

**FACULTIES OF THE UNIVERSITY  
OF PRETORIA**

HUMANITIES

EDUCATION

NATURAL, AGRICULTURAL AND INFORMATION SCIENCES

LAW

THEOLOGY

ECONOMIC AND MANAGEMENT SCIENCES

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HEALTH SCIENCES

DENTISTRY

ENGINEERING AND THE BUILT ENVIRONMENT

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## **FACULTY OF ENGINEERING AND THE BUILT ENVIRONMENT**

### **PART I**

**(separate publication)**

#### **ENGINEERING**

- Industrial and Systems Engineering
- Chemical Engineering
- Electrical and Electronic Engineering
- Engineering and Technology Management
- Agricultural and Food Engineering
- Mechanical and Aeronautical Engineering
- Materials Science and Metallurgical Engineering
- Mining Engineering
- Civil Engineering

### **PART II**

**(this publication)**

#### **DIVISION FOR THE BUILT ENVIRONMENT**

- Architecture and Landscape Architecture (including Interior Design)
- Quantity Surveying and Construction Management
- Town and Regional Planning

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**FACULTY OF ENGINEERING AND THE BUILT ENVIRONMENT  
DIVISION FOR THE BUILT ENVIRONMENT  
ACADEMIC PERSONNEL**

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Theron, J.E. .... Undergraduate Admin.

## GENERAL INFORMATION

### **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 courses closes on 30 June.

### **Selection**

A selection procedure takes place prior to admission to the following degree courses in the Division for The Built Environment:

(a) **All undergraduate degree courses**

(b) **Postgraduate Courses**

MSc(QS) with course work and MSc(Construction Management) degrees, MSc Project Management, MSc Real Estate. Only a restricted number of students are admitted. Applications close on 30 September.

### **Statement of symbols**

When registering at this University for the first time, an undergraduate candidate has to submit a record of symbols obtained for each subject in the matriculation examination. Postgraduate students have to submit an academic record.

### **Medium of instruction**

In conducting its business, the University uses two official languages, namely Afrikaans and English. In formal education, the medium of instruction is either Afrikaans or English, or both of these languages, provided that there is a demand and that it is academically and economically justifiable. However, it remains the student's responsibility to ascertain on an annual basis in which language a course and any further level of that course is presented.

In respect of administrative and other services, a student has the right to choose whether the University should communicate with him or her in Afrikaans or English.

### **Subjects presented in English as well as Afrikaans:**

#### **Department of Architecture and Landscape Architecture:**

All design and landscape design courses.

Landscape Theory 100, 310, 320,410, 420

History of the Environment 120, 122, 220, 224, 421, 511

Design Communication 110, 120

Site Construction 310, 320

Construction 110, 120

#### **Department Quantity Surveying and Construction Management:**

Industrial Safety 500, Building Organisation 111,

Building Science 110, 120, 210, 220, 310, 320, 410, 420

Financial Management 400, 500

Building Services 112, 122, 212, 222, 312, 322

Construction Management 310, 320, 410, 420, 510, 520

Property Development 500.

### **Bursaries and loans**

Particulars of bursaries and loans are available on request.

### **Accommodation**

Applications for accommodation in university residences for a particular year should be submitted as from April 1 of the preceding year. Applications will be considered as long as 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.

### **Open day and orientation**

Details of the open day to which all parents are cordially invited, and the subsequent orientation week during which all new first-year students must be present, are obtainable from the Dean of Students, University of Pretoria 0002.

### **Prescribed books**

Lists of prescribed books are not available. The appropriate lecturers will supply information regarding prescribed books to students at the commencement of lectures.

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

The University retains the right to amend the regulations and to change course fees without prior notification.

**NB:** The University of Pretoria will be phasing in a new system of education and learning during 2000, which will meet the requirements set out in SAQA guidelines (South African Qualification Authority) and in the NQF (National Qualification Framework). This entails the implementation of training programmes that will be outcomes-based and market-orientated.

This system will be implemented in the Faculty during 2001. Students who have registered for a degree or diploma in this Faculty before 2000, or who register for 2000, will be enabled to complete the studies for the qualification. Should a student who registered before 2000, wish to change over to the a new programme, permission may be obtained in consultation with the programme manager for the new programme. For some programmes, it will be essential for the student to switch over to the new programme on the recommendation of the programme manager. However, the student will have to meet all the requirements for the new qualification.

As a result of the phasing-in of this new system, information in this publication might not reflect the very latest developments in the Faculty. Problems may be taken up with the Faculty Administration.

### **Definition of terms**

*Familiarise yourself with the following terms. They are used generally in all faculties.*

**academic year:** the duration of the academic year which is determined by the University Council and consists of two semesters

**course:** a selected division of a subject deemed to be a unit and to which a course code is allocated

**course code:** consists of an equal number of capitals and digits, which indicate the name of the course, the year of study, the period of study and the level of the course

**curriculum:** a series of courses grouped together from different subjects 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 course, including practical and clinical examinations where applicable. If necessary, the examination mark is finalised after ancillary examinations have been completed

**extended study programme:** a study programme for a degree or diploma which is completed over a longer period than the minimum duration of the particular degree or diploma

**extramural study:** classes attended after hours by students who register for the curriculum of a first degree or diploma that is presented over a longer period than the minimum duration indicated in the regulations for the particular degree or diploma

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

**GS:** a combined mark (semester/year mark plus examination mark) of at least 40% which is required for admission to a particular course

**level of a course or level:** the academic level of a course which is indicated in the course code

**registration:** the process a candidate is required to complete to be admitted as a student of the University or for admission to a course

**regulation for admission:** a regulation drawn up by the Dean of the Faculty regarding the admission of students to the faculty. It includes a provision regarding the selection process

**semester course:** a course that extends over one semester

**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 course as approved by regulation

**subject:** a demarcated field of study of which one course or more may be chosen for a degree

**syllabus:** the division of the study material for a specific course, according to the regulations

**year course:** a course that extends over one year (two semesters)

## REGULATIONS AND CURRICULA

### 1. Admission to undergraduate study

#### 1.1 General

- (a) To register for a first bachelor's degree at the University, a candidate must, in addition to the required matriculation exemption certificate, comply with the specific admission requirements for particular courses and fields of study as prescribed in the admission regulations and the faculty regulations of the departments.

It is expected of every new undergraduate student who wishes to register at the University of Pretoria, to complete a language proficiency test. Based on the results of this test, the student will be enrolled in language development courses that have to be passed before the degree will be awarded. In exceptional circumstances, the test may be substituted by other courses as approved by the Dean.

- (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 matriculation certificate with university exemption.
- (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.

**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. Candidates are advised to contact the specific faculty administration in this regard.

A candidate without matriculation exemption may apply for admission to undergraduate studies on the prescribed form, provided that he or she reaches the age of 23 by 31 December of the year in which he or she wishes to commence studies, and provided that they have passed four approved matriculation subjects, with at least one subject at higher grade (with the exception of a second language), as well. The application form is available on request. However, all such candidates will be required to write a potential test. The final decision regarding admission will be based on the results of the potential test.

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

## 1.2 Requirements for specific courses

A candidate who has

- (a) passed the Grade 12 examination in Computer Studies with at least 50% (D) at higher grade, as well as in Mathematics with at least 50% (D) at higher grade or at least 60% (C) at standard grade, obtains admission to the course COS 110 in Computer Science. (These candidates may not register for CIL 171, CIL 172, CIL 173 (6 credits) and/or COS 160). A student who has passed the courses CIL 171, CIL 172, CIL 173 (or INF 110) and COS 160 (or equivalent as determined by the Head of Department), obtains admission to the course COS 110 in Computer Science. In exceptional cases a candidate who does not comply with the admission requirements, can be admitted to COS 110, with the permission of the Head of Department on the basis of academic achievement and/or applicable experience acquired in practice. A candidate who does not comply with the admission requirements for Computer Science, or who did not pass the Grade 12 examination in Computer Studies, may be admitted to Cos 110, depending on the results of a special admissions test that can be taken before the start of the academic year, only if the admission requirements for Mathematics have been met. Applications to take this test can be submitted at the Computer Science Department;
- (b) passed the Grade 12 examination in Mathematics with at least 40% at higher grade or at least 50% at standard grade, or at least 50% in Geography at higher grade, obtains admission to the courses GGY 151, 132, 161 and 162 in Geography;
- (c) passed the Grade 12 examination in Mathematics with at least 40% at higher grade or at least 50% at standard grade (or at least 50% in Statistics 113 and 123), will be admitted to (i) Statistics 114 and a course in the subjects

Informatics (excluding INF 170 and 270) or Statistics and (ii) courses in Business Management, Economics, Marketing Management and Financial Accounting at 200 level;

- (d) A student may write an exemption test for module FRK 151 on the work covered in grade 12 (matric) for the subject Accountancy. Should this test be passed, the student will be exempted from module FRK 151 and will be allowed to continue with module FRK 181 immediately. This module entails computer applications for Accountancy and is presented during the full first semester (14 weeks). Should the student fail the exemption test, he or she can continue with FRK 151, which entails introductory computer-supported accountancy and a few lectures. The student who failed to pass the exemption test for FRK 151, will continue with FRK 181 in the second semester after having passed FRK 151 in the first semester.

**NB :**

- (i) ... *the Grade 12 examination*... refers to the final matriculation examination.
- (ii) 50% at higher grade is regarded to be equivalent to 60% at standard grade for these purposes (only 1.2 (d)). Applicants who matriculated before 1990 will be considered on merit.

A student who wishes to follow a course presented by another faculty, must familiarise him or herself with the admission requirements of the specific course, sub-minima in examinations, supplementary examinations, etc.

**2. Registration for a particular year of study**

At the beginning of an academic year, a student registers for all the courses he or she intends taking in that particular year (whether these be first-semester, second-semester or year courses). Changes to the chosen course of study may be made at the beginning of the second semester with the Dean's approval.

The registration of a student will only be renewed if he or she complies with the requirements as set out in General Regulation G. 3.2.

**3. Examination and pass requirements**

A student must obtain a minimum semester/year mark of 40% for admission to the examination in a course, with the exception of first-semester courses at 100 level in which at least 30% is required. In addition, a student must comply with all departmental requirements as indicated in the syllabi. A subminimum of 40% is required in the examination of each course, except where a higher percentage is stipulated in the faculty regulations. Subminimum requirements in subdivisions of courses are indicated in the syllabi of each department. A student must obtain a final mark of at least 50% to pass in a course.

**3.1 Subminima in examinations**

Where applicable, the subminima required in examinations appear in the regulations of the degree in question and in the syllabi of the courses required for that degree.

**3.2 Examinations**

Examinations in first-semester courses, take place in May/June, while all the other examinations (second-semester courses and year courses) take place in October/November.

- Credit in a course can only be obtained by passing the examination in that course, and obtaining a final mark of at least 50% .
- The relative weights of semester and examination marks in relation to the final mark are, subject to General Regulations G.10 and G.12.2, determined by the Head of the Department concerned in consultation with the lecturer(s). These weights are published in the Study Manual of the Faculty.

### 3.3 Ancillary examinations

After completion of an examination and before the examination results are published, the examiners may summon a student for an ancillary examination on particular aspects of the work of that course.

### 3.4 Re-marking of examination papers (also consult Gen. Reg. G.14)

After an examination, departments give feedback to students about the framework that was used by the examiners during the examination. The way in which feedback is given, is determined by the departmental heads.

Students may apply for re-marking of an examination paper within 14 calendar days of commencement of lectures in the next semester. The prescribed fee has to be paid. The paper will then be re-marked by an examiner appointed by the Head of the Department.

### 3.5 Supplementary examinations (also consult Gen. Reg. G.12.4)

- (a) Supplementary examinations in first-semester courses take place after the June examinations, while those in second-semester and year courses take place after the November examinations.
- (b) To pass a supplementary examination, a student must obtain a minimum of 50%.
- (c) The highest final percentage a student can obtain in a supplementary examination is 50%.
- (d) Special supplementary examinations are not arranged for students who are unable to write the examination at the times scheduled for supplementary examination.

### 3.6 Special examinations

A student who has complied with all the requirements for the degree, with the exception of a maximum of one year course or two semester courses in which he or she obtained a final mark of at least 40%, may be admitted to a special examination at the beginning of the following semester.

A student who obtained less than 40% in any of the subject courses, or who has already been admitted to a special examination, will not be considered.

## DEGREES IN THE BUILT ENVIRONMENT

The following degrees are offered in the Division (minimum duration in brackets):

### (a) Degrees in Division for The Built Environment

- (i) Baccalaureus Scientiae in Architecture - BSc(Arch) (3 years)
- (ii) Baccalaureus in Architecture - BArch (5 years)
- (iii) Magister in Architecture - MArch (1 year)

- (iv) Baccalaureus Scientiae in Landscape Architecture -BSc(LArch) (3 years)
- (v) Baccalaureus in Landscape Architecture - BL (5 years)
- (vi) Master of Landscape Architecture - ML (1 year)
- (vii) Baccalaureus Scientiae in Interior Design Blnt (4 years)
- (viii) Magister in Interior Design MInt (1 year)
- (ix) Baccalaureus Scientiae (Quantity Surveying) - BSc(QS) (5 years)
- (x) Magister Scientiae (Quantity Surveying) - MSc(QS) (1 yrs), Course work (2 yrs)
- (xi) Baccalaureus Scientiae (Construction Management) - BSc(Construction Management) (5 years)
- (xii) Magister Scientiae (Construction Management) - MSc(Construction Management) (1 year), Course work (2 years)
- (xiii) Magister Scientiae in Real Estate - MSc Real Estate (2 years)
- (xiv) Magister Scientiae in Project Management - MSc Project Management (2 yrs)
- (xv) Baccalaureus in Town and Regional Planning - BS&S (4 years)
- (xvi) Magister in Town and Regional Planning - MS&S (2 years)

**(b) Doctoral degrees**

- (i) Philosophiae Doctor - PhD (1 year)

### Div.1 GENERAL INFORMATION FOR DEGREES

General Regulations G.1 to G.15 apply to all bachelor's degrees.

**(a) Admission requirements**

A matriculation exemption certificate with at least 40% (E symbol) in Mathematics and Physical Science at higher grade, or at least 50% (D symbol) at standard grade.

**(b) Duration**

The minimum duration of study is indicated at the relevant degree course.

**(c) Curriculum explanation**

- (i) The symbol GS used with a prerequisite indicates that a combined mark of at least 40% must be achieved. Alternatively, a final mark of at least 40% will also be acceptable.
- (ii) The symbol † used with a prerequisite, indicates that the specific course has to be passed or taken simultaneously.
- (iii) A comma or semicolon should be read as *and*, while the / symbol should be read as *or*.
- (iv) If no symbol is given with a prerequisite, it indicates that the subject course has to be passed.
- (v) When two or more courses appear directly next to each other, without a space and only a comma between the subjects in the prerequisite column, it indicates that the courses have to be passed, and a GS after the subjects, indicate that a GS has to be obtained in each one.

### DEGREES IN ARCHITECTURE

Architecture entails the design of buildings and the spaces in 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 innovative people and do not always follow the conventional routes. Although they are employed by organisations that are involved with development, investment, research, marketing, the industry or even education, most architects prefer to be independent consultants and entrepreneurs.

Students are advised to work in an Architect's office to gain practical experience during the University recess.

The examinations for the Bachelor of Architecture degree are recognised as prescribed examinations in terms of the stipulations of Article 19(2)(b) of the Architects' Act 1970 (No. 35 of 1970).

#### **D.1 BACCALAUREUS SCIENTIAE ARCHITECTURE [BSc(Arch)] (Code 12132002)**

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

See General Information Div.1(a).

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

This three-year BSc(Arch) degree must be followed by a two-year BArch degree by those students who wish to register as architects in future. The mentioned BArch degree is recognised as prescribed examination in terms of the stipulations of Article 19(2)(b) of the Architects' Act 1970 (No 35 of 1970). This ruling has been applicable to all first-year students since the beginning of 1999.

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

Unless the Dean, in consultation with the Head of the Department, decides otherwise, the following applies. For GS symbol see Div.1 (c)(i) (see \* for transitional measures):

##### **First year of study**

Code	Course	Prerequisites	Credits per Semester	
			First	Second
AAL 110	Earth Studies 110	-	6	-
KON 110	Construction 110	-	7	-
KON 120	Construction 120	KON 110 GS	-	7
OKU 110	Design Communication 110	-	6	-
OKU 120	Design Communication 120	OKU 110 GS	-	6
OMG 120	History of the Environment 120	-	-	8
OML 110	Environmental Studies 110	-	6	-
ONT 100	Design 100	-	18	18
STU 120	Structures 120	-	-	9
	Total		43	48

##### **Second year of study**

AAL 210	Earth Studies 210	AAL 110	8	-
AAL 220	Earth Studies 220	AAL 210 GS	-	8
KON 211	Construction 211	KON 110,120	8	-
KON 220	Construction 220	KON 211 GS	-	8
OKU 210	Design Communication 210	-	6	-
OKU 220	Design Communication 220	-	-	6
OMG 220	History of the Environment 220	-	-	8

OML 210	Environmental Studies 210	OML 110	6	-
ONT 210	Design 210	ONT 100	12	-
ONT 220	Design 220	ONT 210 GS	-	12
STU 211	Structures 211	STU 120	8	-
STU 221	Structures 221	STU 211 GS	-	8
	Total		48	50
<b>Third year of study (from 2001)</b>				
AAL 310	Earth Science 310	AAL 210,220	8	-
KON 310	Construction 310	KON 211,220	8	-
KON 321	Construction 321	KON 310 GS, ONT 310 GS	-	11
OKU 310	Design Communication 310	-	6	-
OMG 320	Design Communication 320	-	-	8
OML 310	Environmental Studies 310	OML 210	6	-
ONT 310	Design 310	ONT 210,220	12	-
ONT 320	Design 320	ONT 310 GS, KON 310 GS	-	12
PRS 320	Practice Management 320	-	-	6
STU 311	Structures 311	STU 211,221	8	-
STU 321	Structures 321	STU 311 GS	-	8
	Total		48	45

\*

**Transitional measures****Recogniton for (old curriculum )...**

Building Science 111 (BWT 111)

Building Science 121 (BWT 121)

History of the Environment121  
(OMG 121)

Design 100 (ONT 100)

Design Theory 111 (OTR 111)

Structures 121 (STU 121)

**gained through (new curriculum)**

Construction 110 (KON 110)

Construction 120 (KON 120)

History of the Environment 120  
(OMG 120)

Design 100 (ONT 100)

Environmental Studies 110 (OML 110)

Structures 120 (STU 120)

**(d) Examinations and promotion**

- (i) A student will be promoted to a subsequent year of study, as mentioned below, after acquiring the number of credits as indicated:
  - To the second year of study after acquiring 71 credits.
  - To the third year of study after acquiring a total of 136 credits.
- (ii) The degree is awarded after all the prescribed courses have been passed (282 credits).
- (iii) The Dean may, on the recommendation of the Head of the Department, allow a student, who does not yet qualify for admission to a subsequent year of study, to take certain courses of the subsequent year of study – with the understanding that the subject Design is excluded from this concession; and that the normal study load of any semester may not be exceeded, and that only courses that are one level higher may be taken.
- (iv) Students who want to take courses not prescribed for a particular year of study in advance, or who repeat courses, may only register for courses in more than two consecutive years of study with the approval of Head of Department.
- (v) A student who complies with all the requirements for the degree with exception of one year-course or two semester-courses, in which a final mark of at least 40% has been obtained, may be allowed to a special examination in the course(s) concerned, during the ensuing semester.

- (vi) On the recommendation of the Head of Department, the Dean may in exceptional circumstances, deviate from the above-mentioned stipulations, provided that it fits in with the timetable.
- (e) **Degree with distinction**  
The degree is conferred with distinction on a student who passes either Design 321 and Construction 321 with distinction (75%) in the third year.
- (f) **Concurrent presentation**  
Design 321 and Construction 321 must initially be examined in the same year.

<b>D.2 BACCALAUREUS ARCHITECTURE (BArch) (Code 12132003)</b>
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- (a) **Admission**  
See General Information Div.1(a).
- (b) **Duration**  
The minimum period of study is five years of full-time study.  
Students who passed the second year of study in 1999, register for this degree course.
- (c) **Curriculum**  
Unless the Dean, in consultation with the Head of the Department, decides otherwise, the following applies:

**First year of study**

Students register for the BSc(Arch) degree.

**Third year of study**

Code	Course	Prerequisites	Credits per semester	
			First	Second
BWT 311	Building Science 311	BWT 211, 221; ONT 220 GS	8	-
BWT 321	Building Science 321	BWT 311 GS; ONT 310 GS	-	10
GBK 312	Building Climate 312	GBK 211, 221	8	-
GBK 322	Building Climate 322	GBK 312 GS	-	8
OMG 323	History of the Environment 323	OMG 223	-	8
ONT 310	Design 310	ONT 210,220	15	-
PNT 320	Design 320	ONT 310 GS	-	12
OTR 311	Theory of Design 311	OTR 211	8	-
STU 311	Structures 311	STU 211,220	8	-
STU 321	Structures 321	STU 311 GS	-	8
		Total	47	46

**Fourth year of study**

BER 410	Business Law 410	-	8	-
BWT 412	Building Science 412	BWT 311,321, ONT 320 GS	8	-



BWT 422	Building Science 422	BWT 412 GS, ONT 410 GS	-	12
OMG 421	History of the Environment 421	OMG 323	-	8
ONT 410	Design 410	ONT 310,320	18	-
ONT 420	Design 420	ONT 410 GS	-	15
OTR 411	Theory of Design 411	OTR 311	8	-
PRS 321	Practice Management 321	-	-	6

Subject choice: Any existing course(s) with a weight of 3L for the whole year, chosen from a short list and approved by the Dean on the recommendation of the Head of the Department

Total	$\frac{6}{48}$	$\frac{6}{47}$
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#### Fifth year of study

BWT 500	Building Science 500	BWT 412,422	8	15
KKR 510	Construction Contract Law 510	BER 2151,252,410 GS	8	-
OMG 511	History of the Environment 511	OMG 421	-	8
ONT 500	Design 500	ONT 410, 420	12	24
OTR 511	Theory of Design 511	OTR 411; ONT 420 GS	8	-
PRS 412	Practice Management 412	Total	$\frac{6}{50}$	$\frac{-}{39}$

#### (d) Examinations and promotion

- (i) A student will be promoted to a subsequent year of study, as mentioned below, after acquiring the number of credits as indicated:
- To the third year of study after acquiring a total of 164 credits.
  - To the fourth year of study after acquiring a total of 257 credits.
  - To the fifth year of study after acquiring a total of 350 credits.
- (ii) The degree is awarded when all prescribed subject courses have been passed (461 credits).
- (iii) to (iv) As for BSc (Arch).

#### (e) Degree with distinction

The degree is conferred with distinction on a student who passes either Design or Building Science with distinction (75%) in the fifth year and also obtains an average final mark of at least 75% in these two courses in one year.

#### (f) Concurrent presentation

Design 500 and Building Science 500 must initially be examined in the same year.

### D.3 MAGISTER ARCHITECTURE (MArch) (Code 12152002)

Also consult General Regulations.

**Architecture 800: ARG 800** – **Dissertation: ARG 890**

**The Master of Architecture degree will be conferred on:**

- (a) **A student in possession of a Bachelor of Architecture degree, who has**
  - (i) practised the theory and the practice of Architecture for at least one year after obtaining the bachelor's degree;
  - (ii) worked on his or her dissertation for at least one year under the supervision of the Head of the Department while registered for the MArch degree;
  - (iii) submitted and passed a dissertation; and
  - (iv) passed an oral examination on the topic of the dissertation and/or any other prescribed topic from the field of Architecture.
- (b) **A student who holds a Diploma in Architecture**, of which the examinations are recognised as prescribed examinations in terms of the stipulations of Article 19 (2)(b) of the Architects' Act, 1970 (No. 35 of 1970) and who has
  - (i) practised the theory and practice of Architecture for a period of at least four years after acquiring the Diploma;
  - (ii) complied with the stipulations of Reg. D.3 (a) (ii), (iii) and (iv); and
  - (iii) holds a matriculation exemption certificate as stipulated in General Reg. G.1, prior to commencing the study for the Diploma in Architecture.
- (c) The MArch degree is conferred with distinction on a student who passes the dissertation and the oral examination with distinction (75%).

**D.4 PHILOSOPHIAE DOCTOR (PhD) (Code 12262002)**

Also consult General Regulations G.15, G.52 and G.55.

- (a) No student will be admitted to the study for a doctor's degree unless he or she holds a 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 division of the field of study on which the thesis is based.

**Architecture 900: ARG 900 – Thesis: ARG 990**

**DEGREES IN LANDSCAPE ARCHITECTURE**

Landscape architecture is the science, technique and art of ecological, functional and aesthetic planning and design of outside areas for the use and enjoyment of humans. Underlying all this, is an environmental ethic that strives to conserve the environment, while the quality of the environment is utilised to meet the needs of people.

Parks, game reserves, recreational areas and marinas are only a few of the environments which the landscape architect can design. They create urban oases in the form of plazas and walking lanes, and design environments around shopping centres and residential development.

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.

<p><b>D.5 BACCALAUREUS SCIENTIAE LANDSCAPE ARCHITECTURE [BSc(LArch)]</b> (Code 12132004)</p>
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(a) **Admission requirements**

See General Information Div.1(a).

(b) **Duration**

This three-year BSc(LArch) degree must be followed by a two-year BL degree by those students who wish to register as landscape architects later on.

The mentioned BL degree is recognised as prescribed examinations in terms of the stipulations of Article 19(2)(b) of the Architect's Act 1970 (No 35 of 1970). This ruling has been applicable to all first-year students since the beginning of 1999.

(c) **Curriculum**

The symbol GS following a course indicates that a combined mark of at least 40% is required for admission to the course in the first column.

Unless the Dean, in consultation with the Head of the Department, decides otherwise, the following applies (see \* for **Transitional Measures**):

**First year of study**

Code	Course	Prerequisites	Credits per semester	
			First	Second
AAL 110	Earth Studies 110	-	6	-
KON 110	Construction 110	-	7	-
KON 120	Construction 120	KON 110 GS	7	-
OKU 110	Design Communication 110	-	6	-
OKU 120	Design Communication 120	OKU 110 GS	-	6
OMG 120	History of the Environment 120	-	-	8
OML 110	Environmental Studies 110	-	6	-
ONT 100	Design 100	-	18	18
STU 120	Structures 120	-	-	9
	Total		43	48

**Second year of study**

AAL 210	Earth Studies 210	AAL 110	8	-
AAL 220	Earth Studies 220	AAL 210 GS	-	8
KON 212	Construction 212	KON 110,120	-	8
KON 220	Construction 220	KON 212 GS	-	8
LOW 210	Landscape Design 210	LOW 100	12	-
LOW 220	Landscape Design 220	LOW 210 GS	-	12
OKU 210	Design Communication 210	-	6	-
OKU 220	Design Communication 220	-	-	6

## Engineering II

OMG 220	History of the Environment 220	-	-	6
OML 210	Environmental Studies 210	OML 110	6	-
PWT 212	Plant Science 212	-	8	-
PWT 222	Plant Science 222	PWT 212 GS	<u>    </u>	<u>8</u>
	Total		48	50

### Third year of study 2001

AAL 310	Earth Studies 310	AAL 210,220	8	-
KON 310	Construction 310	KON 211,220	8	-
KON 322	Construction 322	KON 310 GS, LOW 310 GS	-	11
LOW 310	Landscape Design 310	LOW 210,220	12	-
LOW 320	Landscape Design 320	LOW 310 GS, KON 310 GS	-	12
OKU 310	Design Communication 310	-	6	-
OMG 320	Design Communication 320	-	-	8
OML 310	Environmental Studies 310	OML 210	6	-
PRS 320	Practice Management 320	-	-	6
PWT 312	Plant Design 312	PWT 212,222	8	-
PWT 322	Plant Design 322	PWT 312 GS	<u>    </u>	<u>8</u>
	Total		48	45

- \* **Transitional measures**
- | Recogniton for (old curriculum )...   | gained through (new curriculum)        |
|---|--|
| Landscape Design 100 (LOW 100)  | Design 100 (ONT 100)                   |
| Landscape Theory 100 (LTO 100)  | Environmental Studies 110 (OML 110)    |
| Environmental History<br>121 (OMG 121)  | Environmental History<br>120 (OMG 120) |
| Site Construction 122 (TKN 122)   | Construction 110 (KON 110)             |
| Any three of the following passed receives recognition for Earth Science 110 (AAL 110): |  |
| Introduction to Botany (BOT 120)  |  |
| Plant Design120 (POP 120)   |  |
| Meteorology 110 (WKD 110)   |  |
| Environmental Management Principles 231 (GGY 231)**                                     |  |

### (d) Examinations and promotion

- (i) A student will be promoted to a subsequent year of study, as mentioned below, after acquiring the number of credits as indicated:
- To the second year of study after acquiring 71 credits.
  - To the third year of study after acquiring a total of 136 credits.
- (ii) The degree is awarded after all the prescribed courses have been passed (282 credits).
- (iii) to (vi) As for BL.

### (e) Degree with distinction

The degree is conferred with distinction on a student who passes either Landscape Design 320 and Construction 322 with distinction (75%) in the third year.

**(f) Concurrent presentation**

Landscape Design 320 and Construction 322 must initially be examined in the same year.

**D.6 BACCALAUREUS LANDSCAPE ARCHITECTURE (BL) (Code 12132005)****(a) Admission requirements**

See General Information Div.1(a).

**(b) Duration**

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

**(c) Curriculum**

Only students who passed the second year in 1999, register for this course.

The symbol GS following a course indicates that a combined mark of at least 40% is required for admission to the course in the first column.

**First and second year of study**

Students register for BSc(LArch).

**Third year of study**

Code	Course	Prerequisites	Credits per semester	
			First	Second
BER 410	Business Law 410	-	8	-
GGY 162	Remote Sensing 162	-	-	3
LOW 310	Landscape Design 310	LOW 220	12	-
LOW 320	Landscape Design 320	LOW 310 GS	-	12
LTO 310	Landscape Theory 310	LTO 220	4	-
LTO 320	Landscape Theory 320	LTO 310 GS	-	4
OMG 421	History of the Environment 421	OMG 323	8	-
OKU 310	Design Communication 310	-	4	-
OKU 320	Design Communication 320	-	-	8
POP 311	Plant Design 311	POP 220, BOT 214, 227, 228	10	-
TKN 310	Site Construction 310	TKN 220	7	-
TKN 320	Site Construction 320	TKN 310 GS	-	7
		Total	45	42

**Fourth year of study**

KKR 510	Construction Contract Law 510	BER 251,252/410GS	8	-
LOW 410	Landscape Design 410	LOW 320	18	-
LOW 420	Landscape Design 420	LOW 410 GS	-	18
LTO 410	Landscape Theory 410	LTO 320	6	-
LTO 420	Landscape Theory 420	LTO 410 GS	-	11
OKU 410	Design Communication 410	-	4	-
TKN 410	Site Construction 410	TKN 320	7	-
TKN 420	Site Construction 420	TKN 410 GS	-	8
		Total	43	37

**(d) Promotion and examinations**

- (i) A student is promoted to the year of study mentioned below after obtaining the number of credits indicated:
  - Third year of study after obtaining 173 credits.
  - Fourth year of study after obtaining 264 credits.
- (ii) The degree is awarded after all the prescribed courses have been passed (372 credits).
- (iii) The Dean may, on the recommendation of the Head of the Department, allow a student who does not yet qualify for admission to a subsequent year of study, to take certain courses of that subsequent year of study – with the understanding that the subject Design is excluded from this concession; and that the normal study load of any semester may not be exceeded, and that only courses that are one level higher may be taken.
- (iv) Students who want to take courses not prescribed for a particular year of study in advance, or who repeat courses, may only register for courses in more than two consecutive years of study with the approval of Head of Department.
- (v) A student who complies with all the requirements for the degree with exception of one year course or two semester courses in which a final mark of at least 40% has been obtained, may be allowed to a special examination in the course(s) concerned, during the course of the ensuing semester.
- (vi) On the recommendation of the Head of Department, the Dean may in exceptional circumstances, deviate from the abovementioned stipulations, provided it will fit in with the timetable.

**(e) Degree with distinction**

The degree is conferred with distinction on a student who obtains a minimum final mark of 75% in both Landscape Design 420 and in Site Construction 420 in the same year of study.

<b>D.7 MAGISTER LANDSCAPE ARCHITECTURE (ML) (Code 12252003)</b>
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Also consult General Regulations G.15, G.52 and G.55.

- (a)** The Magister in Landscape Architecture is conferred on a student who holds the Bachelor's degree in Landscape Architecture and who has
  - (i) practised the theory and the practice of Landscape Architecture for at least one year after obtaining the bachelor's degree;
  - (ii) worked for at least one year under the supervision of the Head of Department while registered for the ML degree;
  - (iii) submitted a dissertation; and
  - (iv) passed an oral examination on the topic of the dissertation and/or any other prescribed topic in the field of Landscape Architecture.
- (b)** The ML degree is conferred with distinction on a student who obtains at least 75% in the dissertation and the oral examination.

**Landscape Architecture 800: LAN 800 – Dissertation: LAN 890**

### D.8 PHILIOSOPHIAE DOCTOR (PhD) (Code 12262003)

Also consult General Regulations and G.15, G.52 and G.55.

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

**Landscape Architecture 900: LAN 900 – Thesis: LAN 990**

### DEGREES IN INTERIOR DESIGN

The programme focuses on the needs of the user and the harmony between architectural spaces and the detailed design of spaces and life-style products.

The qualified student will have the ability to apply design intervention through creative problem solving, specialised theoretical knowledge and management and communication skills; backed up by appropriate research and analysis of need-driven problems in the fields of interior architecture and product design. Specific attention is given to the design process, building and material technology, building climate, ergonomics, history and visual communication within the inter-dependant context of social, economic, political and technological processes. It is very important for the student to have the ability to visualise spaces three-dimensionally and handle a problem creatively.

### D.9 BACCALAUREUS SCIENTIAE IN INTERIOR DESIGN (BInt) (Code 12132006)

This qualification will be known as **BInt**, if approved by the Minister of Education.

- (a) **Admission**  
See General InformAtion Div.1(a).
- (b) **Duration**  
The minimum duration is four years of full-time study.

(c) **Curriculum**

**First year of study**

Code	Course	Prerequisites	Credits per Semester	First	Second
ERG 110	Ergonomics 110	-	5	-	-
INT 110	Interior 110	-	3	-	-
INT 120	Interior 120	-	-	-	3
ITO 110	Interior Design 110	-	8	-	-
ITO 120	Interior Design 120	ITO 110	-	-	12
KGK 100	History of Art 100	-	6	-	6

## Engineering II

OMG 120	History of the Environment 120	-	-	8
OKU 110	Design Communication 110	-	6	-
OKU 120	Design Communication 120	OKU 110GS	-	6
OTR 111	Design Theory 111	-	<u>8</u>	<u>-</u>
			36	35

### Second year of study

INT 212	Interior 212	-	6	-
INT 213	Interior 213	-	3	-
INT 220	Interior 220	INT 213	-	3
INT 222	Interior 222	INT 212	-	6
ITO 210	Interior Design 210	ITO 120	10	-
ITO 220	Interior Design 220	ITO 220	-	10
OMG 223	History of the Environment 223	OMG 120	-	8
KGK 200	History of Art 200	KGK 100	6	6
TKS 210	Textiles 210	-	8	-
TKS 220	Textiles 220	TKS 210GS	<u>-</u>	<u>8</u>
			33	41

### Third year of study

BEH 221	Housing 221	-	-	6
BWT 312	Building Science 312	-	8	-
BWT 323	Building Science 323	-	-	8
GBK 211	Building Climate 211	-	8	-
INT 313	Interior 313	-	3	-
INT 314	Interior 314	-	3	-
ITO 310	Interior Design 310	ITO 220	10	-
ITO 320	Interior Design 320	ITO 310	-	10
KGK 300	History of Art 300	KGK 200	6	6
OMG 323	History of the Environment 323	OMG 223	-	8
OKU 310	Design Communication 310	-	<u>27</u>	<u>-</u>
			40	38

CIL 171,172,173

### Fourth year of study

BEM 151,152	Marketing Management 151,152	-	6	-
<b>or</b>	<b>or</b>			
OBS 151,152	Business Management 151,152	-	-	-
BEM 161,162	Marketing Management 161,162	BEM 151,152GS	-	6
<b>or</b>	<b>or</b>			
OBS 161,162	Business Management 161,162	OBS 151,152GS	-	-
INT 411	Interior 411	INT 320, final-		
		year status	3	-
ITO 400	Interior Design 400	ITO 320	10	10
SEM 216	Seminar 216	-	4	-
PRS 320	Practice Management 320	-	<u>-</u>	<u>6</u>
			23	22

All students have to pass the following computer literacy courses or present proof of equivalent training:



CIL 171, CIL 172, CIL 173. Courses are presented by the Damelin Computer School on the main campus.

**(d) Promotion and examination**

A student is promoted to the following study year after completing the undermentioned number of course credits:

second year 51 units

third year 125 units

fourth year 203 units

**(e) Degree with distinction**

A student who has obtained at least 75% in Interior Design 400 as well as 75% in Building Science 322 and Interior 411.

**D.10 MAGISTER SCIENTIAE IN INTERIOR DESIGN (M.INT) (Code 12252006)**

This qualification will be known as **MInt**, if approved by the Minister of Education.

**(a) Admission requirements**

B.Interior Design(Hons)-degree or a professional degree of four or more years as approved.

**(b) Curriculum**

The MInt-degree is conferred by virtue of a dissertation and an examination on the field of study of the dissertation or can also be obtained by completing a curriculum with course work and the successful completion of an essay in which case the curriculum is compiled in consultation with the Head of the Departement.

**DEGREES IN QUANTITY SURVEYING AND CONSTRUCTION MANAGEMENT**

**UNDERGRADUATE PROGRAMMES**

**(a) Admission requirements**

See General Information Div.1(a).

**(b) Duration**

The minimum duration of study is five years of full-time studies.

For Quantity Surveying, a student in the third, fourth and fifth year of study has to attend lectures satisfactorily, as well as work full-time in the offices of an approved, registered quantity surveyor on tasks which meet the requirements for registration in terms of the Quantity Surveyors Act.

For Construction Management, a student has to devote his or her full-time to studies during the first and second year, but during the third, fourth and fifth year of study, apart from satisfactory attendance of lectures, the student also has to spend the rest of the day working full-time for an approved employer in the building/construction industry.

**(c) Promotion and examination**

- (i) A student is promoted to the following study year after completing the under-mentioned number of course credits:

	<b>BSc (Quantity Surveying)</b>	<b>BSc (Construction Management)</b>
2nd study year:	50 credits	50 credits
3rd study year:	134 credits	134 credits
4th study year:	206 credits	218 credits
5th study year:	274 credits	292 credits

- (ii) The Dean may, on the recommendation of the Head of the Department, allow a student, who does not yet qualify for admission to a subsequent year of study, to take certain courses of that subsequent year of study if the timetable allows it.
- (iii) Students who want to take courses not prescribed for a particular year of study in advance, or who repeat courses, may only register for courses in more than two consecutive years of study with the approval of Head of Department.
- (iv) A student who complies with all the requirements for the degree with exception of one year-course or two semester-courses, in which a final mark of at least 40% has been obtained, may be allowed to a special examination in the course(s) concerned, during the course of the ensuing semester.
- (v) The degree is awarded if all the prescribed subject courses have been passed.
- |      |                               |             |
|------|-------------------------------|-------------|
| (aa) | BSc (Quantity Surveying)      | 354 credits |
| (bb) | BSc (Construction Management) | 384 credits |
- (vi) On the recommendation of the Head of Department, the Dean may in exceptional circumstances deviate from the abovementioned stipulations, provided that it fits in with the timetable.

**(d) Degree with distinction**

**(i) BSc Quantity Surveying**

The degree is awarded with distinction to a student who has obtained an average of at least 75% in all the subject courses prescribed for the final year of study, or who has obtained at least 75% in two of the following four subjects (75% average in cases where the subject consists of two semester courses):

- |      |   |
|------|---|
| (aa) | Quantity Surveying Practice 500                     |
| (bb) | Property Development 500                            |
| (cc) | Construction Contract Law 510 and 520 (average 75%) |
| (dd) | Management Practice 510, 520                        |

**(ii) BSc Construction Management**

The degree is awarded with distinction to a student who has obtained an average of at least 75% in all of die courses of the fifth year of study, or at least 75% in two of the following courses (75% average in cases where the subject consists of two semester courses):

- |      |   |
|------|---|
| (aa) | Financial Management 500                            |
| (bb) | Construction Contract Lay 510 and 520 (average 75%) |
| (cc) | Construction Management 510 and 520 (average 75%)   |
| (dd) | Property Development 500                            |

**(e) Curriculum**

The curriculum for the BSc Quantity Surveying and Construction Management is spread over five study years in semester and year-courses with the prerequisites and course credits as indicated.

**D.11 BACCALAUREUS SCIENTIAE (QUANTITY SURVEYING) [BSc(QS)]  
(Code 12132014)**

*The examinations for the Bachelor of Quantity Surveying degree is approved by the Minister as prescribed examinations in terms of the stipulations of Section 19(2)(b) of the Quantity Surveyors' Act, 1970 (No 36 of 1970).*

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.

There are many employment opportunities in the building and construction sector, government department, in the property sector, banks and manufacturing industry. Most of the qualified quantity surveyors, however, work in the private sector where they find employment with computer companies, or open their own businesses after registration with the South African Council for Quantity Surveyors.

**(a) Curriculum**

The symbol GS in the prerequisite column indicates that a combined mark of at least 40% is required; no symbol indicates that the course must be passed prior to admission to courses in the first column.

First year of study		Prerequisites	Credits per sem	
Code	Course		First	Second
BGG 111	Building Organisation 111	-	4	-
BOU 131	Building Drawings 131	-	6	6
BOU 120	Building Drawings 120	BWT 110 GS	-	6
BWT 110	Building Science 110	-	4	-
BWT 120	Building Science 120	BWT 110 GS	-	4
GBD 112	Building Services 112	-	4	-
GBD 122	Building Services 122	GBD 112 GS	-	4
OMG 122	History of the Environment 122	-	-	-
	CS OMG 120	-	-	6
CIL 171, 172,173	Computer and Information Literacy 171,172,173	Par. 1.2	-	6
SLK 151,152,	Psychology# 151,152,	-	6	-
SLK 153,156	Psychology# 153,156	-	-	6
STU 112	Theory of Structures 112	-	9	-
STU 122	Theory of Structures 122	STU 112	-	9
TRN 213	Levelling and Surveying 213	-	6	-
	Total		39	35

**Second year of study**

BWT 210	Building Science 210	BWT 120 GS	4	-
BWT 220	Building Science 220	BWT 210 GS	-	4
EKN 151,152	Economics 151,152	-	6	-
EKN 120	Economics 120	EKN 151,152 GS	-	6
FRK 151,152	Financial Accounting 151			
181	152,181	Consult Par. 1.2	8	-
FRK 161,162	Finan Accounting 161,162	FRK 151,152 GS	-	8
GBD 212	Building Services 212	-	4	-
GBD 222	Building Services 222	GBD 212 GS	-	4
HVH 200*	Quantities 200*	BWT 120 GS	8	8
OMG 224	History of the Environ- ment 224 CS OMG 223	OMG 122 GS	-	6
STK 152,153	Statistics 152,153	-	4	-
STK 162	Statistics 162	-	..	2
STU 212	Theory of Structures 212	STU 122 GS	6	-
STU 222	Theory of Structures 222	STU 212 GS	-	6
		Total	40	44

**Third year of study**

BER 410**	Business Law 410		8	-
BWT 310	Building Science 310		4	-
BWT 320	Building Science 320	BWT 310 GS	-	4
GBD 312	Building Services 312	-	4	-
GBD 322	Building Services 322	GBD 312 GS	-	4
HVH 300	Quantities 300	BWT 220GS,GBD 122GS,HVH 200	8	8
KIT 300	Project IT 300	CIL 171,172,173	8	8
STU 312	Theory of Structures 312	STU 222 GS	6	-
STU 322	Theory of Structures 322	STU 312 GS	-	6
		Total	38	30

**Fourth year of study**

BKR 410	Building Cost Estimation 410	HVH 300 GS	8	-
BRK 400	Quantity Surveying Practice 400	HVH 300 GS	4	4
BWT 410	Building Science 410	BWT 220 GS	4	-
BHU 420†	Housing 420	BWT 410 GS	-	4
BTP 410***	Management Practice		6	-
BTP 420***	Management Practice	BTP 410 GS	-	6
EOW 410	Property Development 410	-	4	-
EOW 420	Property Development 420	EOW 410 GS	-	4
HVH 400	Quantities 400	BWT 320 GS, GBD 222,322 GS, HVH 300	8	8
KKR 420	Construction Contract Law 420	BER 410 GS	-	8
		Total	34	34

**Fifth year of study**

BRK 500	Quantity Surveying Practice 500	HVH 400 GS	6	6
BTP 510	Management Practice 510	-	6	-
BTP 520	Management Practices	BTP 410, BTP 510 GS	-	6

EOW 500	Property Development 500	EOW 410, 420 GS	6	6
KKR 510	Construction Contract Law 510	BER 251,252/410GS	8	-
KKR 520	Construction Contract Law 520	KKR 510 GS	-	4
BRK 570 <sup>o</sup>	Essay 570	-	6	6
		Total	32	28

\* Proof of language proficiency is required before this subject will be awarded.

\*\* All students who do not pass BER 210 and 220 in 1999, have to pass BER 410 for degree purposes as from 2000.

\*\*\* All fourth-year quantity surveying student should register for BTP 410 and 420 from 2000.

† All student who have failed to pass BWT 420, should register for BHU 420 instead of BWT 420 from the year 2000.

<sup>o</sup> All final year students have to meet the requirements of BRK 570 as from the year 2000.

# See Syllabi for correct module names.

<p><b>D.12 BACCALAUREUS SCIENTIAE (CONSTRUCTION MANAGEMENT) [BSc (Construction Management)] (Code 12132015)</b></p>
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*The examinations for the Bachelor's degree in Construction Management are recognised by the South African Building Institute as prescribed examinations for membership of that institute.*

Construction management is the field of study meant for the person who wishes to become part of the dynamic 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 sub-contractors 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 supplier of material and equipment to the building and construction industry, as consultants for financial services in the construction and related sector, or as private entrepreneurs working in these fields.

**(a) Curriculum**

The symbol GS in the prerequisite column indicates that a combined mark of at least 40% is required; no symbol indicates that the course must be passed prior to admission to courses in the first column.

**First year of study**

Code	Course	Prerequisites	Credits per semester	
			First	Second
BGG 111	Building Organisation 111	-	4	-
BOU 131	Building Drawings 131	-	6	-
BOU 120	Building Drawings 120	BWT 110 GS	-	6
BWT 110	Building Science 110	-	4	-
BWT 120	Building Science 120	BWT 110 GS	-	4

## Engineering II

GBD 112	Building Services 112	-	4	-
GBD 122	Building Services 122	GBD 112 GS	-	4
OMG 122	History of the Environment 122	-	-	6
CIL 171, 172, 173	Computer and Information Literacy 171,172,173	Par. 1.2	-	6
SLK 151,152,	Psychology# 151,152,	-	6	-
SLK 153,156	Psychology#153,156	-	-	6
STU 112	Theory of Structures 112	-	9	-
STU 122	Theory of Structures 122	STU 112	-	9
TRN 213	Levelling & Surveying 213	-	6	-
	Total		<u>39</u>	<u>35</u>

### Second year of study

BWT 210	Building Science 210	BWT 120 GS	4	-
BWT 220	Building Science 220	BWT 210 GS	-	4
EKN 151,152	Economics 151,152	Par.1.2	6	-
EKN 120	Economics 120	EKN 151,152 GS	-	6
FRK 151,152	Financial Accounting 151,152	Par. 1.2	8	-
181	181	FRK 151,152 GS	-	8
FRK 161,162	Finan Accounting 161,162	STU 122 GS	4	-
GBD 212	Building Services 212	GBD 212 GS	-	4
GBD 222	Building Services 222	BWT 120 GS	8	8
HVH 200*	Quantities 200*	OMG 122 GS	-	6
OMG 224	History of the Environment 224	STU 122 GS	6	-
	CS OMG 223	STU 212 GS	-	6
STU 212	Theory of Structures 212	-	4	-
STU 222	Theory of Structures 222	-	-	6
STK 151,152	Statistics 151,152	-	4	-
STK 161	Statistics 161	-	-	2
	Total		<u>40</u>	<u>44</u>

### Third year of study

BER 410**	Business Law 410		8	-
BWT 310	Building Science 310	-	4	-
BWT 320	Building Science 320	BWT 310 GS	-	4
GBD 312	Building Services 312	-	4	-
GBD 322	Building Services 322	GBD 312 GS	-	4
KBS 310	Construction Management 310	-	6	-
KBS 320	Construction Management 320	KBS 310 GS	-	6
KIT 300	Construction IT 300	CIL 171,172, 173/Par. 1.2	8	8
KSH 300	Construction Quantities 300	HVH 200 GS, BWT 220 GS	8	8
STU 312	Theory of Structures 312	STU 222 GS	6	-
STU 322	Theory of Structures 322	STU 312 GS	-	6
	Total		<u>44</u>	<u>36</u>

### Fourth year of study

ABR 351,352	Labour Law 351,352	-	6	-
BHU 420†	Housing 420	BWT 410 GS	-	4
BWT 410	Building Science 410	BWT 220 GS	4	-
EOW 410	Property Development 410	-	4	-

EOW 420	Property Development 420	-	-	4
FBS 400	Financial Management 400	-	8	8
KBS 410	Construction Management 410	-	6	-
KBS 420	Construction Management 420	KBS 410 GS	-	6
KKR 420	Construction Contract Law 420	BER 410 GS	-	8
KSH 400	Construction Quantities 400	KSH 300 GS	8	8
		Total	36	38

**Fifth year of study**

BEV 500	Industrial Safety 500	KBS 310, 320	4	4
EOW 500	Property Development 500	EOW 410, 420 GS	6	6
FBS 500	Financial Management 500	FBS 400 GS	8	8
KKR 510	Construction Contract Law 510	BER 251,252/410GS	8	-
KKR 520	Construction Contract Law 520	KKR 510 GS	-	4
KBS 510	Construction Management 510	KBS 320	6	-
KBS 520	Construction Management 520	KBS 510 GS	-	6
KBS 570 <sup>o</sup>	Essay 570	KBS 510 GS	6	6
		Total	38	34

\* Proof of language proficiency is required before this subject will be awarded.

\*\* All students who do not pass BER 210 and 220 in 1999, have to pass BER 410 for degree purposes as from 2000.

† All student who have failed to pass BWT 420, should register for BHU 420 instead of BWT 420 from the year 2000.

<sup>o</sup> All final-year students have to meet the requirements of KBS 570 as from the year 2000.

# See Syllabi for correct module names.

<b>POSTGRADUATE COURSES</b>
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Subject to the stipulations of General Regulations G.1.3; G.30 and G.37, the BSc (QS) degree, the BSc(Construction Management) degree or an equivalent qualification with practical experience deemed adequate by the Head of the Department, is required. Students who do not hold one of the above-mentioned BSc degrees, may be required to pass ancillary undergraduate courses during the first year of study for the MSc degree.

<b>D.13 MAGISTER SCIENTIAE (QUANTITY SURVEYING) [MSc](QS)</b>
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Also consult General Regulations.

**(a) Code 12252010: By virtue of an examination and a dissertation.**

- (i) The MSc(QS) degree is conferred by virtue of a dissertation and an examination on the field of study of the dissertation and/or divisions of the field of study as required by the Head of the Department/Supervisor.
- (ii) The minimum pass mark is 50% and the degree is conferred with distinction on a student who obtains at least 75% in the examination and the dissertation.
- (iii) The minimum duration of study is one year during which period the student will be working under supervision of the Head of Department/Supervisor.

**Examination: BRK 800 – Dissertation: BRK 890**

**(b) Code 12252011: By virtue of a curriculum with course work and an essay.**

- (i) The MSc(QS) degree can also be obtained by completing a curriculum with course work and an essay successfully.
- (ii) The minimum period of study is two years of part-time study.
- (iii) The curriculum is compiled in consultation with the Head of the Department.
- (iv) Admission to the examination and pass requirements:
  - (aa) A student must obtain a semester/year mark of at least 40% to be admitted to the examination in a course. A subminimum of 40% is required in the examination, with a minimum final mark of 50% to pass.
  - (bb) A semester or year mark is not required in certain courses, in which case a minimum examination mark of 50% will be required. These cases are brought to the specific attention of the students in the departmental manual.
  - (cc) The minimum pass mark is 50%.
- (v) The topic of the essay must be approved by the Head of Department and a minimum of 50% is required to pass.
- (vi) The degree is conferred with distinction on a student who obtains a weighted average of at least 75% in 50% of the required courses, at least 75% in the essay, and at least 65% in the remaining course credits.

**Essay: BRK 895**

<b>D.14 MAGISTER SCIENTIAE (CONSTRUCTION MANAGEMENT) (MSc (Construction Management))</b>
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Also consult General Regulations.

**(a) Code 12252012: By virtue of an examination and a dissertation.**

- (i) The MSc(Construction Management) degree is conferred by virtue of a dissertation and an examination on the field of study of the dissertation and/or divisions of the field of study, as required by the Head of Department/-Supervisor.
- (ii) The minimum pass mark is 50% and the degree is conferred with distinction on a student who obtains a minimum of 75% in the examination and the dissertation.
- (iii) The minimum duration of study is one year during which period the student will work under the supervision of the Head of Department/Supervisor.

**Examination: KBS 800 – Dissertation: KBS 890**

**(b) Code 12252013: By virtue of a curriculum with course work and an essay.**

- (i) The MSc(Construction Management) degree can be obtained by completing a curriculum with course work and an essay (KBS 892) successfully.
- (ii) The minimum duration of study is two years of part-time study.
- (iii) The curriculum is compiled in consultation with the Head of Department.
- (iv) The topic of the essay is approved by the Head of Department and a minimum of 50% is required to pass.
- (v) Admission to examinations and pass requirements:



- (aa) A student must obtain a semester/year mark of at least 40% to be admitted to the examination in courses. A subminimum of 40% is required in the examination, with a minimum final of 50% to pass
- (bb) A semester/year mark is not required in certain courses, in which case an examination mark of at least 50% is required. These cases are brought to the specific attention of the students in the departmental manual.
- (vi) The degree is conferred with distinction on a student who obtains a weighted average of at least 75% in 50% of the required courses, at least 75% in the essay, and an average of at least 65% in the remaining course credits.

**Essay: KBS 892.**

**D.15 MAGISTER SCIENTIAE WITH SPECIALISATION IN PROJECT MANAGEMENT**  
 (MSc Project Management) (Code 12252014)  
 (MSc Applied Sciences)(Code 12252016)

**Essay: Project Management – PRB 892**

**D.16 MAGISTER SCIENTIAE WITH SPECIALISATION IN REAL ESTATE**  
 (MSc Real Estate) (Code 12252015)  
 (MSc Applied Science) (Code 12252017)

**Essay: Real Estate – EMW 892**

**(a) Admission requirements**

Apart from the stipulations in Gen. Reg. G.1.3, G.30 and G.62, a BSc(Hons) degree, or a professional first baccalaureus degree of four or more credits, or an equivalent qualification is a requirement. Additionally, students may be required to complete additional undergraduate courses during the first year of study. The MSc with specialisation in Project Management/Real Estate degree is awarded by virtue of course work and an essay.

**(b) Duration and syllabi**

- (i) The minimum duration is two years part-time study.
- (ii) The syllabi is compiled in consultation with the Head of Department.
- (iii) The topic of the essay must be approved by the Head of Department.

**(c) Promotion and examinations**

- (i) To be admitted to the examination in each course, a student must acquire a semester/year mark of at least 40%. A subminimum of 40% is required in the examination. To pass, a final mark of at least 50% is required.
- (ii) In some courses a semester/year mark is not required, in which case an examination mark of at least 50% is required. These cases are brought to the attention of the students in the departmental study guide.
- (iii) A minimum of 50% is required to pass the essay.

**(d) Degree with distinction**

The degree is conferred with distinction on a student who passes with at least 75% in 50% of the required course credits, at least 75% in the essay and with an average of at least 65% in the rest of the required course credits.

**D.17 PHILOSOPHIAE DOCTOR (PhD) (Code 02260721)**

Also consult General Regulations G.15, G.52 and G.55.

- (a) No student will be admitted to the study for a doctor's degree unless he or she holds a 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 division of the field of study on which the thesis is based.

**Quantity Surveying 900: BRK 900 – Thesis: BRK 990**

**D.18 PHILOSOPHIAE DOCTOR (PhD) (Code 12262015)**

Also consult General Regulations G.15, G.52 and G.55.

- (a) No student will be admitted to the study for a doctor's degree unless he or she holds a 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 division of the field of study on which the thesis is based.

**Construction Management 900: KBS 900 – Thesis: KBS 990**

**DEGREES IN TOWN AND REGIONAL PLANNING**

Town and regional planning deals with the environment – the management of environmental changes which take place to accommodate the needs of communities without destroying the natural, social or built features of the environment.

The town and regional planner uses his or her expertise to manage development in the economical, social and physical context. In the process of development, the existing situation is evaluated and weighed against that which is desirable and possible. Proposals are then put forward on how an ideal situation could be achieved. This person therefore has to have the ability to analyse complicated problems and to suggest imaginative solutions.

Large numbers of houses have to be provided each year in South Africa. This goes hand in hand with the provision of physical infrastructure, such as water and electricity, and social infrastructure such as schools and clinics, the renewal of existing urban areas, and the extension of business and industrial areas, as well as recreational facilities.

Most town and regional planners work in the public sector (central, provincial and local government services), but career opportunities also exist with organisations such as the CSIR and HSRC. Planners are also employed as consultants in the private sector, or work for property developers and financial institutions that are involved in property development.

**D.19 BACHELOR OF TOWN AND REGIONAL PLANNING (BS and S)  
(Code 12132022)**

- (a) **Admission requirements**  
See General Information Div.1(a).

(b) **Curriculum**

**First year of study**

Code	Course	Prerequisites	Credits per semester	
			First	Second
EKN 151,152	Economics 151,152	Par.1.2	6	-
EKN 120	Economics 120	EKN 151,152 GS	-	6
INF 110	Informatics 110	Par 1.2	8	-
INF 120	Informatics 120	INF 110 GS	-	8
SOC 151,152	Sociology# 151,152		7	-
SOC 153,154	Sociology# 153,154	SOC 151,152 GS	-	7
SSS 110	Town and Regional Planning Theory 110		6	-
SSS 120	Town and Regional Planning Theory 120	SSS 110 GS	-	6
SSM 110	Town and Regional Planning Methodology 110		6	-
SSM 120	Town and Regional Planning Methodology 120	SSM 110 GS	-	6
SSP 110	Town and Regional Planning Project 110		6	-
SSP 120	Town and Regional Planning Project 120	SSP 110 GS	-	6
		Total	39	39

**Second year of study**

EKN 251,252	Economics 251,252	EKN 120 GS		
		Par 1.2	6	-
EKN 220	Economics 220	EKN 251,252 GS	-	6
SOC 251,252	Sociology# 251,252	SOC 151 to 154	7	-
SOC 253,254	Sociology# 253,254	SOS 251, 252GS	-	7
STK 151,152	Statistics 151,152	Par 1.2	6	-
STK 161,162	Statistics 161,162	Par. 1.2	-	6
SSS 210	Town and Regional Planning Theory 210	SSS 110, 120; SSM 110, 120; SSP 110, 120	6	-
SSS 220	Town and Regional Planning Theory 220	SSS 210 GS	-	6
SSM 210	Town and Regional Planning Methodology 210	SSS 110, 120; SSM 110, 120; SSP 110, 120	6	-
SSM 220	Town and Regional Planning Methodology 220	SSM 210 GS	-	6

## Engineering II

SSP 210	Town and Regional Planning Project 210	-	6	-
SSP 220	Town and Regional Planning Project 220	SSP 210 GS	-	<u>6</u>
		Total	<u>37</u>	<u>37</u>
<b>Third year of study</b>				
EDE 310	Property Economics 310		4	-
EKN 351,352	Economics 351,352 and	EKN 151,152,120, EKN 220 GS		
		Par.1.2	6	-
EKN 320	Economics 320 or	EKN 251,252, 351,352 GS	-	6
SOC 351,352	Sociology# 351,352 and	SOC 251 to 254	8	-
SOC 353,354	Sociology# 353,354	SOC 351,352 GS	-	8
MDS 310	Municipal Services Provision 310		4	-
OMG 120	History of the Environment 120		-	8
SVB 321	Transportation Planning 321		-	4
SSS 310	Town and Regional Planning Theory 310		6	-
SSS 320	Town and Regional Planning Theory 320		-	6
SSM 310	Town and Regional Planning Methodology 310		6	-
SSM 320	Town and Regional Planning Methodology 320		-	6
SSP 310	Town and Regional Planning Project 310	SSS 210, 220; SSM 210, 220; SSP 210, 220	6	-
SSP 320	Town and Regional Planning Project 320	SSP 310 GS	-	<u>6</u>
		Total	<u>32</u> or <u>36</u>	<u>38</u>
			34 or	38
<b>Fourth year of study</b>				
BPR 321	Planning Law 321		-	4
PFP 422	Professional Practice 422		-	4
SKR 412	Essay 412	SSS 310, 320 SSM310, 320 SSP 310, 320	8	-
SKR 422	Essay 422	SKR 412 GS	-	8
SVC 410	Transportation Engineering 410		4	-
SSS 410	Town Planning Theory 410	SSS 310, 320 SSM 310, 320 SSP 310, 320	6	-
SSS 420	Town and Regional Planning Theory 410	SSS 410 GS	-	6
SSM 410	Town and Regional Planning Methodology 410	SSS 310, 320 SSM 310, 320 SSP 310, 320	6	-

SSM 420	Town and Regional Planning Methodology 420	SSM 410 GS	-	6
SSP 410	Town and Regional Planning Project 410	SSS 310, 320 SSM 310, 320 SSP 310, 320	6	-
SSP 420	Town and Regional Planning Project 420	SSP 410 GS	-	6
		Total	30	34

# See Syllabi for correct module names.

**(c) Promotion and examinations**

- (i) A student is promoted to the year of study mentioned below after obtaining the number of credits indicated:
  - Second year of study after obtaining 55 credits.
  - Third year of study after obtaining 133 credits.
  - Fourth year of study after obtaining 207 credits.
- (ii) The degree is conferred if the required course credits have been passed (284 or 288 credits).
- (iii) The Dean may, on the recommendation of the Head of the Department, allow a student, who does not yet qualify for admission to a subsequent year of study, to take certain courses of that subsequent year of study if the timetable allows it and the normal load of the year is not exceeded.
- (iv) Students who want to take courses not prescribed for a particular year of study in advance, or who repeat courses, may only register for courses in more than two consecutive years of study with the approval of Head of Department.
- (v) A student who complies with all the requirements for the degree with exception of one year-course or two semester-courses, in which a final mark of at least 40% has been obtained, may be allowed to a special examination in the course(s) concerned during the ensuing semester.
- (vi) In exceptional circumstances, the Dean on the recommendation of the Head of Department, may deviate from the abovementioned stipulations, provided that it fits in with the timetable.
- (vii) Students who cannot be promoted from the first to the second year of study, must re-apply for admission. Only three places are allocated for re-applications.

**(d) Degree with distinction**

The degree is conferred with distinction on a student who complies with all the prescribed requirements and who has passed the following subjects simultaneously with an average of at least 75% and a weighted average of 70% in all the prescribed courses for the final year of study:

- (i) Town and Regional Planning Theory 410, 420
- (ii) Town and Regional Planning Methodology 410, 420
- (iii) Town and Regional Planning Project 410, 420
- (iv) Essay 412, 422.

**D.20 MAGISTER TOWN AND REGIONAL PLANNING (MS and S)**

Also consult the General Regulations.

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

Subject to the stipulations of General Regulations G.30, G.37 and G.38, the BS and S degree or an equivalent qualification is required for admission to the study for the MS and S degree.

- (i) The MS and S degree is conferred by virtue of a dissertation as well as related assignments, as prescribed by the Head of the Department, as well as an examination on the field of the dissertation and/or divisions thereof, as required by the Head of Department/Supervisor.
- (ii) The minimum pass mark is 50% and the degree is conferred with distinction on a student who obtains at least 75% in both the examination and the dissertation.
- (iii) The minimum duration of study is one academic year, during which a student will work under supervision of the Head of Department/Supervisor.

**Examination: SSB 800 – Dissertation: SSB 890**

**(b) Code 12252023: By virtue of a curriculum of course work and an essay.**

Subject to the stipulations of General Regulation G.30, G.37 and G.38, the BS and S degree or an equivalent qualification and practical experience, deemed adequate by the Head of the Department, is required. Students without a BS and S degree may be required to complete ancillary undergraduate courses during the first year of study for the MS and S degree, with a view to supplement their knowledge.

- (i) This MS and S degree is awarded by virtue of course work and an essay.
- (ii) The minimum duration is two years part-time study.
- (iii) The curriculum work is determined in consultation with the Head of Department.
- (iv) The title of the essay is approved by the Head of Department and a minimum of 50% is required to pass.
- (v) The degree is conferred with distinction on a student who obtains a weighted average of at least 75% in all the required courses as well as the essay.

**Essay: SKR 897**

**D.21 PHILOSOPHIAE DOCTOR (PhD) (Code 12262022)**

Also consult General Regulations and Sc 14.

**Examination: SSB 900 – Thesis: SSB 990**

**SYLLABI FOR DEGREES IN ENVIRONMENTAL DESIGN AND MANAGEMENT**

**Note:**

- Lectures are indicated in 50-minute periods per week (1 lecture = 2 credits).
- Studio sessions last for 3 hours and include periodic lectures, group discussions, assessment lectures and demonstrations (Studio session = 3 credits).
- Practical: Each 50-minute practical equals 1 credit (1 practical of 3 hours = 3 credits).

**DEPARTMENT OF ARCHITECTURE AND LANDSCAPE ARCHITECTURE****(AAL 110) Earth Studies 110 (3 lectures)**

Macro-environment:

Basic ecology: Ecosystems, structures and constituents.

Ecodynamics: Cycles in ecosystems, man within the ecosystem, the environment as resource, field ecology.

**(AAL 210) Earth Studies 210 (3 lectures + ½ studio session)**

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, condensation.

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

**(AAL 220) Earth Studies 220 (3 lectures + ½ studio session)**

Soils and geomorphology: Principles, earth materials, land-forming processes, introduction to soil sciences, soil as structural system and growth medium.

**(AAL 310) Earth Studies 310 (3 lectures + ½ studio session)**

Environmental filters and forecasting techniques:

Sustainability: Investigation of the energy properties, cycles and modifications, saving, conservation and audit in respect of:

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.

Mechanical systems: Energy demand and efficiency, energy dissipation.

**(BER 410) Business Law 410 (3 lectures)**

(By Department of Mercantile and Labour Law - consult Economic and Management Sciences)

**(BRP 412) Career Practice 412 (4 lectures)**

Professional relations, office practice and fee determination, handling of contracts, contract articles, specifications and lists of quantities.

**(BOT 224) Environmental Factors 224 (1 lecture + 1 practical class)****(BOT 227) Introductory Ecology 227 (1 lecture)****(BOT 228) Plant Utilisation (1 lecture, 1 practical)**

(Department of Botany – Consult Natural, Agricultural and Information Sciences)

**(BWT 311) Building Science 311 (3 lectures + ½ studio session)**

Surveying of sites and buildings; measuring instruments; contour plans and site analysis.

Geographical aspects, properties of soil, site investigation, reports and tests.

Building construction of various kinds of foundations, basements, retaining walls, manholes; site elements such as free-standing walls, fences, gates and barriers, paving, roads, stairs, terraces, weirs and plant pots; site services.

Working drawings of building parts and other elements in contact with the soil.

**(BWT 312) Building Science 312 (3 lectures + 1x2 studio session)**

Introduction to Building Science with specific reference to the relationship between the structure, secondary elements and finishes. Building construction methods and processes and building and structure types. Roleplayers in the industry. Controlling bodies and limiting legislation. Parts and finishing of simple structure. Construction method and detailing of purpose-made elements.

Technical documentation – aim and legal implications. Measuring of existing structures, compilation of documentation. Design of documentation of a simple element.

**(BWT 321) Building Science 321 (1 lecture + 2½ studio sessions)**

Design of a small commercial building (from ONT 320) and the preparation of working drawings; integration of foreknowledge in BWT, GBK and STU.

Introduction to building standards, building drafting practice and specifications.

**(BWT 323) Building Science 323 (3 lecture + 1x2 studio sessions)**

Structural limitations of materials and construction methods. Building construction methods and processes and building and structure types. Prefabrication of elements. Aids, sources of information and information systems. Integrated design as regards to design and aesthetics, Building services, electricity, water, sewage, mechanical ventilation, gass installations and domestic appliances. Alternative sources of energy.

Technical documentation – aim and legal implications, with specific reference to the technical specifications. Specification of processes and materials of a complex nature.

**(BWT 412) Building Science 412 (3 lectures + ½ studio session)**

Building construction of prefabricated elements and expansion joints between them in large and tall buildings.

Building materials: metals, plastics, ceramics, paint, pointing and sealing materials, other modern materials; concrete (part 3).

Prefabrication, Agrément, Mantag, modular coordination, transport.

Builder's equipment and tools, site organisation.

Weathering and maintenance of buildings. Working drawings of parts of design schemes.

**(BWT 422) Building Science 422 (2 lectures + 2½ studio sessions)**

Application of the general systems approach in the development of innovating building systems.

The impact of the social, economic, technological, political and physical environment on building systems.

Appropriate systems for the industry and the developing world.

Exchange of energy, waste and re-use in the manufacturing, transport and erection, maintenance and demolition of buildings.

Design and technical documentation of a building system.

**(BWT 500) Building Science 500 (1 lecture + 2 studio sessions in the first semester and 5 studio sessions in the second semester)**

Preparation of complete technical documentation for the erection of the type of building of the design essay under ONT 500.

Integration of foreknowledge in BWT, GBK, STU and PRS.



**(ERG 110) Ergonomics 110 (2 lectures and 1x studio session)**

Human cost of work in terms of emotional, cognitive, time and physical taxation. Optimisation of work satisfaction and productivity.

**(GBK 312) Building Climate 312 (3 lectures + ½ studio session)**

Services in commercial buildings.

Energy: energy sources and conservation.

Pollution and waste: causes and effects; control, refuse removal and reclamation.

Airconditioning: applications; systems; components; design process; cooling and freezing chambers.

Electricity: distribution systems and their components; specialised provision; artificial lighting; television and antennas; telephones and intercom systems.

Transport of people and goods. Water-supply, sewerage and fire-fighting. Security.

**(GBK 322) Building Climate 322 (3 lectures + ½ studio session)**

Acoustics: the physical nature of sound; sound and man; noise; sound in architecture.

Levels of sound; frequency - analysis; A-weighting.

Sources of sound; sound power; outdoor transmission.

Sound absorption; sound isolation; room acoustics; reverberation time; criteria.

Codes of practice and regulations.

Noise control in buildings and measuring techniques.

Lighting: daylight factor, distribution, levels and quality of light, standards.

Design of openings in buildings.

**(GGY 162) Remote Sensing 162 (1 practical class)**

(Consult Department of Geography)

**(GKD 213) Introductory Soil Science 213 (3 lectures + 1 practical class.)**

(Department of Plant Production and Soil Science - Consult Natural, Agricultural and Information Sciences)

**(INT 110) Interior 110 (2 lectures + 1 studio session)**

The study of materials and the application of these in specific design contexts leading towards an integrated design argument. An introduction to translation and the processes involved in the study of materials and the graphic communication thereof.

**(INT 120) Interior 120 (2 lectures + 1 studio session)**

The study of materials and the application of these in specific design contexts leading towards an integrated design argument. The application of material studies in the use of natural materials within the vernacular tradition.

**(INT 212) Interior 212 (2 lectures + 1 studio session)**

The influence of ideologies, social institutions and technology on the development of the Western and other material cultures, especially regarding interior design and textiles. Style periods from Egyptian period to the French Revolution.

**(INT 213) Interior 213 (2 lectures + 1 studio session)**

The study of materials and the application of these in specific design contexts leading towards an integrated design argument. The application of material studies in firstgeneration processed materials including timber, stone and ceramics, within the contexts of joint theory, life-cycle costs, perception and cognition and human factor design.

**(INT 220) Interior 220 (2 lectures + 1 studio sessions)**

The study of materials and the application of these in specific design contexts leading towards an integrated design argument. The application of material studies in second-generation processed materials including concrete, metal and glass within the contexts of joint theory, life-cycle costs, perception and cognition and human-factor design.

**(INT 222) Interior 222 (2 lectures + 1 studio session)**

Like INT 212, but applied to style periods of the nineteenth and twentieth century, as well as different South African cultural groups.

**(INT 313) Interior 313 (2 lectures + 1 studio session)**

The study of materials and the application of these in specific design contexts leading towards an integrated design argument. The application of material studies in third-generation reconstituted materials including plastics, metal and glass and human factor processes like lighting design. The course is evolved within the contexts of sustainability, conservation, product design and future trends.

**(INT 314) Interior 314 (2 lectures + 1 studio session)**

The study of materials and the application of these in specific design contexts leading towards an integrated design argument. Material studies in the application of technical textiles in artificial environments.

**(INT 411) Interior 411 (2 lectures + 1 studio session)**

The study of materials and the application of these in specific design contexts leading towards an integrated design argument. The interpretation of building structure and fabric in physical contexts and the translation and communication of constraints and opportunities presented within the design thesis programme (see ITO 400).

**(ITO 110) Interior Design 110 (1 lecture + studio session)**

The subject develops around theory discussions in the studio related to and applied in various design projects aimed at self-discovery, the development of creativity and the translation and communication of concepts. The process of design is treated as descriptive rather than prescriptive and allows the greatest possibility of self-discovery.

**(ITO 120) Interior Design 120 (2 lectures + studio session)**

The subject develops around theory discussions in the studio related to and applied in various design projects aimed at self-discovery and the development of creativity. Great emphasis is placed on the synthesis between design and technology, the design process and the socio-cultural dimensions of the multicultural context of Southern Africa. The process of design is treated as descriptively rather than prescriptively and allows the greatest possibility of self-discovery.

Projects are aimed at developing the students' ability to conceptualise, translate and communicate user-perceptions and lifestyle options.

**(ITO 210) Interior Design 210 (2 lectures + studio session)**

The subject develops around theory discussions in the studio related to and applied in various design projects aimed at the development of creativity and the translation and communication of concepts and the integration of knowledge obtained in all the subjects that constitute the course. Design is viewed as an applied art and always in response to a need of a specific user-group or situation.

The course focuses on the application of ergonomic principles, the space planning of commercial building types and corporate image.

**(ITO 220) Interior Design 220 (2 lectures + studio session)**

The subject develops around theory discussions in the studio related to and applied in various design projects aimed at the development of creativity and the translation and communication of concepts and the integration of knowledge obtained in all the subjects that constitute the course. Design is viewed as an applied art and always in response to a need of a specific user group or situation.

The course focuses on the sourcing of information, the principles involved in the preparation of measured drawings and the application of such knowledge in the field of conservation and re-use.

**(ITO 310) Interior Design 310 (2 lectures + studio session)**

The subject develops around theory discussions in the studio related to and applied in various design projects aimed at the development of creativity and the translation and communication of concepts and the integration of knowledge obtained in all the subjects that constitute the course. Design is viewed as an applied art and always in response to a need of a specific user-group or situation. Great emphasis is placed on the synthesis between design and technology, the design process and the socio-cultural dimensions of the multicultural context of Southern Africa. The process of design is treated as descriptive rather than prescriptive and allows the greatest possibility of self-discovery.

The course focuses on the abstract concepts involved in design theory and the translation of ritual and technology in the design process of architectural space, lifestyle projects and the interfaces involved in our artificial environment.

**(ITO 320) Interior Design 320 (2 lectures + studio session)**

The subject develops around seminar sessions in the studio related to and applied in various design projects aimed at the development of creativity and the translation and communication of concepts and the integration of knowledge obtained in all the subjects that constitute the course

The course focuses on the abstract concepts involved in design theory and the translation of such in the related fields of product and set design, exhibition design and conservation strategies.

**(ITO 400) Interior Design 400 (2 lectures + studio session)**

In the fourth and final year of study the student has the opportunity to work on a complex project of his or her own choice over the full year and present the work in the form of a thesis document and exhibition to a panel of examiners. The discourse aims at integrating all the knowledge gained in the program and places strong emphasis on the strategic design decision-making process, design ethics, the responsibility of the designer, the importance of successful verbal and graphic communication and above all the ability to conceptualise and solve the stated design problem.

**(KKR 510) Construction Contract Law 510**

(Consult syllabuses: Dept. of Quantity Surveying)

**(KON 110) Construction 110 (2 lectures + 1 studio session)**

Drawing conventions: Surveying, map projections, distance measurement with tape, levelling instrument, practical contour plan and site sections. Site data collection and interpretation. Contours, cut-and-fill. Storm water. Typical city site: city block, shape, title, services. Introduction to materials: Properties, movement, binding, thermal properties, water resistance, durability, appearance, production, economy. Concrete (part 1). Clay bricks, mortar, bond. Concrete blocks, modular coordination. Stone masonry.

**(KON 120) Construction 120 (2 lectures + 1 studio session)**

Single-storeyed buildings: Preparation for building work. Setting out, foundations, foundation walls, filling. Damp-proofing. Surface beds, steps, level differences, stoeps. Superstructure walls, stability, hearths, chimneys, gable walls. Building in of windows, doors, services. Thresholds, windowsills, lintels.

Timber roof structures and finishes: Profiled sheet metal, concrete tiles and thatch. Plaster and screeds. Ceilings. Windows, doors, ironmongery. Fasteners.

**(KON 211) Construction 211 (3 lectures + ½ studio session)**

Double Storey Building: Reinforced concrete, steel and timber-framed structures. Off-shutter concrete. Load-bearing masonry. Low-pitch roofs and waterproofing, other pitched-roof finishes. Lightweight partitioning. Glass. Joinery. Small precast elements.

**(KON 212) Construction 212 (3 lectures + ½ studio session)**

Water courses: Design and construction, slope analysis and contour manipulation. Storm-water: run-off calculations. Hydraulic structures.

**(KON 220) Construction 220 (3 lectures + ½ studio session)**

Site and pedestrian circulation:

Site Structures: Geotextiles and geomembranes, stairs, walls, retaining walls, fences, ramps, gabions, prefabricated retaining blocks. Street furniture.

Elementary Services: Water, sewerage, electricity.

**(KON 310) Construction 310 (3 lecture + ½ studio sessions) (2001)**

Site and vehicular circulation: Built planters, lapas, braais, pavillions, decks. Construction equipment.

Roads: Stormwater catchment, stormwater line, water line, electricity, telephone, security, television cables, irrigation, agricultural drains, septic and conservatory tanks, sewer lines, french drains.

**(KON 321) Construction 321 (1 lecture + 3 studio sessions)**

Integration of the foregoing course work. Introduction to construction norms and standards, technical drawing practice and specifications. Cost estimates, feasibility and payability.

Advanced materials: Ceramics, plastics, adhesives, paint, metals.

Design of a small commercial building (in ONT 320) and the preparation of its construction drawings.

**(KON 322) Construction 322 (1 lecture + 3 studio sessions)**

Integration of the foregoing course work. Introduction to construction norms and standards, technical drawing practice and specifications. Cost estimates, feasibility and payability.

Advanced site elements: Irrigation.

Design of a small commercial landscape (in LOW 321) and preparation of its construction drawings.

**(LOW 210) Landscape Design 210 (1 lecture +3½ studio sessions)**

Master planning: Design principles applied to city parkland systems and recreational sites, sports clubs, campuses, memorial sites, bio-parklands, sustainable landscapes, golf courses, marinas.

Skills: Brief, impact studies, site analysis, time management, advanced graphic techniques, reprographic techniques.

Lectures: Design methodology.

**(LOW 220) Landscape Design 220 (1 lecture + 3 ½ studio sessions)**

Site Planning: Design processes, philosophies, principles, standards and technologies applied to plazas, atriums, roof gardens, office parks, industrial landscapes, pedestrian routes, commercial centres, institutions, mass housing, sustainable gardens.

Skills: Setting and solving of design problems, model building, advanced colour presentation, report writing.

Lectures: Design Methodology.

**(LOW 310) Landscape Design 310 (4 studio sessions)**

Ecological planning comprises the integration of human need and the supply of nature in a meaningful process of planning and design. The use of the latest technological facilities supports this process of problem-solving and assimilation of knowledge.

The course includes large-scale regional planning exercises as well as smaller exercises in ecological design but concentrates on the processing of ecological and social realities into environmental values for human survival and opportunities for human utilisation and exploitation.

**(LOW 310) Landscape Design 310 (1 lecture + 3 ½ studio sessions) (2001)**

Ecological planning: The process of design through the integration of supporting course work. The design of exterior spaces from small-scale ecological design to regional scale through a diversity of approaches responsive to the integral values and nature of the site and the region, social needs interpreted as environmental values within the parameters of available natural resources for human use, survival and sustainability.

Skills: Technological-backed reprographic techniques, competitions and exhibitions.

Lectures: Design Methodology.

**(LOW 320) Landscape Design 320 (4 studio sessions)**

After completion of ecological planning proposals, the influence on the environment of development projects will be investigated during this semester. The use of the GOB process is implemented by means of the GIS to apply environmental influence studies to specific projects. Detailed ecological design solutions are developed as mitigating measures against the damaging influence of development on ecology and the environment. Detailed ecological knowledge is utilised in the environment-design projects. This results in environmentally friendly solutions for the conflict between development and conservation.

**(LOW 320) Landscape Design 320 (1 lectures + 3 ½ studio sessions) (2001)**

The product of design through integration of supporting course work. The design of a project in city context with complex programme up to a full set of design and detail drawings for construction drawings and specifications in KON 322. Statutory requirements feasibility and payability studies.

Skills: Multi-faceted presentation.

Lectures: Design Methodology.

**(LOW 410) Landscape Design 410 (6 studio sessions)**

Urban design and the elements associated with the development of open-space environments as finding frameworks for new development. The studio provides a project-based study of the physical and space components of cities within the context of culture and ecology. These projects comprise the design of public urban open-spaces and community facilities.

**(LOW 420) Landscape Design 420 (6 studio sessions)**

Continuation of the first semester; comprises the solution of challenging urban landscape design problems. The projects require of students to identify a specific design problem from the master plan and to produce a complete design and detailed drawings.

**(LTO 310) Landscape Theory 310 (2 lectures)**

Theoretical discussion of the relationship between people and their natural environment as well as the values they attribute to their environment. These theoretical ecological planning processes are researched. The foundation is laid for the development of the student's own planning processes.

**(LTO 320) Landscape Theory 320 (2 lectures)**

The implications of development on environmental values are analysed by means of theoretical investigations into environmental-influence study processes. The foundation is laid for the development of the student's own planning processes.

**(LTO 410) Landscape Theory 410 (3 lectures)**

Introduction to urban design, urban design precedents, theoretical models and an approach to urban design studies and case studies.

**(LTO 420) Landscape Theory 420 (4 lectures + 1 studio session)**

The theory is based upon the influence of public participation in the designing process, development of sustainable design solutions and structures in the landscape.

**(OBG 110) Principles of Design 110 (2 lectures + 1 x 2 hour p.)**

An introduction to the basic principles of design by use of the design elements.

**(OKU 110) Design Communication 110**

Identical to AFA 151 – 154 in the Department Afrikaans  
or English 155,156 in the Department of English

**(AFA 151 – 154) Afrikaans 151 – 154**

Beroepsrelevante kommunikatiewe vaardighede in Afrikaans aan die hand van relevante en outentieke tekste. Taalkonvensies.

or

**(ENG 155,156) English 155,156**

(Practical course for students not proceeding beyond the first year in English. Composition, style, usage, grammar; literary and non-literary texts. Tutorial and practical classes in smaller groups.

**(OKU 120) Design Communication 120**

Identical to Afrikaans 155 – 158 in the Department Afrikaans  
or English 157,168 in the Department of English

**(AFA 155 – 158) Afrikaans 155 – 158**

Multikulturele kommunikatiewe vaardighede in Afrikaans aan die hand van relevante en outentieke tekste. Beroepsrelevante taalhandelinge.

or

**(ENG 157, 158) English 157,158**

Students have a choice between various alternatives for specific purposes, such as English for Law, English for Education and Intensive English Practice. Tutorial and practical classes in smaller groups.

**(OKU 210) Design Communication 210 (2 lectures)**

Visual literacy: visual media – analyse, interpret and critique. Photographic and video techniques. Video-graphic computer skills.

**(OKU 220) Design Communication 220 (2 lectures + ½ studio session)**

Remote sensing and photogrammetry, CAD.

**(OKU 310) Design Communication 310 (2 lectures)**

Introduction to the basic principles of public speeches as an assisting measure in professional communication. This includes introduction, organisation, attitude, clarity and effective oral presentation.

**(OKU 310) Design Communication 310 (3 lectures + ½ studio session)(2001)**

GIS and 3-dimensional CAD.

**(OKU 320) Design Communication 320 (1 lecture + 2 studio sessions)**

Advanced design communication techniques.

**(OKU 410) Design Communication 410 (2 lectures)**

The seminar serves as group discussion dealing with aspects referring to the profession, including a discussion of environmental values, ethical values, socio-economical values and the future vision of landscape architecture. The discussions aim to stimulate creative thinking and insight. This takes place through group or individual multi-media submissions of previously studied literature.

**(OMG 120) History of the Environment 120 (3 lectures + ½ studio session)**

Introduction as background to the modern and post-modern. The history of the environment of the Mediterranean civilisations till the fall of Rome in 476 AD.

**(OMG 122) History of the Environment 122 (3 lectures)**

*Capita selecta* from OMG 120

1. Introduction as background to the modern and post-modern; 2. The history of the environment of the Mediterranean civilisations till the fall of Rome in 476 AD.

**(OMG 220) History of the Environment 220 (3 lectures + ½ studio sessions)**

The history of the environment and the link between Northern Europe, the Mediterranean region and the northern border areas of the Indian ocean in the time from the fall of the Roman Empire in 476 BC to the fall of Constantinople in 1453 AC.

**(OMG 224) History of the Environment 224 (3 lectures)**

*Capita selecta* from OMG 220

History of the environment and the relationship between Northern Europe, the Mediterranean Seaboard and the northern rim of the Indian ocean in the era between the fall of Rome in 476 AD and the fall of Constantinople in 1453 AD.

**(OMG 320) History of the Environment 320 (3 lectures + ½ studio session)(2001)**

History of the western environment from the rounding of the southern Cape of Africa till the post-modern.

**(OMG 323) History of the Environment 323 (3 lectures + ½ studio session)**

History of the western environment from the rounding of the southern Cape of Africa till the post-modern.

**(OMG 421) History of the Environment 421 (3 lectures + ½ studio session)**

1. Environmental history of tropical Africa within a global context; 2. Environmental history of Asia and the Americas prior to European colonisation.

**(OMG 511) History of the Environment 511 (3 lectures + ½ studio session)**

History of the environment of southern Africa from Neolithic times till the present.

**(OML 110) Environmental Studies 110 (3 lectures)**

Introduction to contemporary thought with emphasis on perception and interpretation as functions of culture. Development of a vocabulary to describe and enhance the discipline of design. Development of an individual design framework within the ethos of the Department.

**(OML 210) Environmental Studies 210 (3 lectures)**

Normative stances as function of a theoretical frame of reference. The contemporary theory pertaining to space and place as central principles to the environmental design disciplines.

**(OML 310) Environmental Studies 310 (3 lectures) (from 2001)**

A hermeneutic analysis of design theory and products of the recent past and the meta-language of its description. The viewing of culture, philosophy and science as ecosystem of the designer.

**(ONT 100) Design 100 (1 lecture + 5 studio sessions)**

Introductory design course in architecture and landscape architecture. Design principles, skills and techniques. Integration with supporting courses.

Small-scale design projects as illustration of design methodology, environmental influences (physical, social, cultural, historical), space requirements and creative interpretation.

Skills : Design communication through imagination, intuition and conceptual thinking.

Lectures: Design methodology

**(ONT 210) Design 210 (1 lecture + 3½ studio sessions)**

The process of design through the integration of supporting course work. The design of simple public spaces and buildings other than domestic with the emphasis on planning plan-making, structure and economy.

Skills: Setting up of brief, impact studies, site analysis, time management, advanced graphic techniques, reprographic techniques

Lectures: Design methodology.

**(ONT 220) Design 220 (1 lecture + 3½ studio sessions)**

The product of design through the integration of supporting course work. Design of double-storeyed domestic and public structures, statutory and user requirements; planning and form-giving processes.

Skills: Setting and solving of design problems, model building, advanced colour presentation, report writing.

Lectures: Design methodology

**(ONT 310) Design 310 (5 studio sessions)**

The process of design through the integration of supporting course work. The design of spaces and buildings with the emphasis on lateral thinking, restoration and adapted technologies; interior and industrial design.

Skills: Photography, audiovisual, exhibitions, decision-making and time planning.



**(ONT 310) Design 310 (1 lecture + 3½ studio sessions) (from 2001)**

The process of design through the integration of supporting course work. The design of spaces and buildings with the emphasis on lateral thinking, restoration and adapted technologies; interior and industrial design.

Skills: Technology backed reprographic techniques, competitions and exhibitions; decision making and time management.

Lectures: Design methodology.

**(ONT 320) Design 320 (4 studio sessions)**

The product of design through the integration of supporting course work. Design of multi-storeyed building of complex programme and circulation requirements on a difficult site, statutory requirements, feasibility and payability studies.

Skills: Versatility, presentation.

**(ONT 320) Design 320 (1 lecture + 3½ studio sessions) (from 2001)**

The product of design through the integration of supporting course work. Design of multi-storeyed building of complex programme and circulation requirements on a restricted site to a full set of design and detail drawings for construction drawings and specifications in KON 321; statutory requirements, feasibility and payability studies.

Skills: Multi-faceted presentation.

Lectures: Design methodology.

**(ONT 410) Design 410 (6 studio sessions)**

The process and product of design through integration of the content of supporting courses. Design of large building complexes and buildings with special requirements and complex programmes and in the urban context.

Skills: Representation and presentation techniques on a high level; written and verbal marketing of designs; self-confidence in design methodology.

**(ONT 420) Design 420 (5 studio sessions)**

The process of design through integration of the content of supporting courses.

The design of urban spaces with buildings, taking into account all the shaping influences and prescriptions on the city fabric.

Skills: Multi-dimensional submissions; techniques of surveying and analysis.

**(ONT 500) Design 500 (4 studio sessions in the first semester + 8 studio sessions in the second semester)**

The product of design by way of a design essay and with all the fore-knowledge of the content of the preceding courses.

The design of an approved building complex, preferably in a metropolitan context in co-operation with a chosen mentor.

The design essay is submitted and presented to a group of examiners.

**(OTR 311) Theory of Design 311 (3 lectures + ½ studio session)**

Part A: The designer as thinker – perceptions, creativity, lateral thought, analysis of precedents.

Part B: Conservation studies: surveying and evaluation of an historical building complex with regard to climatic behaviour, weathering, structure stability, restoration and re-use.

**(OTR 411) Theory of Design 411 (3 lectures + ½ studio session)**

Part A: Meaning, interpretation and criticism of architecture.

Part B: City fabric and context, shaping influences (cultural, visual, sensory, philosophical, economic and legislative); ecosystemic approach.

**(OTR 511) Theory of Design 511 (3 lectures + ½ studio session)**

Research methodology, study of precedents, writing of reports and presentation. The theoretical background for the principle of deconstruction and the manifestation thereof in art and architecture.

**(POP 311) Plant Design 311 (2 lectures + 2 studio sessions)**

Functional aspects (physiological and anatomical) of the choice of plant material and the utilisation with angles and erosion control as well as marshland. Planting aspects at rehabilitation landscapes, coastal landscapes, golf courses and semi-natural landscapes. Thematic plant utilisation, e.g. permaculture, xerofitical landscapes, roof gardens and Japanese gardens.

Studies of plant material: plant material for polluted situations and other special utilisations, knowledge regarding characteristics and prerequisites of annuals, roses, cacti and other succulents, intruder and declared weed species.

**(PRS 320) Practice Management 320 (3 lectures)(2001)**

The building industry: Statistics, organisation, regulations, standards, quality control. Professionalism: Related professions, organisation of the profession, ethics, liaison, builder. Projects: Management and administration, construction management, quantities, quantity lists, building-cost estimates, payability studies, economical design, capital sources, pay certificates, final account, preliminary and cost-price sums, escalation, cash flow, evaluation of buildings.

**(PRS 321) Practice Management 321 (3 lectures)**

(By the Department of Quantity Surveying)

Methodology of measuring; composition of schedules of quantity. Estimates of building costs according to various methods. Financial feasibility studies. Economic design. Capital sources. Payment certificates, final account, preliminary and C.P. amounts, escalation, cash flow. Valuation of buildings.

**(PRS 412) Practice Management 412 (3 lectures)**

The building industry: statistics, organisation, structure, regulations, standards, quality control. Professionalism, related professions. Organisation of the profession of the architect, ethics, liaisons, builders. Organisation, management and administration of the architect's practice. The architect's management and administration of a building project.

**(PWT 212) Plant Science 212 (3 lectures + ½ studio sessions)**

Introductory Botany and the basic principles of plant design. Plant physiology, plant classification, identification of Introductory Botany and basic principles of planting design. Plant physiology; plant classification; identification of genera and species recognition in habitat; use of plants in the creation of place (residential applications); plant form, growth and character, planting techniques and management, field ecology.

**(PWT 222) Plant Science 222 (3 lectures + ½ studio sessions)**

Planting Design 1: The use of shrubs, woody and herbaceous plants for landscape purpose, strategies for the use of plants in the creation of commercial and urban context; thematic use of plants (permaculture, xerophytical, roof gardens, etc.), field ecology.

**(PWT 312) Plant Science 312 (3 lectures + ½ studio sessions) (2001)**

Ecological Planting Design: the relationship of ecological theory to planning and design; sustaining biodiversity and ecological integrity, ecological principles of planting design, application of biotechnology to landscape engineering; environmental conservation and management (wetlands, rehabilitated landscapes, etc.), field ecology.

**(PWT 322) Plant Science 322 (3 lectures + ½ studio sessions) (2001)**

Environmental conservation and resource management, environmental evaluation (terrain models, etc.) environmental impact assessments; environmental auditing, field ecology.

**(STU 120) Theory of Structures 120 (3 lectures + ½ studio session)**

Structure: definition, form and requirements. Descriptive geometry, projections and developed planes. Principles of structural mechanics: forces and loads; stress, strain and elasticity; shear forces and bending moments; equilibrium and stability.

Introduction of structural materials.

Elementary structural elements and frames.

Site visits and practical classes.

**(STU 211) Theory of Structures 211 (3 lectures + ½ studio session)**

Design principles and calculations.

Timber structures; physical and strength properties, design and computation of elements; floor, wall and roof structures; bracing and integrity.

Load-bearing masonry: materials and standards, design and computation of wall elements; slenderness and lateral support; supports and integrity.

Simple foundations.

Site visits and assignments.

**(STU 221) Theory of Structures 221 (3 lectures + ½ studio session)**

Design principles and calculations.

Steel structures: physical and strength properties, design and computation of elements; floor, wall and roof structures; bracing and integrity.

Reinforced concrete structures: materials and standards, design and computation of beams, slabs and columns. Simple frames. Integrity.

Appropriate foundations.

Site visits and assignments.

**(STU 311) Theory of Structures 311 (3 lectures + ½ studio session)**

(by the Department of Civil Engineering)

Structure steel: Design of trussing, beams, columns, base plates, portal frames and masts; introduction of space frames. Reinforced concrete: Design of slab systems and other three-dimensional elements; retaining walls; portal frames. Prestressed concrete: principles; design an simple elements.

**(STU 311) Theory of Structures 311 (3 lectures + ½ studio session) (from 2001)**

Design principles and calculations: span elements (beams and slabs), compression elements (columns), simple foundations, load-bearing masonry.

Structural timber: material and structural characteristics, design and calculation of compressive tension and span members; roof structures, stability and bracing.

Site visits and assignment.

**(STU 321) Theory of Structures 321 (3 lectures + ½ studio session)**

(by the Department of Civil Engineering)

Foundations: Solutions for particular problems. Advanced structural forms: Possibilities and limitations and folded slabs, shells, domes, hanging structures, inflated structures. Failure and repairs. Structural systems for different types of buildings. Tests and laboratory work.

**(STU 321) Theory of Structures 321 (3 lectures + ½ studio session) (from 2001)**

Advanced structures: primary force transferral mechanisms: suitability of foundation types; structures: cable, curved, domed, shell, folded plate.

Structural concrete: composition and strength, mass concrete, theory of reinforced beams, simple slabs and columns.

Case studies and scale model, diagrammatic representation of its structure and structural principles, practical applications.

**(TKN 310) Site Construction 310 (2 lectures + 1 studio session)**

The construction of an elementary building, including design and erection of building components. Architectonical mountings and metal work. The economy of alternative construction solutions. Builders equipment and instruments. Movement in structures. Construction drawings.

**(TKN 320) Site Construction 320 (2 lectures + 1 studio session)**

Stormwater management with special reference to retention, purification and re-use of stormwater on site.

Marshlands: Technical aspects concerned with the design, management and reconstruction of natural and man-made marshlands. Dam structures. Soil conservation and erosion control. Construction drawings.

**(TKN 410) Site Construction 410 (2 lectures + 1 studio session)**

Services at the site: Sewerage, stormwater, electricity lay-on, water supply, irrigation, refuse management.

Building climate: Noise control. National building regulations and SABS standards. Construction drawings.

**(TKN 420) Site Construction 420 (1 lecture + 2 studio sessions)**

Preparation of complete technical documentation for the execution of the design project completed under LOW 420.

**(TKS 210) Textiles 210 (3 lectures + 1 x 2 hour p.)**

Textiles with a view to the consumer's choice. Textile terminology, classification, structure, properties and behaviour of fibre; threads; textile care and labelling. (Admission to examinations: A subminimum of 40% in both the theory and practical work is required.)

**(TKS 220) Textiles 220 (3 lectures + 1 x 2 hour p.)**

Textiles with a view to the consumer's choice. Properties and behaviour of different fabric structures and finishing. Implications for care: Colouring, printing and other methods of decoration. (Admission to examinations: A subminimum of 40% in both the theory and practical work is required.)

**DEPARTMENT OF QUANTITY SURVEYING AND CONSTRUCTION MANAGEMENT**

**(ABR 351,352) Labour Law 351,352**

Consult Economic and Management Sciences.

**(BER 410) Business Law (4 lectures per week)**

(Through the Department of Trade and Labour Law)

Introduction to law; general principles of contract law; specific contracts: purchase contracts, employment contracts, job contracting, representative law; general aspects of business law, dispute resolution – mediation and arbitration.

**(BEV 500) Industrial Safety 500 (2 lectures)**

Study of and development of sensitivity for industrial safety, accident prevention and total loss control.

**(BGG 111) Building Organisation 111 (2 lectures)**

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

**(BKR 410) Building Cost Estimates 410 (4 lectures)**

Pricing and tendering; elements of a price; pricing of various trades; estimating methods; escalation; capital investment; cost planning; property valuation; capital sources; norms; tools.

**(BRK 400) Quantity Surveying Practice 400 ( 2 lectures)**

Model preambles; computer systems; abstracting and billing; quantities of materials; inclusive quantities; successive contracts; final accounts; contract price adjustments; mensuration; analysis of prices; economical design; analysis of building costs

**(BOU 131) Building Drawings 131(1 lectures + 1 p.)**

Geometrical construction and polygons. Orientation of lines and flat surfaces in space. True lengths and inclinations. Projections on oblique planes. Projections of solids. Sections through solids. Lines of penetration, curves, unfoldings, isometric projections; perspective drawings, shadows and contours.

**(BOU 120) Building Drawings 120 (1 lectures + 1 p.)**

Preparation of technical drawings of simple buildings including services for local authorities.

**(BRK 500) Quantity Surveying Practice 500 (3 lectures)**

Model preliminaries; different types of bills of quantities; civil engineering works; 'standard system' evaluation, contract administration; office administration; external relations and marketing of professional services; conditions of appointments and fee accounts; report writing; quantity surveyors' act; framing of technical articles

**(BTP 410) Management Practice 410 (3 lectures)**

Introduction to communication and its implementation in practice. General functions and management of office administration.

**(BTP 420) Management Practice 420 (3 lectures)**

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

**(BTP 510) Management Practice 510 (3 lectures)**

Overview of general management; project management in the building and property industries.

**(BTP 520) Management Practice 520 (3 lectures)**

Marketing and strategic management; external relations, tasks, responsibilities, and the rights of a director, partner, member and share-holder in a business, business ethics.

**(BWT 110) Building Science 110 (2 lectures)**

Introduction to the construction of simple buildings with specific reference to different construction methods.

**(BWT 120) Building Science 120 (2 lectures)**

Study of materials used in the construction of simple buildings.

**(BWT 210) Building Science 210 (2 lectures)**

Erection and construction of multi-storey buildings with specific reference to the role of each trade.

**(BWT 220) Building Science 220 (2 lectures)**

Site management and temporary site work, building equipment; specialised foundations; material study of glass, plastics, glues, rubber, mastics, bonding agents, fibre cement and bituminous products.

**(BWT 310) Building Science 310 (2 lectures)**

Erection and construction of specialised buildings with specific reference to the role of specialist trades.

**(BWT 320) Building Science 320 (2 lectures)**

Studies of all types of metal; paint; epoxies and waterproofing; theory of the state of comfort of buildings.

**(BWT 410) Building Science 410 (2 lectures)**

Technology – a critical review; innovation in construction; sustainability in the urban environment; technical evaluation of innovative construction material and methods; maintenance, repair, conservation, restoration, and re-design and re-use of buildings and services.

**(BHU 420) Housing 420 (2 lectures)**

Concepts, principles of refuge and home; development philosophy and theory; history, present context and tendencies of migration, settlement, urbanisation and housing; statutory, policy and planning frameworks and paradigms; process of housing; housing development management; financing and property rights options; types of housing and densities; housing product, norms and standards; management and maintenance of housing stock; consumer questions.

**(BRK 570) Essay 570**

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

**(CIL 171,172,173) Computer Literacy 171, 172, 173**

Presented by Damelin Computer School on the campus.

**(DTV 300) Data Processing 300 (2 lectures per semester)**

Orientation in the use of electronic technologies and resources in the construction and property industry, implementation of knowledge in real situations.

**(EKN 151,152) Economics 151,152**

**(EKN 120) Economics 120 (3 lectures)**

(Consult Faculty of Economic and Management Sciences)

**(EOW 410) Property Development 410 (2 lectures)**

Application of the principles of interest calculations on the building industry; introduction to financial valuation techniques, nett present values and internal rate of return, risk analysis

**(EOW 420) Property Development 420 (2 lectures)**

Review of property development; rights over immovable property; private legal circumscription of ownership; real securities; the registration of rights; zoning regulations.

**(EOW 500) Property Development 500 (3 lectures)**

Investment in property; objectives of the developer; feasibility studies; capital investment, income and operating expenses; cashflow studies; discounted studies; sensitivity studies; decision-making approaches; financing; tax; life-cycle costing; risk analysis; calculation of residual land and income values; presentations by students; assignment

**(FBS 400) Financial Management 400 (4 lectures)**

Budget estimates, cashflow schedules and financial statements as well as the handling of contract accounts as introduction to financial management.

**(FBS 500) Financial Management 500 (4 lectures)**

The application of cost-accounting, budgets and cash-flow schedules, and financial statements in general financial management.

**(FRK 151) Financial Accounting 151**

**(FRK 152) Financial Accounting 152**

**(FRK 161) Financial Accounting 161**

**(FRK 162) Financial Accounting 162**

**(FRK 181) Financial Accounting 181**

See Faculty Economic and Business Management

**(GBD 112) Building Services 112 (2 lectures)**

Sanitary services; soil and waste drainage for multi-storey and multi-purpose buildings; local sewage by-laws; construction of all types of sewage and sanitary fittings; stormwater drainage and construction.

**(GBD 122) Building Services 122 (2 lectures)**

Sanitary services; hot and cold-water supply to simple and multi-storey buildings; local by-laws; water reticulation to town development; different hot-water systems; water purification systems; sewage for town development; rainwater disposal.

**(GBD 212) and (GBD 222) Building Services 212 and 222 (2 lectures)**

Airconditioning and energy measurement; mechanical handling; lifts and other mechanical services.

**(GBD 312) and (GBD 322) Building Services 312 and 322 (2 lectures)**

Theory of electricity and illumination; regulations of electricity-supply authorities; electrical installations; distribution of electricity; illumination installations: Lightning security; security systems; communication systems.

**(HVH 200) Quantities 200 (4 lectures)**

Introduction to quantity surveying; simple mensuration; methodology of measuring; working up processes; measuring of simple building elements and of single-storey buildings. Complete study of the "Standard System" as necessary for the work in Quantities 200. Proof of language proficiency by means of a test is required before this subject can be awarded.

**(HVH 300) Quantities 300 (4 lectures)**

Measurement of simple concrete and steel structures, of sundry metalwork and of simple building elements and services; adjustments of foundations on sloping sites. Complete study of the "Standard System" as requirement for the work in Quantities 300.

**(HVH 400) Quantities 400 (4 lectures)**

The measuring of alterations, geotechnical engineering works, advanced building components and services, precast concrete, rubble walling, stonework and external work. Careful study of the "Standard System" as required for the work in Quantities 400. Assignment

**(KBS 310) Construction Management 310 (3 lectures)**

Introduction to communication and its application on the theory and practice of management. General functions and techniques of management. Office administration.

**(KBS 320) Construction Management 320 (3 lectures)**

Use of equipment and site establishment. Purchase management and handling of materials.

**(KBS 410) Construction Management 410 (3 lectures)**

Work study, programming techniques, allotment and analysis of costs.

**(KBS 420) Construction Management 420 (3 lectures)**

Production management, operational management techniques and productivity.

**(KBS 510) Construction Management 510 (3 lectures)**

Theory and practice of the enterprise functions; general management, human resources management; insurance and guarantees.

**(KBS 520) Construction Management 520 (3 lectures)**

Review of general management. Project in the building and property industry.

**(KBS 570) Essay**

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

**(KKR 420) Construction Contract Law 420 (4 lectures)**

Arbitration; legislation and uses; law of delict; negligence and damage to property; property rights; building contracts; types and tendering procedures; value added tax

**(KKR 510) Construction Contract Law 510 (4 lectures)**

Building contracts: consultants; workmanship; contract amount; defects; insurance; time for completion; contract cancellation; payment certificates; dispute resolution



**(KKR 520) Construction Contract Law 520 (2 lectures)**

Subcontracts: consultants; main contractor; subcontractor; workmanship; contract amount; defects; insurance; time for completion; contract completion; payment certificates; dispute resolution

**(KSH 300) Construction Quantities 300 (4 lectures)**

Standard system for measuring of building work and practical implementation in measuring; quantities of materials, including price analysis; use of computer technology for this; executing list compilation; measuring with the aid of computer technology; diverse additional building contract documentation; successive contracts.

**(KSH 400) Construction Quantities 400 (4 lectures)**

Preparations; listing of quantities; civil engineering works; advanced pricing; tender documentation; analysis of building costs; economical designs; building cost estimates; practical contract administration and cost management – internal and external; computer application for this purpose.

**(OMG 122) History of the Environment 122 c.s from OMG 121 (3 lectures)****(OMG 224) History of the Environment 224 c.s from OMG 223 (3 lectures)**

(Consult Dept. of Architecture & Landscape Architecture)

**(SLK 151) Psychological Perspectives 151 (2 lectures)****(SLK 152) Cognitive Processes 152 (2 lectures)****(SLK 153) Social Psychology I 153 (2 lectures)****(SLK 156) Development Systems Theory 156 (2 lectures)**

Consult Humanities Yearbook Part I.

**(STK 151) Statistics 151 (3 lecturesm p.w. + 1 hour p.p.w. (½ semester credit)**

Descriptive Statistics – Univariate:

Sampling and collecting of data, frequency distributions and graphical representations. Descriptive measures of location and dispersion. Identification, use, evaluation and interpretation of statistical computer packages and statistical techniques.

**(STK 152) Statistics 152 (3 lecturesm p.w. + 1 hour p.p.w. (½ semester credit)**

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.

**(STK 161) Statistics 151 (3 lecturesm p.w. + 1 hour p.p.w. (1/3 semester credit)**

Descriptive Statistics – Multivariate:

Curve fitting, regression and correlation. Indices and the analysis of time series. Identification, use, evaluation and interpretation of statistical computer packages and statistical techniques.

**(STU 112) Theory of Structures 112 (4 lectures + 1 practise class)**

(By Department of Civil Engineering)

Balance of particles; balance of fixed bodies; forces in trussing; elementary differentiation and integration; properties of structure parts; elasticity.

**(STU 122) Theory of Structures 122 (4 lectures + 1 practise class)**

(By Department of Civil Engineering)

Shear force and bending moment; stresses of beams; deflection of beams; yielding of materials; torsion; compiled axial bending stress; columns and supports.

**(STU 212) Theory of Structures 212 (3 lectures)**

(By Department of Civil Engineering)

Structural steel: load bearing, pressure and yielding properties; Construction wood: load-bearing, pressure and yielding properties, design and trussing. Joints and pressures on structures.

**(STU 222) Theory of Structures 222 (3 lectures)**

(By Department of Civil Engineering)

Concrete as construction material; reinforced concrete: design of yielding and pressure sections; yielding schedule; reinforced concrete structure systems; stressed concrete, properties and design of simple bending schedules; design of stress-bearing brickwork.

**(STU 312) Theory of Structures 312 (3 lectures)**

(By Department of Civil Engineering)

Light steel industrial buildings; multi-storeyed steel buildings; design of concrete retaining walls; foundations: floating foundations, problems with foundations; design of boxing required; preliminary structure design; bridge elements; reservoirs.

**(STU 322) Theory of Structures 322 (3 lectures)**

(By Department of Civil Engineering)

Road design; paving; stormwater reticulation; bulk sewage works; bulk water supply.

**(TRN 213) Site Surveying 213 (2 lectures + 1 p.)**

General surveying; instruments, their handling and adjusting; surveying systems and simple calculations; determining of levels; setting out of the works; tacheometry and plotting; scales, planimetry; areas and volumes; construction surveying; aerial photography.

**DEPARTMENT OF TOWN AND REGIONAL PLANNING**

**(BPR 321) Planning Law 521 (2 lessons)**

The law. Laws that govern the legality of Public Administration. Legislation important for and in planning.

**(EDE 310) Property Economics 310 (2 lectures)**

Property and the property industry. Commerce in property. Limitation of right of ownership according to private and public law. The role of the authorities in the property industry. Contracts, the time value of money and market assessment. Investment analysis, property financing and development.

**(OMG 120) History of the Environment 121 (2 lectures + ½ studio session)**

(Consult Dept. of Architecture & Landscape Architecture)

**(PFP 422) Professional Practice 422 (2 lectures)**

The graduate: Image, position, progress. Professionalism: Concept, code, Institute. Meeting procedures. Guidance, office organisation and management. Business practice: marketing for professions; client behaviour; market forecasting; planning and control.

**(SSS 110) Town and Regional Planning Theory 110 (3 lectures)**

Processes of development; settlement factors; the South African spatial economy; urban development in South Africa; the third world city; the social-ecological, environmental-psychological and historical approaches to urban morphology; the structure and form of classical cities. Societal models: characteristics of the South African society; mythologisation of history; future challenges; employment; provision of education; housing and redistribution of prosperity.

**(SSS 120) Town and Regional Planning Theory 120 (3 lectures)**

The natural-physical environment: basic geomorphology; structure, composition and functioning of the ecosystem; role of the human being in the ecosystem; natural resources; pollution; environmental measuring. The human-physical environment: structure and form of the Mediaeval city. Planning values: the Cartesian and the new world view; environmental issues; green politics; entropy.

**(SSS 210) Town and Regional Planning Theory 210 (3 lectures)**

Objectives and means of Town and Regional Planning; facilitating political and economic structures for successful town and regional planning.

**(SSS 220) Town and Regional Planning Theory 220 (3 lectures)**

The characteristics of an ideal living environment.

**(SSS 310) Town and Regional Planning Theory 310 (3 lectures)**

Components of a region; theories of regional development, agricultural settlement, mining development, urban settlements, industrial development, infrastructure, recreation and tourism.

**(SSS 320) Town and Regional Planning Theory 320 (3 lectures)**

Morphology of urban settlements: historical perspective, growth, demarcation, megapoles, economy, problems, components of the city.

**(SSS 410) Town and Regional Planning Theory 410 (3 lectures)**

Development planning; problems of developed and developing countries; the process of development; the rationale of government interference; strategy for development; approach to development; instruments of development.

**(SSS 420) Town and Regional Planning Theory 420 (3 lectures)**

Study of topical matters that are, according to the Department, important for the prospective town and regional planner.

**(SSM 110) Town and Regional Planning Methodology 110 (3 lectures)**

Town and Regional Planning as science: critical thought; scientific documentation; planning as applied science; domains of examination of planning. The planning process: comparative study of different approaches to the process. Case study: structure plan of a city; integrated environmental management (process).

**(SSM 120) Town and Regional Planning Methodology 120 (3 lectures)**

Approaches to planning: master; process; functional; normative; comprehensive and incremental planning. The development of planning as a discipline and movements in the discipline: the monumentalists; garden city movement; functionalists; megastructuralists; current tendencies.

**(SSM 210) Town and Regional Planning Methodology 210 (3 lectures)**

The planning process; pre-planning phase; project planning; overhead formulation of objectives; survey techniques; data analysis; graphical representation of results; writing of reports.

**(SSM 220) Town and Regional Planning Methodology 220 (3 lectures)**

Formulation of objectives; drawing up of alternative plans; assessment of alternative plans; selection of the best plan; implementation; monitoring; evaluation; writing of reports; submission of final report.

**(SSM 310) Town and Regional Planning Methodology 310 (3 lectures)**

The role of models and simulations in planning; model development and calibration; models including linear, gravitation, entropy, Gavin-Lowry and optimising; projection and forecasting of trends in growth and population numbers; projects that illustrate modelling in urban context.

**(SSM 320) Town and Regional Planning Methodology 320 (3 lectures)**

The nature and characteristics of urban information systems; geographical information systems: data, quality of the gathering and geographical data; types of data and the processing of grid data and vector data; spatial analysis and polygon algebra; databases and structures for the reference of spatial data.

**(SSM 410) Town and Regional Planning Methodology 410 (3 lectures)**

Planning philosophy: philosophies on what planning is, and necessity and desirability; planning in a post-apartheid South Africa.

**(SSM 420) Town and Regional Planning Methodology 420 (3 lectures)**

Plans for town and regional planning: administrative framework on different levels of government; hierarchy of plans; national planning, regional plan, urban plans, structure plan, development plan; town-planning scheme.

**(SSP 110) Town and Regional Planning Project 110 (3 lectures)**

Surveying: map projections, scale, South African system of surveying and mapping, operations with scales, determination of surface, contours. Graphical techniques: pencil, ink and colour work, free-hand sketching, shade, texture, three-dimensional, letter work, space, scale, form. Urban analysis: land uses, zoning, ownership, valuation, services, traffic, building form, sensory, contextual, factor sheet. Presentation techniques: organisation, body language, presentation, graphical aspects. Design: practice on urban district scale.

**(SSP 120) Town and Regional Planning Project 120 (3 lectures)**

Reading of maps, aerial photo analysis and remote sensing. Site analysis: topography, hydrology, geology and pedology, vegetation and animal life, climate, determination of site suitability, sensory analysis, factor sheet, application of the IEM process. Layout techniques: erf layout, street layout, street geometry, layout of a residential town. Design: application of acquired knowledge: a problem situation is addressed on the basis of a project, with emphasis on design inputs.

**(SSP 210) Town and Regional Planning Project 210 (3 lectures)**

**(SSP 220) Town and Regional Planning Project 220 (3 lectures)**

**(SSP 310) Town and Regional Planning Project 310 (3 lectures)**

**(SSP 320) Town and Regional Planning Project 320 (3 lectures)****(SSP 410) Town and Regional Planning Project 410 (3 lectures)****(SSP 420) Town and Regional Planning Project 420 (3 lectures)**

Application of knowledge from Theory and Methodology: Problem situations are addressed; at least five smaller or three more comprehensive projects undertaken per semester.

**(SKR 412) Essay 412 (4)**

A study proposal in the prescribed form on a topic approved by the Head of the Department, must be submitted.

**(SKR 422) Essay 422 (4)**

The collection, processing and interpretation of the data according to the study proposal in SKR 412, and the writing of the essay report.

**(SVC 410) Transport Engineering 410 (2 lectures)**

The traditional transport study: trip generation, trip distribution, modal distribution and trip assignment. Data requirements. Land-use modelling. The town and regional planner's contribution to transport planning.

**(SVB 321) Transport Engineering 321 (2 lectures)**

Environmental transport system. Road construction engineering: operational characteristics of traffic, capacity, traffic control, geometrical design of streets, level junction and interchanges, parking and traffic studies. Railway engineering: operational characteristics, geometrical design, stations and railway provision to industrial areas. Public transport – bus transport: equipment and capital requirements, parking and service facilities, timetables, scheduling, routes, halts, cost and tariff structures, priority measures, demand reaction systems, capacities. Heavy and light railway transport.

**(MDS 310) Municipal Services Provision 310 (2 lectures)**

Municipal water and electricity supply; sewerage; storm-water handling; the processing of solid waste; the control of air and noise pollution.

**(EKN 151,152) Economics 151,152****(EKN 120) Economics 120****(EKN 251,252) Economics 251,252****(EKN 220) Economics 220****(EKN 351,352) Economics 351,352****(EKN 320) Economics 320**

(Department of Economics - consult Economic and Management Sciences)

**(SOC 151) Social Organisation and the Individual 151 (3 lpw, 1 dpw)****(SOC 152) Social Institutions 152 (3 lpw, 1 dpw)****(SOC 153) Social Inequality 153 (3 lpw, 1 dpw)****(SOC 154) Sociometrics 154 (3 lpw, 1 dpw)****(SOC 251) Social Problems 251 (3 lpw, 1 dpw)****(SOC 252) Domestic Life 252 (3 lpw, 1 dpw)****(SOC 253) Medical Sociology 253 (3 lpw, 1 dpw)****(SOC 254) Demographic Research 254 (3 lpw, 1 dpw)****(SOC 351) Advanced Demographic Research 351 (3 lpw, 1 dpw)****(SOC 352) Social Theory 352 (3 lpw, 1 dpw)****(SOC 353) Industrial Sociology 353 (3 lpw, 1 dpw)**

**(SOC 354) Demography 354 (3 lpw, 1 dpw)**

(Department of Sociology - consult Faculty Humanities)

**(STK 151) Statistics 151 (3 Lectures + 1 prac.  $\frac{1}{2}$  sem. credit)**

**(STK 152) Statistics 152 (3 Lectures + 1 prac.  $\frac{1}{2}$  sem. credit)**

**(STK 161) Statistics 161 (3 Lectures + 1 prac.  $\frac{1}{3}$  sem. credit)**

**(STK 162) Statistics 162 (3 Lectures + 1 prac.  $\frac{2}{3}$  sem. credit)**

(Department of Statistics - consult Economic and Management Sciences)

**(INF 110) Informatics 110 (3 Lectures + 2 prac)**

**(INF 120) Informatics 120 (3 Lectures + 2 prac)**

(Department of Informatics - consult Economic and Management Sciences)

### MEDALS AND PRIZES

Name	Donor	Award
<b>Department Architecture and Landscape Architecture</b>		
Cowin, Glennie and Jury Inc Prize	Cowin, Glennie and Jury Inc Architects	Best documentation of a project for the BArch.
David-Haddon Prize	Institute of South African Architects	Student in Quantity Surveying or Architecture with the best achievement in Career Practice.
Sheila Kirtley McIntosh Prize	The late William Gordon McIntosh	Student in Architecture in any year of study with the highest average in all the prescribed subjects for the particular year.
Robert Gustav Schmickl Prize	Family Schmickl	Best progress with postgraduate studies.
Louis Mook Design Bursary	Family Mook and Dept Architecture	Best progress towards a distinction in Design at first year level.
ILASA Book Prize	Institute of Landscape Architects in South Africa	Best Design student in each of the study years.
KWP Landscape Architect Prize	KWP Landscape Architects	First year student with the highest average.
Gouws Uys & White Partners Prize	GU & W Landscape Architects	Second year student with the highest average.
Cave Klapwijk & Associate's Prize	Cave Klapwijk & Associates	Third year student with the highest average.
Erica van den Berg Prize	Erika van den Berg	Final year student with the highest average.
Enviroecture Book Prize	Karen Fourie	Best student in OMG 212.
Grinaker Pre-Cast Prize	Grinaker Pre-Cast	Best student in any technical course in any year.
<b>Department Quantity Surveying and Construction Management</b>		
Gold Medal of the Society	Society of South African Quantity Surveyors	Best final year student in Quantity Surveying in South Africa.
DEM Rouse Prize	Farrow, Laing and Partners	Student in Quantity Surveying at any university in South Africa who achieved exceptionally in Career Practice.
Bell John Prize	Society of South African Quantity Surveyors	Student with the best academic achievement in any year.
David-Haddon Prize	Institute of South African Architects	Student in Quantity Surveying with the best achievement in Career Practice.

<b>Name</b>	<b>Donor</b>	<b>Award</b>
LTA Building Technology Prize for Quantity Surveyors	LTA Ltd	Best student with a score higher than 60% in the subject Building Technology at 200, 300 or 400 level.
Tobie Louw Prize	The late Prof Dr TH Louw	Student with the best academic achievement in all five years of study.
The Society Prize	The Society of South African Quantity Surveyors	Best student in the subject Quantities at 300, 400 and 500 level.
Junior Organisation Prize	Junior Organisation of the Northern Transvaal Branch	Student with best progress in the subject Quantities in any subsequent two years of study.
Old Mutual Prize for Property Development	Old Mutual	Best achievement in the subject Property Development.
Bifsa Gold Medal	Building Industries Federation (SA)	Best final year student in South Africa who achieves the degree with distinction.
President Medal of the Society of Building Masters and related subjects	Building Industries Association, Northern Transvaal	Best final year student in Construction Management.
Bifsa Book Prize	Building Industries Federation (SA)	Best student in each year of study in Construction Management.
LTA Construction Management Prize	LTA Ltd	Best student in KBS 510,520.
Prize for the most versatile final year student in Construction Management	South African Building Institute (N.TVL Branch)	Most versatile final year student in Construction Management who passes the year of study.
Sanlam Properties Book Prize for Property Development	Sanlam Properties	Best achievement in Property Development 500.
<b>Department Town and Regional Planning</b>		
Prize of the SA Planning Institution	SA Planning Institution	Best final year student in Town and Regional Planning.
PLAN Mede-werkers Prize	PLAN Mede-werkers	Final year student with the best essay (SKR 422) for the B (S&S).
Stef Henning and Cornelia Moll Prize	Stef Henning and Cornelia Moll	Best achievement in Town and Regional Planning Theory SSS 410,420.
<b>Not limited to the Faculty of Natural, Agricultural and Information Sciences</b>		
SRC Honourary Medal	Student Representative Council	Student who delivered the best service to the community.



<b>Name</b>	<b>Donor</b>	<b>Award</b>
S <sub>2</sub> A <sub>3</sub> Bronz Medal	South African Society for the advancement of science (donor: Sentrachem Ltd)	To a student who completed an extremely good master's study in the field which is traditionally part of the activities of the South African Society for the Advancement of Science (S <sub>2</sub> A <sub>3</sub> ) members of the Convocation of the University of Pretoria.
Certificate of the Vice-Chancellor and Principal		Best achievement in all the undergraduate years of study in any field of the Sciences.
Medal of the Vice-Chancellor and Principal		Best achievement in all the undergraduate study years in any scientific field at the University of Pretoria.

*The Afrikaans text of this publication is the official version and will be given precedence in the interpretation of the content.*