modelling POU 720 (2 credits)	CPD 730 (6 credits) Professional practice
Theory component	RFS 710 (6 credits), RFS 720 (6 credits) & RFS 730 (6 credits) <i>May run separately or concurrently over quarters 1-3</i>			RFS 740 (6 credits)
Project component	RFP 712/722/732 (20 credits each) <i>Examined at the end of quarter 3</i>			RFP 720 (20 credits)

**(d) Admission to examinations and pass requirements**

The minimum pass mark is 50%. A minimum of 40% is required in the examination, with a minimum final mark of 50% to pass. If a module is not evaluated by examination a minimum coursework mark of 50% is required. If the module is not evaluated by coursework a minimum examination mark of 50% is required.

**(e) Awarding of degree**

The degree is awarded to those students who have obtained the prescribed credits. Students admitted with conditions must comply with all of these before all 700 series module credits and the degree are awarded.

**(f) Degree with distinction**

The degree is conferred with distinction if students registered for the degree for the first time, complete the degree within the minimum prescribed time and pass all modules with a weighted average of 75%.

## MASTER'S PROGRAMMES IN LANDSCAPE ARCHITECTURE

The degree may be obtained in one of two ways, namely by virtue of a dissertation and an examination or by virtue of a taught curriculum and a mini-dissertation. The requirements for the two options are set out below.

### **B.23 Master of Landscape Architecture (Professional) [ML(Prof)] (Code 12252008)**

Refer to General Regulations G.30 to G.44 and G.57 to G.62.

The Master of Landscape Architecture (Professional) is a taught master's degree for the purpose of registration as a candidate professional landscape architect with the South African Council for the Landscape Architecture Profession in terms of Act 45 of 2000 and is done by coursework, projects and a design investigation mini-dissertation and design project and discourse.

#### **(a) Admission requirements**

Candidates for the degree programme Master of Landscape Architecture (Professional):

- (1) must be a graduate with a BLHons degree or an equivalent university degree;  
**or**
- (2) must have an appropriate recognised tertiary qualification at honours degree level;  
**or**
- (3) must have a qualification deemed adequate by the head of department in consultation with the dean and obtain (where necessary) the approval of the Senate and comply with any other prescribed requirements.

Candidates mentioned in (2) and (3) above may, at the discretion of the head of department, be required to be evaluated in prerequisite fields of knowledge and/or register for additional modules for non-degree purposes.

Candidates mentioned in (1), (2) and (3):

- (i) should preferably have had practical experience and/or have done and recorded an extended study excursion;
- (ii) are interviewed for selection;
- (iii) must present a portfolio and/or design journal which demonstrates the requisite level of proficiency and competency and is considered a record of their experience within the discipline;
- (iv) are selected on merit.

**Note:** A limited number of candidates are admitted to this programme.

#### **(b) Duration**

The minimum period of study is one year full-time.

#### **(c) Curriculum**

Unless the head of department, after consultation with the dean, decides otherwise, the following applies:

<b>ML(Prof)</b>	
Practice component	<b>CPD 810</b> (10 credits) 1 <sup>st</sup> quarter module Project brief development (The results for this module will only be made available in the 4 <sup>th</sup> quarter) 10 credits
Theory component	<b>DIT 802</b> (50 credits) Year module Design investigation
Project component	<b>DPD 802</b> (60 credits) Year module Mini-dissertation: Design project and discourse

- (d) **Admission to examinations and pass requirements**  
The minimum pass mark is 50%. A minimum of 40% is required in the examination, with a minimum final mark of 50% to pass. If a module is not evaluated by examination a minimum coursework mark of 50% is required. If the module is not evaluated by coursework a minimum examination mark of 50% is required.
- (e) **Design topic**  
The topic of the final design project (DIT 802 & DPD 802) must be approved by the head of department.
- (f) **Awarding of degree**  
The degree is awarded to those students who have obtained the prescribed credits. Those students admitted with conditions must comply with all of these before all the 700 series module credits and the degree are awarded.
- (g) **Degree with distinction**  
The degree is conferred with distinction on those students registering for the first time and obtaining a distinction (75%) simultaneously for both the Design investigation mini-dissertation (DIT 802) and the Design project and discourse (DPD 802) with the proviso that the degree is completed within the minimum prescribed time and all other final-year modules are passed on first registration.
- (h) **Required publication**  
General Regulation G.61. applies.

<b>B.24 Master of Landscape Architecture (Research)</b> <b>[ML (Research)] (Code 12252003)</b>
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Refer to General Regulations G.30 to G.44 and G.57 to G.62.

By virtue of dissertation and examination.

**Dissertation: LAN 890**

Total credits: 180

**(a) Admission requirements**

Candidates wishing to research a topic within the discipline of landscape architecture and who

- (1) are in possession of a BL or equivalent degree of four years;  
**or**
- (2) are in possession of an Honours degree in Landscape Architecture, BLHons, or equivalent;  
**or**
- (3) are in possession of a three-year degree with Design as major component and successfully complete supplementary modules with the weighting equivalent of an honours degree as prescribed by the head of department;  
**or**
- (4) are deemed adequate by the head of department in consultation with the dean and obtained (where necessary) the approval of the Senate and complying with whatever additional requirements may be prescribed are admitted to the degree Master of Landscape Architecture by research.

**(b) Duration and curriculum**

After a minimum of one year of registration the student submits a dissertation for examination and takes an oral examination of the dissertation in the related field of study.

**(c) Awarding of the degree**

The Master of Landscape Architecture degree is conferred on a student who has obtained a minimum of 50% for both the dissertation and oral examination.

**(d) Degree with distinction**

The Master of Landscape Architecture degree is conferred with distinction on a student obtaining a minimum of 75% in both the dissertation and the oral examination.

**(e) Required publication**

General Regulation G.61. applies.

<b>B.25 Doctor of Philosophy [PhD] (Code 12262003)</b>
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Refer to General Regulations G.45 to G.62.

**Thesis: LAN 990** (360 credits)

- (a) Candidates who have obtained a master's degree in Landscape Architecture or the UP MSc (Applied Science) are admitted to doctoral studies.
- (b) Candidates in possession of a master's degree by coursework may, at the discretion of the head of department, be required to do supplementary coursework prior to commencing studies.
- (c) A PhD student must submit a thesis, which deals with a topic from the discipline of landscape architecture and which provides proof of advanced original research and/or creative work which makes a real and substantial contribution to the field of knowledge and/or practice of landscape architecture.
- (d) A student must submit at least one draft article to a recognised journal for publication, before or concurrent with the submission of the thesis. The draft article must be based on the research undertaken for the thesis and must be acceptable to the supervisor.

- (e) The doctoral examination, either written or oral, **is compulsory**, and encompasses the content of the thesis as well as the field of study on which the thesis is based.

**DEGREES IN APPLIED SCIENCE: DEPARTMENT OF ARCHITECTURE**

**B.26 Bachelor of Science Honours in Applied Science  
[BScHons (Applied Science)] (Code 12242000)**

Refer to General Regulations G.16 to G.29 and G.62.

Note: This degree is for those students intending hereafter to pursue a master's degree by research and coursework in applied science in the fields of architecture, landscape architecture or interior architecture or generally in the built environment.

Coursework in modules presented by the department: minimum 60 credits

Coursework, at honours (700) level, presented by other schools or faculties: maximum 60 credits.

Total credits: 120

**(a) Admission requirements**

A candidate for the degree programme Bachelor of Science Honours in Applied Science :

- (1) must be a graduate with a BSc degree or an equivalent university degree;  
**or**
- (2) must have an appropriate recognised tertiary qualification.  
Such a candidate may be required, at the discretion of the head of department to take:
  - (i) an academic literacy test;
  - (ii) a computer skills test;**or**
- (3) must have a qualification deemed adequate by the head of department in consultation with the dean and obtain (where necessary) the approval of the Senate, and comply with any other prescribed requirements.

Candidates mentioned in (2) and (3) above may, at the discretion of the head of department, be required to be evaluated in prerequisite fields of knowledge and/or register for additional modules for non-degree purposes.

Candidates mentioned in (1), (2) and (3) above

- (i) should preferably have had practical experience and/or have done and recorded an extended study excursion;
- (ii) are interviewed for selection;
- (iii) must present a portfolio and/or journal which demonstrates the requisite level of proficiency and competency and is a record of their experience within the field they intend to do research;
- (iv) are selected on merit.

**Note:** A limited number of candidates are admitted to this programme.

**(b) Duration**

The minimum period of study is one year full-time.

**(c) Curriculum**

A curriculum comprising of 120 credits, of which a minimum of 50% of module credits from the modules below and a maximum of 50% from modules from other honours programmes by coursework must be devised in consultation with the postgraduate programme coordinator of the department and approved by the head of department.

Students who follow modules presented by other schools or faculties must first obtain permission for such registration(s) from those schools or faculties and must familiarise themselves with the admission requirements of the specific module(s), and the examination rules and regulations pertaining to such a module(s).

**Unless the head of department, after consultation with the dean, decides otherwise, the following curriculum applies for those students wishing to hereafter continue with the MSc (Applied Science) degree:**

BScHons Applied Science	Duration
Theory component (In the Department of Architecture)	RFS 700 Year course (20 credits): A capita selecta from one of the following Research Fields: <ul style="list-style-type: none"> <li>• Environment potential</li> <li>• Housing and urban environments</li> <li>• Heritage and cultural landscapes</li> </ul>
Additional modules	Coursework modules at honours (700) level presented by other departments, schools or faculties (max. 60 credits) - Students may register for other honours (700) level modules presented in the Department of Architecture with the approval of the Head of Department.
Project component (Note: it is the students' responsibility to have their projects approved by the specific research field coordinator)	RFP 700 Year course (40 credits) A capita selecta of the various modules related to the research field that the student is advised to follow by the research field co-ordinator. Research fields: <ul style="list-style-type: none"> <li>• Environment potential</li> <li>• Housing and urban environments</li> <li>• Heritage and cultural landscapes</li> </ul>

**(d) Admission to examinations and pass requirements**

The minimum pass mark is 50%. A minimum of 40% is required in the examination, with a minimum final mark of 50% to pass. If a module is not evaluated by examination a minimum coursework mark of 50% is required. If the module is not evaluated by coursework a minimum examination mark of 50% is required.

**(e) Awarding of degree**

The degree is awarded to those students who have obtained the prescribed credits. Those students admitted with conditions must comply with all of these before all the 700 series module credits and the degree are awarded.

**(f) Required publication**  
General Regulation G.61 applies.

**(g) Degree with distinction**  
The degree is conferred with distinction if students registered for the degree for the first time, complete the degree within the minimum prescribed time and pass all modules with a weighted average of 75%.

**B.27 Master of Science in Applied Science  
[MSc (Applied Science)] (Code 12252006)**

Refer to General Regulations G.1.2, G.30 to G.44 and G.57 tot G.62.

By virtue of a curriculum with coursework and a mini-dissertation.

**(a) Admission requirements**  
Candidates who wish to research a topic within the disciplines of architecture, landscape architecture or interior architecture and in particular related to one of the research fields of the department and who are in possession of  
(i) a BScHons or equivalent degree of four years or more;  
**or**  
(ii) an honours degree in architecture, landscape architecture or interior architecture or equivalent;  
**or**  
(iii) who are deemed adequate by the head of department in consultation with the dean and obtained (where necessary) the approval of the Senate and complying with whatever additional requirements may be prescribed are admitted to the degree Master of Science (Applied Science).  
(iv) Candidates are selected on academic merit for admission to studies for the degree.

**(b) Duration and curriculum**  
The minimum period of study is one year.  
The curriculum is compiled in consultation with the head of department.  
It is the responsibility of students to ascertain that the lectures in the appropriate research field are on offer in the specific year of study. The attendance of lectures is compulsory.  
The topic of the mini-dissertation must be approved by the head of department.

MSc (Applied Science)	Year modules	Credits
Coursework in the department	RFS 890 Research field studies	30
Mini-dissertation in the department	ARG 895 Mini-dissertation	100
Coursework at 800 level at other schools, faculties or departments		30
<b>Total</b>		<b>160</b>

**(c) Pass requirements**

A minimum of 50% is required in the examination of the coursework, with a minimum final mark of 50% to pass.

A minimum of 50% is required to pass the mini-dissertation.

**(d) Awarding of the degree**

The MSc (Applied Science) degree is conferred on students obtaining a minimum of 50% for both the coursework and the mini-dissertation.

**(e) Degree with distinction**

The degree is conferred with distinction on a student who obtains a weighted average of 75%, having obtained at least 75% in the mini-dissertation and a weighted average of at least 70% in the remaining coursework constituting the required credits for RFS module of the degree.

**(f) Required publication**

General Regulation G.61. applies.

**DEGREES IN THE DEPARTMENT OF CONSTRUCTION ECONOMICS**

**DEGREES IN QUANTITY SURVEYING**

Quantity surveying is the science that delivers specialised financial and contractual services and advice to clients in the building and construction industry, as well as in related industries. The quantity surveyor is an independent and professional consultant who works with architects, consulting engineers, and the building contractor, in order to protect the interests of the client, while at the same time also looking after the interests of the contractor and subcontractors.

The student could enter the building or construction industry as a candidate quantity surveyor after he/she has completed the three-year degree. Such qualification, however, would not allow the person to register as a professional quantity surveyor. After completing the honours programme the opportunities become far wider, and application can be made for registration as a professional quantity surveyor at the South African Council for the Quantity Surveying Profession, after further assessment and furnishing of evidence, in compliance with the prescribed competencies. Employment opportunities in the building and construction sector, government departments, in the property sector, banks and manufacturing industry exist for such qualified quantity surveyors. Most, however, work in the private sector where they find employment with quantity surveying practices, or open their own practices.

The examinations for the BScHons degree in Quantity Surveying are approved by the Minister as prescribed examinations in terms of the stipulations of the Quantity Surveying Profession Act (Act No. 49/2000), as well as by the Royal Institution of Chartered Surveyors.

**B.28 Bachelor of Science Quantity Surveying  
[BScQS] (Code 12132013)**

**(a) Admission requirements**

Refer to General information B.1, B.2 and B.3 in this publication.

**(b) Duration**

The minimum duration of study is three years full-time.

**(c) Promotion requirements****(i) Promotion to the second semester of the first year and to the second year of study**

- (a) A newly registered first-year student who failed all the prescribed modules for the programme at the end of the first semester shall not be readmitted to the School for the Built environment in the second semester.
- (b) A student who complies with all the requirements of the first year of study, or has at least obtained 110 credits, is promoted to the second year of study.
- (c) A student who has not obtained at least 70% of the credits of the first year of study after the November examinations must reapply for admission should he/she intend to continue with his/her studies. Written application must be submitted to the student administration of the School for the Built environment no later than 12 January. Late applications will be accepted only in exceptional circumstances after approval by the dean and conditions of readmission as determined by the admissions committee shall apply should first-year students be readmitted.
- (d) Students who have not passed all the prescribed modules of the first year of study, as well as students who are readmitted in terms of (c) must register for the outstanding modules of the first year.
- (e) A student who is repeating his/her first year, may, on recommendation of the relevant head of department and with the approval of the dean, be permitted to enrol for modules of the second year of study in addition to the first-year modules which he or she failed, providing that he or she complies with the prerequisites for the second-year modules and that no timetable clashes occur. The number of credits per semester for which a student registers may not exceed the prescribed number of credits per semester by more than 16 credits.

**(ii) Promotion to the third year of study**

- (a) A student who complies with all the requirements of the second year of study, or has at least obtained 230 credits, is promoted to the third year of study.
- (b) The dean may, on the recommendation of the head of department, allow a student, who qualifies for promotion to a subsequent year of study, but who has not passed all the modules of that year, to carry over those modules to the next or a later year provided that no timetable clashes occur.
- (c) The number of credits per semester for which a student registers may not exceed the prescribed number of credits per semester by more than 16 credits.
- (d) A student who complies with all the requirements for the degree with the exception of one year module or two semester modules, in which a final mark of at least 40% has been obtained, may be admitted to a special examination in the module(s) concerned, at the start of the ensuing semester.
- (e) The degree is awarded if all the prescribed modules have been passed.

- (f) On the recommendation of the head of department, the dean may in exceptional circumstances deviate from the abovementioned stipulations, provided that no timetable clashes occur.

**(d) Degree with distinction**

The degree is conferred with distinction on a student who has obtained an average of at least 75% for all the prescribed modules, excluding JCP 201, of the final year, or who has obtained at least 75% in two of the following modules (75% average where the module is composed of two semester modules) and subject to the average of all other modules, excluding JCP 201, not being less than 65%:

- (a) Quantities 300 (HVH 300)
- (b) Quantity surveying practice 300 (BRK 300)
- (c) Building services 312 and 322 (GBD 312/322) (average 75%)
- (d) Building science 310 and 320 (BWT 310/320) (average 75%).

The degree will only be conferred with distinction if it was completed within the minimum prescribed time, and if the final-year modules were passed on first registration without any supplementary or special examinations.

**(e) Curriculum**

The curriculum is extended over three study years in semester modules and year modules with the prerequisites and module credits as indicated.

The symbol GS after a module indicates that a combined (final) mark (semester/year mark plus examination mark) of 40%-49% is required for admission to the module in the first column.

Total number of credits required: 400

Code	Module	Prerequisites	Credits
<b>FIRST YEAR</b>			
<b>First semester</b>			
BOU 111	Building drawings 111	-	6
BWT 110	Building science 110	-	9
AIM 101	Academic information management 101		4
EOT 110*	Academic literacy 110	-	6
GBD 112	Building services 112	-	6
HVH 101	Quantities 101	-	12
SKE 110	Introduction to structures 110	-	9
STK 110	Statistics 110	Maths 4 (50-59%)	13
WTW 133	Precalculus 133	-	8
	<b>Total</b>		<b>73</b>
<b>Second semester</b>			
BDO 181	Industrial and organisational psychology 181	-	5
BGG 121	Building organisation 121	-	6
BOU 121	Building drawings 121	-	6
BWT 120	Building science 120	BWT 110 GS	9
EOT 120*	Academic literacy 120	-	6
GBD 122	Building services 122	-	6
HVH 101	Quantities 101	-	12

OMG 122	History of the environment 122	-	6
SKE 120	Structures 120	SKE 110 GS	9
STK 161	Statistics 161	STK 110 GS	6
	Total		71

\*Students who did not pass the Academic Literacy Test must register for EOT 110 and 120 offered by the Unit for Academic Literacy. (See Regulation B.5.)

**SECOND YEAR**

**First semester**

BWT 210	Building science 210	BWT 110 GS	9
		BWT 120 GS	
EKN 110	Economics 110	-	10
FBS 110	Financial management 110	-	10
GBD 212	Building services 212	-	6
HVH 200	Quantities 200	BWT 110 GS	12
		BWT 120 GS	
		HVH 101	
SKE 210	Reinforced concrete structures 210	SKE 120 GS	9
TRN 213	Site surveying 213	-	12
	Total		68

**Second semester**

BWT 220	Building science 220	-	9
EKN 120	Economics 120	EKN 110 GS	10
FBS 120	Financial management 120		10
GBD 222	Building services 222	-	6
HVH 200	Quantities 200	BWT 110 GS	12
		BWT 120 GS	
		HVH 101	
OMG 224	History of the environment 224	-	6
SKE 220	Civil engineering services 220	-	9
	Total		62

**THIRD YEAR**

**First semester**

BER 310	Business law 310	-	16
BRK 300	Quantity surveying practice 300	HVH 200 GS	9
BWT 310	Building science 310	-	9
GBD 312	Building services 312	-	6
HVH 300	Quantities 300	BWT 210 GS	
		BWT 220 GS	
		GBD 112 GS	12
		GBD 122 GS	
		HVH 200	
JCP 201	Community-based project 201	-	4
KIT 311	Construction information technology and communication 311	-	12
	Total		68

**Second semester**

BHU 320	Housing 320	-	6
BRK 300	Quantity surveying practice 300	HVH 200 GS	9
BWT 320	Building science 320	-	9
EOW 320	Introduction to property law 320	-	6
GBD 322	Building services 322	GBD 312 GS	6
HVH 300	Quantities 300	BWT 210 GS	
		BWT 220 GS	
		GBD 112 GS	12
		GBD 122 GS	
		HVH 200	
JCP 201	Community-based project 201	-	4
FBV 320	Property financial mathematics 320		6
	Total		58

<p><b>B.29 Bachelor of Science Honours Quantity Surveying [BScHonsQS] (Code 12242014)</b></p>
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Refer to General Regulations G.16 to G.29 and G.62.

**(a) Admission requirements**

Subject to the stipulations of the General Regulations, a BSc Quantity Surveying degree or equivalent qualification as well as practical experience which is deemed adequate by the head of department is required for admission. It may be required of students to pass ancillary undergraduate modules during the first year of study.

**(b) Duration**

The minimum period of study is two years. A student is required to attend lectures diligently, but in addition, to work for the remainder of the day in the offices of a registered quantity surveyor on tasks which meet the requirements for registration in terms of the Quantity Surveying Profession Act.

**(c) Examination admission**

A minimum semester/year mark of 40% is required in order to be admitted to the examination in a specific module. In addition, all other examination admission requirements, applicable to the relevant module, must have been met.

**(d) Supplementary examinations**

No supplementary examinations are granted at postgraduate level.

**(e) Special examinations**

No special examinations are granted at postgraduate level.

**(f) Promotion and complying with degree requirements**

- (i) A student is promoted to the second year after acquiring a minimum of 70 credits for modules completed in the first year of study.
- (ii) The degree is awarded when all prescribed modules have been passed.

**(g) Degree with distinction**

The degree is conferred with distinction when a student has obtained a combined average of at least 75% for all the prescribed modules, excluding POU 720, of the final year, or who has obtained at least 75% in two of the modules as indicated below (75% average where the module is composed of two semester modules) and subject to the average of all the other modules, excluding POU 720, not being less than 65%.

- (a) Quantity surveying practice 700 (BRK 700)
- (b) Construction contract law 730 and 740 (KKR 730/740)  
(average 75%)
- (c) Building cost estimation 700 (BKR 700)
- (d) Feasibility studies 700 (EOW 700)
- (e) Research report 785 (BRK 785)

The degree will only be conferred with distinction if it was completed within the minimum prescribed time, and if the final-year modules were passed on first registration without any supplementary or special examinations.

**(h) Curriculum**

The curriculum is extended over two years in semester modules and year modules with the prerequisites and module credits as indicated.

The symbol GS after a module indicates a combined (final) mark (semester/year mark plus examination mark) of 40% - 49% required for admission to the module in the first column.

Total number of credits required: 173

<b>Code</b>	<b>Module</b>	<b>Prerequisites</b>	<b>Credits</b>
<b>FIRST YEAR</b>			
<b>First semester</b>			
BKR 700	Building cost estimation 700	-	12
BRK 700	Quantity surveying practice 700	-	9
BTP 700	Management practice 700	-	12
HVH 700	Quantities 700	-	12
NNM 710	Research methodology		6
	<b>Total</b>		<b>51</b>
<b>Second semester</b>			
BKR 700	Building cost estimation 700	-	12
BRK 700	Quantity surveying practice 700	-	9
BTP 700	Management practice 700	-	12
HVH 700	Quantities 700	-	12
	<b>Total</b>		<b>45</b>
<b>SECOND YEAR</b>			
<b>First semester</b>			
BRK 785	Research report 785	-	12
EUS 710	Feasibility studies 710		9
KKR 730	Construction contract law 730	-	12
KPB 730	Construction project management 730	-	9
	<b>Total</b>		<b>42</b>

**Second semester**

BRK 785	Research report 785	-	12
EUS 720	Feasibility studies 720	EUS 710	9
KKR 740	Construction contract law 740	KKR 730 GS	12
POU 720	Practical development feasibility 720	-	2
	<b>Total</b>		<b>35</b>

**DEGREES IN CONSTRUCTION MANAGEMENT**

Construction management is the field of study meant for the person who wishes to become part of the process of infrastructure development, especially the construction of buildings. The construction manager is a professional business person who acts as manager for undertakings in the building, construction and property industry as well as related support services.

Career opportunities cover a wide spectrum and construction managers find employment as main and subcontractors in the building and construction industry, as project managers or investment experts with financial institutions and property developers, as property experts who offer broker services and compile packages, as managers of building and property portfolios for investors, as suppliers of material and equipment to the building and construction industry, as consultants for financial services in the construction and related sectors, or as private entrepreneurs working in these fields.

The examinations of the BScHons degree in Construction Management are recognised by the minister as prescribed examinations in terms of the stipulations as described in the Project and Construction Management Professions Act (Act No 48/2000), as well as by the Chartered Institute of Building.

**B.30 Bachelor of Science Construction Management  
[BSc Construction Management] (Code 12132017)**

**(a) Admission requirements**

Refer to General information B.1, B.2 and B.3 in this publication.

**(b) Duration**

The minimum duration of study is three years full-time.

**(c) Promotion requirements**

**(i) Promotion to the second semester of the first year and to the second year of study**

- (a) A newly registered first-year student who failed all the prescribed modules for the programme at the end of the first semester shall not be readmitted to the School for the Built environment in the second semester.
- (b) A student who complies with all the requirements of the first year of study, or has at least obtained 110 credits, is promoted to the second year of study.
- (c) A student who has not obtained at least 70% of the credits of the first year of study after the November examinations must reapply for admission should he/she intend to continue with his/her studies. Written application must be submitted to the student administration of the School for the Built environment no later than 12 January.

Late applications will be accepted only in exceptional circumstances after approval by the dean and conditions of readmission as determined by the admissions committee shall apply should first-year students be readmitted.

- (d) Students who have not passed all the prescribed modules of the first year of study, as well as students who are readmitted in terms of (c) must register for the outstanding modules of the first year.
  - (e) A student who is repeating his/her first year, may, on recommendation of the relevant head of department and with the approval of the dean, be permitted to enrol for modules of the second year of study in addition to the first-year modules which he or she failed, providing that he or she complies with the prerequisites for the second-year modules and that no timetable clashes occur. The number of credits per semester for which a student registers may not exceed the prescribed number of credits per semester by more than 16 credits.
- (ii) **Promotion to the third year of study**
- (a) A student who complies with all the requirements of the second year of study, or has at least obtained 230 credits, is promoted to the third year of study.
  - (b) The dean may, on the recommendation of the head of department, allow a student, who qualifies for promotion to a subsequent year of study, but who has not passed all the modules of that year, to carry over those modules to the next or a later year provided that no timetable clashes occur.
  - (c) The number of credits per semester for which a student registers may not exceed the prescribed number of credits per semester by more than 16 credits.
  - (d) A student who complies with all the requirements for the degree with the exception of one year module or two semester modules, in which a final mark of at least 40% has been obtained, may be admitted to a special examination in the module(s) concerned, at the start of the ensuing semester.
  - (e) The degree is awarded if all the prescribed modules have been passed.
  - (f) On the recommendation of the head of department, the dean may in exceptional circumstances deviate from the abovementioned stipulations, provided that no timetable clashes occur.
- (d) **Degree with distinction**
- The degree is conferred with distinction on a student who has obtained an average of at least 75% for all the prescribed modules, excluding JCP 201, of the final year, or who has obtained at least 75% in two of the following modules (75% average where the module is composed of two semester modules) and subject to the average of all other modules, excluding JCP 201, not being less than 65%:
- (a) Construction quantities 300 (KSH 300)
  - (b) Construction management 310 and 320 (KBS 310/320) (average 75%)
  - (c) Building science 310 en 320 (BWT 310/320) (average 75%)
  - (d) Building services 312 en 322 (GBD 312/322) (average 75%)

The degree will only be conferred with distinction if it was completed within the minimum prescribed time, and if the final-year modules were passed on first registration without any supplementary or special examinations.

**(e) Curriculum**

The curriculum is extended over three study years in semester modules and year modules with the prerequisites and module credits as indicated.

The symbol GS after a module indicates that a combined (final) mark (semester/year mark plus examination mark) of 40%-49% is required for admission to the module in the first column.

Total number of credits required: 420

	<b>Module</b>	<b>Prerequisites</b>	<b>Credits</b>
<b>FIRST YEAR</b>			
<b>First semester</b>			
BOU 111	Building drawings 111	-	6
BWT 110	Building science 110	-	9
AIM 101	Academic information management 101		4
EOT 110*	Academic literacy 110	-	6
GBD 112	Building services 112	-	6
HVH 101	Quantities 101	-	12
SKE 110	Introduction to structures 110	-	9
STK 110	Statistics 110	Maths 4 (50-59%)	13
WTW 133	Precalculus 133	-	8
	<b>Total</b>		<b>73</b>
<b>Second semester</b>			
BDO 181	Industrial and organisational psychology 181	-	5
BGG 121	Building organisation 121	-	6
BOU 121	Building drawings 121	-	6
BWT 120	Building science 120	BWT 110 GS	9
EOT 120*	Academic literacy 120	-	6
GBD 122	Building services 122	-	6
HVH 101	Quantities 101	-	12
OMG 122	History of the environment 122	-	6
SKE 120	Structures 120	SKE 110 GS	9
STK 161	Statistics 161	STK 110 GS	6
	<b>Total</b>		<b>71</b>

\*Students who did not pass the Academic Literacy Test must register for EOT 110 and 120 offered by the Unit for Academic Literacy. (See Regulation B.5.)

**SECOND YEAR****First semester**

ABR 311	Labour law 311	-	20
BWT 210	Building science 210	BWT 110 GS BWT 120 GS	9
EKN 110	Economics 110	-	10
FBS 110	Financial management 110	-	10
GBD 212	Building services 212	-	6
KSH 201	Construction quantities 201	BWT 110 GS BWT 120 GS HVH 101	12
SKE 210	Reinforced concrete structures 210	SKE 120 GS	9
TRN 213	Site surveying 213	-	12
	Total		88

**Second semester**

BWT 220	Building science 220	-	9
EKN 120	Economics 120	EKN 110 GS	10
FBS120	Financial management 120		10
GBD 222	Building services 222	-	6
KSH 201	Construction quantities 201	BWT 110 GS BWT 120 GS HVH 101	12
OMG 224	History of the environment 224	-	6
SKE 220	Civil engineering services 220	-	9
	Total		62

**THIRD YEAR****First semester**

BER 310	Business law 310	-	16
BWT 310	Building science 310	-	9
GBD 312	Building services 312	-	6
JCP 201	Community-based project 201	-	4
KBS 310	Construction management 310	-	9
KIT 311	Construction information technology and communication 311		12
KSH 300	Construction quantities 300	BWT 210 GS BWT 220 GS GBD 112 GS GBD 122 GS KSH 201	12
	Total		68

**Second semester**

BHU 320	Housing 320	-	6
BWT 320	Building science 320	-	9
EOW 320	Introduction to property law 320	-	6
GBD 322	Building services 322	GBD 312 GS	6
JCP 201	Community-based project 201	-	4
KBS 320	Construction management 320	-	9

KSH 300	Construction quantities 300	BWT 210 GS BWT 220 GS GBD 112 GS GBD 122 GS KSH 201	12
FBV 320	Property financial mathematics 320		6
	Total		58

<p><b>B.31 Bachelor of Science Honours Construction Management [BScHons Construction Management]] (Code 12242015)</b></p>
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Refer to General Regulations G.16 to G.29 and G.62.

**(a) Admission requirements**

Subject to the stipulations of the General Regulations, a BSc Construction Management degree or equivalent qualification as well as practical experience which is deemed adequate by the head of department is required for admission. It may be required of students to pass ancillary undergraduate modules during the first year of study.

**(b) Duration**

The minimum period of study is two years.  
A student is required to attend lectures diligently, but in addition, to work full-time for the remainder of the day for a suitable employer in the building/construction industry.

**(c) Examination admission**

A minimum semester/year mark of 40% is required in order to be admitted to the examination in a specific module. In addition, all other examination admission requirements, applicable to the relevant module, must have been met.

**(d) Supplementary examinations**

No supplementary examinations are granted at postgraduate level.

**(e) Special examinations**

No special examinations are granted at postgraduate level.

**(f) Promotion and complying with degree requirements**

- (i) A student is promoted to the second year after acquiring a minimum of 70 credits for modules completed in the first year of study.
- (ii) The degree is awarded when all prescribed modules have been passed.

**(g) Degree with distinction**

The degree is conferred with distinction on a student who has obtained a combined average of at least 75% for all the prescribed modules, excluding POU 720, of the final year, or who has obtained at least 75% in two of the modules as indicated below (75% average where the module is composed of two semester modules) and subject to the average of all the other modules, excluding POU 720, not being less than 65%.

- (a) Financial management 701 (FMT 701)
- (b) Construction contract law 730 and 740 (KKR 730/740) (average 75%)
- (c) Construction project management 730 (KPB 730) and Construction Entrepreneurship 740 (KEN 740) (average 75%)
- (d) Feasibility studies 700 (EOW 700)
- (e) Research report 785 (KBS 785)

**(h) Curriculum**

The curriculum is extended over two years in semester modules and year modules with the prerequisites and module credits as indicated.

The symbol GS after a module indicates a combined (final) mark (semester/year mark plus examination mark) of 40% - 49% required for admission to the module in the first column.

Total number of credits required: 182

Code	Module	Prerequisites	Credits
<b>FIRST YEAR</b>			
<b>First semester</b>			
FMT 700	Financial management 700	-	12
KBS 710	Construction management 710	-	9
KSH 700	Construction quantities 700	-	12
NNM 710	Research methodology 710		6
	<b>Total</b>		<b>39</b>
<b>Second semester</b>			
FMT 700	Financial management 700	-	12
KBS 720	Construction management 720	-	9
KEN 740	Construction entrepreneurship 740	-	9
KSH 700	Construction quantities 700	-	12
	<b>Total</b>		<b>42</b>
<b>SECOND YEAR</b>			
<b>First semester</b>			
EUS 710	Feasibility studies 710		9
FMT 701	Financial management 701	FMT 700 GS	12
KBS 785	Research report 785	-	12
KKR 730	Construction contract law 730	-	12
KPB 730	Construction project management 730	-	9
	<b>Total</b>		<b>54</b>
<b>Second semester</b>			
EUS 720	Feasibility studies 720	EUS 710	9
FMT 701	Financial management 701	FMT 700 GS	12
KBS 785	Research report 785	-	12
KKR 740	Construction contract law 740	KKR 730 GS	12
POU 720	Practical development feasibility 720	-	2
	<b>Total</b>		<b>47</b>

## DEGREES IN REAL ESTATE

Real estate is the study of fixed property and related aspects such as property economics, development, management, valuation, financing, investment and marketing.

Apart from a future in areas such as property investment, property finance and facilities and property management, further studies to obtain an honours degree in real estate can lead to registration as a professional property valuer. Career opportunities encompass the whole spectrum of the property sector, whether as entrepreneurs in the private sector or as employees in the private, government or semi-governmental sectors.

### **B.32 Bachelor of Science Real Estate [BSc Real Estate] (Code 12132016)**

**(a) Admission requirements**

Refer to General information B.1, B.2 and B.3 in this publication.

**(b) Duration**

The minimum duration of study is three years full-time.

**(c) Promotion requirements**

**(i) Promotion to the second semester of the first year and to the second year of study**

- (a) A newly registered first-year student who failed all the prescribed modules for the programme at the end of the first semester shall not be readmitted to the School for the Built Environment in the second semester.
- (b) A student who complies with all the requirements of the first year of study, or has at least obtained 110 credits, is promoted to the second year of study.
- (c) A student who has not obtained at least 70% of the credits of the first year of study after the November examinations must reapply for admission should he/she intend to continue with his/her studies. Written application must be submitted to the Student administration of the School for the Built Environment no later than 12 January. Late applications will be accepted only in exceptional circumstances after approval by the dean and conditions of readmission as determined by the admissions committee shall apply should first-year students be readmitted.
- (d) Students who have not passed all the prescribed modules of the first year of study, as well as students who are readmitted in terms of (c) must register for the outstanding modules of the first year.
- (e) A student who is repeating his/her first year, may, on recommendation of the relevant head of department and with the approval of the dean, be permitted to enrol for modules of the second year of study in addition to the first-year modules which he or she failed, providing that he or she complies with the prerequisites for the second-year modules and that no timetable clashes occur. The number of credits per semester for which a student registers may not exceed the prescribed number of credits per semester by more than 16 credits.

- (ii) **Promotion to the third year of study**
- (a) A student who complies with all the requirements of the second year of study, or has at least obtained 230 credits, is promoted to the third year of study.
  - (b) The dean may, on the recommendation of the head of department, allow a student, who qualifies for promotion to a subsequent year of study, but who has not passed all the modules of that year, to carry over those modules to the next or a later year provided that no timetable clashes occur.
  - (c) The number of credits per semester for which a student registers may not exceed the prescribed number of credits per semester by more than 16 credits.
  - (d) A student who complies with all the requirements for the degree with the exception of one year module or two semester modules, in which a final mark of at least 40% has been obtained, may be admitted to a special examination in the module(s) concerned, at the start of the ensuing semester.
  - (e) The degree is awarded if all the prescribed modules have been passed.
  - (f) On the recommendation of the head of department, the dean may in exceptional circumstances deviate from the above-mentioned stipulations, provided that no timetable clashes occur.

(d) **Degree with distinction**

The degree is conferred with distinction on a student who has obtained an average of at least 75% for all the prescribed modules, excluding JCP 201, of the final year, or who has obtained at least 75% in two of the following modules (75% average where the module is composed of two semester modules) and subject to the average of all other modules, excluding JCP 201, not being less than 65%:

- (a) Institutional and Legal structures for planning 310 (TRP 310)
- (b) Housing 320 (BHU 320)
- (c) Building services 312 and 322 (GBD 312/322) (average 75%)
- (d) Building science 310 and 320 (BWT 310/320) (average 75%).

The degree will only be conferred with distinction if it was completed within the minimum prescribed time, and if the final-year modules were passed on first registration without any supplementary or special examinations.

(e) **Curriculum**

The curriculum is extended over three study years in semester modules and year modules with the prerequisites and module credits as indicated.

The symbol GS after a module indicates that a combined (final) mark (semester/year mark plus examination mark) of 40% - 49% is required for admission to the module in the first column.

Total number of credits required: 393

Code	Module	Prerequisites	Credits
<b>FIRST YEAR</b>			
<b>First semester</b>			
BOU 111	Building drawings 111	-	6
BWT 110	Building science 110	-	9
AIM 101	Academic information management 101		4
EOT 110*	Academic literacy 110	-	6
GBD 112	Building services 112	-	6
HVH 101	Quantities 101	-	12
TPA 110	Site analysis and assessment 110	-	16
STK 110	Statistics 110	Maths 4 (50-59%)	13
WTW 133	Precalculus 133	-	8
	<b>Total</b>		<b>80</b>
<b>Second semester</b>			
BDO 181	Industrial and organisational psychology 181	-	5
BGG 121	Building organisation 121	-	6
BOU 121	Building drawings 121	-	6
BWT 120	Building science 120	BWT 110 GS	9
EOT 120*	Academic literacy 120	-	6
GBD 122	Building services 122	-	6
HVH 101	Quantities 101	-	12
OMG 122	History of the environment 122	-	6
RES 151	Introduction to research 151	-	6
STK 161	Statistics 161	STK 110 GS	6
	<b>Total</b>		<b>68</b>

\*Students who did not pass the Academic Literacy Test must register for EOT 110 and 120 offered by the Unit for Academic Literacy. (See Regulation B.5.)

## SECOND YEAR

### First semester

BWT 210	Building science 210	BWT 110 GS BWT 120 GS	9
EKN 110	Economics 110	-	10
FBS 110	Financial management 110	-	10
GBD 212	Building services 212	-	6
GMC 110	Cartography 110	-	4
HVH 200	Quantities 200	BWT 110 GS BWT 120 GS HVH 101	12
	<b>Total</b>		<b>51</b>

### Second semester

BWT 220	Building science 220	-	9
EKN 120	Economics 120	EKN 110 GS	10
FBS 120	Financial management 120		10
GBD 222	Building services 222	-	6

HVH 200	Quantities 200	BWT 110 GS BWT 120 GS, HVH 101	12
OMG 224	History of the environment 224	-	6
SKE 220	Civil engineering services 220	-	9
TPD 220	Municipal development planning 220	-	12
	Total		74

**THIRD YEAR****First semester**

BER 310	Business law 310	-	16
BWT 310	Building science 310	-	9
GBD 312	Building services 312	-	6
TPW 310	Institutional and legal structures for planning 310	-	12
JCP 201	Community-based project 201	-	4
KIT 311	Construction information technology and communication 311		12
TPU 210	Land use management theory 210		12
	Total		71

**Second semester**

BHU 320	Housing 320	-	6
BWT 320	Building science 320	-	9
EOW 320	Introduction to property law 320	-	6
GBD 322	Building services 322	GBD 312 GS	6
TPU 261	Urban land development economics 261	-	6
TPU 262	Land use management practice 262		6
JCP 201	Community-based project 201	-	4
FBV 320	Property financial mathematics 320		6
	Total		49

**MASTER'S PROGRAMMES**

Refer to General Regulations G.30 to G.44 and G.57 to G.62.

Subject to the stipulations of Regulations G.1.3, G.30 and G.62, a BScHons degree or equivalent qualification and practical experience which is deemed adequate by the head of department, is required for admission. Supplementary undergraduate modules may be prescribed during the first year of study. The degree may be obtained in one of two ways, namely by virtue of a dissertation and an examination or by virtue of a taught curriculum and a mini-dissertation. The requirements for the two options are set out below.

**(a) By virtue of a dissertation and examination****(i) Duration and curriculum**

- (a) The degree is conferred on the basis of a dissertation and examination on the field of study of the dissertation and/or divisions of the field of study as required by the head of department.
- (b) The minimum duration is one year during which the student works under supervision of the head of department.

(ii) **Examination and pass requirements**

The minimum pass mark is 50% for both the dissertation and the examination. The degree is conferred with distinction when a student obtains at least 75% in the examination and the dissertation.

**(b) By virtue of a curriculum with coursework and a mini-dissertation**

(i) **Duration and curriculum**

(a) The degree can be obtained by successfully completing a curriculum with coursework and a mini-dissertation.

(b) The modules are presented in block weeks. The attendance of block weeks is compulsory. All examinations are conducted at the Department of Construction Economics, South Campus, University of Pretoria.

(c) The minimum period of study is two years part-time.

(d) The curriculum is compiled in consultation with the head of department.

(ii) **Pass requirements**

(a) A minimum of 40% is required in the examination, with a minimum final mark of 50% to pass.

(b) Examination requirements are set out in the departmental study manuals.

(c) The topic of the mini-dissertation must be approved by the head of department and a minimum of 50% is required to pass.

(d) The degree is conferred with distinction on a student who obtains a weighted average of at least 75% in half of the required modules, at least 75% in the mini-dissertation and a weighted average of at least 65% in the remaining modules, constituting the required credits for the MSc Real Estate) degree.

**B.33 Master of Science Quantity Surveying**  
**[MScQS] by means of a dissertation and examination (Code 12252010)**  
**MSc (Applied Science) (Code 12252018)**

(a) Dissertation: BRK 890

**B.34 Master of Science Construction Management**  
**[MSc Construction Management] by means of a dissertation and examination**  
**(Code 12252012)**  
**[MSc (Applied Science)] (Code 12252019)**

(a) Dissertation: KBS 891

**B.35 Master of Science Real Estate**  
**[MSc Real Estate] by means of a dissertation and examination (Code 12252020)**  
**[MSc Real Estate] by means of coursework and a mini-dissertation (Code 12252015)**  
**[MSc (Applied Science)] (Code 12252017)**

(a) Dissertation: EMW 890

(b) Mini-dissertation: EMW 892

With reference to paragraph (b)(i)(d) above, the curricula for MSc Real Estate degree per coursework and mini-dissertation are compiled from the modules listed below.

In order to be considered for the MSc Real Estate degree by coursework to be awarded,

a candidate should have obtained a minimum of 120 credits for modules and in addition, have submitted and passed an applicable mini-dissertation (60 credits), i.e. a total of 180 credits.

### MSc Real Estate

Compulsory modules		Credits
EBS 801	Property management 801	20
EDW 801	Property valuation 801	20
EDW 802	Property valuation 802	20
EMW 892	Mini-dissertation 892	60
EOW 801	Property development 801	20
EOW 822	Property development 822	10
FAM 822	Facilities management 822	10
NNM 820	Research methodology 820	10
PMN 820	Property investment 820	10
		<u>180</u>

### Supplementary modules

Depending on the qualifications of an applicant, the head of department may prescribe any or all of the following supplementary modules during the first year of study:

BTP 600 Management practice preparatory 600  
 BWT 600 Building science preparatory 600  
 GBD 600 Building services preparatory 600  
 EOW 600 Introduction to property law 600  
 FBV 600 Introductory financial calculations 600

## DOCTORAL PROGRAMMES

Refer to General Regulations G.45 to G.62.

- (a) No student will be admitted to the study for a doctor's degree unless he or she holds an applicable master's degree.
- (b) A PhD student must submit a thesis which deals with a topic from the list of subject disciplines.
- (c) The doctoral examination, either written or oral, is compulsory, and covers the content of the thesis as well as the sections of the field of study on which the thesis is based.

### B.36 Doctor of Philosophy [PhD] (Code 12262014)

Thesis: BRK 990

### B.37 Doctor of Philosophy [PhD] (Code 12262015)

Thesis: KBS 990

### B.38 Doctor of Philosophy [PhD] (Code 12262016)

Thesis: EMW 990

## DEGREES IN THE DEPARTMENT OF TOWN AND REGIONAL PLANNING

Town and regional planning is primarily concerned with the planning, design, implementation and management of public interventions in the development and use of land from site to supranational level so as to widen choice, promote equity and ensure sustainable development. The guiding motive of the profession is the generation of viable alternatives to present settlement types. At the current juncture in South Africa's history, town and regional planning is a key profession in the rectification of the spatial and other imbalances in both urban and rural areas, as well as the improvement of inefficient and under-performing living environments.

The ideal town and regional planner is a creative person who is able to put forward innovative solutions to complex problems, a mediator who is able to reconcile diverse points of view, a strategic thinker and a good manager. Given the enormous backlogs in the fields of housing and social services and the misery in which many South Africans find themselves, planners also need a strongly developed sense of social and environmental justice and be committed to human development. While the majority of town and regional planners act as private consultants to the public and the private sector, they are also employed by all three spheres of government, research agencies such as the CSIR and the HSRC, non-governmental organisations, community-based organisations, major financial institutions and property development groups.

### **B.39 Bachelor of Town and Regional Planning [BT&RP] (Code 12132022)**

**(a) Admission requirements**

Refer to General information B.1, B.2 and B.3 in this publication.

**(b) Duration**

The minimum duration of study is four years full-time.

**(c) Promotion requirements**

**(i) Promotion to the second semester of the first year and to the second year of study**

- (a) A new first-year student who fails all the prescribed modules for the programme at the end of the first semester shall not be readmitted to the School for the Built Environment in the second semester.
- (b) A student is promoted to the second year provided the student (1) has obtained at least 100 credits; and (2) is not repeating more than one first-year town and regional planning module per semester.
- (c) A student who is not promoted to the second year of study in terms of (b) may not register for second-year Town and regional planning modules.
- (d) Students who have not obtained at least 100 credits of the first year of study after the November examinations must apply for re-admission should they intend to proceed with their studies. Written application must be submitted to the student administration for the School for the Built Environment no later than 12 January. Late applications will only be accepted under exceptional circumstances and with approval by the dean. If first year students are readmitted, conditions of readmission will be set by the admissions committee.

- (e) Students who have not passed all the prescribed modules of the first year of study, as well as students who are readmitted in terms of (d) must register for the outstanding modules of the first year.
- (ii) **Promotion to the third year of study**
- (a) A student is promoted to the third year provided the student (1) has obtained at least 210 credits; (2) is not repeating more than one second-year town and regional planning module per semester; and (3) is not repeating any first-year Town and regional planning module.
- (b) A student who is not promoted to the third year of study in terms of (a) may not register for third-year Town and regional planning modules.
- (iii) **Promotion to the fourth year of study**
- (a) A student is promoted to the fourth year provided the student (1) has obtained at least 310 credits; (2) is not repeating more than one third-year Town and regional planning module per semester; and (3) is not repeating any second-year town and regional planning module.
- (b) A student who is not promoted to the fourth year of study in terms of (a) may not register for fourth-year town and regional planning modules.
- (c) A student who complies with all the requirements for the degree with the exception of one year module or two semester modules, in which a final mark of at least 40% has been obtained, may be admitted to a special examination in the module(s) concerned at the start of the ensuing semester.
- (d) The degree is awarded if all the prescribed modules have been passed.
- (d) **Degree with distinction**
- The degree is conferred with distinction when a student complies with all the prescribed requirements and has passed the following modules of the fourth year simultaneously with an average of at least 75% and a weighted average of 70% in all the prescribed modules of the final year of study:
- Research methodology (TPE 410)
  - Research report (TPE 420)
  - Planning interventions: Urban areas (TPI 451)
  - Planning interventions: Peri-urban and rural areas (TPI 452)
  - Planning interventions: Metropolitan areas (TPI 453)
  - Planning interventions: Supranational, national and regional scale (TPI 454)
- (e) **Curriculum**
- Total credits: 497

Code	Module	Prerequisites	Credits
<b>FIRST YEAR</b>			
<b>First semester</b>			
TPA 110	Site analysis and assessment 110	-	16
TPH 110	Planning and settlement histories before the Industrial Revolution 110		12
TRP 110	Introduction to planning 110		12
AIM 101	Academic information management 101		4
EKN 110	Economics 110	-	10
EOT 110*	Academic literacy 110	-	6
SOC 110	Sociology 110	-	12
STK 110	Statistics 110	Maths 4 (50-59%)	13
	<b>Total</b>		<b>75</b>
<b>Second semester</b>			
TPA 120	Settlement analysis and assessment 120	-	16
TPH 120	Planning and settlement histories since the Industrial Revolution 120	-	12
TPS 120	Principles of settlement design 120		12
EKN 120	Economics 120	EKN 110 GS	10
EOT 120*	Academic literacy 120	-	6
SOC 120	Sociology 120	-	12
STK 120	Statistics 120	STK 110 GS	13
	<b>Total</b>		<b>75</b>
*Students who did not pass the Academic Literacy Test must register for EOT 110 and 120 offered by the Unit for Academic Literacy. (Refer to Regulation B.5.)			
<b>SECOND YEAR</b>			
<b>First semester</b>			
TPA 210	Plan and policy analysis and assessment 210	-	12
TPD 210	Introduction to development planning 210	-	12
TPS 210	Settlement design concepts 210	-	16
TPU 210	Land use management theory 210	-	12
JCP 201	Community-based project 201		4
And one module of choice between either Economics OR Sociology			
EKN 214	Economics 214	EKN 110 GS, EKN 120, STK 110 GS, STK 120 GS	16
SOC 210	Sociology 210	SOC 110, SOC 120 GS	20
	<b>Total</b>		<b>72</b>
<b>Second semester</b>			
TPD 220	Municipal development planning 220	-	12
TPS 220	Settlement establishment and housing delivery 220	-	16
TPU 261	Urban land development economics 261	-	6
TPU 262	Land use management practice 262	-	6
JCP 201	Community-based project 201	-	4

And one module of choice between either Economics OR Sociology			
EKN 224	Economics 224	EKN 110,STK 110, EKN 214 GS	16
SOC 220	Sociology 220	SOC 110, SOC 120 GS	20
	Total		60

**THIRD YEAR**

**First semester**

TPD 310	Regional development planning 310		12
TPS 310	Spatial concepts 310		16
TPW 310	Institutional and legal structures for planning 310	-	12
SOC 310	Sociology 310	SOC 120 , SOC 210 GS, SOC 220 GS	30
	Total		70

**Second semester**

TMS 320	Transport planning and municipal services provision 320		16
TPD 320	Rural development planning 320	-	12
TRP 320	Planning prospects 320	-	12
And one module of choice between either Philosophy OR Sociology			
FIL 355	Ethics 355	-	15
SOC 320	Sociology 320	SOC 210, SOC 220 GS	30
	Total		55

**FOURTH YEAR**

**First semester**

TPE 410	Research methodology 410		10
TPI 451	Planning interventions: Urban areas 451		8
TPI 453	Planning interventions: Metropolitan areas 453	-	8
TRP 412	Professional practice 412		6
	Total		32

**Second semester**

TPE 420	Research report-420	TPE 410	40
TPI 452	Planning interventions: Peri-urban and rural areas 452	-	8
TPI 454	Planning interventions: Supranational, national and regional scale 454	-	8
POU 720	Practical development feasibility 720	Final year only	2
	Total		58

<b>B.40 Master of Town and Regional Planning [MT&amp;RP]</b>
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Refer to the General Regulations G.30 to G.44 and G.57 to G.62.

**(a) Code 12252022: By virtue of an examination and a dissertation**

Subject to the stipulations of General Regulations G.30, G.37 en G.38 the BT&RP degree or an acceptable qualification, as well as practical experience deemed adequate by the head of department are required for admission to the study for the MT&RP degree.

- (i) The Master's degree [MT&RP] is conferred by virtue of a dissertation as well as related assignments as prescribed by the head of department including an academic article for publication and an examination in the field of the dissertation and/or sections thereof as required by the head of department/supervisor.
- (ii) Supplementary undergraduate modules for the MT&RP degree may be prescribed for students who have not obtained a BT&RP degree.
- (iii) The minimum pass mark is 50% in both the dissertation and examination and the degree is conferred with distinction on a student who obtains at least 75% in both the examination and dissertation.
- (iv) The minimum duration of study is one academic year, during which a student will work under supervision of the head of department/supervisor.
- (v) The successful completion of a relevant module in research methodology is a prerequisite for approval of the study proposal.

**Dissertation: SSB 890 (180 credits)**

**(b) Code 12252023: By virtue of coursework and a mini-dissertation**

Subject to the stipulations of General Regulations G.30, G.37 and G.38, a relevant four-year degree, or a relevant three-year degree plus honours degree, or a relevant three-year degree plus a minimum of five years relevant experience, is required for admission to the MT&RP degree programme.

This master's degree is obtained by virtue of coursework and a mini-dissertation. Supplementary undergraduate modules for the MT&RP degree may be prescribed for students who have not obtained a BT&RP degree. A minimum final mark of 50% is required and the degree is conferred with distinction on a student who obtains a weighted average of at least 75% in the examinations of all the prescribed core modules as well as the mini-dissertation.

A minimum semester/year mark of 40% is required in order to be admitted to the final examination in a specific module. In addition, all other examination admission requirements, applicable to the relevant module, must be met. A minimum pass mark of 40% is required in the examination, with a minimum final mark of 50%.

**(c) Duration**

The minimum duration of study is two years.

**(d) Curriculum**

Total credits: 240

Code	Module	Prerequisites	Credits
<b>FIRST YEAR</b>			
<b>First semester</b>			
TPI 811	Metropolitan and urban area-based interventions 811	-	20
TPS 810	Sustainable settlement planning and design 810	-	20
TPU 810	Land use management and land development 810	-	20
TRP 800	An overview of planning theory and practice 800	-	10
	Total		70
<b>Second semester</b>			
TPD 820	Integrated development planning 820	-	20
TPI 821	Regional interventions 821	-	20
TPS 820	Design for safety 820	-	20
TRP 800	An overview of planning theory and practice 800	-	10
	Total		70
<b>SECOND YEAR</b>			
TPW 310 *	Institutional and legal structures for planning 310	-	Not for credit purposes
TPE 800 **	Mini-dissertation 800	-	100

\*Students without an equivalent module in planning law in a former under-/postgraduate qualification in Town and Regional Planning must register and pass TRP 310 in addition to prescribed modules to comply with degree requirements.

Note: TRP 310 is not for credit purposes.

\*\*The topic of the mini-dissertation must be approved by the head of department. Research methodology, presented or prescribed by the Department, is a requirement (Note: Research methodology is not for credit purposes.)

<b>B.41 Doctor of Philosophy [PhD] (Code 12262022)</b>
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Refer to General Regulations G.45 to G.62.

- (a) A candidate is admitted to doctoral studies only if he or she holds a master's degree. A student must have successfully completed a relevant module in research methodology in order for his/her study proposal to be approved.
- (b) A student for the PhD degree must submit a thesis as well as an academic article(s) dealing with a topic in the field of study.
- (c) An oral and/or written doctoral examination is required dealing with the contents of the thesis as well as the subject matter of the discipline on which it is based.

**Thesis: SSB 990 (360 credits)**

**ALPHABETICAL LIST OF MODULES IN THE BUILT ENVIRONMENT**

# = Concurrent registration

() = Examination admission

dpw = discussions per week

GS = combined (final) mark (semester/year mark plus examination mark) of at least 40% - 49%

hpw = hours per week

LP = Lecturer's permission

lpw = lectures per week

ppw = practicals per week

spw = seminars per week

TDH = Permission by head of department

tpw = tutorials per week

**UNDERGRADUATE**

**AAL 110 Earth studies 110**

**Academic organisation:** Architecture

**Contact time:** 3 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Both Afr and Eng

**Credits:** 10

**Module content:**

Introduction to the basic concepts of ecology, natural resources and stress on the environment; systems thinking; earth as system; changing paradigms and values; ecological design principles.

**AAL 210 Earth studies 210**

**Academic organisation:** Architecture

**Contact time:** 3 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Both Afr and Eng

**Credits:** 8

**Module content:**

Meso-environment:

Climate: atmospheric constituents and processes, weather systems, heat radiation and transfer, solar charts, sun movement and heat gain control.

Air: airflow patterns around structures, natural ventilation.

Water vapour: diffusivity, transfer and condensation.

Heat: thermal comfort and comfort indices, thermal performance of materials and structures, time lag, decrement and periodic heat transfer.

**AAL 223 Earth studies 223**

**Academic organisation:** Architecture

**Contact time:** 3 lpw

**Period of presentation:** Quarter 3

**Language of tuition:** Both Afr and Eng

**Credits:** 4

**Module content:**

The impact of social, economic and political systems on, and the multidisciplinary approach to design decisionmaking for inclusive environments and barrier-free environments. The application of this understanding in developing communities.

**AAL 224 Earth studies 224**

**Academic organisation:** Architecture

**Contact time:** 3 lpw

**Period of presentation:** Quarter 4

**Language of tuition:** Both Afr and Eng

**Credits:** 4

**Module content:**

Environmental filters and forecasting techniques:

Sound: the physical nature of sound, physiology of hearing, sound and noise sources, transfer, absorption and isolation, noise control; measurement, levels, frequency analysis, A-loading, room acoustics, reverberation periods.

Light: properties of natural light, design criteria, daylight factors, diffusion, quality, energy requirements and saving.

**AAL 320 Earth studies 320**

**Academic organisation:** Architecture

**Prerequisite:** AAL 210

**Contact time:** 2 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Double medium

**Credits:** 6

**Module content:**

Ecosystemic thinking for the designer in terms of culture, science and environment. The designer as critic; analysis of precedents. Application of principles of sustainable development and ecological design including energy demand and efficiency and energy dissipation.

**AIM 101 Academic information management 101**

**Academic organisation:** School of Information Technology

**Contact time:** 2ppw

**Period of presentation:** Semester 1 or Semester 2

**Language of tuition:** Both Eng and Afr

**Credits:** 6

**Module content:**

Find, evaluate, process, manage and present information resources for academic purposes using appropriate technology. Apply effective search strategies in different technological environments. Demonstrate the ethical and fair use of information resources. Integrate 21st-century communications into the management of academic information.

**AIM 111 Academic information management 111**

**Academic organisation:** School of Information Technology

**Contact time:** 2ppw

**Period of presentation:** Semester 1

**Language of tuition:** Both Eng and Afr

**Credits:** 4

**Module content:**

Find, evaluate, process, manage and present information resources for academic purposes using appropriate technology.

**AIM 121 Academic information management 121**

**Academic organisation:** School of Information Technology

**Contact time:** 2ppw

**Period of presentation:** Semester 2

**Language of tuition:** Both Eng and Afr

**Credits:** 4

**Module content:**

Apply effective search strategies in different technological environments. Demonstrate the ethical and fair use of information resources. Integrate 21st-century communications into the management of academic information.

**BGG 121 Building organisation 121**

**Academic organisation:** Construction Economics

**Contact time:** 2 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Both Afr and Eng

**Credits:** 6

**Module content:**

The structure of the building industry and the role of building disciplines and related parties.

**BHU 320 Housing 320**

**Academic organisation:** Construction Economics

**Contact time:** 2 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Double medium

**Credits:** 6

**Module content:**

Concepts, principles, history, current trends in settlement, shelter and integrated living environments; role of housing in society; statutory policy and planning frameworks and paradigms; housing delivery options; housing development management; financing and property rights options; housing types and densities; housing product, norms and standards; management and maintenance of social housing stock; housing needs assessment and post-occupancy evaluation; consumer education and protection.

**BOU 111 Building drawings 111**

**Academic organisation:** Construction Economics

**Contact time:** 1 ppw 1 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Both Afr and Eng

**Credits:** 6

**Module content:**

Students are introduced to design aspects in the built environment by doing basic technical drawings of simple building structures with appropriate detail sketches. Assignments during the semester expose the students to building plan interpretation through the following topics: foundations; super-structure; roof structure; window and door types; plan and sectional drawings and local authority submission criteria.

**BOU 121 Building drawings 121**

**Academic organisation:** Construction Economics

**Contact time:** 1 lpw 1 ppw

**Period of presentation:** Semester 2

**Language of tuition:** Both Afr and Eng

**Credits:** 6

**Module content:**

Broadens the vocabulary of the technical language from BOU 111. Students are introduced to other aspects of the building industry that include the following topics: topography; symbols; ergonomic design principles; orientation of buildings; perspective drawings; waterproofing and dampcourse applications.

**BRK 300 Quantity surveying practice 300**

**Academic organisation:** Construction Economics

**Prerequisite:** HVH 200 GS

**Contact time:** 3 lpw

**Period of presentation:** Year

**Language of tuition:** Double medium

**Credits:** 18

**Module content:**

Payment certificates; final accounts; contract price adjustments; value-added tax; specification and billing; lists of materials; application of computer-based measuring programmes.

**BWT 110 Building science 110**

**Academic organisation:** Construction Economics

**Contact time:** 3 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Both Afr and Eng

**Credits:** 9

**Module content:**

Principles, methods and materials used in best practice in the construction of simple single-storey buildings up to wall plate height.

**BWT 120 Building science 120**

**Academic organisation:** Construction Economics

**Prerequisite:** BWT 110 GS

**Contact time:** 3 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Both Afr and Eng

**Credits:** 9

**Module content:**

Principles, methods and materials used in best practice in the construction of simple single-storey buildings from wall plate height to completion including finishes and external work. Introduction to alternative practices and materials for sustainability.

**BWT 210 Building science 210**

**Academic organisation:** Construction Economics

**Prerequisite:** BWT 110 GS and BWT 120 GS

**Contact time:** 3 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Double medium

**Credits:** 9

**Module content:**

Erection and construction of multistorey buildings: including site management and temporary site work, building equipment and earthwork machinery, specialised foundations, cellars and advanced concrete construction. Material study of metals. Timber and steel structures. Types of, and construction methods, for retaining walls.

**BWT 220 Building science 220**

**Academic organisation:** Construction Economics

**Contact time:** 3 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Double medium

**Credits:** 9

**Module content:**

Study and development of sensitivity for and the philosophy of industrial safety, accident prevention and total loss control safety risk management in construction. An approved certificate in first aid has to be submitted before this module will be awarded.

**BWT 310 Building science 310**

**Academic organisation:** Construction Economics

**Contact time:** 3 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Double medium

**Credits:** 9

**Module content:**

Erection and construction of specialised building components and finishes. Acoustics. Material study of plastics, glues, rubber, mastics, bonding agents, fibre cement, bituminous products, sealers, epoxies and waterproofing.

**BWT 320 Building science 320**

**Academic organisation:** Construction Economics

**Contact time:** 3 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Double medium

**Credits:** 9

**Module content:**

Thermal comfort of buildings (including insulation systems and materials). Critical review of current development and construction practice; alternative and sustainable resource utilisation; innovation in construction; statutory and voluntary programmes and instruments for the promotion of sustainable development; technical evaluation of innovative construction materials and methods; maintenance, repair, conservation, restoration, and redesign and reuse of buildings and services.

**EOW 320 Introduction to property law 320**

**Academic organisation:** Construction Economics

**Contact time:** 2 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Both Afr and Eng

**Credits:** 6

**Module content:**

Moveable and immovable property. Rights over immovable property; private legal circumscription of ownership; relevant legislation pertaining to property; real securities; the registration of rights; zoning regulations.

**FBS 110 Financial management 110**

**Academic organisation:** Economics and Management Sciences

**Contact time:** 3 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Both Afr and Eng

**Credits:** 10

**Module content:**

Purpose and functioning of financial management. Basic financial management concepts. Accounting concepts and the use of the basic accounting equation to describe the financial position of a business. Recording of financial transactions. Relationship between cash and accounting profit. Internal control and the management of cash. Debtors and short-term investments. Stock valuation models. Depreciation. Financial statements of a business. Distinguishing characteristics of the different forms of businesses. Overview of financial markets and the role of financial institutions. Risk and return characteristics of various financial instruments. Issuing ordinary shares and debt instruments.

**FBS 120 Financial management 120**

**Academic organisation:** Economics and Management Sciences

**Contact time:** 3 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Both Afr and Eng

**Credits:** 10

**Module content:**

Analysis of financial statements. Budgeting and budgetary control. Tax principles and normal income tax for individuals. Time value of money and its use for financial and investment decisions. Calculating the cost of capital and the financing of a business to maintain the optimal capital structure. Capital investment decisions and a study of the financial selection criteria in the evaluation of capital investment projects. The dividend decision and an overview of financial risk management.

**FBV 320 Property financial mathematics 320**

**Academic organisation:** Construction Economics

**Contact time:** 2 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Both Afr and Eng

**Credits:** 6

**Module content:**

Application of the principles of interest calculations on the property industry; introduction to financial return techniques, net present values and internal rate of return.

**GBD 112 Building services 112**

**Academic organisation:** Construction Economics

**Contact time:** 2 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Both Afr and Eng

**Credits:** 6

**Module content:**

Sanitary services; soil and waste drainage for simple, multistorey and multipurpose buildings; local sewage by-laws; construction of all types of sewage and sanitary fittings.

**GBD 122 Building services 122**

**Academic organisation:** Construction Economics

**Contact time:** 2 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Both Afr and Eng

**Credits:** 6

**Module content:**

Sanitary services; hot and cold-water supply to simple and multistorey buildings; local by-laws; water reticulation to town development; different hot-water systems; water purification systems; water and energy saving.

**GBD 212 Building services 212**

**Academic organisation:** Construction Economics

**Contact time:** 2 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Double medium

**Credits:** 6

**Module content:**

Climatic conditions, human comfort, characteristics of buildings, airconditioning, energy efficiency.

**GBD 222 Building services 222**

**Academic organisation:** Construction Economics

**Contact time:** 2 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Double medium

**Credits:** 6

**Module content:**

Installation and operation of lifts and other mechanical services; cleaning and waste disposal systems; industrial kitchens and cold rooms; fire detection and protection; building access control systems; building management systems.

**GBD 312 Building services 312**

**Academic organisation:** Construction Economics

**Contact time:** 2 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Double medium

**Credits:** 6

**Module content:**

Theory of electricity; regulations of electricity-supply authorities; electrical installations; distribution of electricity.

**GBD 322 Building services 322**

**Academic organisation:** Construction Economics

**Prerequisite:** GBD 312 GS

**Contact time:** 2 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Double medium

**Credits:** 6

**Module content:**

Principles of illumination; illumination installations; lightning security; security systems; communication systems. Multimedia installations.

**HVH 101 Quantities 101**

**Academic organisation:** Construction Economics

**Contact time:** 4 lpw

**Period of presentation:** Year

**Language of tuition:** Both Afr and Eng

**Credits:** 24

**Module content:**

Introduction to quantity surveying, mensuration; interpretation of drawings, methodology of measuring, working up processes, general instructions, measuring of simple building elements.

**HVH 200 Quantities 200**

**Academic organisation:** Construction Economics

**Prerequisite:** BWT 110 GS, BWT 120 GS and HVH 101

**Contact time:** 4 lpw

**Period of presentation:** Year

**Language of tuition:** Double medium

**Credits:** 24

**Module content:**

Measuring of single-storey buildings and simple building elements, and adjustment of foundations on sloping sites. Abstracting and billing.

### **HVH 300 Quantities 300**

**Academic organisation:** Construction Economics

**Prerequisite:** BWT 210 GS, BWT 220 GS, GBD 112 GS, GBD 122 GS and HVH 200

**Contact time:** 4 lpw

**Period of presentation:** Year

**Language of tuition:** Double medium

**Credits:** 24

**Module content:**

Measuring of simple concrete structures, joinery, structural steelwork, sundry metalwork, plumbing and drainage, simple electrical work and external works. Theory of monetary allowances in bills of quantities. Abstracting and billing.

### **JCP 201 Community-based project 201**

**Academic organisation:** Informatics

**Contact time:** 1 other per week

**Period of presentation:** Year

**Language of tuition:** Both Afr and Eng

**Credits:** 8

**Module content:**

This project-orientated module is a form of applied learning which is directed at specific community needs and is integrated into all undergraduate academic programmes offered by the Faculty of Engineering, Built Environment and Information Technology. The main objectives with the module are as follows:

- (1) The execution of a community related project aimed at achieving a beneficial impact on a chosen section of society, preferably but not exclusively, by engagement with a section of society which is different from the student's own social background.
- (2) The development of an awareness of personal, social and cultural values, an attitude to be of service, and an understanding of social issues, for the purpose of being a responsible professional.
- (3) The development of important multidisciplinary and life skills, such as communication, interpersonal and leadership skills.

Assessment in the module will include all or most of the following components: evaluation and approval of project proposal, assessment of oral and/or written progress reports, peer assessment in the event of team projects, written reportback by those at which the project was aimed at, and final assessment on grounds of the submission of a portfolio and a written report.

### **KBS 310 Construction management 310**

**Academic organisation:** Construction Economics

**Contact time:** 3 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Double medium

**Credits:** 9

**Module content:**

General functions and techniques of management. Office administration.

### **KBS 320 Construction management 320**

**Academic organisation:** Construction Economics

**Contact time:** 3 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Double medium

**Credits:** 9

**Module content:**

Site establishment. Purchasing and handling of building materials. Introduction to communication.

**KIT 311 Construction information technology and communication 311**

**Academic organisation:** Construction Economics

**Contact time:** 4 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Double medium

**Credits:** 12

**Module content:**

Orientation in the use of electronic technologies and aids in the construction industry. Confident group communication. Effective communication in organisations: the process of communication, formal meetings, the interview, planning and organising messages, intercultural communication.

**KON 111 Construction 111**

**Academic organisation:** Architecture

**Contact time:** 3 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Double medium

**Credits:** 8

**Module content:**

Drawing conventions. Typical city site: city block, shape, title, services. Single-storeyed buildings: preparation for building work. Setting out, foundations, foundation walls, filling. Dampproofing. Surface beds, steps, level differences, stoeps. Superstructure walls, stability, hearths, chimneys, and gable walls. Building in of windows, doors, services. Thresholds, window sills, lintels. Timber roof structures and finishes: profiled sheetmetal, concrete tiles and thatch. Plaster and screeds. Ceilings. Windows, doors, ironmongery. Fasteners.

**KON 121 Construction 121**

**Academic organisation:** Architecture

**Prerequisite:** KON 111 GS

**Contact time:** 1 ppw 3 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Double medium

**Credits:** 8

**Module content:**

Surveying, map projections, distance measurement with tape, levelling instrument, practical contour plan and site sections. Site and structure data collection and interpretation. Contours, cut-and-fill. Storm water. Introduction to materials: properties, movement, binding, thermal properties, water resistance, durability, appearance, production, economy. Concrete, clay bricks, mortar, bond. Concrete blocks, modular coordination. Building stone. Timber. Steel. Fasteners.

**KON 210 Construction 210**

**Academic organisation:** Architecture

**Prerequisite:** KON 111 and KON 121

**Contact time:** 3 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Both Afr and Eng

**Credits:** 8

**Module content:**

Double-storeyed buildings: reinforced concrete, steel and timber-framed structures. Offshutter concrete. Load-bearing masonry. Low-pitch roofs and waterproofing, other pitched-roof finishes. Lightweight partitioning. Glass. Joinery. Small precast elements.

**KON 220 Construction 220**

**Academic organisation:** Architecture

**Prerequisite:** KON 210 GS

**Contact time:** 3 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Both Afr and Eng

**Credits:** 8

**Module content:**

Soil mechanics: foundations, basement construction and waterproofing. Site structures: geotextiles and geomembranes, stairs, walls, retaining walls, fences, ramps, gabions, prefabricated retaining blocks. Built planters, lapas, braais, pavilions, decks.

**KON 310 Construction 310**

**Academic organisation:** Architecture

**Prerequisite:** KON 210 and KON 220

**Contact time:** 3 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Double medium

**Credits:** 8

**Module content:**

Roads: design and construction, materials and finishes, kerbing. Water features: design and construction. Street furniture. Construction equipment. Site and building services: water lines, sanitary plumbing and pipe systems above ground and indoors, underground sewer systems, electricity and gas. Electrical lighting: light, lamp types, luminaires; lighting requirements. Design application.

**KON 320 Construction 320**

**Academic organisation:** Architecture

**Prerequisite:** KON 310 GS

**Contact time:** 2 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Both Afr and Eng

**Credits:** 8

**Module content:**

Integration of the foregoing coursework. Introduction to construction norms and standards, technical drawing practice and specifications. Cost estimates, feasibility and payability. Advanced materials: ceramics, polymers, adhesives, paint, metals, glass. Human transportation systems: types, applications. Design of a small commercial building/landscape/interior space (in DESIGN) and the preparation of its construction drawings.

**KSH 201 Construction quantities 201**

**Academic organisation:** Construction Economics

**Prerequisite:** BWT 110 GS, BWT 120 GS and HVH 101

**Contact time:** 4 lpw

**Period of presentation:** Year

**Language of tuition:** Double medium

**Credits:** 24

**Module content:**

Measuring of single-storey buildings and simple building elements, and adjustment of foundations on sloping sites, sundry metalwork and joinery.

**KSH 300 Construction quantities 300**

**Academic organisation:** Construction Economics

**Prerequisite:** BWT 210 GS, BWT 220 GS, GBD 112 GS, GBD 122 GS and KSH 201

**Contact time:** 4 lpw

**Period of presentation:** Year

**Language of tuition:** Double medium

**Credits:** 24

**Module content:**

Measuring of simple concrete structures, structural steelwork, plumbing and drainage, and alterations. Quantities of materials, analysis of building costs, certificates, contract price adjustments (CPA) and final accounts.

**LAN 212 Landscape architecture 212**

**Academic organisation:** Architecture

**Contact time:** 3 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Double medium

**Credits:** 8

**Module content:**

Introductory Botany and plant diversity; plant design philosophy; criteria and process for plant material selection and preparing plant material lists; plant classification; identification of genera and species.

**LAN 222 Landscape architecture 222**

**Academic organisation:** Architecture

**Prerequisite:** LAN 212 GS

**Contact time:** 3 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Double medium

**Credits:** 8

**Module content:**

The role of plant geography in plant selection and the identification of plant species specific to their natural environment; practical considerations in plant selection.

**MST 223 Material Sciences 223**

**Academic organisation:** Architecture

**Prerequisite:** TKS 212 GS

**Contact time:** 3 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Double medium

**Credits:** 8

**Module content:**

Introduction to materials with applications in the field of interior design: material families, basic properties and selection. Wall (partition), ceiling and floor finishes. Window treatments. Ceramics as architectural finishes. Surface theory 1 (including colour and interior paint applications).

**MST 313 Material studies 313**

**Academic organisation:** Materials Science and Metallurgical Engineering

**Prerequisite:** TKS 212 and MST 223

**Contact time:** 3 lpw

**Period of presentation:** Semester 1

**Language of tuition:** English

**Credits:** 8

**Module content:**

Unconventional construction materials: properties, applications.

**MST 323 Material studies 323**

**Academic organisation:** Architecture

**Prerequisite:** MST 313

**Contact time:** 3 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Double medium

**Credits:** 8

**Module content:**

Application of materials in artificial environments:

- Development of modern materials and processes in product design
- Joint theory
- New applications in technical textiles, polymers and other artificial materials

Material selection and technical development in conjunction with projects in design (ONT 303) and construction (KON 320)

**OKU 120 Design communication 120**

**Academic organisation:** Architecture

**Contact time:** 2 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Both Afr and Eng

**Credits:** 6

**Module content:**

Quarter 3: Introduction to basic computer aided design.

Quarter 4: Introduction to the theory of structures: Forces, moments, stresses, strains, Young's Modulus, Structural components: beams, columns and trusses.

**OKU 313 Design communication 313**

**Academic organisation:** Architecture

**Contact time:** 2 lpw 2 studio hours per week

**Period of presentation:** Semester 1

**Language of tuition:** Double medium

**Credits:** 6

**Module content:**

Advanced graphic and presentation techniques.

**OMG 122 History of the environment 122**

**Academic organisation:** Architecture

**Contact time:** 2 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Both Afr and Eng

**Credits:** 6

**Module content:**

Introduction to the study and application of the history of the environment. Insight in the process of endemic building, settlement and urbanisation in various periods and environments. Concise history of the environments of the Antique, Bronze Era, Classical, Christian, Judaic, and Muslim cultures of the Mediterranean and European civilizations up until the Renaissance. Bhuddism and Shintoism in the East.

**OMG 224 History of the environment 224**

**Academic organisation:** Architecture

**Contact time:** 2 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Both Afr and Eng

**Credits:** 6

**Module content:**

Concise history of the environment of the West, from the circumnavigation of the southern Cape Point in 1488 AD until the present, with specific reference to contemporaneous environments in Southern Africa.

**OMG 310 History of the environment 310**

**Academic organisation:** Architecture

**Contact time:** 2 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Both Afr and Eng

**Credits:** 6

**Module content:**

History of the environment of African societies between the tropics within global context until the present.

**OMG 320 History of the environment 320**

**Academic organisation:** Architecture

**Contact time:** 2 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Both Afr and Eng

**Credits:** 6

**Module content:**

History of the environment of Southern African societies from the old Stone Age until the present.

**OML 110 Environmental theory 110**

**Academic organisation:** Architecture

**Contact time:** 2 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Both Afr and Eng

**Credits:** 6

**Module content:**

Introductory contextualisation of twentieth century artefacts within the framework of history from Antiquity to Modernity. Building types as artefacts of material culture. Approaches and guidelines to the study of history of the environment. Understanding of the process of endemic construction and its monumentalisation, settlement and urbanisation of various ages and environments. An interdisciplinary investigation of living spaces as shapers of social interaction. The history of the environment of the Mediterranean Antique, Bronze Age, Classical and Biblical societies.

**OML 120 Environmental studies 120**

**Academic organisation:** Architecture

**Contact time:** 2 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Both Afr and Eng

**Credits:** 6

**Module content:**

The history of the environment of and the link between North-Europe and the Mediterranean area, the Arabic peninsula and the Indies, from the fall of Jerusalem up until the fall of Constantinople in 1453 AD. Tao, Shinto and the landscape of the Far East.

**OML 210 Environmental theory 210**

**Academic organisation:** Architecture

**Contact time:** 2 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Both Afr and Eng

**Credits:** 6

**Module content:**

The history of the environment and the link between North-Europe and a newly discovered world from the time of the circumnavigation of the southernmost Cape Point of Africa till the Industrial Revolution.

**OML 220 Environmental studies 220**

**Academic organisation:** Architecture

**Contact time:** 2 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Both Afr and Eng

**Credits:** 6

**Module content:**

History of the environment of Western societies and their dominions from the Industrial Revolution up to the intellectual questioning of Modernism. Southern African housing typologies and Western artefacts as manifestation of socio-political realities since 1488 AD.

**OML 310 Environmental studies 310**

**Academic organisation:** Architecture

**Contact time:** 2 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Double medium

**Credits:** 6

**Module content:**

Normative positions: Normative positions that guide design thinking: Surface features, broad inclinations and differentiating features. Problems of substantiation. Theory and practise.

Theory of design disciplines: A hermeneutic appraisal of contemporary philosophical directions defining the current intellectual context in which the design disciplines are practised and appraised. Contextualising culture, philosophy and science as the ecosystem of the designer.

Housing studies: Contemporary theory, approaches and projects in housing. Developing a personal approach.

**OML 320 Environmental studies 320**

**Academic organisation:** Architecture

**Prerequisite:** OML 310 GS

**Contact time:** 2 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Double medium

**Credits:** 6

**Module content:**

The relationship between global intellectual movements and the local debate. Appraising the state of current design production and the establishment of identity through design. Presentation is programme specific.

**ONT 100 Design 100**

**Academic organisation:** Architecture

**Contact time:** 2 lpw 17 studio hours per week

**Period of presentation:** Year

**Language of tuition:** Double medium

**Credits:** 60

**Module content:**

Introduction to design and integration with supporting modules. Design principles, skills and techniques. Small-scale design projects and environmental influences (physical, social, cultural, historical), space requirements and creative interpretation. Acquisition of skills in design communication through imagination, intuition and conceptual thinking. Relation of internal to external space. Anthropometry and ergonomics; visual literacy (visual media, analysis and interpretation) and criticism. The designer as visual thinker. Perception; ideograms. Development of a vocabulary to describe and illustrate the discipline of design. Pertinent theory that informs and supports the design process.

### **ONT 200 Design 200**

**Academic organisation:** Architecture

**Prerequisite:** AAL 110, KON 111, KON 121, OML 110, OML 120 and ONT 100

**Contact time:** 17 studio hours per week 2 lpw

**Period of presentation:** Year

**Language of tuition:** Double medium

**Credits:** 60

**Module content:**

The process and product of design through the integration of supporting modules. Spatial design as response to tectonic and contextual influences. The production of space and the reading of place as central concerns in the design disciplines. The design of residential and simple public spaces and buildings with the emphasis on planning, plan-making, structure and economy as design determinants. Skills: programming, site analysis, time management, advanced graphic and reprographic techniques.

Pertinent theory that informs and supports the design process in architecture.

### **ONT 202 Design 202**

**Academic organisation:** Architecture

**Prerequisite:** AAL 110, KON 111, KON 121, OML 110, OML 120 and ONT 100

**Contact time:** 2 lpw 17 studio hours per week

**Period of presentation:** Year

**Language of tuition:** Both Afr and Eng

**Credits:** 60

**Module content:**

The process and product of design through the integration of supporting modules. Site planning and design; design determinants. Exploration of meaning and integrity in landscape design. Skills: programming, site analysis, creative design, time management, advanced graphic techniques, reprographic techniques. Pertinent theory that informs and supports the design process in landscape architecture.

### **ONT 203 Design 203**

**Academic organisation:** Architecture

**Prerequisite:** AAL 110, KON 111, KON 121, OML 110, OML 120 and ONT 100

**Contact time:** 17 studio hours per week 2 lpw

**Period of presentation:** Year

**Language of tuition:** Double medium

**Credits:** 60

**Module content:**

Module content:

The process and product of design through the integration of supporting modules. Spatial design as response to user. Design of inclusive environments, reuse of architectural space, planning and form-giving processes, production and identity as design determinants. The influence of perception, ergonomics and the tectonics on space making. Scenographic, product, exhibition or installation design. Skills: programming, architectural space analysis, time management, advanced graphic and reprographic techniques.

Pertinent theory that informs and supports the design process in interior architecture.

### **ONT 300 Design 300**

**Academic organisation:** Architecture

**Prerequisite:** KON 210, KON 220, OML 210, OML 220 and ONT 200

**Contact time:** 17 studio hours per week 2 lpw

**Period of presentation:** Year

**Language of tuition:** Double medium

**Credits:** 60

**Module content:**

Semester 1

The process of design through the integration of supporting modules. The design of spaces and buildings with the emphasis on lateral thinking and ritual. Skills: technology-backed reprographic techniques, competitions and exhibitions, decision making and time planning.

Semester 2

The product of design through the integration of supporting modules. The design of a mixed-use project in an urban context with a complex program developed to construction drawings in KON 320. Statutory requirements, feasibility and payability studies.

**ONT 302 Design 302**

**Academic organisation:** Architecture

**Prerequisite:** KON 210, KON 220, OML 210, OML 220 and ONT 202

**Contact time:** 17 studio hours per week 2 lpw

**Period of presentation:** Year

**Language of tuition:** Double medium

**Credits:** 60

**Module content:**

Semester 1

The process of design through the integration of supporting modules. Understanding and investigating urban form, urban ecology and site ecology. Site planning: exploration of complexities at neighbourhood and regional scale including ecological, economic and social planning aspects. Design: framework and master planning at regional context. Skills: technology-backed reprographic techniques, competitions and exhibitions, decision making and time planning.

Semester 2

The product of design through the integration of supporting modules. Exploration of detail urban ecology, economic and social aspects, and historic and cultural environments. Site planning: Interdisciplinary problem solving with emphasis on site design and sustainable and appropriate technologies. Design: complex detail design and sketch plans developed to construction drawings in KON 320.

**ONT 303 Design 303**

**Academic organisation:** Architecture

**Prerequisite:** KON 210, KON 220, OML 210, OML 220 and ONT 203

**Contact time:** 17 studio hours per week 2 lpw

**Period of presentation:** Year

**Language of tuition:** Double medium

**Credits:** 60

**Module content:**

Semester 1

The process of design through the integration of supporting modules. The design of spaces with the emphasis on lateral thinking and ritual through adaptive reuse. Skills: technology-backed reprographic techniques, competitions and exhibitions, decision making and time management.

Semester 2

The product of design through the integration of supporting modules. The design of a commercial project in an existing architectural envelope in an urban context with a complex program developed to construction drawings in KON 320. Corporate identity, statutory requirements, feasibility and payability studies, tenant mix.

**PJS 320 Practice management 320**

**Academic organisation:** Construction Economics

**Contact time:** 3 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Both Afr and Eng

**Credits:** 8

**Module content:**

The structure of the built environment in South Africa; basic principles and techniques of project management and financial management; methodology of measuring; building cost estimates; feasibility studies; economic design; contract administration; valuation of buildings.

**PWT 312 Plant science 312**

**Academic organisation:** Architecture

**Prerequisite:** LAN 212 and LAN 222

**Contact time:** 3 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Double medium

**Credits:** 8

**Module content:**

Plant community studies and conservation within the context of urban open space; implications and management of weeds and invaders, red-data lists and rare and endangered species.

Technical aspects regarding the establishment of plants and the maintenance thereof.

Approaches to the establishment of planting in complex urban environments.

**PWT 322 Plant science 322**

**Academic organisation:** Architecture

**Prerequisite:** PWT 312 GS

**Contact time:** 3 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Double medium

**Credits:** 8

**Module content:**

Ecological principles for planting in reclamation and resettlement. Environmental legislation with reference to environmental management and monitoring.

**SKE 110 Introduction to structures 110**

**Academic organisation:** Civil Engineering

**Contact time:** 1 dpw 2 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Both Afr and Eng

**Credits:** 9

**Module content:**

Design; basics (forces, moments, equilibrium, reactions, stress, strain); materials; loads; pin-jointed trusses; tension members.

**SKE 120 Structures 120**

**Academic organisation:** Civil Engineering

**Contact time:** 2 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Both Afr and Eng

**Credits:** 9

**Module content:**

Beams (shear force and bending moment, bending and shear stresses, design of standard beams in steel, concrete and timber, section properties, lateral restraint); compression members; combined axial and bending; deflection.

**SKE 210 Reinforced concrete structures 210**

**Academic organisation:** Civil Engineering

**Prerequisite:** SKE 120

**Contact time:** 2 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Both Afr and Eng

**Credits:** 9

**Module content:**

Properties of reinforced concrete; construction methods; slabs; beams; columns; foundations; retaining walls; placement of reinforcement in the various structural members; basic concepts of prestressed concrete.

**SKE 220 Civil engineering services 220**

**Academic organisation:** Civil Engineering

**Contact time:** 3 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Both Afr and Eng

**Credits:** 9

**Module content:**

Water reticulation; sewerage reticulation; stormwater reticulation; roads.

**STU 211 Theory of structures 211**

**Academic organisation:** Civil Engineering

**Contact time:** 3 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Both Afr and Eng

**Credits:** 8

**Module content:**

Introduction to structural engineering concepts like design, analysis, sizing and planning of structures. Introduction to Newton's laws, equilibrium, free body diagrams. The application of equilibrium in solving reactions of statically determinate structures. The principles of determinacy and stability of structures. The application of Newton's laws in determining the internal forces in common structural systems like cable structures, trusses, frames and beams. The fundamental principles of weight and forces and how forces are transmitted through structural members and load tracing.

**STU 221 Theory of structures 221**

**Academic organisation:** Civil Engineering

**Prerequisite:** STU 211 GS

**Contact time:** 3 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Both Afr and Eng

**Credits:** 8

**Module content:**

Introduction to material science in structural engineering. Concepts like stress, strain, elasticity, stress-strain diagrams, elasticity modules, strength and deformation as applied in structural engineering. Cross-sectional properties of structural elements. Types of stresses, and their transmission in structural elements. Introduction to the relationship between stress and strain (deflection) in beams by Coulomb's theory. Introduction to the analysis of compressive structural elements by means of Euler's theory.

**STU 311 Theory of structures 311**

**Academic organisation:** Civil Engineering

**Prerequisites:** STU 211 and STU 221

**Contact time:** 3 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Both Afr and Eng

**Credits:** 8

**Module content:**

1. Concrete Structures.

- Loads on concrete structures, Limit-states design principles.
- Bending, shear and punching: Design of beams, slabs and footings.
- Compression members: Design of columns.

2. Load bearing brickwork.

- Limit-states design principles. Effective length and width of compression members.

### **STU 321 Theory of structures 321**

**Academic organisation:** Civil Engineering

**isite:** STU 311

**Contact time:** 3 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Both Afr and Eng

**Credits:** 8

**Module content:**

1. Timber structures

- Loads on typical timber structures, Limit-states design principles
- Bending, shear and deflection: Design of flexural members without and with axial loads

- Tension members: Tension members in roof trusses

- Compression members: Design of compression members in trusses and as support members for trusses

- Bracing systems

2. Steel Structures

- Loads on typical steel structures, Limit-states design principles

- Bending, shear and deflection: Design of flexural members without and with axial loads

- Tension members: Tension members in roof trusses

- Compression members: Design of compression members in trusses and as support members for trusses

- Bracing systems

### **TMS 320 Transport planning and municipal services provision 320**

**Academic organisation:** Town and Regional Planning

**Contact time:** 1 ppw 2 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Double medium

**Credits:** 16

**Module content:**

Section A – Transport planning: environmental, economic and social impact of transport; transport planning process; introduction to transport studies and evaluation; public transport; functional road hierarchy; geometric road layout; road reserve dimensions; parking; preparation of a layout.

Section B – Municipal services provision: water supply; sanitation; stormwater disposal; energy supply; public lighting; solid waste removal; inclusion of municipal services in the layout.

### **TPA 110 Site analysis and assessment 110**

**Academic organisation:** Town and Regional Planning

**Contact time:** 1 ppw 2 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Double medium

**Credits:** 16

**Module content:**

Analysis and assessment of sites for planning purposes. Covers the analysis of context and natural (e.g. climate, geology), man-made (e.g. zoning, potential land value, land use and activity), and sensory elements (e.g. genius loci) of a site to determine the appropriate use of a site as well as the character of future development. Skills and techniques to communicate the analysis and assessment graphically.

**TPA 120 Settlement analysis and assessment 120**

**Academic organisation:** Town and Regional Planning

**Contact time:** 1 ppw 2 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Double medium

**Credits:** 16

**Module content:**

Analysis and assessment of settlements for planning purposes in terms of normative criteria, i. e. principles of good settlement forms and processes; aspects to be taken into consideration in settlement analysis, such as urban form, land use, transportation, socio-economic development, housing, local government; analysis instruments such as indicators, visual analysis, density analysis and citizen satisfaction surveys.

**TPA 210 Plan and policy analysis and assessment 210**

**Academic organisation:** Town and Regional Planning

**Contact time:** 3 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Double medium

**Credits:** 12

**Module content:**

Analysis and assessment of plans and policy frameworks from a planning and development perspective. Analysis and assessment of substantive and communicative content. Deconstruction of text, norms and values, planning and development approaches. The role of planners and the democratisation of planning.

**TPD 210 Introduction to development planning 210**

**Academic organisation:** Town and Regional Planning

**Contact time:** 3 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Double medium

**Credits:** 12

**Module content:**

Introduction to development problems, perspectives on and concepts of development. Approaches to development planning and development studies. Application of development proposals from local to national levels. International and local perspectives and case studies. Critical evaluation of development initiatives, and aspects such as culture, gender, diversity and sustainability. Role players in the development process

**TPD 220 Municipal development planning 220**

**Academic organisation:** Town and Regional Planning

**Contact time:** 3 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Double medium

**Credits:** 12

**Module content:**

Theories and processes of strategic, forward, and integrated development planning; origins and intentions of these concepts; international and local perspectives and case studies; policy framework for development planning in the South African context; role players in development planning processes, with specific reference to the role of the planner and the community; introduction to the concept, theory, aims, processes and practise of participatory planning.

**TPD 310 Regional development planning 310**

**Academic organisation:** Town and Regional Planning

**Contact time:** 3 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Double medium

**Credits:** 12

**Module content:**

Theory and practice of regional development planning; strategic regional development analysis and thinking; preparation and implementation of regional development frameworks, and plans and strategies on supranational, national, provincial and metropolitan levels.

**TPD 320 Rural development planning 320**

**Academic organisation:** Town and Regional Planning

**Contact time:** 3 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Double medium

**Credits:** 12

**Module content:**

Rural development in historical, political, ideological, social, economical, geographical and institutional context; theoretical perspectives on and approaches to rural development; case studies of rural development planning and plans in different developmental contexts; preparation, implementation and evaluation of rural development frameworks, strategies and plans.

**TPE 410 Research methodology 410**

**Academic organisation:** Town and Regional Planning

**Contact time:** 2 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Double medium

**Credits:** 10

**Module content:**

Defining research; role of research in the discipline of planning; philosophies of planning research; role of theory in planning research; the research problem/question; the literature review; research planning and design as maximising the validity of findings; overview and comparison of ten prototypical designs for planning research; the research proposal; overview and application of the most common qualitative and quantitative methods for data collection, analysis and interpretation; the research report (style and format); ethics in planning research; remaining issues for class discussion, such as funding, postgraduate studies and careers and opportunities in research.

**TPE 420 Research methodology 420**

**Academic organisation:** Town and Regional Planning

**Prerequisites:** TRP 410

**Contact time:** 1 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Double medium

**Credits:** 40

**Module content:**

Contextualisation of a research problem/question; literature review; research design and methods; undertake empirical research in line with an approved research proposal; collection, analysis and interpretation of data; writing up of research findings.

**TPH 110 Planning and settlement histories before the Industrial Revolution 110**

**Academic organisation:** Town and Regional Planning

**Contact time:** 3 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Double medium

**Credits:** 12

**Module content:**

An in-depth analysis of city building and urban and regional planning in pre-modern times. The influence on settlement design and planning within the social, political and economic context of the Pre-historic; Classic (Roman and Greek); Feudal and Mercantile eras. Aspects such as visions of ideal cities, settlement patterns, the treatment of public space, the development of the edge of the settlement, functional zones and segregation are covered. Attention is given to the function, role, character, practice and beneficiaries of planning and the role of planners.

**TPH 120 Planning and settlement histories since the Industrial Revolution 120**

**Academic organisation:** Town and Regional Planning

**Contact time:** 3 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Double medium

**Credits:** 12

**Module content:**

An in-depth analysis of city building and urban and regional planning in modern and post-modern times with special emphasis on the South African situation. The influence on settlement design and planning within the social, political and economic context of Industrial and Post-industrial eras. Aspects such as visions of ideal cities, settlement patterns, the treatment of public space, the development of the edge of the settlement, functional zones and segregation are covered. Attention is given to the function, role, character, practice and beneficiaries of planning and the role of planners.

**TPI 451 Planning interventions: Urban areas 451**

**Academic organisation:** Town and Regional Planning

**Contact time:** 1 ppw 2 lpw

**Period of presentation:** Quarter 1

**Language of tuition:** Double medium

**Credits:** 8

**Module content:**

The drafting of urban development and design frameworks to ensure development or redevelopment of urban areas in a relevant, social and environmentally accountable way. Specific focus on rehabilitation of declining city centres, fast growing edge cities, and underdeveloped parts of urban areas. Critique on and improvements of current practice; simulated planning exercise.

**TPI 452 Planning interventions: Peri-urban and rural areas 452**

**Academic organisation:** Town and Regional Planning

**Contact time:** 1 ppw 2 lpw

**Period of presentation:** Quarter 3

**Language of tuition:** Double medium

**Credits:** 8

**Module content:**

Introduction to planning and management of small towns, rural settlements, and peri-urban/rural districts; examples of planning interventions in rural areas; approaches to rural development, techniques and methods for planning in rural areas. Critique on and improvements on current practice; simulated planning exercise.

**TPI 453 Planning interventions: Metropolitan areas 453**

**Academic organisation:** Town and Regional Planning

**Contact time:** 1 ppw 2 lpw

**Period of presentation:** Quarter 2

**Language of tuition:** Double medium

**Credits:** 8

**Module content:**

Introduction to planning at metropolitan level; examples of planning interventions at metropolitan level; approaches to and examples of the delivery of housing, infrastructure and facilities; tensions in resource allocation and prioritising of development in metropolitan areas; institutional requirements and implications of planning and management of metropolitan development; critiques and improvements on current practice; simulated planning exercise.

**TPI 454 Planning interventions: Supranational, national and provincial scale 454**

**Academic organisation:** Town and Regional Planning

**Contact time:** 2 lpw 1 ppw

**Period of presentation:** Quarter 4

**Language of tuition:** Double medium

**Credits:** 8

**Module content:**

Introduction to planning at provincial, national and supranational scale. Approaches to planning and development of regions and provinces. Past and present examples of planning on each of these scales. Planners' roles in planning exercises at these scales; institutional requirements and implications of planning at these scales. Critiques and improvements on current practice; simulated planning exercise.

**TPS 120 Principles of settlement design 120**

**Academic organisation:** Town and Regional Planning

**Contact time:** 1 ppw 2 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Double medium

**Credits:** 12

**Module content:**

Introduction to the goals and principles of settlement design. Characteristics and measures as well as the design elements of a good living-environment; settlement design within both urban and rural contexts.

Aspects that will be covered include settlement structure (open space and movement systems), sense, symbolism and legibility, accessibility, diversity and opportunity, sustainability, safety, justice and equity.

**TPS 210 Settlement design concepts 210**

**Academic organisation:** Town and Regional Planning

**Contact time:** 2 lpw 1 ppw

**Period of presentation:** Semester 1

**Language of tuition:** Double medium

**Credits:** 16

**Module content:**

The skills and techniques to design a layout of a new settlement or part of an existing settlement. It includes design for the provision of housing for both high and low income groups, as well as commercial and social facilities, open space systems, transportation systems and services. Design sustainable and equitable areas. Site analysis and assessment; development of alternative concepts; the detail design including the division of erven, infrastructure network, land development control and design guidelines.

**TPS 220 Settlement establishment and housing delivery 220**

**Academic organisation:** Town and Regional Planning

**Contact time:** 1 ppw 2 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Double medium

**Credits:** 16

**Module content:**

Institutional and legal frameworks in which settlement establishment and housing provision takes place; user and site requirements; housing typologies and densities; engineering services; role players; financing; township establishment in terms of current legislation; simulated exercise; the detail design including the division of erven, infrastructure network, land development control and design guidelines.

**TPS 310 Spatial concepts 310**

**Academic organisation:** Town and Regional Planning

**Contact time:** 2 lpw 1 ppw

**Period of presentation:** Semester 1

**Language of tuition:** Double medium

**Credits:** 16

**Module content:**

Spatial concepts regarding the development and planning of settlements. Morphological development processes such as decentralisation, counter urbanisation, residential infill and succession, urban sprawl. Spatial structuring elements, e.g. corridors, nodes, compact cities, mixed use.

**TPU 210 Land use management theory 210**

**Academic organisation:** Town and Regional Planning

**Contact time:** 3 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Double medium

**Credits:** 12

**Module content:**

A brief history of land use management in South Africa; rationale for land use management; principles of good land use management in the context of transformation and development imperatives in post-apartheid South Africa, global environmental change, new economic geography, procedural, substantive and intergenerational justice and development economics; critique of land use management; ethics of land use management; the characteristics of an appropriate land use management system that advances transformation, sustainability, resilience, equity, inclusiveness and integration in South Africa; the link between land use management and strategic spatial planning; international and South African examples of land use management systems; the future of land use management.

**TPU 261 Urban land development economics 261**

**Academic organisation:** Town and Regional Planning

**Contact time:** 3 lpw

**Period of presentation:** Quarter 3

**Language of tuition:** Double medium

**Credits:** 6

**Module content:**

The economics of settlements, including aspects such as economic advantages, transformation, equity, integration and inclusiveness; locational choices of urban land uses; density and intensity of development; the effects of densities, location and transportation economics on land values; implications of zoning; implications for sustainability and risk reduction; the cost of urban growth, whether by densification or sprawl. The functioning of the property market, e.g. how the property market works for the urban poor; key role players and decision-making in the property market; the role of urban planning as well as local government and their financial viability in the property market.

**TPU 262 Land use management practice 262**

**Academic organisation:** Town and Regional Planning

**Contact time:** 3 lpw

**Period of presentation:** Quarter 4

**Language of tuition:** Double medium

**Credits:** 6

**Module content:**

Generic components of land use and land development applications and procedures; practical exercises in the preparation, submission, processing and evaluation of land use management applications; policy preparation in terms of land use management systems that advance equity, resilience, inclusiveness, sustainability and integration; appeals; introduction to Environmental Impact Studies (EIAs).

**TPW 310 Institutional and legal structures for planning 310**

**Academic organisation:** Town and Regional Planning

**Contact time:** 3 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Double medium

**Credits:** 12

**Module content:**

Overview of South African institutional and legal structures for planning and development, on national and provincial scale. Relevant legislation and policies that influence planning. Specific reference to the legal frameworks guiding land development, the environment, municipal management and development, housing, transport, water, and Human Rights.

**TRP 110 Introduction to planning 110**

**Academic organisation:** Town and Regional Planning

**Contact time:** 3 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Double medium

**Credits:** 12

**Module content:**

Definitions of planning; rationale for planning; focus areas of planning; planning processes; planners' roles and work places; the institutional framework for planning; planning legislation; values and ethics of planners; the future of planning.

**TRP 320 Planning prospects 320**

**Academic organisation:** Town and Regional Planning

**Contact time:** 3 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Double medium

**Credits:** 12

**Module content:**

Critical reflections on planning as construct, activity and profession. Case study-based exploration of innovative planning practices.

**TRP 412 Professional practice 412**

**Academic organisation:** Town and Regional Planning

**Contact time:** 3 lpw

**Period of presentation:** Quarter 2

**Language of tuition:** Double medium

**Credits:** 6

**Module content:**

Professional conduct and practice addressing issues such as ethics and accountability; overview of the planning profession and organisations; introduction to business management; practical discussion of topics such as marketing, client service, promotion, administration and time management.

**POSTGRADUATE**

**ARG 890 Dissertation: Architecture 890**

**Academic organisation:** Architecture

**Period of presentation:** Year

**Language of tuition:** Both Afr and Eng

**Credits:** 180

**ARG 895 Mini-dissertation 895**

**Academic organisation:** Architecture

**Period of presentation:** Year

**Language of tuition:** Both Afr and Eng

**Credits:** 100

**ARG 990 Thesis: Architecture 990**

**Academic organisation:** Architecture

**Period of presentation:** Year

**Language of tuition:** Both Afr and Eng

**Credits:** 360

**BRK 990 Thesis: Quantity surveying 990**

**Academic organisation:** Construction Economics

**Period of presentation:** Year

**Language of tuition:** Both Afr and Eng

**Credits:** 360

**BKR 700 Building cost estimation 700**

**Academic organisation:** Construction Economics

**Contact time:** 4 lpw

**Period of presentation:** Year

**Language of tuition:** Both Afr and Eng

**Credits:** 24

**Module content:**

Estimation of building costs – principles and process; elements of a price; rough quantities and inclusive quantities (elemental and builders' quantities) for estimating; estimating methods; pricing of various trades and preliminaries; analysis of building cost; building cost escalation; design cost management, value management and life-cycle costing.

**BRK 700 Quantity surveying practice 700**

**Academic organisation:** Construction Economics

**Contact time:** 3 lpw

**Period of presentation:** Year

**Language of tuition:** Double medium

**Credits:** 18

**Module content:**

Model preliminaries; different types of bills of quantities; bills of quantities compilation; standards for uniformity; contract administration; project administration; conditions of appointment and fee accounts; consortiums; tendering for professional services; professional indemnity; Quantity Surveying Profession Act; Council for the Built Environment Act; CIDB Act.

**BRK 785 Research report 785**

**Academic organisation:** Construction Economics

**Period of presentation:** Year

**Language of tuition:** Both Afr and Eng

**Credits:** 24

**Module content:**

An essay on a subject approved by the head of department should be handed in during the final year of study.

**BTP 700 Management practice 700**

**Academic organisation:** Construction Economics

**Contact time:** 4 lpw

**Period of presentation:** Year

**Language of tuition:** Both Afr and Eng

**Credits:** 24

**Module content:**

Budgets, cash-flow schedules and financial statements for the quantity surveying practice. Interpretation of financial statements and construction financial management.

**BRK 890 Dissertation: Quantity Surveying 890**

**Academic organisation:** Construction Economics

**Period of presentation:** Year

**Language of tuition:** Both Afr and Eng

**Credits:** 180

**BRK 895 Mini-dissertation: Quantity surveying 895**

**Academic organisation:** Construction Economics

**Period of presentation:** Year

**Language of tuition:** Both Afr and Eng

**Credits:** 180

**DPD 801 Mini-dissertation: Design project and discourse 801**

**Academic organisation:** Architecture

**Contact time:** 6 spw

**Period of presentation:** Year

**Language of tuition:** English

**Credits:** 60

**DPD 802 Mini-dissertation: Design project and discourse 802**

**Academic organisation:** Architecture

**Contact time:** 6 spw

**Period of presentation:** Year

**Language of tuition:** Double medium

**Credits:** 60

**DPD 803 Mini-dissertation: Design project and discourse 803**

**Academic organisation:** Architecture

**Contact time:** 6 spw

**Period of presentation:** Year

**Language of tuition:** Double medium

**Credits:** 60

**EMW 890 Dissertation: Real estate 890**

**Academic organisation:** Construction Economics

**Period of presentation:** Year

**Language of tuition:** Both Afr and Eng

**Credits:** 180

**EMW 892 Mini-dissertation: Real estate 892**

**Academic organisation:** Construction Economics

**Period of presentation:** Year

**Language of tuition:** Both Afr and Eng

**Credits:** 60

**EMW 990 Thesis: Real estate 990**

**Academic organisation:** Construction Economics

**Period of presentation:** Year

**Language of tuition:** Both Afr and Eng

**Credits:** 360

**EOW 600 Introduction to property law 600**

**Academic organisation:** Construction Economics

**Contact time:** Self study

**Period of presentation:** Semester 1 or Semester 2

**Language of tuition:** English

**Credits:** 0

**Module content:**

Moveable and immovable property. Rights over immovable property; private legal circumscription of ownership; relevant legislation pertaining to property; real securities; the registration of rights; zoning regulations.

**EUS 710 Feasibility studies 710**

**Academic organisation:** Construction Economics

**Contact time:** 3 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Double medium

**Credits:** 9

**Module content**

Overview of factors affecting the feasibility of proposed real estate developments, including a short introduction to town planning, assessment, financial marketing and investment principles.

**EUS 720 Feasibility studies 720**

**Academic organisation:** Construction Economics

**Prerequisite:** EUS 710

**Contact time:** 3 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Double medium

**Credits:** 9

**Module content**

Detailed financial viability studies of different types of property developments.

**FBV 600 Introductory financial calculations 600**

**Academic organisation:** Construction Economics

**Contact time:** Self study

**Period of presentation:** Semester 1 or 2

**Language of tuition:** English

**Credits:** 0

**Module content:**

Introduction to the time value of money, discounted cash flow calculations, annuities and mortgage bond calculations, introduction to financial measures of return, Net Present Value and the Internal Rate of Return.

**FMT 700 Financial management 700**

**Academic organisation:** Construction Economics

**Contact time:** 4 lpw

**Period of presentation:** Year

**Language of tuition:** Double medium

**Credits:** 24

**Module content:**

Budget estimates, cash-flow schedules and financial statements as well as the handling of contract accounts as introduction to construction financial management.

**FMT 701 Financial management 701**

**Academic organisation:** Construction Economics

**Prerequisite:** FMT 700 GS

**Contact time:** 4 lpw

**Period of presentation:** Year

**Language of tuition:** Double medium

**Credits:** 24

**Module content:**

The application of management principles such as: cost, budgets, cash-flow and financial statements, in construction financial management and construction project management.

**HVH 700 Quantities 700**

**Academic organisation:** Construction Economics

**Contact time:** 4 lpw

**Period of presentation:** Year

**Language of tuition:** Double medium

**Credits:** 24

**Module content:**

Measuring of demolitions, alterations, geotechnical engineering works, civil engineering works, mass earthworks, advanced earthworks and concrete work, different concrete slab constructions, precast concrete, advanced brickwork, rubble walling, stone masonry, advanced electrical work and mechanical services. Abstracting and billing.

**INT 990 Thesis: Interior architecture 990**

**Academic organisation:** Architecture

**Period of presentation:** Year

**Language of tuition:** Both Afr and Eng

**Credits:** 360

**KBS 710 Construction management 710**

**Academic organisation:** Construction Economics

**Contact time:** 3 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Double medium

**Credits:** 9

**Module content:**

Operational management techniques, productivity and work study. Construction programming techniques.

**KBS 720 Construction management 720**

**Academic organisation:** Construction Economics

**Contact time:** 3 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Double medium

**Credits:** 9

**Module content:**

Human resource management.

**KBS 785 Research report 785**

**Academic organisation:** Construction Economics

**Period of presentation:** Year

**Language of tuition:** Both Afr and Eng

**Credits:** 24

**Module content:**

An essay on a subject approved by the head of department has to be completed during the final year of study.

**KBS 990 Construction management: thesis 990**

**Academic organisation:** Construction Economics

**Period of presentation:** Year

**Language of tuition:** Both Afr and Eng

**Credits:** 360

**KEN 740 Construction entrepreneurship 740**

**Academic organisation:** Construction Economics

**Contact time:** 3 lpw

**Period of presentation:** Semester 2

**Language of tuition:** English

**Credits:** 9

**Module content:**

Entrepreneurship, strategic management and marketing. Business ethics.

**KKR 730 Construction contract law 730**

**Academic organisation:** Construction Economics

**Contact time:** 4 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Double medium

**Credits:** 12

**Module content:**

Law of contract – an overview; history of building contracts in South Africa; JBCC principal building agreement: definitions, objective, preparation, execution, completion, payment, termination, settlement of disputes; JBCC minor works agreement; case studies.

**KKR 740 Construction contract law 740**

**Academic organisation:** Construction Economics

**Prerequisite:** KKR 730 GS

**Contact time:** 4 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Double medium

**Credits:** 12

**Module content:**

Subcontracting: consultants; main contractor; direct contractor and subcontractor; JBCC nominated/selected subcontract agreement: definitions, objective, preparation, execution, completion, payment, termination, settlement of disputes; non-nominated subcontract agreement. Other standard agreements (GCC, NEC and FIDIC); case studies. Dispute resolution: mediation, adjudication and arbitration; alternative dispute resolution; litigation: legislation and rules; law of delict; negligence and damage to property.

**KPB 730 Construction project management 730**

**Academic organisation:** Construction Economics

**Contact time:** 3 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Double medium

**Credits:** 9

**Module content:**

Introduction to project management in the building and property industry. Key processes, knowledge areas and techniques are covered.

**KSH 700 Construction quantities 700**

**Academic organisation:** Construction Economics

**Contact time:** 4 lpw

**Period of presentation:** Year

**Language of tuition:** Double medium

**Credits:** 24

**Module content:**

Preliminaries and pricing thereof, different types of bills of quantities, builder's quantities, civil engineering works, tender documentation, analysis of building costs, economical designs, building cost estimates, practical contractor's administration and cost management – internal and external.

**INT 890 Dissertation: Interior design 890**

**Academic organisation:** Architecture

**Period of presentation:** Year

**Language of tuition:** English

**Credits:** 180

**KBS 891 Dissertation: Construction management 891**

**Academic organisation:** Construction Economics

**Period of presentation:** Year

**Language of tuition:** Both Afr and Eng

**Credits:** 180

**KBS 892 Mini-dissertation: Construction management 892**

**Academic organisation:** Construction Economics

**Period of presentation:** Year

**Language of tuition:** Both Afr and Eng

**Credits:** 60

**LAN 890 Dissertation: Landscape architecture 890**

**Academic organisation:** Architecture

**Period of presentation:** Year

**Language of tuition:** English

**Credits:** 180

**LAN 990 Thesis: Landscape architecture 990**

**Academic organisation:** Architecture

**Period of presentation:** Year

**Language of tuition:** Both Afr and Eng

**Credits:** 360

**NNM 710 Research methodology 710**

**Academic organisation:** Construction Economics

**Contact time:** 2 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Double medium

**Credits:** 6

**Module content:**

Defining research; role of research in the built environment; the research problem/question; research planning and design; the research proposal; overview and application of qualitative and quantitative methods for data collection; analysis and interpretation of data; the research report (style and format); ethics in research

**NNM 820 Research methodology 820**

**Academic organisation:** Construction Economics

**Contact time:** 10 lpw

**Period of presentation:** Semester 2

**Language of tuition:** English

**Credits:** 10

**POU 720 Practical development feasibility 720**

**Academic organisation:** Construction Economics

**Prerequisite:** Finalists only

**Contact time:** 3-day excursion

**Period of presentation:** Semester 2

**Language of tuition:** Double medium

**Credits:** 2

**Module content:**

The feasibility of a project is investigated by groups comprising students of the various fields of study in the built environment.

The projects are presented to a panel of judges comprising practitioners.

**PRB 890 Dissertation: Project management 890**

**Academic organisation:** Construction Economics

**Period of presentation:** Year

**Language of tuition:** Both Afr and Eng

**Credits:** 180

**PRB 892 Essay: Project management 892**

**Academic organisation:** Construction Economics

**Period of presentation:** Year

**Language of tuition:** Both Afr and Eng

**Credits:** 60

**RFP 700 Capita selecta 700**

**Academic organisation:** Architecture

**Period of presentation:** Year

**Language of tuition:** Double medium

**Credits:** 40

A capita selecta of the various modules related to the research field that the student is advised to follow by the research field coordinator. Research fields:

- Environment potential
- Housing and urban environments
- Heritage and cultural landscapes

**RFS 700 Capita selecta 700**

**Academic organisation:** Architecture

**Period of presentation:** Year

**Language of tuition:** Double medium

**Credits:** 20

**Module content:**

A capita selecta from one of the following research fields:

- Environment potential
- Housing and urban environments
- Heritage and cultural landscapes

**RFS 890 Research field studies 890**

**Academic organisation:** Architecture

**Contact time:** 2 spw 2 lpw

**Period of presentation:** Year

**Language of tuition:** English

**Credits:** 30

**SSB 890 Dissertation: Town and regional planning 890**

**Academic organisation:** Town and Regional Planning

**Period of presentation:** Year

**Language of tuition:** Both Afr and Eng

**Credits:** 180

**SSB 990 Thesis: Town and regional planning 990**

**Academic organisation:** Town and Regional Planning

**Period of presentation:** Year

**Language of tuition:** Both Afr and Eng

**Credits:** 360

**TPD 820 Integrated development planning 820**

**Academic organisation:** Town and Regional Planning

**Contact time:** 24 contact hours per semester

**Period of presentation:** Semester 2

**Language of tuition:** Both Afr and Eng

**Credits:** 20

**Module content:**

Introduction to development and development planning theories; the integrated development planning process; legal, institutional and policy frameworks in which integrated planning functions in South Africa; implementation of integrated development plans; case studies of integrated development planning; simulations of integrated development planning exercises.

**TPE 800 Mini-dissertation 800**

**Academic organisation:** Town and Regional Planning

**Period of presentation:** Year

**Language of tuition:** Both Afr and Eng

**Credits:** 100

**Module content:**

Identification and discussion of a research problem; preparation of a research proposal in the prescribed format for approval by the head of department; literature study; design, plan and execution of research in line with approved research proposal; writing up and presentation of research findings; academic article for publication.

**TPI 811 Metropolitan and urban area-based interventions 811**

**Academic organisation:** Town and Regional Planning

**Contact time:** 24 contact hours per semester

**Period of presentation:** Semester 1

**Language of tuition:** English

**Credits:** 20

**Module content:**

Scope, nature and rationale of metropolitan and urban area-based interventions; unique problems in metropolitan areas, for example inner city decay, fringe development, housing, services backlog, the dysfunctional apartheid cityscape and dependency on private transport; types of intervention (inter alia institutional, spatial, economic and social) in order to accomplish restructuring and development in metropolitan areas in South Africa in a relevant, social and environmentally accountable way; policy and legislation regarding urban restructuring and development in South Africa; international and local case studies; impact of globalisation on South African metropolitan areas and major cities; simulated metropolitan and urban area-based intervention exercise.

**TPI 821 Regional interventions 821**

**Academic organisation:** Town and Regional Planning

**Contact time:** 24 contact hours per semester

**Period of presentation:** Semester 2

**Language of tuition:** Both Afr and Eng

**Credits:** 20

**Module content:**

Scope, nature and rationale of regional interventions on both a supra-national and subnational scale; approaches to planning and development on continental, macro-regional, provincial and district scales; types of intervention (inter alia institutional, spatial, economic and social) in order to accomplish restructuring and development in regions in a relevant, social and environmentally accountable way, past and present examples of planning on each of these scales; planners' roles in planning exercises at these scales; critiques and improvements on current practice; rural urban linkages and their significance for regional interventions; debates around the way in which problems facing rural settlements (such as the absence of an economic base and necessary infrastructure, lack of access to land and conflicting demands on natural resources) in regions can be addressed; international and local case studies; simulated regional intervention exercise.

**TPS 810 Sustainable settlement planning and design 810**

**Academic organisation:** Town and Regional Planning

**Contact time:** 24 contact hours per semester

**Period of presentation:** Semester 1

**Language of tuition:** English

**Credits:** 20

**Module content:**

Normative principles for sustainable settlement planning and design; design theory; planning and design processes; simulated urban and rural settlement planning and design exercise.

**TPS 820 Design for safety 820**

**Academic organisation:** Town and Regional Planning

**Contact time:** 24 contact hours per semester

**Period of presentation:** Semester 2

**Language of tuition:** English

**Credits:** 20

**Module content:**

Normative principles for the planning and design for safety in the built environment; environmental criminology, the role of design in the prevention of crime; design principles for safer buildings, streets and areas. Case studies and design exercise.

**TPU 810 Land use management and land development 810**

**Academic organisation:** Town and Regional Planning

**Contact time:** 24 contact hours per semester

**Period of presentation:** Semester 1

**Language of tuition:** English

**Credits:** 20

**Module content:**

A brief history of land use management in South Africa; rationale for land use management; principles of good land use management in the context of transformation and development imperatives in post-apartheid South Africa, global environmental change, new economic geography, procedural, substantive and intergenerational justice and development economics; critique of land use management; ethics of land use management; the characteristics of an appropriate land use management system that advances transformation, sustainability, resilience, equity, inclusiveness and integration in South Africa; the link between land use management and strategic spatial planning; international and South African examples of land use management systems; the future of land use management. Generic components of land use and land development applications and procedures; practical exercises in the preparation, submission, processing and evaluation of land use management applications; policy preparation in terms of land use management systems that advance the principles of effective, efficient and sustainable land use management; appeals; introduction to Environmental Impact Studies (EIAs).

**TRP 800 An overview of planning theory and practice 800**

**Academic organisation:** Town and Regional Planning

**Contact time:** 32 contact hours per semester

**Period of presentation:** Year

**Language of tuition:** English

**Credits:** 20

**Module content:**

Definitions of planning; rationale for planning; focus areas of planning; planning processes; planners' roles and work places; the institutional framework for planning; the role, impact and evolution of planning legislation; values and ethics of planners; the future of planning. The future as a concept: the importance of thinking about, and planning for the future. Techniques/methods of predicting and/or shaping in the future. Overview of past and present planning theories.

**LIST OF SERVICE MODULES FOR THE SCHOOL FOR THE BUILT ENVIRONMENT**

**Alphabetical list of modules offered by the Faculty of Law**

**ABR 311 Labour law 311**

**Academic organisation:** Mercantile Law

**Contact time:** 3 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Both Afr and Eng

**Credits:** 20

**Module content:**

Basic principles of the employment contract. Collective labour law. Statutory conditions of employment. Individual labour disputes. Collective labour disputes. Settlement procedures.

**BER 310 Business law 310**

**Academic organisation:** Mercantile Law

**Contact time:** 4 lpw Yes

**Period of presentation:** Semester 1

**Language of tuition:** Both Afr and Eng

**Credits:** 16

**Module content:**

Introduction to law. General principles of contract law. Specific contracts: purchase contracts, job contracting. Representative law. General aspects of business law. Dispute resolution – mediation and arbitration.

**Alphabetical list of modules offered by the Faculty of Economic and Management Sciences**

**BDO 181 Industrial and organisational psychology 181**

**Academic organisation:** Human Resource Management

**Contact time:** 3 lpw

**Period of presentation:** Quarter 2

**Language of tuition:** Both Afr and Eng

**Credits:** 5

**Module content:**

Capita selecta

This module will provide an introduction to personnel psychology, organisational behaviour and labour relations. It will refer to the selection of employees and the training and development of human resources in order to adapt to changing circumstances. The role of leadership in group utilisation and motivation will be treated both theoretically and practically. Labour relations will be studied in terms of institutional processes and the service relationship and will include practical aspects such as the handling of grievances, disciplining and dispute resolution.

**EKN 110 Economics 110**

**Academic organisation:** Economics

**Contact time:** 1 dpw 2 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Both Afr and Eng

**Credits:** 10

**Module content:**

Conceptualise the interrelationships of the different sectors in South African economy. The functioning of international trade and policy, government economics and policy, the labour market, monetary economics, economic development and environmental economics with specific reference to the South African context. The impact of national and international decisions and events on the South African economy.

**EKN 120 Economics 120**

**Academic organisation:** Economics

**Prerequisite:** At least 4 (50-59%) in Mathematics in the Grade 12 examination or STK 113 (60%) and STK 123 (60%)

**Period of presentation:** Semester 2

**Language of tuition:** Both Afr and Eng

**Credits:** 10

**Module content:**

The economic environment and problem: working and course of the South African economy; functioning and interrelationships of the different economic sectors. Macroeconomic theory and analysis. Analyse and interpret economic performance criteria: economic growth, inflation, job creation, balance of payments and exchange rate stability, income distribution. Calculate and interpret core economic indicators. Basic microeconomic principles: demand analysis (consumer theory); supply analysis (producer theory). Market analysis: market equilibrium; price determination; market forms; market failure; calculate and interpret price, income and cross elasticities.

**EKN 214 Economics 214**

**Academic organisation:** Economics

**Prerequisite:** EKN 110 GS and EKN 120 or EKN 113 GS and EKN 123 and STK 110 GS and STK 120 GS

**Contact time:** 3 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Both Afr and Eng

**Credits:** 16

**Module content:**

Macroeconomics

From Wall and Bay Street to Diagonal Street: a thorough understanding of the mechanisms and theories explaining the workings of the economy is essential. Macroeconomic insight is provided on the real market, the money market, two market equilibrium, monetarism, growth theory, cyclical analysis, inflation, Keynesian general equilibrium analysis and fiscal and monetary policy issues. Mathematics for economics and econometric analysis of macroeconomic issues.

**EKN 224 Economics 224**

**Academic organisation:** Economics

**Prerequisite:** EKN 110 or EKN113, STK 110, EKN 214 GS

**Contact time:** 3 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Both Afr and Eng

**Credits:** 16

**Module content:**

Microeconomics

Microeconomic insight is provided into: consumer and producer theory, general microeconomic equilibrium, Pareto-optimality and optimality of the price mechanism, welfare economics, market forms and the production structure of South Africa. Statistic and econometric analysis of microeconomic issues.

**FBS 110 Financial management 110****Academic organisation:** Financial Management**Contact time:** 3 lpw**Period of presentation:** Semester 1**Language of tuition:** Both Afr and Eng**Credits:** 10**Module content:**

Purpose and functioning of financial management. Basic financial management concepts. Accounting concepts and the use of the basic accounting equation to describe the financial position of a business. Recording of financial transactions. Relationship between cash and accounting profit. Internal control and the management of cash. Debtors and short-term investments. Stock valuation models. Depreciation. Financial statements of a business. Distinguishing characteristics of the different forms of businesses. Overview of financial markets and the role of financial institutions. Risk and return characteristics of various financial instruments. Issuing ordinary shares and debt instruments.

**FBS 120 Financial management 120****Academic organisation:** Financial Management**Contact time:** 3 lpw**Period of presentation:** Semester 2**Language of tuition:** Both Afr and Eng**Credits:** 10**Module content:**

Analysis of financial statements. Budgeting and budgetary control. Tax principles and normal income tax for individuals. Time value of money and its use for financial and investment decisions. Calculating the cost of capital and the financing of a business to maintain the optimal capital structure. Capital investment decisions and a study of the financial selection criteria in the evaluation of capital investment projects. The dividend decision and an overview of financial risk management.

**STK 110 Statistics 110****Academic organisation:** Statistics**Prerequisite:** At least 5 (60-69%) in Mathematics in the Grade 12 examination.

Candidates who do not qualify for STK 110 must register for STK 113

**Period of presentation:** Semester 1**Language of tuition:** Both Afr and Eng**Credits:** 13**Module content:**

Descriptive statistics:

Sampling and the collection of data; frequency distributions and graphical representations. Descriptive measures of location and dispersion.

Probability and inference:

Introductory probability theory and theoretical distributions. Sampling distributions. Estimation theory and hypothesis testing of sampling averages and proportions (one and two-sample cases). Identification, use, evaluation and interpretation of statistical computer packages and statistical techniques.

This module is also presented as an anti-semester bilingual module.

**STK 120 Statistics 120****Academic organisation:** Statistics**Prerequisite:** STK 110 GS or both STK 113 GS and STK 123 GS**Contact time:** 1 ppw 3 lpw**Period of presentation:** Semester 2**Language of tuition:** Both Afr and Eng**Credits:** 13

**Module content:**

Multivariate statistics:

Analysis of variance, categorical data analysis, distribution-free methods, curve fitting, regression and correlation, the analysis of time series and indices.

Statistical and economic applications of quantitative techniques:

Systems of linear equations: drafting, matrices, solving, application. Optimisation; linear functions (two and more independent variables), non-linear functions (one and two independent variables). Marginal and total functions. Stochastic and deterministic variables in statistical and economic context: producers' and consumers' surplus, distribution functions, probability distributions, probability density functions. Identification, use, evaluation, interpretation of statistical computer packages and statistical techniques.

This module is also presented as an anti-semester bilingual module.

**STK 161 Statistics 161**

**Academic organisation:** Statistics

**Prerequisite:** STK110 GS

**Contact time:** 1 ppw 3 lpw

**Period of presentation:** Quarter 3

**Language of tuition:** Both Afr and Eng

**Credits:** 6

**Module content:**

\*Offered by the Department of Statistics

Multivariate statistics analysis of variance; categorical data analysis; distribution-free methods; curve fitting, regression and correlation; the analysis of time series and indices. Identification, use, evaluation and interpretation of statistical computer packages and statistical techniques.

(This module is also presented as an anti-semester bilingual module)

**Alphabetical list of modules offered by the Faculty of Natural and Agricultural Sciences**

**GGY 265 Geomorphology of the built environment 265**

**Academic organisation:** Geography, Geoinformatics and Meteorology

**Contact time:** 4 lpw

**Period of presentation:** Quarter 3

**Language of tuition:** Double Medium

**Credits:** 12

**Module content:**

\*This module is for Architecture and Landscape Architecture students only.

The theory component covers geomorphological aspects of the built environment including landscape identification; weathering or deterioration of natural stone and application to design and preservation of buildings and monuments; slope hydrology and stability conditions; soil erosion processes and construction impacts; drainage modification in urban areas; wetland identification, human impacts and rehabilitation; recreational impacts and management. In addition to the theory a field-based project is undertaken.

**GGY 283 Introductory geographic information systems 283**

**Academic organisation:** Geography, Geoinformatics and Meteorology

**Period of presentation:** Semester 1

**Language of tuition:** English

**Credits:** 12

**Module content:**

\*This is a closed module, only available to students studying [BT&RP] (12132022), [BSc(Arch)] (12132002), [BSc(LArch)] (12132004), BSc Meteorology (02133312), BSc Geoinformatics (02133383), BSc Environmental Science (02133361), BSc Earth Sciences (02133012), BSc Geography (02133385), BEd Further Education and Training (General) (09133040), BSecEdSci (02135001), BA (01130001) or as approved by the head of department. The content of this module is the same as GIS 221 and students are not allowed to earn credits for both GGY 283 and GIS 221. Introduction to Geographic Information Systems (GIS), theoretical concepts and applications of GIS. The focus will be on the GIS process of data input, data analysis, data output and associated technologies.

**GKD 225 General soil science 225**

**Academic organisation:** Plant Production and Soil Science

**Contact time:** 1 ppw 3 lpw

**Period of presentation:** Quarter 3

**Language of tuition:** English

**Credits:** 12

**Module content:**

Origin and development of soil, weathering and soil formation processes. Profile differentiation and morphology. Physical characteristics: texture, structure and soil water. Chemical characteristics: Clay minerals, ion exchange, pH and soil fertility. Soil classification. Practical work: Laboratory evaluation of simple soil characteristics. Field practical work on soil formation in the Pretoria area.

**SUR 210 Surveying 210**

**Academic organisation:** Geography, Geoinformatics and Meteorology

**Contact time:** 3 lpw 4 ppw

**Period of presentation:** Semester 1

**Language of tuition:** Double Medium

**Credits:** 16

**Module content:**

Adjustment and use of following instruments: Plane table, level, compass and theodolite. Elementary site surveying and levelling, tachometry. Definition of survey. Co-ordinate systems and bearing. Connections and polars. Methods of determining points. Elevation. Tachometry.

**SUR 220 Surveying 220**

**Academic organisation:** Geography, Geoinformatics and Meteorology

**Contact time:** 1 ppw 3 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Double Medium

**Credits:** 16

**Module content:**

Adjustment and use of following instruments: Plane table, level, compass and theodolite. Elementary site surveying and leveling, tachometry. Definition of survey. Co-ordinate systems and bearing. Connections and polars. Methods of determining points. Elevation. Tachometry.

**TKS 212 Textiles: utility, fibres and yarns 212**

**Academic organisation:** Consumer Science

**Contact time:** 1 ppw 3 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Double Medium

**Credits:** 14

**Module content:**

Utility aspects: basic components of textiles, consumer decision making, utility aspects that include durability, comfort, maintenance, health/safety/protection and aesthetic aspects. Fibres and yarns: Fibre structure and performance including textile chemistry, fibre morphology and formation, fibre properties, classification and identification. Yarn structure and performance (including spun yarns, filament yarns, compound and novelty yarns).

**WTW 133 Precalculus 133**

**Academic organisation:** Mathematics and Applied Mathematics

**Prerequisite:** As for BSc Four-year programme

**Contact time:** 1 ppw 1 tpw 5 lpw Foundation Course

**Period of presentation:** Semester 1

**Language of tuition:** English

**Credits:** 8

**Module content:**

Real numbers, elementary set notation, exponents and radicals. Algebraic expressions, fractional expressions, linear and quadratic equations, inequalities. Coordinate geometry: lines, circles. Functions: definition, notation, piecewise defined functions, absolute value, domain and range, graphs, transformations of functions, symmetry, even and odd functions, combining functions, one-to-one functions and inverses, polynomial functions and zeros.

Sequences, summation notation, arithmetic, geometric sequences, infinite geometric series, annuities and instalments. Degrees and radians, unit circle, trigonometric functions, fundamental identities, trigonometric graphs, trigonometric identities, double-angle, half-angle formulae, inverse trigonometric functions, trigonometric equations, applications.

**Alphabetical list of modules offered by the Faculty of Humanities**

**BPE 251 Business ethics 251**

**Academic organisation:** Philosophy

**Contact time:** 2 lpw Yes

**Period of presentation:** Quarter 2, 3 and 4

**Language of tuition:** Double Medium

**Credits:** 10

**Module content:**

What is meant by business ethics? Is it really necessary? This module attempts to provide adequate answers. Students are guided towards understanding the factors that influence their moral reasoning in the South African context. They are introduced to some of the macro-economical ethical issues that companies have to deal with. In terms of managing ethics in organisations, the focus is on the interface between corporate governance processes and the facilitation of ethical values within the workplace. Various stakeholder interests and the moral obligations these imply are discussed. The module also addresses the most common ethical problems in the workplace, and suggests strategies for managing ethics in organisations.

**EOT 110 Academic literacy (1) 110**

**Academic organisation:** Unit for Academic Literacy

**Contact time:** 1 other per week 2 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Both Afr and Eng

**Credits:** 6

**Module content:**

An introduction to academic literacy that considers various learning styles and strategies, and provides an initial exploration of the characteristics of academic language. The module focuses initially on academic listening and speaking. Practice in collecting information for academic tasks, as well as in the processing of academic information. In addition, the module has a focus on the enhancement of academic vocabulary, and some initial and elementary academic writing is attempted.

**EOT 120 Academic literacy (2) 120**

**Academic organisation:** Unit for Academic Literacy

**Contact time:** 1 other per week 2 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Both Afr and Eng

**Credits:** 6

**Module content:**

While retaining an emphasis on the collection and processing of academic information, this module also provides sustained practice in academic reading. Similarly, we concentrate on building up an academic vocabulary specific to certain fields of study. The final part of the module brings together academic listening, reading and writing. The production of academic information in the form of argumentative writing is the focus here, i.e. we concentrate on producing academic discourse that is rational, coherent, clear and precise.

**FIL 155 Science and world views 155**

**Academic organisation:** Philosophy

**Contact time:** 1 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Both Afr and Eng

**Credits:** 6

**Module content:**

World views in ancient Greece. Socrates. Plato – the founder of Western thought. Aristotle – the foundation of a new tradition. Leonardo da Vinci. The foundation of modern science. The wonder years of the seventeenth century – the flourishing of the sciences and philosophy. The rising of mechanisation. A drastic turn in man's vision – the rise of psychology. How the theory of relativity changed our view of the cosmos. Quantum theory and its implications for the modern world view. The biological sciences and the secrets of life. The rise and role of psychology. The neuro-sciences. The place, role and benefit of philosophical thought in the sciences.

**FIL 355 Ethics 355**

**Academic organisation:** Philosophy

**Contact time:** 2 lpw

**Period of presentation:** Quarter 3

**Language of tuition:** English

**Credits:** 15

**Module content:**

A general introduction to ethics. Important ethical theories. Applied ethics (issues in e.g. occupational ethics, medical ethics, environmental ethics, public service, etc.).

**RES 151 Introduction to research 151**

**Academic organisation:** Humanities Dean's Office

**Contact time:** 2 lpw

**Period of presentation:** Quarter 3

**Language of tuition:** Both Afr and Eng

**Credits:** 6

**Module content:**

Introduction to basic research in the social sciences and humanities. Various approaches to research. Research methods: problem statement, formulation of hypotheses, design of variables, interpretation and graphic presentation of data, and report writing. Ethics in research.

**SOC 110 Sociology 110**

**Academic organisation:** Sociology

**Contact time:** 2 lpw

**Period of presentation:** Semester 1

**Language of tuition:** Both Afr and Eng

**Credits:** 12

**Module content:**

Part 1: The individual and society

An introduction to sociology and the sociological paradigm.

Part 2: The sociology of institutions

A focus on the social dynamics of the institutions of society such as the family, the economy, religion, education, the polity and civil society.

**SOC 120 Sociology 120**

**Academic organisation:** Sociology

**Contact time:** 1 tpw 3 lpw

**Period of presentation:** Semester 2

**Language of tuition:** Both Afr and Eng

**Credits:** 12

**Module content:**

Part 1: Race, class and gender

The nature and dynamics of social inequality. Race, gender and class are the foci of the module. The South African reality in this regard is highlighted.

Part 2: Group dynamics diversity and social identity

Micro sociological theories and methods such as interaction process analysis, social impact analysis, situational analysis and communication flow analysis. The cultural processes of the formation of social identities and diversity will be introduced.

**SOC 210 Sociology 210**

**Academic organisation:** Sociology

**Prerequisite:** SOC 110(GS), SOC 120(GS)/SOC 121(GS) and RES 151 is recommended .

**Contact time:** 1 tpw 3 lpw

**Period of presentation:** Semester 1

**Language of tuition:** English

**Credits:** 20

**Module content:**

Part 1: Social change, development and globalisation

The study of societal change and development is fundamental to sociological analysis. Moreover the contemporary process of globalisation at a world level impacts on the process of change. This section will review some classical and contemporary debates on issues such as progress, modernisation, development and underdevelopment, dependency, post-development and globalisation.

Part 2: Households, family and gender

This section focuses on theories and issues relevant to the understanding of gender, households and family life at a general level but with a particular emphasis on the Southern African context. This part will address issues such as poverty, survival strategies of rural and urban households, domestic violence and its effects on family life

### **SOC 220 Sociology 220**

**Academic organisation:** Sociology

**Prerequisite:** SOC 110, SOC 120(GS)/SOC 121(GS) and RES 261 is recommended

**Contact time:** 1 tpw 3 lpw

**Period of presentation:** Semester 2

**Language of tuition:** English

**Credits:** 20

**Module content:**

Part 1: Health, aids and society

Any infectious disease, its etiology and epidemiology should be understood in the historical and social context within which it exists. This part focuses on sociological arguments and explanations for the spread of infectious diseases including tuberculosis, malaria and HIV/Aids throughout the world but with particular emphasis on the third world. Students will be introduced to issues concerning health, illness, sexual behaviour, gender and age relations, racism, power and socio-economic inequality, all of which exert important effects on the spread and consequences of disease.

Part 2: Demography and population studies

The substantial increase in world population during the past century compounded key issues faced by contemporary societies. An interplay between demographic processes such as morbidity, mortality, fertility and mobility impact of the size a population and in turn to an extent is shaped by the structure of a population as well as the cultural context of a society. Concerns such as food security, utilisation of natural resources, environmental impact and unemployment should be considered in conjunction with population processes. An awareness of demographic processes plays a key role in developing population policies and programmes to address key challenges societies face.

### **SOC 310 Sociology 310**

**Academic organisation:** Sociology

**Prerequisite:** SOC 120, SOC 210(GS), SOC 220(GS)

**Contact time:** 1 tpw 3 lpw

**Period of presentation:** Semester 1

**Language of tuition:** English

**Credits:** 30

**Module content:**

Part 1: Rural and urban sociology

This section offers a sociological frame of reference for the analysis of rural and urban communities, with a specific focus on selected current issues, policies and strategies to address problem areas to manage rural and urban development.

Part 2: The sociology of social movements

Labour, nationalist and peasant movements are argued to have been supplanted by 'new' social movements during the 1960s concerned with gender, the environment, peace issues, and human rights for example. This section will debate the literature on 'old' and 'new' social movements and will assess the sociological character of a number of contemporary and historically relevant movements internationally.

### **SOC 320 Sociology 320**

**Academic organisation:** Sociology

**Prerequisite:** SOC 210, SOC 220(GS) and RES 361 is recommended

**Contact time:** 3 lpw 1 tpw

**Period of presentation:** Semester 2

**Language of tuition:** English

**Credits:** 30

**Module content:**

Part 1: Social theory

Students are taught the work of a number of social theorists such as Marx, Engels, Durkheim, Giddens, Weber, Habermas and Foucault.

Part 2: The sociology of work and industry

The section addresses sociological approaches to the workplace. It will critically assess labour market policy and examine issues such as management practice, employment and unemployment, and discrimination and flexibility in the labour market in South Africa.

E&OE