FACULTIES OF THE UNIVERSITY OF PRETORIA

HUMANITIES

NATURAL AND AGRICULTURAL SCIENCES

LAW

THEOLOGY

ECONOMIC AND MANAGEMENT SCIENCES

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HEALTH SCIENCES

ENGINEERING, BUILT ENVIRONMENT AND INFORMATION TECHNOLOGY

Address all correspondence to:

The Director: Academic Administration
University of Pretoria
PRETORIA
0002

Cheques and postal orders must be crossed and made out to the University *of Pretoria*.

Telephone: (012) 420-4111
Facsimile: (012) 362-5168/362-5190/362-5194
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FACULTY OF ENGINEERING, BUILT ENVIRONMENT AND INFORMATION TECHNOLOGY

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SCHOOL FOR THE BUILT ENVIRONMENT

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ACADEMIC PERSONNEL AS AT 30 SEPTEMBER 2001

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Van Wyk, F.A., BL (Pret) MILASA	Lecturer

Department of Construction Economics

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Maritz, M.J., MSc(QS)(Pret) Cert Arb RQS MAQS	Senior Lecturer
Basson, G.A.J., PrEng BSc BEng(Hons) PMP	Senior Lecturer
Coetzee, H.S., BSc(Building Management)(Pret) NTD. (Millwright) MSAIB	Lecturer
Cruywagen, J.H.H., MSc(QS) GBR LVBR	Lecturer
De Beer, J.G., MSc(Cons) LSABI	Lecturer

Jansen van Rensburg, Z., MSc(Real Estate) GBR LVBR.....	Lecturer
Le Roux, F., BCom STR(UOFS) BCompt(Hons) HOD(Unisa) CFA(SA)	Lecturer
Pienaar, J.S., BSc(QS)(Pret) PREP(Unisa)	Lecturer

Department of Town and Regional Planning

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Meyer, E., BT&RP(Pret).....	Lecturer
Van Huyssteen, E., SS(SA) BT&RP MT&RP(Pret) LSABI MISoCaRP	Lecturer

Faculty Manager
Koekemoer, J.F., BSc(QS)(Pret) MCom(RAU)

Head: Student Administration
Jones, E.

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 programmes closes on 30 June.

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

(a) All undergraduate programmes

(b) Postgraduate programmes
March(Prof), Mint(Prof), ML(Prof), MSc(QS) with coursework and MSc(Construction Management) degrees, MSc(Project Management), MSc(Real Estate): A restricted number of students are admitted for taught programmes. MSc and PhD by research are subject to approval. Applications close on 30 September.

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

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.

Bursaries and loans
Particulars of bursaries and loans are available on request.

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

Welcoming day and academic information week
Details of the welcoming day to which all parents are cordially invited, and the subsequent academic information 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 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 tuition fees without prior notification.

NEW SYSTEM OF EDUCATION

In 2000, the University of Pretoria started to phase in a new system of education and learning which corresponds with the required guidelines of SAQA (the South African Qualifications Authority) and the NQF (National Qualifications Framework). In this system, programmes are offered which are outcomes-based, student-centred and market-orientated. The new system was implemented in the School for the Built Environment during 2001. Students who were registered at the School for the Built Environment before or during 2000, will be able to complete the relevant qualification. A student who was registered for a degree qualification before 2000 may, in consultation with the Programme Manager and the Chairman: School for the Built Environment, be permitted to transfer to one of the new programmes. In certain instances it will be essential that students, on the recommendation of the Programme Manager and the Chairman: School for the Built Environment, transfer to a new programme. The student will, however, have to comply with all the requirements of the new qualification.

GLOSSARY OF TERMS

academic year: Duration of the academic year as determined by the University Council.
admissions regulation: A regulation compiled by the Dean concerning the admission of students to a specific School, which includes a provision regarding the selection process.
course: See module
credit (or **credit value**): A value unit linked to learning activities, calculated in accordance with the SAQA norm of **1 credit = 10 notional hours (learning hours)**. Credits are linked to modules and qualifications.
curriculum: A series of modules which form a programme, grouped together over a specified period of time and in a certain sequence according to the regulations.
examination mark: The mark a student obtains for an examination in a module, including practical examinations where applicable.
extended study programme: A study programme for a degree or diploma that is completed over a longer period than the minimum duration of the particular degree or diploma.
final mark: The mark calculated on the basis of the semester/year mark and the examination mark which a student obtains in a particular course according to a formula that is determined from time to time in the regulations for each module with the proviso that should no semester/year mark be required in a module, the examination mark serves as the final mark.
GS: A combined (final) mark (semester/year mark plus examination mark) of 40 - 49%.
learning outcome: The end product of a specified learning process, i.e. the learning result (specific skills) that one intends to achieve at the end of the learning process.
level of a module: The level (year) of a module, which is indicated in the module code and which gives an indication of the complexity of the module.
module: An independent, defined learning unit, designed to result in a specific set of learning outcomes, and which is a component of a programme.
module code: Consists of an equal number of letters and digits, which indicate the name of the module, the year of study, the period of study and the level of the module.

notional hours (learning hours): The notional number of hours students should spend in mastering the learning content of a particular module or programme. The total number of learning hours for a module consists of the time needed for lectures, tutorials and practicals (contact hours), as well as for self-study, examination preparation and any other activity required by the study programme. (**notional hours = credits x10)**
NQF: National Qualifications Framework. This is a national framework in which all SAQA-registered qualifications are listed, arranged on eight levels in accordance with the complexity of the qualification.
programme: This is a comprehensively planned, structured and coherent set of teaching and learning units (modules), designed to attain a specific set of predetermined learning outcomes at a specific level, which culminates in a student being awarded a particular qualification (diploma, degree).
qualification: In outcomes-based education, a qualification is a diploma or a degree which is obtained after attaining the learning outcomes as specified in a coherent learning programme, expressed as an accumulation of credits at specific levels.
SAQA : South African Qualifications Authority. This body has been established by law and has as its purpose the registration of qualifications, programmes and unit standards, in order to ensure that specific national and international criteria are achieved.
semester/year mark: The mark a student obtains during the course of a semester or a year for tests, class-work, practical work or any other work in a particular module as approved by regulation.
student-centred learning: Teaching and learning methodology, which facilitates the student's total own responsibility for the learning process. A prerequisite is that lectures, tutorials and practicals be adapted so that active participation by students is always achieved.
syllabus: Summary of the contents of a module.

DEGREES IN THE SCHOOL FOR THE BUILT ENVIRONMENT

The rules for degrees here published are subject to change and may be amended prior to the commencement of the academic year in 2002.

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

DEPARTMENT OF ARCHITECTURE

(i) Baccalaureus Scientiae in Architecture – BSc(Arch) (3 years)
(ii) Baccalaureus Scientiae in Interior Architecture – BSc(Int)(3 years)
(iii) Baccalaureus Scientiae in Landscape Architecture – BSc(LArch) (3 years)
(iv) Baccalaureus in Architecture – BArch (5 years)(until 2002)
(v) Baccalaureus in Interior Architecture – BInt (4 years)
(vi) Magister in Architecture (Professional) – MArch(Prof) (2 years)
(vii) Magister in Architecture – MArch (1 year)
(viii) Magister in Interior Architecture(Professional) – MInt(Prof) (2 years)
(ix) Magister in Interior Architecture – MInt (1 year)
(x) Magister in Landscape Architecture(Professional) – ML(Prof) (2 years)
(xi) Magister in Landscape Architecture – ML (1 year)
(xii) Philosophiae Doctor with specialization in Architecture– PhD (1 year)

(xiii) Philosophiae Doctor with specialization in Interior Architecture – PhD (1 year)
(xiv) Philosophiae Doctor with specialization in Landscape Architecture – PhD (1 year)

DEPARTMENT OF CONSTRUCTION ECONOMICS

(xv) Baccalaureus Scientiae (Quantity Surveying) – BSc(QS) (3 years)
(xvi) Baccalaureus Scientiae (Quantity Surveying) – BSc(QS) (5 years)
(xvii) Baccalaureus Scientiae (Construction Management) – BSc(Construction Management) (3 years)
(xviii) Baccalaureus Scientiae (Construction Management) – BSc(Construction Management) (5 years)
(xix) Baccalaureus Scientiae (Real Estate) – BSc(Real Estate) (3 years)
(xx) Magister Scientiae (Quantity Surveying) – MSc(QS) (1 year); Coursework (2 years)
(xxi) Magister Scientiae (Construction Management) – MSc(Construction Management) (1 year) Coursework (2 years)
(xxii) Magister Scientiae (Real Estate – MSc(Real Estate) (1year) Coursework (2 years)
(xxiii) Magister Scientiae (Project Management) – MSc(Project Management) (1 year) Course work (2 years)
(xxiv) Philosophiae Doctor – PhD (1 year)

DEPARTMENT OF TOWN AND REGIONAL PLANNING

(xxv) Baccalaureus in Town and Regional Planning – BS&S (4 years)
(xxvi) Magister in Town and Regional Planning – MT&RP (1 year) Coursework (2 years)
(xxvii) Philosophiae Doctor with specialisation in Town & Regional Planning – (2 years)

REGULATIONS FOR BACHELOR'S DEGREES

B.1 Admission to study

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

(a) To register for a first bachelors' degree at the University, a candidate must, in addition to the required grade 12 certificate with university endorsement, comply with the specific admission requirements for particular programmes and fields of study as prescribed in the admission regulations and the regulations of the faculty.
(b) The following persons may also be considered for admission:
  (i) A candidate who is in possession of a certificate which is deemed by the University to be equivalent to the required grade 12 certificate with university endorsement.
  (ii) A candidate who is a graduate from another tertiary institution or has been granted the status of a graduate of such an institution.
  (iii) A candidate who passes an entrance examination, which is prescribed by the University from time to time.

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

(c) The Senate may limit the number of students allowed to register for a programme, in which case the Dean concerned may, at his discretion, select from the students who qualify for admission, those who may be admitted.

(d) Subject to faculty regulations and the stipulations of General Regulations G.1.3 and G.62, a candidate will only be admitted to postgraduate studies if he or she is already in possession of a recognised bachelor's degree.

B.2 Requirements for specific modules

A grade 12 examination certificate with endorsement with at least 40% (E symbol) in Mathematics and Physical Science on higher grade, or at least 50% (D symbol) in the final grade 12 examination for admission to all undergraduate study directions in the School for the Built Environment, with the exception of Town and Regional Planning in which case the requirement in Physical Science does not apply.

A candidate who has:

(a) obtained at least 40% in Mathematics at higher grade or 50% at standard grade in the grade 12 examination, or at least 50% in Statistics 113, 123 will be admitted to (i) a course in Banking, Informatics (except INF 153, 154, 163, 164, 253 and 263) or Statistics, and (ii) courses in Marketing Management, Economics, Financial Management and Financial Accounting at 200 level.

(b) registered, 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 will continue with FRK 181 in the second semester after having passed FRK 151 in the first semester. Credit will be given for any one of FRK 151, 152, 121 and 211, provided that FRK 181 has been passed.

(c) obtained at least 50% in Mathematics at higher grade, or 60% at standard grade in the grade 12 examination, or at least 40% in Mathematics higher grade or 50% in Mathematics standard grade in grade 12, as well as a minimum of 60% in Computer Studies higher grade, or 70% in Computer Studies standard grade in grade 12, or an average of at least 60% in Statistics 110, 120, or an average of at least 60% in {(Statistics 113*, 123*) and (Statistics 120*)}, will be admitted to Informatics 153, 154, 163, 164, 253 and 263 (*a minimum of 50% is required in each module).

(d) passed the grade 12 examination in Mathematics with at least 40% at higher grade or at least 50% at standard grade, obtains admission to the modules GLY 151 and 152 in Geology.

(e) 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 modules GGY 153, 154, 132, 162 and 163 in Geography.

A student who follows a module which is presented in another Faculty, must acquaint him/herself and comply with the admission requirements of the module in question, subminima requirements, supplementary examination periods, etc.

B.3 Language skills

Language skills is presented as part of specific study programme requirements. All first-year students who wish to register with the University are required to write the language skills test. On grounds of the results of this test, students who pass the test will be required to register for one or more language modules. Students who do not pass the test will be required to register for the EOT modules in order to obtain sufficient credits for degree purposes.

B.4 Computer and Information Literacy

Computer and Information Literacy is presented as a compulsory course, but exemption may be obtained by writing an exemption test.

B.5 Registration for a specific year

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

B.6 Course credits for unregistered students

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

B.7 Examinations

7.1 Examinations, projects and essays

(a) An examination in a module may be written and/or oral. Projects and essays are prepared and examined as stipulated in the study guide of the module, in accordance with the regulations and procedures as described in 7.2 below.

(b) The examinations for modules of the first semester are held in May/June, while all other examinations (second semester modules and year modules) are held in October/November.

7.2 Pass requirements

Refer also to General Regulations G.10.2, G.11.1(a) and G.12.2.2

(a) In order to pass a module, a student must obtain an examination mark of at least 40% and a final mark of at least 50%. A student passes a module with distinction if a final mark of at least 75% is obtained. The final mark is compiled from the semester/year mark and the examination mark.

(b) No minimum semester/year mark is required to gain examination admission.

(c) Calculation of the final mark: The semester/year mark must account for no less than 40% and no more than 60% of the final mark, with the exception of modules like design and research projects and essays, as well as in modules where the development of general skills is the primary learning activity, where appropriate alternative norms are determined by individual schools or departments. The specific details and/or formula for the calculation of the final mark are given in the study guide of each module. Also, a schedule listing this information for all the modules presented in each school will be compiled, for approval by the Dean.

(d) Calculation of the semester/year mark. The semester/year mark is compiled from formative assessment of learning activities such as assignments, presentations, practicals and group projects, as well as from class tests and semester tests. For each module the specific formula for the calculation of the semester/year mark is determined by the lecturer(s) responsible for the presentation of the module and the details are given in the study guide of the module. Also, a schedule listing this information for all the modules presented in each school will be compiled, for approval by the Dean. Refer also to General Regulation G.11.1(b).

(e) In some modules, specific requirements in respect of certain components of the semester/year mark may be set, in order for a student to pass the module (for example that satisfactory performance in and attendance of practical classes are required). Thus, even if a pass mark is obtained in the module, a pass is not granted unless these requirements are met. For such modules these specific requirements are given in the study guide of the module. Also, a schedule listing this information for all such modules presented in each school will be compiled, for approval by the Dean.

(f) A student must comply with the sub-minimum requirements in subdivisions of certain modules. For such modules these specific requirements are given in the study guide of the module. Also, a schedule listing this information for all such modules presented in each school will be compiled, for approval by the Dean.

(g) A student may be promoted (exempted from the examination) in certain modules should a specified semester/year mark (minimum 65%) be obtained. For such modules these specific requirements are given in the study guide of the module. Also, a schedule listing this information for all such modules presented in each school will be compiled, for approval by the Dean. Refer also to General Regulation G.10.3.

7.3 Ancillary examinations

Refer to General Regulation G.12.3.

7.4 Supplementary examinations
Refer to General Regulation G.12.4

7.5 Special examinations (including the aegrotat)
Refer to General Regulation G.12.5

7.6 Other special examinations
Refer also to General Regulation G.12.6

(a) The Dean may, at the recommendation of the head of the department concerned, grant a special examination in a module to a student who failed that module in the final year of study, and consequently either does not comply with degree requirements, or is unable to continue with studies in the final semester in a meaningful way. A student may be granted at most two such special examinations.

(b) A student should apply in writing to the Dean to be considered for special examination(s). The head of the department decides when a special examination will take place and may prescribe work to be completed satisfactorily before a student may sit for such an examination.

(c) The pass mark for a special examination is 50% and a higher mark will not be awarded.

7.7 Re-marking of examination scripts
Refer to General Regulation G.14

DEGREES IN THE DEPARTMENT OF ARCHITECTURE

The following degrees are offered in the Department:

		Code
Architecture		
Baccalaureus in Architecture (until 2002)	BArch	12132003
Baccalaureus Scientiae in Architecture	BSc(Arch)	12132002
Baccalaureus Honores in Architecture*	BArch(Hons)	12242003
Magister in Architecture (Professional)*	MArch(Prof)	12252005
Magister in Architecture (by research)	MArch (by research)	12152002
Philosophiae Doctor	PhD	12262002
Interior Architecture		
Baccalaureus in Interior Design (until 2002)	BInt	12132006
Baccalaureus Scientiae in Interior Architecture*	BSc(Int)	12132008
Baccalaureus Honores in Interior Architecture*	BInt(Hons)	12242006
Magister in Interior Architecture (Professional)*	MInt(Prof)	12252007
Magister in Interior Architecture (by research)	MInt (by research)	12252004
Philosophiae Doctor	PhD	12262001

Landscape Architecture

Baccalaureus Scientiae in Landscape Architecture	BSc(LArch)	12132004
Baccalaureus Honores in Landscape Architecture*	BL(Hons)	12242004
Magister in Landscape Architecture (Professional)*	ML(Prof)	12252008
Magister in Landscape Architecture (by research)	ML (by research)	12252003
Philosophiae Doctor	PhD	12262003

** Subject to approval by the Council on Higher Education*

DEGREES IN ARCHITECTURE

Architecture entails the design of buildings and the spaces between those buildings. It is the art and science that is employed in order to create a livable environment, thus contributing towards the spiritual and material prosperity of the country. Architects are often independent thinkers, individualists and innovators. Although they are employed by organisations involved with development, investment, research, marketing, the industry or even education, many architects prefer to be independent consultants and entrepreneurs.
BSc(Arch) is regarded as an exit level that enables the graduate to register as a candidate Senior Architectural Technologist at the South African Council for the Architectural Profession. A Senior Architectural Technologist is a professional person registered by the SACAP in terms of the Act on the Architectural Profession (Act 44 of 2000). Such practitioners provide assistance in the practices of the disciplines of architecture, interior architecture and urban design where their responsibilities would be the documentation of projects, project administration and site management.
Students are advised to work in the offices of an architect or a landscape architect to gain practical experience during the university recesses.
A graduate wishing to become a Professional Architect must apply for and pursue a further two years of full time studies in the professional degree programme.
The Master of Architecture (Professional) degree will be recognised by the South African Council for the Architectural Profession as qualifying the graduate to register as a Candidate Professional Architect in terms of the Act on the Architectural Profession (Act 44 of 2000).

B.8 BACCALAUREUS SCIENTIAE IN ARCHITECTURE [BSc(Arch)] (Code 12132002)

(a) Admission requirements
See General Information B.1and B.2.

(b) Duration
The minimum period of study is three years full-time. Candidates wishing to become Professional Architects must hereafter register for the two year full-time MArch(Prof) degree.

(c) Curriculum
Unless the Dean, in consultation with the head of the department decides otherwise, the following applies:

Total Credits: 382

Code	Module	Prerequisites	Credits
First year of study			
First semester			
AAL 110	Earth Studies 110	-	8
KON 110	Construction 110	-	10
OMG 110	History of the Environment 110	-	6
OML 110	Environmental Studies 110	-	4
ONT 100	Design 100	-	25
EOT 151**	Language Skills 151	-	3
EOT 152**	Language Skills 152	-	3
	Total		59
Second semester			
CIL 120	Information Technology 120	-	10
KON 120	Construction 120	KON 110 GS	10
OMG 120	History of the Environment 120 (*Capita selecta* from 122)	-	4
OML 120	Environmental Studies 120	OML 110 GS	4
ONT 100	Design 100	-	25
STU 120	Theory of Structures 120	-	13
EOT 153**	Language Skills 153	-	3
EOT 154**	Language Skills 154	-	3
	Total		72

** The language skills of students registering for the first time at this University will be tested at the beginning of the year. Dependent on these results, every student in the Department of Architecture must:

- obtain 12 credits in the language skills modules EOT 151, 152, 153, 154 offered by the Unit for Language Skills;
  or
- obtain 12 credits through a combination of language skills modules offered by the Unit for Language Skills and modules offered by the School for Languages (in consultation with the relevant head of department);
  or
- obtain 12 credits in modules offered by the School of Languages and/ or any other modules approved by the head of department.

Second year of study			
First semester			
AAL 210	Earth Studies 210	AAL110	10
KON 211	Construction 211	KON 110, 120	10
OKU 210	Design Communication 210	-	8
OMG 210	History of the Environment 210	-	4
OML 210	Environmental Studies 210	OML 110, 120	4
ONT 211	Design 211	ONT 100	18
STU 211	Theory of Structures 211	STU 120	10
	Total		64
Second semester			
GGY 363	Environmental Geomorphology 363	-	4
GKD 225	General Soil Science 225	-	4

KON 220	Construction 220	KON 211 GS	10
OKU 220	Design Communication 220	-	8
OMG 220	History of the Environment 220 (*Capita selecta* from 224)	-	4
OML 220	Environmental Studies 220	OML 210 GS	4
ONT 220	Design 220	ONT 211 GS	18
STU 221	Theory of Structures 221	STU 211 GS	10
	Total		62

Third year of study
First semester

BER 410	Business Law 410	-	8
GGY 283	Introduction GIS 283	-	6
KON 310	Construction 310	KON 211, 220	10
OMG 310	History of the Environment 310	-	4
OML 310	Environmental Studies 310	OML 210, 220	4
ONT 310	Design 310	ONT 211, 220	16
STU 311	Theory of Structures 311	STU 211, 221	10
	Total		58

Second semester

AAL 320	Earth Studies 320	AAL 210	10
KON 321	Construction 321	KON 310 GS, ONT 310 GS	15
OMG 320	History of the Environment 320	-	4
OML 320	Environmental Studies 320	OML 310 GS	4
ONT 320	Design 320	ONT 310 GS KON 310 GS	16
PRS 320	Practice Management 320	-	8
STU 321	Theory of Structures 321	STU 311 GS	10
	Total		67

The programme is set out below:

Year	Semester	PRS	STU	AAL	KON	ONT	OML	OMG	OKU
1	1		-	110	110	100	110	110	LANG
	2	CIL 120	120	-	120		120	120	LANG
2	1	-	211	210	211	211	210	210	210
	2	-	221	GGY 363 GKD 225	220	220	220	220	220

3	1	BER 410	311	-	310	310	310	310	GGY 283
	2	320	321	320	321	320	320	320	-

(d) Examinations and promotion

A student is promoted to a subsequent year of study after acquiring the number of module credits as indicated:

- To the second year of study after acquiring 93 credits.
- To the third year of study after acquiring a total of 191 credits.

(e) Concurrent presentation

Design 320 and Construction 321 must initially be examined in the same year.

(f) Degree with distinction

The BSc(Arch) degree is conferred with distinction on a student who at first registration, simultaneously passes both Design 320 and Construction 321 with distinction (minimum 75%).

B.9 BACCALAUREUS IN ARCHITECTURE (BArch) (Code 12132003)

(a) Transitional measures

Students not having full credits for fourth year modules are required to register for modules prescribed by the head of department.

(b) Duration

Students, who have passed the fourth year of study in 2001, register for the following modules as set out in (c) below.

(c) Curriculum

Total credits: 113

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

Fifth year of study
First semester

BWT 500	Building Science 500	BWT 412, 422	8
KKR 510	Construction Contract Law 510	BER 251, 252/ 410 GS	8
OMG 511	History of the Environment 511	OMG 421	15
ONT 500	Design 500	ONT 410, 420	23
OTR 511	Theory or Design 511	OTR 411 ONT 420 GS	8
PRS 412	Practice Management 412	-	8
	Total		70

Second semester

BWT 500	Building Science 500	BWT 412, 422	15
ONT 500	Design 500	ONT 410, 420	28
	Total		43

(d) Awarding of degree

The degree is awarded when all prescribed subject courses have been passed (461 credits).

(e) Degree with distinction

The degree is conferred with distinction on a student who passes either Design or Building Science with distinction (minimum 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.

B.10 MAGISTER IN ARCHITECTURE (Professional) [MArch(Prof)] (Code 12252005)

The MArch(Prof) degree is presented for the first time in 2002 subject to final approval by the Council for Higher Education. Should approval not be finalized, students will register for the BArch degree and follow the first-year curriculum of the MArch(Prof) degree. Registration of students will be changed once approval of the degree is granted.

Also consult General Regulations G.30 to G.44.

The Master of Architecture (Professional) is a taught master's degree for the purposes of registration as a Candidate Professional Architect with the South African Council for the Architectural Profession in terms of Act 44 of 2000 and is done by coursework, projects and a design investigation treatise and design project and discourse.

(a) Admission requirements

A candidate for the degree course Magister in Architecture (Professional):

(1) must be a graduate with a BSc(Arch) degree or an equivalent university degree (e.g. BAS, B Building Arts, etc.)

or

(2) must have a recognized four-year tertiary qualification.
Such a candidate may be required, at the discretion of the head of department to:
- (i) do a language skills test;
- (ii) do a computer proficiency test;
- (iii) register for supplementary courses.

or

(3) must be deemed adequate by the head of department in consultation with the Dean and obtain (where necessary) the approval of the Senate and comply with whatever additional requirements may be prescribed.
Candidates mentioned in (1), (2) and (3) above,

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

Note: The number of candidates admitted to studies is restricted.

(b) Duration

The minimum period of study is two years full-time. However, candidates in possession of a suitable four-year (or more) university qualification with a design component, or in possession of a postgraduate qualification in the design disciplines of the built environment professions may, at the discretion of the head of department and with the approval of the Dean, complete the master's degree within one year of full-time study by obtaining a minimum of 128 credits of which 44 for the Design Project and Discourse are compulsory. Such candidates may, at the discretion of the head of department and with the approval of the Dean, have their coursework and/or project topic and/or supplementary courses prescribed for additional credits.

(c) Curriculum

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

MArch(Prof) (1)	1st Year 1st Quarter	1st Year 2nd Quarter	1st Year 3rd Quarter	1st Year 4th Quarter
Practice Component	CPD 720, 730, or 740 6 credits	CPD 710 6 credits POU 720 2 credits	CPD 720, 730 or 740 (excluding 1st quarter choice) 6 credits	CPD 751 Urban Technologies 6 credits
Theory Component	RFS 720, 730, or 740 (or elective as per Research Field Leader) minimum 6 credits	RFS 710 minimum 6 credits	RFS 720, 730, or 740 (or elective as per Research Field Leader) min. 6 credits	RFS 750 Urban Theory 6 credits
Project Component	RFP 721, 731, or 741 Research Field Specialisation Project 20 credits	RFP 711 Appropriate and Sus-tainable Design 20 credits	RFP 721, 731, or 741 Research Field Specia-lisation Project (excluding 1st Quarter choice) 20 credits	RFP 751 Urban Design 20 credits

MArch(Prof) (2)	2nd Year 1st Quarter	2nd Year 2nd Quarter	2nd Year 3rd Quarter	2nd Year 4th Quarter
Practice Component	CPD 810 Contract Documents 10 credits	CPD 820 Project and Investment Economics 10 credits (or elective)	CPD 830 Professional and Employee Ethics 10 credits	CPD 841 Professional Bodies and Matters 10 credits
Theory Component	DIT 801 Design Investigation Treatise 44 credits			
Project Component			DPD 801 Design Project and Discourse 44 credits	

(d) Admission to examinations and pass requirements

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

(e) Promotion to final year of study

Students are admitted to the second year of study if they have obtained 98 SAQA credits and passed all the project components and compulsory modules of the first year of study.

(f) Design topic

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

(g) Awarding of degree

The degree is awarded to those students having obtained the prescribed credits (128 for those in the one year full-time programme, 256 for those in the two-year full- time programme).

(h) Degree with distinction

The degree is conferred with distinction on those students registering for the first time and obtaining a distinction (75%+) simultaneously for both the Design Investigation Treatise (DIT 801) and the Design Project and Discourse (DPD 801).

(i) Awarding of BArch(Hons) degree [Code 12242003]

Subject to approval of the relevant degree by the Council for higher education, candidates who have been registered for the first year of study for the Magister in Architecture by coursework [MArch(Prof)] and who have successfully completed the first year of study and decided to discontinue their studies, may request that the degree Baccalaureus Honores in Architecture [BArch(Hons)] be conferred. The degree will be awarded with distinction if the student obtains an average of 75% (with a minimum of 70% for one of the two modules) for the prescribed project components

Research Field Project 711(RFP 711) and Research Field Project 751 (RFP 751) and a distinction in one of the other prescribed courses.

B.11 MAGISTER IN ARCHITECTURE (by research) (MArch)(by research) (Code 12152002)

Also consult General Regulations G.30 to G.44.

By virtue of a dissertation and examination.

Architecture 800: ARG 800 – Dissertation: ARG 890

Total credits : 200

(a) Admission requirements

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

(i) a BArch or equivalent degree of four years or more,
or
(ii) an honours degree in architecture, BArch(Hons), or equivalent,
or
(iii) a three-year degree with Design as major component and who successfully complete supplementary modules with weighting equivalent of an honours degree as prescribed by the Head of Department
or
(iv) who are deemed adequate by the Head of Department in consultation with the Dean and obtaining (where necessary) the approval of the Senate and complying with whatever additional requirements may be prescribed,

are admitted to studies for the degree in Masters in Architecture (by research).

(b) Duration and curriculum

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

(c) Awarding of the degree

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

(d) Degree with distinction

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

B.12 PHILOSOPHIAE DOCTOR (PhD) (Code 12262002)

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

Architecture 900: ARG 900 – Thesis: ARG 990

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

DEGREES IN INTERIOR ARCHITECTURE

Interior Architecture is the art and science of the design of designated spaces. It focuses on the needs of the user and the harmony between architectural spaces and the detailed design of spaces and life-style products. Graduates will have the ability to design interiors and products. Attention is given to the design process, building and material technology, building climate, ergonomics, history and visual communication within the context of society, economics, politics and technology. It is very important that students have the ability to visualise spaces, think three-dimensionally and solve problems creatively.
It is recommended that those graduates wishing to practice as interior designers pursue further studies namely one year full-time in the Honours in Interior Architecture programme.
A graduate wishing to become a Professional Interior Architect are advised to register for the MInt(Prof) degree.

B.13 BACCALAUREUS SCIENTIAE IN INTERIOR ARCHITECTURE [BSc(Int)] (Code 12132008)

The BSc(Int) degree will be presented for the first time in 2002, subject to approval by the Council for Higher Education. Should approval not be finalised in time, students will register for the B(Int) degree and follow the applicable curriculum.

(a) Admission requirements
See General Information B.1 and B.2.

(b) Duration
The minimum period of study is three years full-time studies. Candidates wishing to become Professional Interior Architects must hereafter register for the two year full-time MInt(Prof) degree. Those candidates wishing to become interior and product designers must hereafter register for the one year full-time course for an honours degree in Interior Architecture [BInt(Hons)].

(c) Curriculum

Total Credits: 386

Code	Module	Prerequisite	Credits
First year of study			
First semester			
AAL 110	Earth Studies 110	-	8
KON 110	Construction 110	-	10
OMG 110	History of the Environment 110	-	6
OML 110	Environmental Studies 110	-	4
ONT 100	Design 100	-	25
EOT 151**	Language Skills 151	-	3
EOT 152**	Language Skills 152	-	3
	Total		59
Second semester			
CIL 120	Information Technology 120		10
KON 120	Construction 120	KON 110 GS	10
OMG 120	History of the Environment 120 (*Capita selecta* from 122)	-	4
OML 120	Environmental Studies 120	OML 110 GS	4
ONT 100	Design 100	-	25
STU 120	Theory of Structures 120	-	13
EOT 153**	Language Skills 153	-	3
EOT 154**	Language Skills 154	-	3
	Total		72

** The language skills of students registering for the first time at this University will be tested at the beginning of the year. Dependent on these results, every student in the Department of Architecture must:

- obtain 12 credits in the language skills modules EOT 151, 152, 153, 154 offered by the Unit for Language Skills; **or**
- obtain 12 credits through a combination of language skills modules offered by the Unit for Language Skills and modules offered by the School of Languages (in consultation with the relevant head of department); **or**
- obtain 12 credits in modules offered by the School of Languages and/ or any other modules approved by the head of department.

Second year of study			
First semester			
AAL 210	Earth Studies 210	AAL 110	10
KON 211	Construction 211	KON 110, 120	10
OKU 210	Design Communication 210	-	8
OMG 210	History of the Environment 210	-	4
OML 210	Environmental Studies 210	OML 110, 120	4
ONT 213	Design 213	ONT 100	18
TKS 251	Basic Textiles: Utility Aspects 251	-	7
TKS 252	Basic Textiles: Fibres and Yarns 252	TKS 251 GS	7
	Total		68

Second semester

AAL 223	Earth Studies 223	-	8
KON 223	Construction 223	KON 211 GS	10
OKU 220	Design Communication 220	-	8
OMG 220	History of the Environment 220 (*Capita selecta* from 224)	-	4
OML 220	Environmental Studies 220	OML 210 GS	4
ONT 223	Design 223	ONT 213 GS	18
TKS 261	Basic Textiles: Fabric Structure 261	TKS 252 GS	7
TKS 262	Basic Textiles: Finishes and Dying Processes 262	TKS 261 GS	7
	Total		66

Third year of study
First semester

BER 410	Business Law 410	-	8
KON 313	Construction 313	-	10
MST 313	Material Studies 313	-	6
OMG 310	History of the Environment 310	-	4
OML 310	Environmental Studies 310	OML 210, 220	4
ONT 313	Design 313	ONT 213, 223	16
VKK**	Visual Arts**	-	10
	Total		58

**Students need to register for two quarter or one semester module/s in Visual Arts.

Second semester

AAL 320	Earth Studies 320	AAL 210	10
KON 323	Construction 323	KON 313 GS	15
MST 323	Material Studies 323	-	3
OMG 320	History of the Environment 320	-	4
OML 320	Environmental Studies 320	OML 310 GS	4
ONT 323	Design 323	ONT 313 GS	16
PRS 320	Practice Management 320	-	8
TKS 361	New Uses of Textiles	TKS 251, TKS 252, TKS 261, TKS 262	3
	Total		63

The programme is set out below:

Year	Semester	PRS	MST	AAL	KON	ONT	OML	OMG	OKU
1	1	-	-	110	110	100	110	110	Lang
	2	-	STU 120	-	120		120	120	Lang

2	1	-	TKS 251 & 252	210	211	213	210	210	210
	2	-	TKS 261 & 262	223	223	223	220	220	220
3	1	BER 410	313	-	313	313	310	310	2 VKK Mods
	2	320	TKS 361 & MST 323	320	323	323	320	320	

(d) Promotion

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

- Second year of study after obtaining 93 credits
- Third year of study after obtaining 196 credits.

(e) Concurrent presentation

Design 323 and Construction 323 must initially be examined in the same year.

(f) Degree with distinction

The degree is conferred with distinction on a student who, at first registration, simultaneously passes both Design 323 and Construction 323 with distinction (minimum 75%).

B.14 BACCALAUREUS IN INTERIOR DESIGN (BInt) (Code 12132006)

Presented for the last time in 2002

A student is promoted to the fourth year of study after obtaining 263 credits. (Credits obtained for modules in Computer and Information Literacy are not included in this calculation.)

Fourth year of study

First semester

BEM 110	Marketing Management 110	-	10
or			**or**
OBS 110	Business Management 110	-	10
INT 411	Interior 411	INT 320, final-year status	3

ITO 400	Interior Design 400	ITO 320	10
PRS 412	Practice Management 412	-	8
	Total		31

Second semester

BEM 161	Marketing Management 161	BEM 110 GS	5
BEM 162	Marketing Management 162	BEM 110 GS	5
or			**or**
OBS 120	Business Management 120	OBS 110 GS	10
ITO 400	Interior Design 400	ITO 320	10
POU 720	Practical Development Feasibility 720	-	2
	Total		22

(a) Promotion and examination

A student is promoted to the following study year after completing the under-mentioned number of module credits (module credits obtained through Computer and Information Literacy are excluded from this calculation):

- Fourth year of study after obtaining 263 credits.

(b) Degree with distinction

The degree is conferred with distinction on a student who has, at first registration, simultaneously passed both Interior Design 400 and Interior 411 with distinction (minimum 75%).

B.15 MAGISTER IN INTERIOR ARCHITECTURE (Professional) [MInt(Prof)] (Code 12252007)

The MInt(Prof) degree will be presented for the first time in 2002, subject to approval by the Council for Higher Education.

Also consult General Regulations G.30 to G.44.

The Magister in Interior Architecture (Professional) is done by coursework, projects and a design investigation treatise and design project and discourse.

(a) Admission requirements

Candidates for the degree course Magister in Interior Architecture (Professional):

(1) must be a graduate with a BSc(Int) degree or an equivalent university degree (e.g. BAS, B Building Arts, etc.)

or

(2) must have a recognized four-year tertiary qualification.

Such candidates may be required, at the discretion of the head of department to:

(i) do a language proficiency test;
(ii) do a computer proficiency test;
(iii) register for supplementary courses;

or

(3) must be deemed adequate by the head of department in consultation with the Dean and obtaining (where necessary) the approval of the Senate and comply with whatever additional requirements may be prescribed.

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

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

Note: The number of candidates admitted to studies is restricted.

(b) Duration

The a minimum period of study is two years full-time. However, candidates in possession of a suitable four-year (or more) university qualification with a design component, or a postgraduate qualification in the design disciplines of the built environment professions may, at the discretion of the head of department and with the approval of the Dean, complete the master's degree within one year of full-time study after obtaining a minimum of 128 credits of which 44 for the Design Project and Discourse are compulsory. Such candidates may, at the discretion of the head of department and with the approval of the Dean, have their coursework and/or project topic and/or out supplementary courses prescribed for additional credits.

(c) Curriculum

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

Mint(Prof) (1)	1st Year 1st Quarter	1st Year 2nd Quarter	1st Year 3rd Quarter	1st Year 4th Quarter
Practice Component	CPD 720, 730, or 740 6 credits	CPD 710 6 credits POU 720 2 credits	CPD 720, 730, or 740 (excluding 1st Quarter choice) 6 credits	CPD 753 Urban Technologies 6 credits
Theory Component	RFS 720, 730, or 740 (or elective as per Research Field Leader) min. 6 credits	RFS 710 minimum 6 credits	RFS 720, 730, or 740 (or elective as per Re-search Field Leader) min.6 credits	RFS 750 Urban Theory 6 credits
Project Component	RFP 723, 733, or 743 Research Field Specialisation Project 20 credits	RFP 713 Appropriate and Sustainable Design 20 credits	RFP 723, 733, or 743 Research Field Spe-cialisation Project (ex-cluding 1st Quarter choice) 20 credits	RFP 753 Urban Design 20 credits

Mint(Prof) (2)	2nd Year 1st Quarter	2nd Year 2nd Quarter	2nd Year 3rd Quarter	2nd Year 4th Quarter
Practice Component	CPD 810 Contract Documents 10 credits	CPD 820 Project and Investment Economics 10 credits (or elective)	CPD 830 Professional and Employee Ethics 10 credits	CPD 843 Professional Bodies and Matters 10 credits
Theory Component	DIT 803 Design Investigation Treatise 44 credits			
Project Component			DPD 803 Design Project and Discourse 44 credits	

(d) Examinations and pass requirements

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

If the module is not evaluated by coursework, a minimum examination mark of 50% is required.

(e) Promotion to final year of study

Students are admitted to the second year of study if they have obtained 98 credits and passed all the project components and compulsory modules of the first year of study.

(f) Design topic

The topic of the final design project (DIT 803 & DPD 803) must be approved by the Head of Department.

(g) Awarding of degree

The degree is awarded to those students having obtained the prescribed credits (128 for the one year full-time programme, 256 for the two-year full-time programme).

(h) Degree with distinction

The degree is conferred with distinction on those students registering for the first time and obtaining a distinction (minimum 75%) simultaneously for both the Design Investigation Treatise (DIT 803) and the Design Project and Discourse (DPD 803).

(i) Awarding of BInt(Hons) degree (Code 12242006).

Subject to approval of the relevant degree by the Council for Higher Education, candidates who have been registered for the first year of study for the Magister in Interior Architecture by coursework MInt(Prof) and who have successfully completed the first year of study and then decide to discontinue their studies, may request that the degree Baccalaureus Honores in Interior Architecture [BInt(Hons)] be conferred. The degree will be awarded with distinction if the student obtains an average of 75% (with a minimum of 70% for one of the two

modules) for the prescribed project components Research Field Project 713 (RFP 713) and Research Field Project 753 (RFP 753) and a distinction in one of the other prescribed modules.

B.16 MAGISTER IN INTERIOR ARCHITECTURE (by research) (MInt)(by research)(Code 12252004)

Also consult General Regulations G.30 to G.44.

By virtue of dissertation and examination.

Interior 800: INT 800 – Dissertation: INT 890

Total credits : 200

(a) Admission requirements

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

(1) in possession of a BInt or equivalent degree of four years or more
or
(2) in possession of an honours degree in Interior Architecture, BInt(Hons), or equivalent
or
(3) in possession of a three-year degree with Design as major component and who successfully complete supplementary modules with weighting equivalent of an honours degree as prescribed by the head of department
or
(4) deemed adequate by the head of department in consultation with the Dean and obtaining (where necessary) the Senate and complying with whatever additional requirements may be prescribed

are admitted to studies for the degree Master in Interior Architecture (by research).

(b) Duration and curriculum

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

(c) Awarding of the degree

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

(d) Degree with distinction

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

B.17 PHILOSOPHIAE DOCTOR (PhD) (Code 12262001)

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

Interior Architecture 900: INT 900 – Thesis: INT 990

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

DEGREES IN LANDSCAPE ARCHITECTURE

Landscape architecture is the science and art of the design of outside areas for the use and enjoyment of humans. Parks, game reserves, recreational areas and marinas are only a few of the environments which the landscape architect designs. They create urban oases in the form of plazas and pedestrian routes, and design environments around shopping centres and residential developments. The landscape architect can join a private firm, start an own business, or accept employment in central, provincial or local government in departments that handle water usage and research, forestry, environmental matters, sport, recreational and fishing areas, and nature conservation.
Students are advised to work in the offices of an architect or a landscape architect to gain practical experience during the university recesses.
BSc(LArch) is a three-year degree and is regarded as an exit level that enables the graduate to register as a Candidate Landscape Architectural Technologist who is a professional person registered by the South African Council of the Landscape Architectural Profession in terms of the Acto on the Landscape Architectural Profession (Act 45 of 2000). Such practitioners provide assistance in the practices of the disciplines of Landscape Architecture and Urban Design where their responsibilities would be the documentation of projects, project administration and site management. A graduate wishing to become a Professional Landscape Architect must apply for and pursue a further two years of full-time studies in the relevant professional degree programme.
The Master of Landscape Architecture (Professional) degree is recognised by the South African Council for the Landscape Architectural Profession as qualifying the graduate to register as a Candidate Professional Landscape Architect in terms of Act 45 of 2000.

B.18 BACCALAUREUS SCIENTIAE IN LANDSCAPE ARCHITECTURE [BSc(LArch)] (Code 12132004)

(a) Admission requirements
See General Information B.1 and B.2.

(b) Duration
The minimum period of study is three years full time. Candidates wishing to become Professional Landscape Architects must hereafter register for the two year full-time ML(Prof) degree.

(c) Curriculum

Total Credits: 382

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

Code	Module	Prerequisite	Credits
First semester			
AAL 110	Earth Studies 110	-	8
KON 110	Construction 110	-	10
OMG 110	History of the Environment 110	-	6
OML 110	Environmental Studies 110	-	4
ONT 100	Design 100	-	25
EOT 151**	Language Skills 151	-	3
EOT 152**	Language Skills 152	-	3
	Total		59
Second semester			
CIL 120	Information Technology 120		10
KON 120	Construction 120	KON 110 GS	10
OMG 120	History of the Environment 120 (*Capita selecta* from 122)	-	4
OML 120	Environmental Studies 120	OML 110 GS	4
ONT 100	Design 100	-	25
STU 120	Theory of Structures 120	-	13
EOT 153**	Language Skills 153	-	3
EOT 154**	Language Skills 154	-	3
	Total		72

** The language skills of students registering for the first time at this University will be tested at the beginning of the year. Dependent on these results, every student in the Department of Architecture must:

- obtain 12 credits in the language skills modules EOT 151, 152, 153, 154 offered by the Unit for Language Skills;
- **or**
- obtain 12 credits through a combination of language skills modules offered by the Unit for Language Skills and modules offered by the School of Languages (in consultation with the relevant head of department);

or

- obtain 12 credits in modules offered by the School of Languages and/ or any other modules approved by the head of department.

Second year of study
First semester

AAL 210	Earth Studies 210	AAL 110	10
KON 212	Construction 212	KON 110, 120	10
OKU 210	Design Communication 210	-	8
OMG 210	History of the Environment 210	-	4
OML 210	Environmental Studies 210	OML 110, 120	4
ONT 212	Design 212	ONT 100	18
PWT 212	Plant Science 212	-	10
	Total		64

Second semester

GGY 363	Environmental Geomorphology 363	-	4
GKD 225	General Soil Science 225	-	4
KON 220	Construction 220	KON 212 GS	10
OKU 220	Design Communication 220	-	8
OMG 220	History of the Environment 220 (*Capita selecta* from 224)	-	4
OML 220	Environmental Studies 220	OML 210 GS	4
ONT 222	Design 222	ONT 212 GS	18
PWT 222	Plant Science 222	PWT 212 GS	10
	Total		62

Third year of study
First semester

BER 410	Business Law 410	-	8
GGY 283	Introduction GIS 283	-	6
KON 310	Construction 310	KON 212, 220	10
OMG 310	History of the Environment 310	-	4
OML 310	Environmental Studies 310	OML 210	4
ONT 312	Design 312	ONT 212, 222	16
PWT 312	Plant Science 312	PWT 212, 222	10
	Total		58

Second semester

AAL 320	Earth Studies 320	AAL 210	10
KON 322	Construction 322	KON 310 GS, ONT 312 GS	15
OMG 320	History of the Environment 320	-	4
OML 320	Environmental Studies 320	OML 310	4
ONT 322	Design 322	ONT 312 GS KON 310 GS	16
PRS 320	Practice Management 320	KON 310 GS	8
PWT 322	Plant Science 322	PWT 312 GS	10
	Total		67

The programme is set out below:

Year	Semester	PRS	PWT	AAL	KON	ONT	OML	OMG	OKU
1	1	-		110	110	100	110	110	LANG
	2	-	STU 120	-	120		120	120	LANG
2	1	-	212	210	212	212	210	210	210
	2	-	221	GGY 363 GKD 225	220	222	220	220	220
3	1	BER 410	312	-	310	312	310	310	GGY 283
	2	320	322	320	322	322	320	320	-

(d) Promotion

A student is promoted to a subsequent year of study, after acquiring the number of module credits as indicated:

- To the second year of study after acquiring 93 credits.
- To the third year of study after acquiring a total of 182 credits.

(e) Concurrent presentation

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

(f) Degree with distinction

The BSc(LArch) degree is conferred with distinction on a student who, at first registration, simultaneously passes Design 322 and Construction 322 with distinction (minimum 75%).

B.19 BACCALAUREUS IN LANDSCAPE ARCHITECTURE (BL) (Code 12132005)

(a) Transitional measures

Students not having full credits for fourth year modules are required to register for modules prescribed by the Head of Department.

(b) Conferment of degree

The degree is awarded after all the prescribed and elective modules have been passed (372 credits).

(c) 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.20 MAGISTER IN LANDSCAPE ARCHITECTURE (Professional) [ML(Prof)] (Code 12252008)

The ML(Prof) degree is presented for the first time in 2002 conditional to final approval by the Council for Higher Education. Should approval not be finalized in time, students will register for the BL degree and follow the first-year curriculum of the ML(Prof) degree. Registration of students will be changed once approval of the degrees is granted.

Also consult General Regulations G.30 to G.44.

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

(a) Admission requirements

Candidates for the degree course Magister in Landscape Architecture (Professional):

(1) must be a graduate with a BSc (LArch) degree or an equivalent university degree (e.g. BAS, B Building Arts, etc.)
or

(2) must have a recognised four-year tertiary qualification.
Such candidates may be required, at the discretion of the head of department, to:
- (i) do a language skills test
- (ii) do a computer proficiency test
- (iii) register for supplementary courses

or

(3) must be deemed adequate by the head of department in consultation with the Dean and obtaining (where necessary) the approval of the Senate and comply with whatever additional requirements may be prescribed

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

(i) should preferably have had practical experience and/or have done and recorded an extended study excursion

(ii) are interviewed for selection

(iii) must present a portfolio and/or design journal which demonstrates the requisite level of proficiency and competency and is a record of their experience within the discipline

(iv) are selected on merit.

Note: The number of candidates admitted to studies is restricted.

(b) Duration

The minimum period of study is two years full-time. However, candidates in possession of a suitable four-year (or more) university qualification with a design component, or a postgraduate qualification in the design disciplines of the built environment professions may, at the discretion of the head of department and with the approval of the Dean, complete the master's degree within one year of full-time study after obtaining a minimum of 128 credits of which 44 for the Design Project and Discourse are compulsory. Such candidates may, at the discretion of the head of department and with the approval of the Dean, have their coursework and/or project topic and/or additional credits for supplementary courses prescribed.

(c) Curriculum

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

ML(Prof) (1)	1st Year 1st Quarter	1st Year 2nd Quarter	1st Year 3rd Quarter	1st Year 4th Quarter
Practice Component	CPD 720, 730, or 740 6 credits	CPD 710 6 credits POU 720 2 credits	CPD 720, 730, or 740 (excluding 1st Quarter choice) 6 credits	CPD 752 Urban Technologies 6 credits
Theory Component	RFS 720, 730, or 740 (or elective as per Research Field Leader) min. 6 credits	RFS 710 minimum 6 credits	RFS 720, 730, or 740 (or elective as per Research Field Leader) min. 6 credits	RFS 750 Urban Theory 6 credits
Project Component	RFP 722, 732, or 742 Research Field Specialisation Project 20 credits	RFP 712 Appropriate and Sustain-able Design 20 credits	RFP 722, 732, or 742 Research Field Specialisation Project (excluding 1st Quarter choice) 20 credits	RFP 752 Urban Design 20 credits
ML(Prof) (2)	2nd Year 1st Quarter	2nd Year 2nd Quarter	2nd Year 3rd Quarter	2nd Year 4th Quarter
Practice Component	CPD 810 Contract Documents 10 credits	CPD 820 Project and Investment Economics 10 credits (or elective)	CPD 830 Professional and Employee Ethics 10 credits	CPD 842 Professional Bodies and Matters 10 credits
Theory Component	DIT 802 Design Investigation Treatise 44 credits			
Project Component			DPD 802 Design Project and Discourse 44 credits	

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

(e) Promotion to final year of study
Students are admitted to the second year of study if they have obtained 98 SAQA credits and passed all the project components and compulsory modules of the first year of study.

(f) Design topic
The topic of the final design project (DIT 802 & DPD 802) must be approved by the head of department.

(g) Awarding of degree
The degree is awarded to those students having obtained the prescribed credits (128 for the one year full-time programme, 256 for the two-year full-time programme).

(h) Degree with distinction
The degree is conferred with distinction on those students registering for the first time and obtaining a distinction (75%+) simultaneously for both the Design Investigation Treatise (DIT 802) and the Design Project and Discourse (DPD 802).

(i) Awarding of BL(Hons) degree [Code 12242004]
Subject to approval of the relevant degree by the Council for Higher Education, candidates who have been registered for the first year of study for the Magister in Landscape Architecture by coursework ML(Prof) and who have successfully completed the first year of study and then decided to discontinue their studies, may request that the degree Baccalaureus Honores in Landscape Architecture [BL(Hons)] be conferred. The degree will be awarded with distinction if the candidate obtains an average of 75%(with a minimum of 70% for one of the two modules) for the prescribed project components Research Field Project 712 (RFP 712) and Research Field Project 752 (RFP 752) and a distinction in one of the other prescribed courses.

B.21 MAGISTER IN LANDSCAPE ARCHITECTURE (by research) (ML) (by research) (Code 12252003)

Also consult General Regulations G.30 TO G.44.

By virtue of dissertation and examination.

Landscape Architecture 800: LAN 800 – Dissertation: LAN 890

Total credits : 200

(a) Admission requirements

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

(1) in possession of a BL or equivalent degree of four years or more
or
(2) in possession of an honours degree in Landscape Architecture, BL(Hons), or equivalent
or
(3) in possession of a three-year degree with Design as major component and successfully complete supplementary modules with weighting equivalent of an honours degree as prescribed by the head of department
or
(4) deemed adequate by the head of department in consultation with the Dean and obtaining (where necessary) the approval of the Senate and complying with whatever additional requirements may be prescribed

are admitted to studies for the degree Master in Landscape Architecture (by research).

(b) Duration and curriculum

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

(c) Awarding of the degree

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

(d) Degree with distinction

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

B.22 PHILIOSOPHIAE DOCTOR (PhD) (Code 12262003)

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

Landscape Architecture 900: LAN 900 – Thesis: LAN 990

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

(e) The doctoral examination, either written or oral, **is compulsory**, and encompasses the content of the thesis as well as the field of study on which the thesis is based.
(f) A student who obtains a minimum of 50% for both the thesis and examination is awarded the degree.

DEGREES IN CONSTRUCTION ECONOMICS

(a) Admission requirements
Also see General Information B.1 and B.2.

(b) Duration
The minimum duration of study is three years of full-time studies.

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

	Quantity Surveying and Construction Management	Real Estate
Second year of study:	115 credits	106 credits
Third year of study:	276 credits	268 credits

(ii) The Dean may, on the recommendation of the head of department, allow a student, who qualifies for promotion to a subsequent year of study, but who has not passed all the modules of that year, to carry over these modules to the next or a later year provided no clashes occur on the timetable.
(iii) Students who wish to take modules in advance not prescribed for a particular year of study, or who must repeat modules, may only register for modules in more than two consecutive years of study with the approval of the head of the department.
(iv) A student who complies with all the requirements for the degree with the exception of one year module or two semester modules, in which a final marks of at least 40% has been obtained, may be admitted to a special examination in the module(s) concerned, during the course of the ensuing semester.
(v) The degree is awarded if all the prescribed modules have been passed: BSc(Quantity Surveying): 468 credits; BSc(Construction Management): 464 credits; BSc(Real Estate): 473 credits.
(vi) On the recommendation of the head of department, the Dean may in exceptional circumstances deviate from the abovementioned stipulations, provided that no timetable clashes occur.

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

(i) BSc(Quantity Surveying)
(aa) Quantities 300
(bb) Construction Information Technology 300
(cc) Quantity Surveying Practice 300
(dd) Building Services 312 en 322 (average 75%)
(ee) Quantity Surveying 310 en 320 (average 75%)

(ii) BSc(Construction Management)

(aa) Construction Quantities 300
(bb) Construction Information Technology 300
(cc) Construction Management 310 en 320 (average 75%)
(dd) Building Services 312 en 322 (average 75%)
(ee) Building Sciences 310 en 320 (average 75%)

(iii) BSc(Real Estate)

(aa) Property Marketing 310 en 322 (average 75%)
(bb) Property Law 310 en 320 (average 75%)
(cc) Construction Information Technology 300
(dd) Building Services 312 en 322 (average 75%)
(ee) Building Science 310 en 320 (average 75%)

(e) Curriculum

The curricula for the BSc(Quantity Surveying), BSc(Construction Management) and BSc(Real Estate) degrees are extended over three study years in semester modules and year modules with the prerequisites and course credits as indicated.
The symbol GS after a module indicates a combined (final) mark (semester/year mark plus examination mark) of 40 - 49%. required for admission to the module in the first column.

*** Language**

The language skills of students registering for the first time at this University will be tested at the beginning of the year. Dependent on these results, every student in the Department of Construction Economics must:

- obtain 12 credits in the language skills modules EOT 151, 152, 153, 154 offered by the Unit for Language Skills;
- **or**
- obtain 12 credits through a combination of language skills modules offered by the Unit for Language Skills and modules offered by the School of Languages (in consultation with the relevant head of department);
  or
- obtain 12 credits in modules offered by the School of Languages and/or any other modules approved by the head of department.

**** Computer literacy**

A student may obtain credits for the relevant modules by successfully completing the exemption tests at the beginning of the academic year.

B.23 BACCALAUREUS SCIENTIAE (QUANTITY SURVEYING) [BSc(QS)] (Code 12132014)

The examinations for the Baccalaureus(Hons)degree in Quantity Surveying are approved by the Minister as prescribed examinations in terms of the stipulations of the Quantity Surveying Profession Act (Act No. 49, 2000).
Quantity surveying is the science that delivers specialised financial and contractual services and advice to clients in the building and construction industry, as well as in

related industries. The quantity surveyor is an independent and professional consultant who works with architects, consulting engineers, and the building contractor, in order to protect the interests of the client, while at the same time also looking after the interests of the contractor and sub-contractor. There are many employment opportunities in the building and construction sector, government departments, 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 quantity surveying practices, or open their own practices after registration with the South African Council for Quantity Surveyors.

(a) Curriculum

Total credits required: 468

Code	Module	Prerequisites	Credits
First year of study			
First semester			
BGG 111	Building Organisation 111	-	8
BOU 131	Building Drawings 131	-	6
BWT 110	Building Science 110	-	9
GBD 112	Building Services 112	-	9
FRK 151	Financial Accounting 151	Par. B.2	5
FRK 152	Financial Accounting 152	Par. B.2, FRK 151	5
FRK 181	Financial Accounting 181	Par. B.2; FRK 151	3
CIL 171**	Computer & Information Literacy 171	Par. B.2	3
CIL 172**	Computer & Information Literacy 172	Par. B.2	3
EOT 151*	Language Skills 151	-	3
EOT 152*	Language Skills 152	-	3
SLK 151	Psychological Perspectives 151	-	6
SLK 152	Cognitive Processes 152	-	6
STU 112	Theory of Structures 112	-	12
	Total		81
Second semester			
BOU 120	Building Drawings 120	BWT 110 GS	8
BWT 120	Building Science 120	BWT 110 GS	9
GBD 122	Building Services 122	GBD 112 GS	9
HVH 120	Quantities 120	BWT 110 GS	12
OMG 122	History of the Environment 122	-	14
CIL 173**	Computer & Information Literacy 173	Par. B.2	3
CIL 174**	Computer & Information Literacy 174	Par. B.2	3
SLK 155	Environmental Psychology 155	-	6
STU 122	Theory of Structures 122	STU 112 GS	12
EOT 153*	Language Skills 153	-	3
EOT 154*	Language Skills 154	-	3
	Total		82

Second year of study
First semester

BWT 210	Building Science 210	BWT 110/120 GS	9
EKN 110	Economics 110	Par.B.2	10
GBD 212	Building Services 212	-	9
HVH 200	Quantities 200	HVH 120 GS BWT 110/120 GS	12
STK 110	Statistics 110	Par. B.2	13
STU 212	Theory of Structures 212	STU 122 GS	9
TRN 213	Site Surveying 213	-	12
	Total		74

Second semester

BWT 220	Building Science 220	BWT 210 GS	9
EKN 120	Economics 120	EKN 110 GS	10
FRK 121	Financial Accounting 121	FRK 151, 152 GS	11
GBD 222	Building Services 222		9
HVH 200	Quantities 200	HVH 120 GS BWT 110/120 GS	12
OMG 224	History of the Environment 224	OMG 122 GS	14
STK 161	Statistics 161	-	13
STU 222	Theory of Structures 222	STU 212 GS	9
	Total		87

Third year of study
First semester

BER 410	Business Law 410	-	12
BRK 300	Quantity Surveying Practice 300	-	15
BWT 310	Building Science 310	-	9
GBD 312	Building Services 312	-	9
HVH 300	Quantities 300	BWT 220 GS HVH 200 GS GBD 122 GS	12
KIT 300	Construction Information Technology 300	CIL 171,172, 173, 174/ Par. B.2	12
STU 312	Theory of Structures 312	STU 222 GS	9
	Total		78

Second semester

BRK 300	Quantity Surveying Practice 300	-	15
BWT 320	Building Science 320	-	9
GBD 322	Building Services 322	GBD 312 GS	9
HVH 300	Quantities 300	BWT 220 GS HVH 200 GS GBD 122 GS	12
KIT 300	Construction Information Technology 300	CIL 171,172, 173, 174/ Par. B.2	12

STU 322	Theory of Structures 322	9
	Total	66

B.24 BACCALAUREUS SCIENTIAE (CONSTRUCTION MANAGEMENT) [BSc(Construction Management)](Code 12132015)

The examinations of 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 suppliers 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

Total credits required: 464

Code	Module	Prerequisites	Credits
First year of study			
First semester			
BGG 111	Building Organisation 111	-	8
BOU 131	Building Drawings 131	-	6
BWT 110	Building Science 110	-	9
FRK 151	Financial Accounting 151	Par. B.2	5
FRK 152	Financial Accounting 152	Par. B.2; FRK 151	5
FRK 181	Financial Accounting 181	Par. B.2; FRK 151	3
GBD 112	Building Services 112	-	9
CIL 171**	Computer & Information Literacy 171	Par. B.2	3
CIL 172**	Computer & Information Literacy 172	Par. B.2	3
SLK 151	Psychological Perspectives 151	-	6
SLK 152	Cognitive Processes 152	-	6
STU 112	Theory of Structures 112	-	12
EOT 151*	Language Skills 151	-	3
EOT 152*	Language Skills 152	-	3
	Total		81
Second semester			
BOU 120	Building Drawings 120	BWT 110 GS	8
BWT 120	Building Science 120	BWT 110 GS	9

GBD 122	Building Services 122	GBD 112 GS	9
HVH 120	Quantities 120	BWT 110 GS	12
OMG 122	History of the Environment 122	-	14
CIL 173**	Computer & Information Literacy 173	Par. B.2	3
CIL 174**	Computer & Information Literacy 174	Par. B.2	3
EOT 153*	Language Skills 153	-	3
EOT 154*	Language Skills 154	-	3
SLK 155	Environmental Psychology 155	-	6
STU 122	Theory of Structures 122	STU 112 GS	12
	Total		82

Second year of study
First semester

BWT 210	Building Science 210	BWT 110/120 GS	9
EKN 110	Economics 110	Par.B.2	10
GBD 212	Building Services 212	-	9
HVH 200	Quantities 200	HVH 120 GS BWT 110/120 GS	12
STK 110	Statistics 110	Par. B.2	13
STU 212	Theory of Structures 212	STU 122 GS	9
TRN 213	Site Surveying 213	-	12
	Total		74

Second semester

BWT 220	Building Science 220	BWT 210 GS	9
EKN 120	Economics 120	EKN 110 GS	10
FRK 121	Financial Accounting 121	FRK 151, 152 GS	11
GBD 222	Building Services 222		9
HVH 200	Quantities 200	HVH 120 GS BWT 110/120 GS	12
OMG 224	History of the Environment 224	OMG 122 GS	14
STK 161	Statistics 161	-	13
STU 222	Theory of Structures 222	STU 212 GS	9
	Total		87

Third year of study
First semester

ABR 351	Labour Law 351	-	3
ABR 352	Labour Law 352		3
BER 410	Business Law 410	-	12
BWT 310	Building Science 310	-	9
GBD 312	Building Services 312		9
KBS 310	Construction Management 310	-	12
KSH 300	Construction Quantities 300	HVH 200 GS, BWT220 GS	10
KIT 300	Construction Information Technology 300	CIL 171,172, 173, 174/ Par B.2	12

STU 312	Theory of Structures 312	STU 222 GS	9
	Total		79

Second semester

BWT 320	Building Science 320		9
GBD 322	Building Services 322	GBD 312 GS	9
KBS 320	Construction Management 320	KBS 310 GS	12
KSH 300	Construction Quantities 300	HVH 200 GS, BWT 220 GS	10
KIT 300	Construction Information Technology 300	CIL 171,172, 173,174/ Par B.2	12
STU 322	Theory of Structures 322		9
	Total		61

B.25 BACCALAUREUS SCIENTIAE (REAL ESTATE) [BSc(Real Estate)] (Code 12132016)

Real Estate is a field of study for the person who plans a dynamic career in the property industry. Career opportunities stretch across a wide spectrum and comprise amongst others investment consultations at financial institutions, rendering brokerage services as a real estate expert, property development, development facilitation, property management, management of property portfolios, facilities management, property finance, marketing of existing property and property development projects, or acting as a private entrepreneur in any of the aforementioned.

(a) Curriculum

Total credits required: 485

Code	Module	Prerequisites	Credits
First year of study			
First semester			
BGG 111	Building Organisation 111	-	8
BOU 131	Building Drawings 131	-	6
BWT 110	Building Science 110	-	9
CIL 171**	Computer & Information Literacy 171	Par. B.2	3
CIL 172**	Computer & Information Literacy 172	Par. B.2	3
EOT 151*	Language Skills 151	-	3
EOT 152*	Language Skills 152	-	3
FRK 151	Financial Accounting 151	Par. B.2	5
FRK 152	Financial Accounting 152	Par. B.2, FRK 151	5
FRK 181	Financial Accounting 181	Par. B.2; FRK 151	3
GBD 112	Building Services 112	-	9
SLK 151	Psychological Perspectives 151	-	6
SLK 152	Cognitive Processes 152	-	6
BEM 110	Marketing Management 110	-	10
	Total		79

Second semester

BOU 120	Building Drawings 120	BWT 110 GS	8
BWT 120	Building Science 120	BWT 110 GS	9
GBD 122	Building Services 122	GBD 112 GS	9
HVH 120	Quantities 120	BWT 110 GS	12
OMG 122	History of the Environment 122	-	14
CIL 173**	Computer & Information Literacy 173	Par. B.2	3
CIL 174**	Computer & Information Literacy 174	Par. B.2	3
SLK 155	Environmental Psychology 155	-	6
BEM 162	Marketing Management 162	-	5
EOT 153*	Language Skills 153	-	3
EOT 154*	Language Skills 154	-	3
	Total		75

Second year of study
First semester

BWT 210	Building Science 210	BWT 110/120 GS	9
EEK 212	Property Economics 212	-	9
EKN 110	Economics 110	Par.B.2	10
GBD 212	Building Services 212	-	9
HVH 200	Quantities 200	HVH 120 GS BWT 110/120 GS	12
STK 110	Statistics 110	Par. B.2	13
TRN 213	Site Surveying 213	-	12
	Total		74

Second semester

BWT 220	Building Science 220	BWT 210 GS	9
EEB 220	Property Management 220	-	9
EKN 120	Economics 120	EKN 110 GS	10
FRK 121	Financial Accounting 121	FRK 151, 152 GS	11
GBD 222	Building Services 222	_	9
HVH 200	Quantities 200	HVH 120 GS BWT 110/120 GS	12
OMG 224	History of the Environment 224	OMG 122 GS	14
STK 161	Statistics 161	-	13
	Total		87

Third year of study
First semester

BER 410	Business Law 410	-	12
BWT 310	Building Science 310	-	9
EBM 312	Property Marketing 312	-	9
EDR 310	Property Law 310	-	6
GBD 312	Building Services 312		9
KBS 310	Construction Management 310	-	12
KSH 300	Construction Quantities 300	HVH 200 GS, BWT220 GS	10

KIT 300	Construction Information Technology 300	CIL 171,172, 173, 174/ Par B.2	12
	Total		79

Second semester

BWT 320	Building Science 320	-	9
EBM 322	Property Marketing 322	EBM 312 GS	9
EDR 320	Property Law 320	EDR 310 GS	9
GBD 322	Building Services 322	GBD 312 GS	9
KBS 320	Construction Management 320	KBS 310 GS	12
KSH 300	Construction Quantities 300	HVH 200 GS, BWT 220 GS	10
KIT 300	Construction Information Technology 300	CIL 171,172, 173, 174/ Par B.2	12
STU 322	Theory of Structures 322		9
	Total		79

POSTGRADUATE HONOURS PROGRAMME

(a) Admission requirements

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

(b) Duration

The minimum period of study is two years.

(c) Promotion and complying with degree requirements

(i) A student is promoted to the second year upon completion of 70 credits.
(ii) A degree is awarded when all prescribed modules have been passed.

(d) Degree with distinction

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

(i) **BSc(Hons)(Quantity Surveying)**

(aa) Quantity Surveying Practice 700
(bb) Contruction Contract Law 730 and 740 (average 75%)
(cc) Management Practice 730 and 740 (average 75%)
(dd) Feasibility Studies 700
(ee) Treatise 785

(ii) **BSc(Hons)(Construction Management)**
- (aa) Financial Management 701
- (bb) Construction Contract Law 730 and 740 (average 75%)
- (cc) Construction Management 730 and 740 (average 75%)
- (dd) Feasibility Studies 700
- (ee) Treatise 785

(iii) **BSc(Hons)(Real Estate)**
- (aa) Property Investment 710 and 720 (average 75%)
- (bb) Construction Contract Law 730 and 740 (average 75%)
- (cc) Construction Management 730 and 740 (average 75%)
- (dd) Feasibility Studies 700
- (ee) Treatise 785

(e) Curriculum

The curricula for the BSc(Hons)(Quantity Surveying), BSc(Hons)(Construction Management) and BSc(Hons)(Real Estate) degrees are extended over two study years in semester modules and year modules with the prerequisites and course credits as indicated.

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

B.26 BACCALAUREUS SCIENTIAE HONORES (QUANTITY SURVEYING) [BSc(Hons)(QS)] (Code 12242014)

Code	Module	Prerequisite	Credits
First year of study			
First semester			
BTP 710	Management Practice 710	-	12
BKR 700	Building Cost Estimation 700	-	6
BRK 710	Quantity Surveying Practice 710	-	8
BWT 710	Building Science 710	-	9
EOW 710	Property Financial Mathematics 710	-	9
HVH 700	Quantities 700	-	6
	Total		50
Second semester			
BTP 720	Management Practice 720	-	12
BKR 700	Building Cost Estimation 700	-	6
BHU 720	Housing 720	-	9
HVH 700	Quantities 700	-	6
EOW 720	Introduction to Property Law 720	-	9
KKR 720	Construction Contract Law 720	-	9
	Total		51
Second year of study			
First semester			
BTP 730	Management Practice 730	BTP 710 GS	10
BRK 700	Quantity Surveying Practice 700	HVH 700 GS	10
KKR 730	Construction Contract Law 730	-	10

BRK 785	Treatise 785	-	5
EOW 700	Feasibility Studies 700	EOW 710/720 GS	12
	Total		47
Second semester			
BTP 740	Management Practice 740	BTP 730 GS	12
BOE 720	Building Economy 720	BRK 710/ BKR 700 GS	8
BRK 700	Quantity Surveying Practice 700	HVH 700 GS	10
KKR 740	Construction Contract Law 740	KKR 730 GS	7
BRK 785	Treatise 785	-	5
EOW 700	Feasibility Studies 700	EOW 710/720 GS	12
	Total		54
POU 720	Practical Development Feasibility	none	2

B.27 BACCALAUREUS SCIENTIAE HONORES (CONSTRUCTION MANAGEMENT) [BSc(Hons)(Construction Management) (Code 12242015)

Code	Module	Prerequisite	Credits
First year of study			
First semester			
BWT 710	Building Science 710	-	9
EOW 710	Property Financial Mathematics 710	-	9
FMT 700	Financial Management 700	-	10
KBS 710	Construction Management 710	-	10
KSH 700	Construction Quantities 700	-	5
	Total		43
Second semester			
BHU 720	Housing 720	-	9
FMT 700	Financial Management 700	-	10
EOW 720	Introduction to Property Law 720	-	9
KBS 720	Construction Management 720	KBS 710 GS	10
KSH 700	Construction Quantities 700	-	5
KKR 720	Construction Contract Law 720	-	9
	Total		52
Second year of study			
First semester			
BEV 700	Industrial Safety 700	-	7
FMT 701	Financial Management 701	FMT 700 GS	10
KBS 730	Construction Management 730	-	10
KSH 710	Construction Quantities 710	-	10
KKR 730	Construction Contract Law 730	-	10
KBS 785	Treatise 785	-	5
EOW 700	Feasibility Studies 700	EOW 710/720 GS	12
	Total		64

Second semester			
BEV 700	Industrial Safety 700	-	7
EOW 700	Feasibility Studies 700	EOW 710/720 GS	12
FMT 701	Financial Management 701	FMT 700 GS	10
KBS 740	Construction Management 740	KBS 730 GS	12
KKR 740	Construction Contract Law 740	KKR 730 GS	7
KBS 785	Treatise 785	-	5
	Total		53
POU 720	Practical Development Feasibility	none	2

B.28 BACCALAUREUS SCIENTIAE HONORES (REAL ESTATE) [BSc(Hons)(Real Estate)] (Code 12242016)

Code	Module	Prerequisite	Credits
First year of study			
First semester			
BWT 710	Building Science 710	-	9
EDF 710	Property Finance 710	-	9
EOW 710	Property Financial Mathematics 710	-	9
FMT 700	Financial Management 700	-	10
EDW 710	Property Valuation 710	-	9
KSH 700	Construction Quantities 700	-	5
	Total		51
Second semester			
BHU 720	Housing 720	-	9
FMT 700	Financial Management 700	-	10
EDW 720	Property Valuation 720	EDW 710 GS	9
KSH 700	Construction Quantities 700	-	5
KKR 720	Construction Contract Law 720	-	9
	Total		42
Second year of study			
First semester			
FMT 701	Financial Management 701	FMT 700 GS	10
KBS 730	Construction Management 730	-	10
KKR 730	Construction Contract Law 730	-	10
EOW 700	Feasibility Studies 700	EOW 710 GS	12
EBL 710	Property Investment 710	-	9
EOW 785	Treatise 785	-	5
	Total		56
Second semester			
EBL 720	Property Investment 720	-	9
FMT 701	Financial Management 701	FMT 700 GS	10
KBS 740	Construction Management 740	KBS 730 GS	12
KKR 740	Construction Contract Law 740	KKR 730 GS	7
EOW 700	Feasibility Studies 700	EOW 710 GS	12

EOW 785	Treatise 785	-	5
	Total		55
POU 720	Practical Development Feasibility	none	2

MASTER'S PROGRAMMES

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

(a) By virtue of a dissertation and examination

(i) **Duration and curriculum**

(aa) The degree is conferred on the basis of a dissertation and examination on the field of study of the dissertation and/or divisions of the field of study as required by the head of the department/supervisor.

(bb) The minimum duration is one year during which the student works under supervision of the head of the department/supervisor.

(ii) **Pass requirements and examination**

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

(b) By virtue of a curriculum with coursework and a treatise

(i) Duration and curriculum

(aa) The degree can be obtained by successfully completing a curriculum with coursework and a treatise.

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

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

(ii) Admission to the examination and pass requirements

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

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

(cc) The minimum pass mark is 50%.

(dd) The topic of the treatise must be approved by the head of department and a minimum of 50% is required to pass.

(ee) The degree is conferred with distinction on a student who obtains a weighted average of at least 75% in half of the required modules, at least 75% in the treatise, and at least 65% in the remaining modules credits.

B.29 MAGISTER SCIENTIAE (QUANTITY SURVEYING)
MSc(QS) per dissertation and examination (Code 12252010)
MSc(QS) per coursework and project (Code 12252011)
MSc Applied Science (Code 12252018)

(a) Examination: BRK 800 – Dissertation: BRK 890
(b) Project: BRK 895

B.30 MAGISTER SCIENTIAE (CONSTRUCTION MANAGEMENT
MSc(Construction Management) per dissertation and examination (Code 12252012)
MSc(Construction Management) per coursework and project (Code 12252013)
MSc Applied Science (Code 12252019)

(a) Examination: KBS 800 – Dissertation: KBS 891
(b) Project: KBS 892

B.31 MAGISTER SCIENTIAE (REAL ESTATE)
MSc(Real Estate) per dissertation and examination (Code 12252020)
MSc(Real Estate) per coursework and project (Code 12252015)
MSc Applied Science (Code 12252017)

(a) Examination: EMW 800 – Dissertation: EMW 890
(b) Project: EMW 892

B.32 MAGISTER SCIENTIAE (PROJECT MANAGEMENT)
MSc(Project Management) per dissertation and examination (Code 12252021)
MSc(Project Management) per coursework and project (Code 12252014)
MSc Applied Science (Code 12252016)

(a) Examination: PRB 800 – Dissertation: PRB 890
(b) Project: PRB 892

DOCTORAL PROGRAMMES

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 an applicable master's degree.
(b) A PhD student must submit a thesis which deals with a topic from the list of subject disciplines.
(c) The doctoral examination, either written or oral, is **compulsory**, and covers the content of the thesis as well as the sections of the field of study on which the thesis is based.

B.33 PHILOSOPHIAE DOCTOR (PhD) (Code 12262014)

Quantity Surveying 900: BRK 900 – Thesis: BRK 990

B.34 PHILOSOPHIAE DOCTOR (PhD) (Code 12262015)

Construction Management 900: KBS 900 – Thesis: KBS 990

B.35 PHILOSOPHIAE DOCTOR (PhD) (Code 12262016)

Real Estate 900: EMW 900 – Thesis: EMW 990

DEGREES IN TOWN AND REGIONAL PLANNING

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

The ideal town and regional planner is a creative person who is able to put forward innovative solutions to complex problems, a mediator who is able to reconcile diverse points of view, a strategic thinker and a good manager. Given the enormous backlogs in the fields of housing and social services and the misery in which many South Africans find themselves, planners also need a strongly developed sense of social and environmental justice and be committed to human development.

While the majority of town and regional planners act as private consultants to the public and the private sector, they are also employed by all three spheres of government, research agencies such as the CSIR and the HSRC, non-Governmental organisations, community-based organisations, major financial institutions and property development groups.

B.36 BACCALAUREUS IN TOWN AND REGIONAL PLANNING (BT&RP)(Code 12132022)

(a) Admission requirements
See General Information B.1 and B.2.

(b) Curriculum
Total credits : 640

Code	Module	Prerequisites	Credits
First year			
First semester			
CIL 171	Computer Literacy 171	-	3
CIL 172	Computer Literacy 172	-	3
EKN 110	Economics 110	-	10
EOT 151**	Language Skills 151	-	3
EOT 152**	Language Skills 152	-	3
GGY 132	Cartographic Skills 132	-	4
STK 110	Statistics 110	Par B.2	13
TPA 110	Site Analysis and Assessment 110	-	16
TRP 111	Planning and Settlement Histories before the Industrial Revolution 111	-	12
	Total		67
Second semester			
CIL 173	Computer Literacy 173	-	3
CIL 174	Computer Literacy 174	-	3
EKN 120	Economics 120	-	10
EOT 153**	Language Skills 153	-	3
EOT 154**	Language Skills 154	-	3
GGY 162	Remote Sensing 162	-	4
GGY 164	Physical Geography of South Africa 164	-	8
TPA 120	Settlement Analysis and Assessment 120	-	16
TPS 120	Principles of Settlement Design 120	-	12
TRP 121	Planning and Settlement Histories since the Industrial Revolution 121	-	12
	Total		74

** The language skills of students registering for the first time at this University will be tested at the beginning of the year. Dependent on these results, every student in the Department of Architecture must:

- obtain 12 credits in the language skills modules EOT 151, 152, 153, 154 offered by the Unit for Language Skills;
- **or**
- obtain 12 credits through a combination of language skills modules offered by the Unit for Language Skills and modules offered by the School of Languages (in consultation with the relevant head of department);
  or
- obtain 12 credits in modules offered by the School of Languages and/ or any other modules approved by the head of department.

Second year			
First semester			
GGY 283	Introductory GIS 283	-	12
TPA 210	Plan and Policy Analysis and Assessment 210	-	12
TPD 210	Development Planning 210	-	12

TPS 210	Settlement Design Concepts 210	TPA 110, 120 TRP 111, 121 TPS 120	16
TPU 210	Land Use Management Theory 210	-	16
	Total		68

Second semester

GGY 264	Urban Social Morphology 264	-	12
MAD 261	Municipal Administration 261	-	8
MAD 262	Municipal Administration 262	-	8
TPD 220	Theory of Strategic and Integrated Development Planning 220	TRP 111 TPD 210	16
TPS 220	Settlement Establishment and Housing Delivery 220	TPS 210 TPU 210	16
TPU 261	Urban Land Development Economics 261	-	8
TPU 262	Land Use Management Practice 262	TPU 210, 261†	8
	Total		76

Third year
First semester

EOW 710	Property Financial Management 710	-	9
MDS 310	Municipal Services Provision 310	-	6
TPD 310	Participatory Planning 310	-	12
TPE 351	Research Methodologies for Planning 310	TRP 111	6
TPS 310	Spatial Concepts 310	TPS 210, GGY 283 TPD 220, TPU 262	16
TRP 310	Institutional and Legal Structures for Planning 310	-	12
	Total		61

Second semester

EOW 720	Introduction to Property Law 720	EOW 710	9
GGY 362	Natural Resource Management 362-		18
SOC 354	Demography 354	-	12
SVB 321	Transport Planning 321	-	6
TPD 320	Local Economic Development 320	-	12
TPS 320	Metropolitan, District and Local Spatial Planning 320	TPS 210, GGY 283, TPD 220, TPU 262, TPS 310	16
	Total		73

AND ELECTIVES
of at least 26 credits from the following modules during the 2nd and 3rd year of study:

First semester

EKN 251	Economics 251	EKN 110,120	8
EKN 252	Economics 252	EKN 110,120	8
EKN 310	Economics 310	EKN 210,220	20
GIS 310	Geographic Information Systems 310	GGY 283	24
MAD 351	Municipal Administration 351	MAD 262	10
MAD 352	Municipal Administration 352	MAD 351	10
SOC 351	Advanced Demographic Research 351	-	12
SOC 352	Social Theory 352	-	12

Second semester

EKN 220	Economics 220	EKN 210	16
EKN 320	Economics 320	EKN 310	20
MAD 361	Municipal Administration 361	MAD 352	10
MAD 362	Municipal Administration 362	MAD 361	10
GIS 320	Spatial Analysis 320	GIS3 10	24
GGY 263	Urban Modelling 263	-	12
	Total		26

Fourth year
First semester

EOW 700	Feasibility Studies 700	EOW 410, 420 or EOW 710, 720	12
PRF 412	Professional Practice 412	-	8
SVC 410	Transport Engineering 410	-	6
TPE 410	Essay 410	TPE 351	20
TPI 451	Planning Interventions: Urban Areas 451	TPS 310, 320 TRP 310,TPD 310, 320	16
TPI 452	Planning Interventions: Peri-Urban and Rural Areas 452	TPS 310, 320 TRP 310 TPD 310, 320	16
TRP 410	Cities and Regions of the Future 410	TPS 310	16
	Total		94

Second semester

BHU 720	Housing 720	-	9
EOW 700	Feasibility Studies 700	EOW 410, 420 or EOW 710, 720	12
TPE 420	Essay 420	TPE 410	20
TPI 453	Planning Interventions: Metropolitan Areas 453	TPS 310, TRP 310, TPD 310, 320	16

TPI 454	Planning Interventions: Supra National, National and Regional Scale 454	TPS 310, TRP 310, TPD 310, 320	16
TRP 420	Planning Futures 420	TRP 410	16
	Total		89
POU 720	Practical Development Feasibility	none	2

TRANSITIONAL MEASURES

(i) **TRANSITIONAL MEASURES FOR CORE MODULES FROM 2001:**

OLD MODULE: (NEW MODULE)

SSM 110: (TRP 100)	SSS 110: (TRP 110)
SSP 110: (TPA 110, GGY 162)	SSM 120: (TRP 100)
SSS 120: (TPS 120)	SSP120: (TPA 120, GGY 132)
SSM 210: (TPD 210,TPS 220)	SSS 210: (TPS 210)
SSP 210: (TPA 210)	SSM 220: (TPD 220, TPU 261)
SSS 220: (TPU 210, TPU 262)	SSP 220: (TPS 220)
SSM 310: (GGY 283)	SSS 310: (TPS 310)
SSP 310: (TPD 310)	SSM 320: (TPE 51)
SSS 320: (TPD 320)	SSP 320: (TRP 310, 320)
SSM 410: (TRP 20)	SSS 410: (TRP 410)
SSP 410: (TPI 451, BHU 420)	SSM 420: (TPI 453,TPI 454)
SSS 420: (TRP 420)	SSP 420: (TPI 452)
SKR 410: (TPE 410)	SKR 420: (TPE 420)
PFP 422: (PRF 412)	EDE 312: (TPU 261)

BPR 321: (TRP 310 – Only for BTRP programme)

(ii) **TRANSITIONAL MEASURES FOR ELECTED MODULES FROM 2001 (see also transitional measures (iv):**

OLD MODULES:	REPLACE WITH:
EKN 251, 252, 220 and EKN 310, 320 or SOC 251, 252, 253, 254, and SOC 351, 352, 353, 354	**24 credits** from the following modules: GIS 310 MAD 351, 352, 361, 362 EKN 251, 252, 220, 310, 320 GGY 263 SOC 351, 352 * *SOC 251, 252, 253, 254 and* * *SOC 353*
EKN 310, 320 and SOC 351, 352, 353, 354	**12 credits** from the following modules: GIS 310 MAD 351, 352, 361, 362 EKN 310, 320 GGY 263 SOC 351, 352 * *SOC 353, 354*

** Only for students who have registered for BTRP before 2001*

(iii) **TRANSITIONAL MEASURES FOR MODULES NOT PASSED IN 2000 CURRICULUM:**

MODULES NOT PASSED IN 2000 CURRICULUM:	* SUBJECT WITH WHICH MODULES/ SUBJECTS CAN BE SUBSTITUTED IN 2001 CURRICULUM:
INF 110	INF 151, 152, CIL 171, 172, 173, 174
INF 120	
STK 110	STK 110
STK 120	STK 120
EKN 110	EKN 110
EKN 120	EKN 120
EKN 210 (EKN 251, 252)	EKN 251, 252 OR GGY 264 OR MAD 261, 262
EKN 220	EKN 220 OR GGY 264 OR MAD 261, 262
EKN 310	EKN 310 OR GIS 310
EKN 320	EKN 320 OR GGY 263
SOC 151, 152	SOC 151,152
SOC 153, 154	SOC 153,154
SOC 251, 252	SOC 251, 252 OR GGY 264 OR MAD 261, 262
SOC 253, 254	SOC 253, 254 OR GGY 264 OR MAD 261, 262
SOC 351, 352	SOC 351, 352 OR GIS 310
SOC 353, 354	SOC 353, 354 OR GGY 263
OMG 120	OMG 120
BPR 321	BPR 321 OR TRP 310
* Note that no subject/module can serve as a substitute for more than one subject/module of the 2000 curriculum, as registration for these subjects are still subject to general regulations, prerequisites, promotion requirements, etc as well as the approval of the head of department.	

(iv) **TRANSITIONAL MEASURES FOR SPECIFIC MODULES (2001):**

TPS 310 and GGY 283	Students/learners will only be allowed to register for TPS 310 in 2001 without complying with the prerequisite namely that GGY 283 should have been passed, on condition that: - they simultaneously register for GGY 283; - that TPS 310 cannot be presented in further study years as a prerequisite for other modules if GGY 283 has not been passed. The abovementioned students who are required to take GGY 283 and TPS 310 simultaneously in their third study year, need only choose elected modules to the value of 12 credits.
EOW 410 and EOW 420	Only students who have been registered for their fourth study year before/in 2001 can present EOW 410 and EOW 420 as replacement for EOW 700

(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 128 credits.

- Third year of study after obtaining 228 credits.
- Fourth year of study after obtaining 448 credits.

(ii) The degree is conferred when all the prescribed module credits have been passed (minimum 640 credits)

(iii) A student who qualifies for promotion to a subsequent year of study, but who has not yet passed all the modules of the present year of study, may be permitted by the Dean, on the recommendation of the head of department, to carry over these modules to the subsequent year of study or to a later year of study on condition that no timetable clashes occur and that the prescribed number of course credits are not exceeded.

(iv) Students who wish to take modules in advance which are not prescribed for a particular year of study, or who are repeating modules, may not register for modules in more than two consecutive years of study without the approval of the head of department.

(v) A student who complies with all the requirements for the degree with exception of one year module or two semester modules in which a final mark of at least 40% has been obtained, may be admitted to a special examination in the module(s) concerned 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 no timetable clashes occur.

(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 to first-year repeaters.

(d) Degree with distinction

The degree is conferred with distinction when a student complies with all the prescribed requirements and has passed the following modules of the fourth year simultaneously with an average of at least 75% and a weighted average of 70% in all the prescribed modules of the final year of study.

(i) Cities and Regions of the Future – TRP 410
(ii) Planning Futures – TRP 420
(iii) Planning Interventions: Urban Areas – TPI 451
(iv) Planning Interventions: Peri-Urban and Rural Areas – TPI 452
(v) Planning Interventions: Metropolitan Areas – TPI 453
(vi) Planning Interventions: Supranational, National & Regional Scale – TPI 454
(vii) Essay – TPE 410, 420

B.37 MAGISTER IN TOWN AND REGIONAL PLANNING (MT&RP)

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 en G.38 the BT&RP degree or an equivalent qualification, as well as practical experience deemed adequate by the head of the department. are required for admission to the study for the MT & RP degree.

(i) The MT&RP degree is conferred by virtue of a dissertation as well as related assignments as prescribed by the head of department including an academic article for publication and an examination in the field of the dissertation and/or sections thereof as required by the head of the department/supervisor.
(ii) Supplementary undergraduate modules for the MT&RP degree may be prescribed for students who have not obtained a BS&S degree.
(iii) The minimum passmark is 50% in both the dissertation and examination and the degree is conferred with distinction on a student who obtains at least 75% in both the examination and dissertation.
(iv) The minimum duration of study is one academic year, during which a student will work under supervision of the head of department/supervisor.

Examination: SSB 800 – Dissertation: SSB 890 (240 credits)

(b) Code 12252023: By virtue of coursework and a treatise.
Subject to the stipulations of General Regulations G.30, G.37 en G.38, the BT&RP degree or an equivalent qualification is required for admission to the study for the MT&RP degree.

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

(c) Duration:
The minimum duration of study is two years.

Code	**Module**
TPE 810	Treatise 810 (100 credits) The head of the department must approve topic of the treatise.

For students with an undergraduate qualification in Town and Regional Planning, modules to the value of at least 80 credits need to be taken from the following core modules:
For students without an undergraduate qualification in Town and Regional Planning, modules to the value of at least 120 credits need to be taken from the following core modules:

TPU 810	Land Use Management and Land Development 810 (20 credits)
TPS 810	Sustainable Settlement Planning and Design 810 (20 credits)
TPS 820	Design for Safety 820 (10 credits)
TPD 820	Integrated Development Planning 820 (20 credits)
TPI 810	Urban Restructuring 810 (25 credits)
TPI 820	Rural Restructuring 820 (25 credits)

Modules of at least 60 credits must be taken from the core modules above and/or the following level 7 or 8 and/or modules in consultation with the head of the department:
Modules can be taken from the master's and honours degree programmes in:
- Civil and Transportation Engineering (School of Engineering);

- Environment and Society (School of Environmental Sciences);
- Public Management (School of Public Management);
- Rural Development (School of Agriculture and Rural Development);
- Economics (Faculty of Economic and Management Sciences);
- Modules in Research Methodology; and/or
- Other modules as approved by the head of the department.

B.38 PHILOSOPHIAE DOCTOR PhD
(Code 12262022)

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

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

Examination: SSB 900 – Thesis: SSB 990 (400 credits)

SYLLABI FOR THE SCHOOL FOR THE BUILT ENVIRONMENT

Note:
(i) Syllabi are arranged alphabetically according to module code.
(ii) Unless otherwise indicated, the number of lectures, practicals and studio sessions refer to the number presented per week.

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

(AAL 223) Earth Studies 223 (2 lectures & ½ studio session)
The impact of social, economic and political systems on, and the multidisciplinary approach to design decision making for *inclusive environments* and *barrier free environments*. The application of this understanding in developing communities.

(AAL 320) Earth Studies 320 (3 lectures + ½ studio session)
Environmental filters and forecasting techniques:
Sound: the physical nature of sound, physiology of hearing, sound and noise sources, transfer, absorption and isolation, noise control; measurement, levels, frequency analysis, A-loading, room acoustics, reverberation periods.
Light: properties of natural light design criteria, daylight factors, diffusion, quality, energy requirements and saving.
Mechanical systems: energy demand and efficiency, energy dissipation.

(ABR 351) Labour Law 351 (3 lectures)
Basic principles of the employment contract. Collective Labour Law (including collective bargaining and trade unions).

(ABR 352) Labour Law 352 (3 lectures)
Statutory conditions of employment. Individual labour disputes. Collective labour disputes. Settlement procedures. Social security provisions.

(BEM 110) Marketing Management 110 (3 lectures)
(Presented by the Department of Marketing & Communication Management – Faculty of Economic and Management Sciences)
Fundamentals of marketing management and marketing instruments
General overview of marketing management, including the marketing concept, the process of marketing management, evolution of marketing and the marketing

environment. Consumer entity, market segmentation, positioning and marketing information. Perspective of various marketing instruments in the marketing mix, for example, product decisions, distribution decisions, marketing communication decisions and pricing decisions.

(BEM 161) Marketing Management 161 (3 lectures)
(Presented by the Department of Marketing & Communication Management – Faculty of Economic and Management Sciences)
Sales decisions
The selling process, selling techniques, management of the sales corps and the management of sales promotions. A professional approach to selling techniques and the selling process, the position of personal sales in the execution of the marketing task; integration of various sales management tasks – recruitment, selection, training, remuneration and evaluation of the sales process and ethics of sales practices.

(BEM 162) Marketing Management 162 (3 lectures)
(Presented by the Department of Marketing & Communication Management – Faculty of Economic and Management Sciences)
Introduction to the marketing of professional services
Acquiring basic marketing skills will enhance the capabilities of professionals in *inter alia* the accounting profession. This module provides an overview of the seven marketing instruments of a professional services marketing mix. The focus will fall on the practical implications of the characteristics of intangible products and the pricing, promotion, placement, physical evidence, process and people dimensions of professional services.

(BER 410) Business Law 410 (4 lectures)
(Offered by Department of Mercantile Law – Faculty of 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 700) Operational Safety 700 (2 lectures)
Study and development of sensitivity for industrial safety, accident prevention and total loss control. An approved certificate in first aid has to be submitted before this module will be awarded.

(BGG 111) Building Organisation 111 (2 lectures)
The structure of the building industry and the role of building disciplines and related parties.

(BHU 720) Housing 720 (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.

(BKR 700) Building Cost Estimation 700(4 lectures)
Pricing and tendering; elements of a price; pricing of various trades; estimating methods; escalation; analysis of building cost; preliminaries, cost planning; capital sources; norms; equipment.

(BOE 720) Building Economics 720 (2 lectures)
Advanced estimating of building cost and specialist installations; price forecasting and cost indices; cost reporting; cost analysis; cost modelling; computer applications and simulation; limits of confidence and probability; databases; expert systems.

(BOU 120) Building Drawing 120 (1 lecture + 1 practical)
Preparation of technical drawings of simple buildings including services for local authorities.

(BOU 131) Building Drawing 131 (1 lecture + 1 practical)
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.

(BRK 300) Quantity Surveying Practice 300 (3 lectures)
Computer systems; measuring assignments with the assistance of computer programs; practical training; pricing; payment certificates; final accounts.

(BRK 700) Quantity Surveying Practice 700 (3 lectures)
Model preliminaries; different types of bills of quantities; civil engineering works; Standard system' evaluation, contract administration; project administration; external relations and marketing of services; conditions of appointments and fee accounts; professional indemnity; report writing; Quantity Surveyors' Act; assignment.

(BRK 710) Quantity Surveying Practice 710 (2 lectures)
Model preambles; 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; cost management of construction projects.

(BRK 785) Treatise 785
An essay on a subject approved by the head of department should be handed in during the final year of study.

(BTP 710) Management Practice 710 (3 lectures)
Introduction to communication and its implementation in practice. General functions and management of office administration.

(BTP 720) Management Practice 720 (3 lectures)
Budgets, cash-flow schedules and financial statements for the quantity surveying practice. Interpretation of financial statements and general finances.

(BTP 730) Management Practice 730 (3 lectures)
Overview of general management; project management in the building and property industries.

(BTP 740) Management Practice 740 (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 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 as described in the design essay under Design 500. Integration of foreknowledge in BWT, GBK, STU and PRS.

(BWT 710) Building Science 710 (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.

(CIL 120) Information Technology (1lecture + 2 practicals)
(Presented by Damelin Computer School)
Computer architecture and hardware: an overview of the different types of computers, information vs data, representation of data, computer architecture, and peripherals. System software: operating systems, compilers, utility software. Applications software: databases, spreadsheets, word processing, graphics software. Information literacy: formulating search strategies, searching CD-ROMs and searching the internet. Analysis, organizing and synthesis of information.

(CIL 171) Computer and Information Literacy 171 (2 lectures)
(Presented by Damelin Computer School)
Keyboard and mouse skills, e-mail, basic Internet and Web skills, basic theoretical introduction to hardware and software. Windows as operational system.

(CIL 172) Computer and Information Literacy 172 (2 lectures)
(Presented by Damelin Computer School)
Word-processing programmes: Creation, editing and formatting of documents, outline editing, automatic numbering and footnotes, tables and columns, insertion of multimedia, data exchanges etc. Presentation programmes: Creation of presentations, together with figures, text animation and the insertion of multimedia.

(CIL 173) Computer and Information Literacy 173 (2 lectures)
(Presented by Damelin Computer School)
Spreadsheet programmes: basic spreadsheet skills including formulas and diagrams. Database programmes: Basic database skills including searches, compilation of reports.

(CIL 174) Computer and Information Literacy 174 (2 lectures)
(Presented by Damelin Computer School)
Search strategy formulation: the use of Boolean operators, natural language and controlled language. Searches on CD-ROM and the Internet; the evaluation of Internet search engines. The analysis, organization and synthesizing of information. Resources study.

(EBL 710) Property Investment 710 (2 lectures)
The nature and scope of property investment, objectives of property investors, participants of the property investment process, the investment decision process, investment criteria, investment time horizons, decision making approaches.

(EBL 720) Property Investment 720 (2 lectures)
Investment strategy, the investment analysis process, ownership entities, listed investments, the roll of the institutions, tax aspects.

(EBM 312) Property Marketing 312 (2 lectures)
The South African property market, the estate agent, property market analysis and segmentation.

(EBM 322) Property Marketing 322 (2 lectures)
Property strategies, marketing budget, the consumer decision process and negotiation.

(EDF 710) Property Finance 710 (4 lectures)
Principles of property finance, sources and types, cost of capital and capital budgets.

(EDR 310) Property Law 310 (2 lectures)
Immovable property, interests in immovable property, acquisition of rights in immovable property, servitudes and mineral rights, the property clause in the SA Constitution, measurement of land and registration of rights in immovable property.

(EDR 320) Property Law 320 (2 lectures)
Purchase agreement, sale of land on instalments, lease of immovable property, applicable legislation (alienation of land, sectional titles, share block schemes, time-sharing), statutory control over immovable property, statutory control over estate agents.

(EDW 710) Property Valuation 710 (2 lectures)
The concept of value, the valuator, standard of valuations, the Surveyor General, local authorities, ground use plans, township planning schemes, calculation of areas, records of the valuator.

(EDW 720) Property Valuation 720 (2 lectures)
Factors influencing the value of different types of property, appreciation and depreciation, different approaches to valuation, value of improvements, valuation of residential properties, the valuation report, practical valuation of a residential property.

(EEB 220) Property Management 220 (3 lectures)
Role and function of property management, the management relationship, property maintenance, risk management and property management budgets.

(EEK 212) Property Economics 212 (2 lectures)
Location objectives, urban location models, urban ground uses and markets, supply, demand and competition for urban ground, population and urbanisation, urban markets, (residential, retail, office and industrial).

(EKN 110) Economics 110 (3 lectures)
Conceptualise the interrelationships of the different sectors in South African economy. The functioning of international trade, government economics and policy, the labour market, monetary economics, economic development, environmental economics with specific reference to the South African context. The impact of national and international decisions and events on the South African economy.

(EKN 120) Economics 120 (3 lectures)
The economic environment and problem: working and course of the South African economy; functioning and interrelationships of the different economic sectors. Macro-economic theory and analysis. Analyse and interpret economic performance criteria: economic growth, inflation, job creation, balance of payments and exchange rate stability, income distribution. Calculate and interpret core economic indicators.
Basic micro-economic principles: demand analysis (consumer theory), supply analysis (producer theory). Market analysis: market equilibrium, price determination, market forms, market failure, calculate and interpret price, income and cross elasticities.

(EKN 220) Economics 220 (3 lectures)
International economic insight is provided into: international economic relations and history, theory of international trade, international capital movements, international trade politics, economic and customs unions and other forms of regional co-operation and integration, international monetary relations, foreign exchange markets, exchange rate issues and the balance of payments, as well as open economy macro-economic issues.

(EKN 251) Economics 251 (3 lectures)
From Wall and Bay Street to Diagonal Street, a thorough understanding of the mechanisms and theories explaining the workings of the economy is essential. Macro-economic insight is provided on: the real market, the money market, two market equilibrium, monetarism, growth theory, conjuncture analysis, inflation, Keynesian general equilibrium analysis and fiscal and monetary policy issues.

(EKN 252) Economics 252 (3 lectures)
Micro-economic insight is provided into; consumer and producer theory, general micro-economic equilibrium, pareto-optimality and optimality of the price mechanism, welfare economics, market forms and the production structure of South Africa.

(EKN 310) Economics 310 (3 lectures)
Welfare economics (optimality of the market mechanism, general equilibrium, market failure and the role of the government); general macro-economic policy: public finance theory and fiscal policy, monetary policy, public debt management policy; international trade and balance of payments adjustment policies; modern macro-economic policy considerations and development. Macro-economic policy – implementation in South Africa: monetary policy, fiscal policy, competition policy, labour policy, South African development issues/policies.

(EKN 320) Economics 320 (3 lectures)
The identification, collection and interpretation process of relevant economic data; the national accounts (i.e. income and production accounts, the national financial account, the balance of payments and input-output tables); economic growth; inflation;
employment, unemployment, wages, productivity and income distribution; business cycles; financial indicators; fiscal indicators; social indicators; international comparisons; relationships between economic time series-regression analysis; long-term future studies and scenario analysis; overall assessment of the South African economy over the period from 1960 onwards.

(EOT 151) Language Skills 151 (2 lectures)
(Presented by the Language Skills Unit)
Knowledge of basic grammar and basic vocabulary is revised, using documentary texts that are thematically subject related. In terms of skills the focus is placed on the development of the receptive skills (listening and reading) on text level, while the development of the productive skills (speaking and writing) will also receive attention, but only on paragraph level.

(EOT 152) Language Skills 152 (2 lectures)
(Presented by the Language Skills Unit)
Knowledge of general academic vocabulary is developed by means of general academic texts, which are thematically subject related. A foundation is laid in the knowledge of text grammar and argumentation forms. All four the linguistic skills (listening, reading, speaking and writing) are practised on text level.

(EOT 153) Language Skills 153 (2 lectures)
(Presented by the Language Skills Unit)
Knowledge of subject specific vocabulary is developed, using subject specific academic and scientific texts. Basic knowledge of text grammar and argumentation forms is broadened. Specific attention is given to the application of the two receptive skills (listening and reading) for academic purposes.

(EOT 154) Language Skills 154 (2 lectures)
(Presented by the Language Skills Unit)
The focus is on developing and applying the four linguistic skills on text level for academic purposes. The two productive skills (speaking & writing) will receive special attention.

(EOW 700) Feasibility Studies 700 (2 lectures)
Investment in property; objectives of the developer; feasibility studies; capital investment, income and operating expenses; cash-flow 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.

(EOW 710) Financial Mathematics 710 (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.

(EOW 720) Introduction to Property Law 720 (2 lectures)
Review of property development; rights over immovable property; private legal circumscription of ownership; real securities; the registration of rights; zoning regulations.

(EOW 785) Treatise 785
An essay on a subject approved by the head of department should be handed in during the final year of study.

(FMT 700) Financial Management 700 (4 lectures)
Budget estimates, cash-flow schedules and financial statements as well as the handling of contract accounts as introduction to financial management.

(FMT 701) Financial Management 701 (4 lectures)
The application of cost-accounting, budgets and cash-flow schedules, and financial statements in general financial management.

(FRK 121) Financial Accounting 121 (4 lectures)
Elements of financial statements in detail. The conceptual framework. Income statements, balance sheets, cash-flow statements and analysis and interpretation of clubs, partnerships, close corporations. Introduction to companies.

(FRK 151) Financial Accounting 151 (4 lectures)
Computer-assisted training
The nature and function of accounting. The development of accounting, financial position, financial result. The recording process. Processing of accounting data. Elementary income statement and balance sheet.

(FRK 152) Financial Accounting 152 (4 lectures)
Flow of documents. Accounting systems. Introduction to internal control and internal control measures. Bank reconciliations. Control accounts. Adjustments. Financial statements of a sole proprietor.

(FRK 181) Financial Accounting 181 (2 lectures)
Computer processing of accounting information.
(Offered in first and second semester)

(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; storm-water 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) Building Services 212 (2 lectures)
Climatic conditions, human comfort zones, characteristics of buildings, airconditioning, energy efficiency,

(GBD 222) Building Services 222 (2 lectures)
Airconditioning and energy measurement; mechanical work; lifts and other mechanical services, waste handling; kitchens and cooling rooms.

(GBD 312) Building Services 312 (2 lectures)
Theory of electricity; regulations of electricity-supply authorities; electrical installations; distribution of electricity.

(GBD 322) Building Services 322 (2 lectures)
Principles of illumination; illumination installations; lightning security; security systems; communication systems.

(GGY 132) Cartographic Skills 132 (1 practical)
Principles of cartography. Map reading, analysis and interpretation; introductory survey techniques

(GGY 162) Remote Sensing 162 (1 practical)
Use, interpretation and analysis of satellite imagery, aerial photography and other remotely sensed data.

(GGY 164) Physical Geography of South Africa 164 (4 lectures)
Introduction to the physical geography of South Africa including climate and weather patterns, landscape evolution and topographical distribution. Landscaping processes within arid, semi-arid and coastal environments; fluvial systems and processes; mountain environments.

(GGY 263) Urban Modelling 263 (4 lectures + 2 practicals)
Theoretical constructs for the single and multi-nodal forms of the western city. Modelling the inter-urban settlement system, and intra-urban tertiary activity. Presentation skills; geographic communication; analysis and statistical interpretation of spatial data.

(GGY 264) Urban Social Morphology 264 (4 lectures + 2 practicals)
The structure and spatial distribution of class, income, ethnicity, age and other demographic variables in urban environments in South Africa and other parts of the world. Qualitative and quantitative analyses of social change and transformation in cities, including segregation, desegregation and gentrification.
Other themes include urban perception, urban living, social area analysis, and spatial strategies for social integration.

(GGY 283) Introductory GIS 283 (4 lectures + 2 practicals)
Introduction to Geographic Information Systems (GIS), types of GIS, data input, data analysis and associated technology. GIS applications and data analysis techniques in practicals comprise concepts presented in lectures. The practical application of GIS is emphasised rather than mastering software.

(GGY 362) Natural Resource Management 362 (4 lectures + 2 practicals)
The biosphere as an environmental system; environmental degradation due to mismanagement; principles and approaches to sustainable resource management; ecosystem

management in South Africa; solutions to environmental degradation; terrain potential and impact assessment. Special emphasis is placed on tourism as a land-use.

(GGY 363) Environmental Geomorphology 363 (4 lectures + 2 practicals)
Interactions of geomorphic processes within the physical and built environments; themes such as geomorphology and environmental change, slope processes and the environment, geomorphic risks and hazards, soil erosion and conservation, geomorphology in environmental management, weathering in urban environments, preservation of buildings, and deterioration and preservation of indigenous rock art. Practicals involve fieldwork and subsequent laboratory analysis.

(GIS 310) Geographic Information Systems 310 (3 lectures + 1 practical)
Advanced theory and practice of Geographic Information Systems; GIS applications; design and implementation of GIS applications.

(GIS 320) Spatial Analysis 320 (3 lectures + 1 practical)
Introduction to spatial analysis techniques classification, interpolation, extrapolation, georeferencing, topology, visualisation, networks, spatial interaction, spatial statistics and general spatial systems analysis.

(GKD 225) General Soil Science 225 (3 lectures + 1 practical)
(Presented by the Department of Plant Production and Soil Science – Faculty of Natural and Agricultural Sciences)
Origin and development of soil, weathering and soil formation processes. Profile differentiation and morphology. Physical characteristics: Texture, structure and soil water. Chemical characteristics: Clay minerals, ion exchange, pH and soil fertility. Soil classification.
Practical work: Laboratory evaluation of simple soil characteristics. Field practical work on soil formation in the Pretoria area.

(HVH 120) Quantities 120 (4 lectures)
Introduction to quantity surveying; methodology of measuring; working up processes; measuring of simple building elements. Detail study of the “Standard System” as required for the work in Quantities 120.

(HVH 200) Quantities 200 (4 lectures)
Measuring of simple building elements and of single-storey buildings; adjustment of foundations on sloping sites. Detail study of the "Standard System" as necessary for the work in Quantities 200.

(HVH 300) Quantities 300 (4 lectures)
Measurement of meolitions, simple concrete structures (on flat or sloping sites), carpentry and joinery, structural steelwork, sundry metalwork, plumbing and drainage, simple electrical work, different types of concrete structures, pavings and fences. Theory of monetary allowances in bills of quantities. Detail study of the "Standard System" as requirement for the work in Quantities 300. Assignment.

(HVH 700) Quantities 700 (4 lectures)
The measuring of alterations, geotechnical engineering works, advanced building components and services, precast concrete, rubble walling, stonework, advanced electrical services, mechanical work, landscaping and roadwork. Detail study of the “Standard System" as required for the work in Quantities 700. Assignment.

(INT 411) Interior 411 (1 lecture + 1 studio session)
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 400) Interior Design 400 (2 lectures + 3 studio sessions)
The detailed design of a complex project of own choice presented in document form, which demonstrates the integration of all knowledge, gained throughout the previous study years with emphasis on the strategic design decision-making process, design ethics, and the responsibility of the designer. The design discourse is submitted and presented to a group of examiners.

(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 710) Construction Management 710 (3 lectures)
Work study, programming techniques, allotment and analysis of costs.

(KBS 720) Construction Management 720 (3 lectures)
Production management, operational management techniques and productivity.

(KBS 730) Construction Management 730 (3 lectures)
Review of general management. Project in the building and property industry.

(KBS 740) Construction Management 740 (3 lectures)
Marketing strategic management, public relations, responsibilities and rights of directors, partners, members and share holders of companies or ethics. Business ethics.

(KBS 785) Treatise 785
An essay on a subject approved by the head of department has to be completed during the final year of study.

(KIT 300) Construction Information Technology 300 (4 lectures)
Orientation in the use of electronic technologies and aids in the construction and property industries; application thereof by way of case studies.

(KKR 720) Construction Contract Law 720 (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 730) Construction Contract Law 730 (4 lectures)
(Offered by Department of Quantity Surveying & Construction Management)
Building contracts: consultants; workmanship; contract amount; defects; insurance; time for completion; contract cancellation; payment certificates; dispute resolution.

(KKR 740) Construction Contract Law 740 (2 lectures)
Subcontracts: consultants; main contractor; subcontractor; workmanship; contract amount; defects; insurance; time for completion; contract completion; payment certificates; dispute resolution

(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 and structure 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 co-ordination. Building stone.

(KON 120) Construction 120 (2 lectures + 1 studio session)
Single-storied buildings: Preparation for building work. Setting out, foundations, foundation walls, filling. Damp proofing. Surface beds, steps, level differences, stoeps. Superstructure walls, stability, hearths, chimneys, and 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.
Introduction to timber and steel as construction materials.

(KON 211) Construction 211 (3 lectures + ½ studio session)
Double-storey buildings: 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. Site slope analysis and contour manipulation.
Stormwater: run-off calculations. Hydraulic structures.

(KON 220) Construction 220 (3 lectures + ½ studio session)
Soil mechanics: foundations, basement construction and waterproofing.
Site structures: geotextiles and geomembranes, stairs, walls, retaining walls, fences, ramps, gabions, prefabricated retaining blocks. Built planters, lapas, braais. Pavilions, decks.
Elementary site and building services: Water, sewerage, electricity, stormwater, telephone, security, TV cables, irrigation.

(KON 223) Construction 223 (3 lectures + ½ studio session)
Interior construction systems: suspended ceilings, dry wall construction, access floors
Health and safety: regulations and applications
Fire: regulations and application
Human transportation systems: types, applications
Security: macro design environment, systems
Signage: design and reticulation
Gas: natural and LPG, requirements, regulations, applications.

(KON 310) Construction 310 (3 lectures + ½ studio session)
Roads: Design and construction materials and finishes, kerbing. Water features: design and construction. Street furniture. Construction equipment.

Site and building services: Stormwater catchment, stormwater lines, water lines, electricity, telephone, security, television cables, irrigation, french drains.

(KON 313) Construction 313 (3 lectures + ½ studio session)
Building and site services: Water, storm water, sanitary plumbing and pipe systems above ground and indoors, underground sewer systems, electricity, telephone, television, security, irrigation
Artificial lighting: Light, lamp types, luminaires; lighting requirements
Product design: Design of a luminaire (in ONT 313): the preparation of technical documentation

(KON 321) Construction 321 (1 lecture + 2½ studio sessions)
Integration of the foregoing coursework. Introduction to construction norms and standards, technical drawing practice and specifications. Cost estimates, feasibility and payability.
Advanced materials: Ceramics, polymers, adhesives, paint, metals.
Design of a small commercial building (in ONT 321) and the preparation of its construction drawings.

(KON 322) Construction 322 (1 lecture + 2½ studio sessions)
Integration of the foregoing coursework. Introduction to construction norms and standards, technical drawing practice and specifications. Cost estimates, feasibility and payability. Cost estimates, feasibility and payability.
Advanced materials: Ceramics, polymers, adhesives, paint, metals.
Design of a landscape (ONT 322) and preparation of its construction drawings.

(KON 323) Construction 323 (1 lecture + 2½ studio sessions)
Construction: Introduction to the relationship between structure, secondary elements and finishing.
Building construction methods and processes: Building and structure types., role players in the industry. Regulatory Boards and restrictive legislation. Components and finishing of elementary structures. Building construction methods and processes, and building and structure types. Construction methodology and detailing of purpose-designed elements.
Technical documentation – aim and legal implications. Measurement of existing structures, observation and preparation of documentation. Design and technical documentation of a basic element.

(KSH 300) Construction Quantities 300 (4 lectures)
Standard system for measuring of building work and practical implementation in measuring; quantities of materials, inclusive quantities, price analysis; use of computer technology for this; abstracting and billing; measuring with the aid of computer technology; sundry additional building contract documentation; successive contracts.

(KSH 700) Construction Quantities 700 (4 lectures)
Preliminaries; different types of bills; 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.

(KSH 710) Construction Quantities 710 (3 lectures)
Model preambles, different types of bills of quantities, measurement of Civil Engineering work.

(MAD 261) Municipal Administration 261 (3 lectures)
Introduction to Provincial and Local Government.

(MAD 262) Municipal Administration 262 (3 lectures)
Policy Studies and Local Government Policy Formulation.

(MAD 351) Municipal Administration 351 (3 lectures)
Municipal financial management.

(MAD 352) Municipal Administration 352 (3 lectures)
Public accountability, administrative discretion and adjudication.

(MAD 361) Municipal Administration 361 (3 lectures)
Co-operative Governance.

(MAD 362) Municipal Administration 362 (3 lectures)
Planning on Regional and Local Government Level.

(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 noise pollution.

(MST 313) Material Studies 313 (3 lectures + ½ studio session)
The application of material studies in third generation reconstituted materials including plastics, metal and glass and human factor processes like lighting design. The course has been evolved within the contexts of sustainability, conservation, product design and future design trends.

(MST 323) Material Studies 323 (3 lectures + ½ studio session)
Material studies and the application of technical textiles in artificial environments.

(OKU 210) Design Communication 210 (3 lectures + ½ studio session)
Visual literacy: visual media – analysis, interpretation and criticism. Photography and video techniques and presentation. Video-graphic computer skills.

(OKU 220) Design Communication 220 (3 lectures + ½ studio session)
CAD and 3-dimentional CAD.

(OMG 110) History of the environment 110 (2 lectures)
Approaches and guidelines to the study and application of history of the environment.
Understanding of the process of endemic construction and its monumentalisation, settlement and urbanization of various ages and environments.
The history of the environment of the Mediterranean up until Hellenistic Bronze Ages.

(OMG 120) History of the Environment 120 (2 lectures)
Capita selecta from OMG 122
The history of the environment of the Mediterranean civilisations up until Emperor Justinian 565 AD.

(OMG 122) History of the Environment 122 (3 lectures)
Introduction as background to the twentieth century (1 lecture).
The history of the environment of the Mediterranean civilisations up until Emperor Justinian 565 AD (2 lectures).

(OMG 210) History of the Environment 210 (2 lectures)
The history of the environment and the link between mediaeval Northern Europe, the Mediterranean region and the northern border areas of the Indian ocean from the time of Emperor Justinian 565 AD up until the fall of Constantinople in 1453 AD, as well as contemporary China and Japan.

(OMG 220) History of the Environment 220 (2 lectures)
(Capita selecta from OMG 224)
History of the environment of the West from the rounding of the southern Cape Point of Africa in 1488 AD.

(OMG 224) History of the Environment 224 (3 lectures)
(Presented by the Department of Architecture)
History of the environment of the West from the rounding of the southern Cape Point of Africa in 1488 AD (2 lectures).
History of contemporary South African environment (1 lecture).

(OMG 310) History of the Environment 310 (2 lectures)
A brief history of the environment of Asia and the Americas before European colonization. History of the environment of Africa between the tropics within global context up until the present.

(OMG 320) History of the Environment 320 (2 lectures)
History of the environment of southern Africa from the proto human – old Stone Age – until the present.

(OMG 511) History of the Environment 511 (3 lectures + ½ studio session)
History of the environment of southern Africa from the Old Stone Age up until the present.

(OML 110) Environmental Studies 110 (2 lectures)
Introduction to contemporary thought with emphasis on perception and interpretation as functions of culture. Development of a vocabulary to describe and illustrate the discipline of design. Development of an individual design framework within the ethos of the Department.

(OML 120) Environmental Studies 120 (2 lectures)
The study of anthropometry and ergonomy.
Design methodology: proportional systems, scale, colour, textures, etc. within the designed environment.

(OML 210) Environmental Studies 210 (2 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 220) Environmental Studies 220 (2 lectures)
The designer as visual thinker – perception, ideograms, recording techniques and visual notes, ground-figure analysis, the graphic image as generator.

(OML 310) Environmental Studies 310 (2 lectures)
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. Conservation: Legislation, policy and practice.

(OML 320) Environmental Studies 320 (2 lectures)
Ecosistemic thinking for the designer in terms of culture, science and environment.
The designer as critic – analysis of precedents, report writing about personal design within the context of the discipline.

(ONT 100) Design 100 (5 studio sessions)
Introductory design course. 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.
Acquisition of skills in design communication through imagination, intuition and conceptual thinking.

(ONT 211) Design 211 (5 studio sessions)
The process of design through the integration of supporting coursework. The design of simple public spaces and buildings other than domestic with the emphasis on planning, plan-making, structure and economy.
Skills: Programming, impact studies, site analysis, time management, advanced graphic techniques, reprographic techniques.

(ONT 212) Design 212 (5 studio sessions)
Applied design methodology and design principles through master planning of urban parkland systems and recreational sites, sports clubs, campus planning, memorial sites, bio-parklands, sustainable landscapes, golf courses, marinas.
Skills: Brief, impact studies, site analysis, time management, advanced graphic techniques, reprographic techniques.

(ONT 213) Design 213 (5 studio sessions)
Projects are aimed at self-discovery, the development of creativity and the translation and communication of concepts. Application of ergonomic principles, the space planning of commercial building types and corporate image.

(ONT 220) Design 220 (6 studio sessions)
The product of design through the integration of supporting coursework. Design of double-storied 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.

(ONT 222) Design 222 (6 studio sessions)
Site Planning: Application of design processes, philosophies, principles and standards and technology 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.

(ONT 223) Design 223 (4 studio sessions)
The gathering 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 of buildings.

(ONT 310) Design 310 (5 studio sessions)
The process of design through the integration of supporting coursework. 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 planning.

(ONT 312) Design 312 (5 studio sessions)
Ecological planning: The process of design through the integration of supporting coursework. The design of exterior spaces from small-scale ecological designs to regional scale problems through a diversity of approaches responsive to the integral values and nature of the site and the region, and social needs interpreted as environmental values within the parameters of available natural resources for human use, survival and sustainability.
Skills: Technology-backed reprographic techniques, competitions and exhibitions.

(ONT 313) Design 313 (5 studio sessions)
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.

(ONT 320) Design 320 (5 studio sessions)
The product of design through the integration of supporting coursework. The design of a project in urban context with a complex program up to a full set of design and detail drawings for construction drawings and specifications in KON 321. Statutory requirements, feasibility and payability studies.

(ONT 322) Design 322 (5 studio sessions)
The product of design through the integration of supporting coursework. The design of a project in urban context with a complex program up to a full set of design and detail drawings for construction drawings and specifications in KON 322. Statutory requirements, feasibility and payability studies.

(ONT 323) Design 323 (5 studio sessions)
The subject develops around seminar sessions in the studio related to design theory and applied in various design projects aimed at the development of creativity and the translation and communication of concepts, as well as 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.

(ONT 500) Design 500 (4 studio sessions in the first semester and 8 studio sessions in the second semester)
The product of design by way of a design discourse document, which demonstrates the knowledge of the content of the preceding courses. The design of an approved building complex, preferably in an urban context under a chosen mentor.
The design discourse is submitted and presented to a group of examiners.

(OTR 511) Theory of Design 511 (3 lectures)
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.

(PFP 412) Professional Practice 412 (2 lectures)
Professional conduct and practice addressing issues such as ethics and accountability; overview of the planning profession and organisations; introduction to business management; practical discussion of topics such as marketing, client service, promotion, administration and time management.

(POU 720) Practical Development Feasibility (Seminar conducted over three days)
(Presented by the Department of Construction Economics)
The investigation and viability of a project done by teams comprising representative students of the various directions of studies in the Built Environment offered by the University for submission to a panel of evaluators.

(PRS 320) Practice Management 320 (3 lectures)
The Building Industry: Statistics, organisation, structuring, regulations, standards, quality control.
The Professionals: Professionalism, associated professions, organisation of the design profession, ethics, public relations, construction management.
Practice: organisation, management and administration.
Projects: management and administration, quantities, bills of quantities, methods of costing, affordability studies, capital sources, payment certificates, final accounts, preliminary and cost price amounts, escalation, cash flow, building valuation.

(PRS 411) Practice Management 411 (3 lectures)
Property Law: Legal science, contractual law, rights of purchase, property rights.
Rights of association: Partnerships, companies, closed corporations, insolvency.

(PRS 412) Practice Management 412 (3 lectures)
The building industry: Statistics, organisation, structure, regulations, standards, and 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 session)
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 space (residential applications); plant form, growth and character; planting techniques and handling. Field ecology.

(PWT 222) Plant Science 222 (3 lectures + ½ studio session)
The use of shrubs, woody and herbaceous plants for landscape purposes; strategies for the use of plants in the creation of commercial and urban contexts; thematic use of plants (permaculture, xerophytes, roof gardens etc). Field ecology.

(PWT 312) Plant Science 312 (3 lectures + ½ studio session)
Ecological Planting Design: the relationship of ecological theory to planning and design; sustainable bio-diversity and ecological integrity; ecological principles of planting design; application of biotechnology to landscape engineering; environmental conservation and management (wetlands, rehabilitated landscapes). Field ecology.

(PWT 322) Plant Science 322 (3 lectures + ½ studio session)
Environmental conservation and resource management; environmental evaluation (terrain models etc.); environmental impact assessment; environmental auditing. Field ecology.

(SLK 151) Psychological perspectives (2 lectures)
Compulsory introduction module
This module is a general orientation to Psychology. An introduction is given to various theoretical approaches in Psychology, and the development of Psychology as a science is discussed. Selected themes from everyday life and occupational fields are explored and integrated with psychological principles.

(SLK 152) Cognitive processes (2 lectures)
Compulsory introduction module
In this module, various cognitive processes are studied, including perception, memory, thinking, intelligence and creativity. Illustrations are given of various thinking processes, such as problem solving, critical, analytic and integrative thinking.

(SLK 155) Environmental Psychology 155 (2 lectures)
This module deals with the reciprocal relationship between people and the natural and built environment. Environment-behaviour theories are explored and evaluated, as well as environmental stressors (e.g. noise), environmental disturbances (e.g. natural disasters and air pollution), and territoriality and personal space related to crowding and high density. The urban environment is discussed, with particular emphasis on its effects on the city dweller. Attention is given to the use of design principles to create more liveable spaces. Finally, strategies that encourage environmentally responsible behaviour are outlined.

(SOC 352) Social Theory 352 (2 lectures)
Recent integrative developments in sociological theory, contemporary theories of modernity, structuralism, poststructuralism and postmodern social theory, as well as metatheorizing are discussed

(SOC 354) Demography 354 (2 lectures)
In this module the focus is on three main population processes, namely fertility, mortality and migration. Social and economic dynamics of these population processes are emphasised. Population distribution, population problems, population policies, and the composition and dynamics of the South African population are analysed.

(SOC 355) Sociology 355 (3 lectures + 1 attendance)
Rural and urban sociology 355
More advanced social and demographic methods, such as linear modelling, panel studies, action research and survival modelling and longitudinal studies are also included. Practical exercises are included.

(STK 110) Statistics 110 (3 lectures + 1 hour practical)
Descriptive Statistics
Sampling and the collection of data, frequency distributions and graphical representations. Descriptive measures of location and dispersion.
Probability and inference
Introductory probability theory and theoretical distributions. Sampling distributions. Estimation theory and hypothesis testing of sampling averages and proportions (one and two sample cases). Identification, use, evaluation and interpretation of statistical computer packages and statistical techniques.

(STK 120) Statistics 120 (3 lectures + 1 hour practical)
Multivariate statistics
Analysis of variance, categorical data analysis, distribution-free methods, curve fitting, regression and correlation, the analysis of time series and indices.
Statistical and economical applications of quantitative techniques
Systems of linear equations: Drafting, matrices, solving and application. Optimization: Linear functions (two and more independent variables), non-linear functions (one and two independent variables). Marginal and total functions. Stochastic and deterministic variables in statistical and economical context: producers' surplus, consumers' surplus, distribution functions, probability distributions and probability density functions. Identification, use, evaluation and interpretation of statistical computer packages and statistical techniques.

(STK 161) Statistics 161 (3 lectures.+ 1 hour practical per week) (Third quarter)
Multivariate statistics:
Analysis of variance, categorical data analysis, distribution-free methods, curve fitting, regression and correlation, the analysis of time series and indices. Identification, use, evaluation and interpretation of statistical computer packages and statistical techniques.

(STU 112) Theory of Structures 112 (4 lectures + 1 practical)
(Presented by the Department of Civil and Biosystems Engineering)
Balance of particles; balance of fixed bodies; forces in trussing; elementary differentiation and integration; properties of structure parts; elasticity.

(STU 120) Theory of Structures 120 (3 lectures + 1 studio session)
(Presented by the Department of Civil and Biosystems Engineering)
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 to structural materials. Elementary structural elements and frames. Site visits and practical classes.
(STU 122) Theory of Structures 122 (4 lectures + 1 practical)
(Presented by the Department of Civil and Biosystems Engineering)
Shear force and bending moment; stresses of beams; deflection of beams; yielding of materials; tortion; compiled axial bending stress; columns and supports.

(STU 211) Theory of Structures 211 (3 lectures + ½ studio session)
(Presented by the Department of Civil and Biosystems Engineering)
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 212) Theory of Structures 212 (3 lectures)
(Presented by the Department of Civil and Biosystems 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 221) Theory of Structures 221 (3 lectures + ½ studio session)
(Presented by the Department of Civil and Biosystems Engineering)
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 222) Theory of Structures 222 (3 lectures)
(Presented by the Department of Civil and Biosystems 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 311) Theory of Structures 311 (3 lectures + ½ studio session)
(Presented by the Department of Civil and Biosystems Engineering)
Design principles, calculations and tables. Typical and complete structures in timber, masonry, steel and reinforced concrete; specific applications. Industrial structures and multi-storey buildings. Retaining walls and basements. Site visits and assignments.

(STU 312) Theory of Structures 312 (3 lectures)
(Presented by the Department of Civil and Biosystems 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 321) Theory of Structures 321 (3 lectures + ½ studio session)
(Presented by the Department of Civil and Biosystems Engineering)
Design principles and tables. Modern structural materials, prefabrication, pre- and post-stressed structural elements, transport. Advanced structures: cable, arch, dome, vault, shell, tent, folded plate and others. Special foundations. Case studies. Dismantling of structures. Scale models and structural analysis.

(STU 322) Theory of Structures 322 (3 lectures)
(Presented by the Department of Civil and Biosystems Engineering)
Road design; paving; stormwater reticulation; bulk sewage works; bulk water supply.

(SVB 321) Transportation Planning 321 (2 lectures)
(Presented by the School of Engineering)
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. 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.

(SVC 410) Transportation 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.

(TKS 251) Basic Textiles 251 (3 lectures + 1 practical)
Basic components of textiles, consumer decision making, utility aspects that include durability, comfort, maintenance, health / safety / protection and aesthetic aspects.

(TKS 252) Basic Textiles 252 (3 lectures + 1 practical)
Fibres and yarns
Fibre structure and performance including textile chemistry, fibre morphology and formation, fibre properties, classification and identification. Yarn structure and performance (including spun yarns, filament yarns, blended yarns, compound and novelty yarns).

(TKS 261) Basic Textiles 261(3 lectures + 1 practical)
Fabric structures
Introduction to fabric structures. Woven fabric, knitted fabrics, non-woven structures and compound fabrics. [Prerequisite: TKS 252 GS]

(TKS 262) Basic Textiles 262 (3 lectures + 1 practical)
Finishings and Dying Processes
Introduction to the finishing of fabrics. Preparatory and final finishings. Finishes for special end-uses: durability, comfort and protection; ease of maintenance; aesthetic appeal. Dyed and printed fabrics. [Prerequisite: TKS 261 GS]

(TKS 361) New Uses of Textiles 361 (2 lectures)
Technical textiles [Prerequisite: TKS 251, 252, 261 and 262]

(TPA 110) Site Analysis and Assessment 110 (2 lectures + 1 practical)
Analysis and assessment of sites for planning purposes. Covers the analysis of context and natural (e.g. climate, geology), man-made (e.g. zoning, potential land value, land use and activity), and sensory elements (e.g. *genius loci*) of a site to determine the appropriate use of a site as well as the character of future development. Skills and techniques to communicate the analysis and assessment graphically.

(TPA 120) Settlement Analysis and Assessment 120 (2 lectures + 1 practical)
Analysis and assessment of settlements for planning purposes in terms of normative criteria, i.e. principles of good settlement forms and processes; aspects to be taken into consideration in settlement analysis, such as urban form, land use, transportation, socio-economic development, housing, local government; analysis instruments such as indicators, visual analysis, density analysis and citizen satisfaction surveys.

(TPA 210) Plan and Policy Analysis and Assessment 210 (3 lectures)
Analysis and assessment of plans and policy frameworks from a planning and development perspective. Analysis and assessment of substantive and communicative content. Deconstruction of text, norms and values, planning and development approaches. The role of planners and the democratisation of planning.

(TPD 210) Development Planning 210 (3 lectures)
Introduction to development problems, perspectives on and concepts of development. Approaches to development planning and development studies. Application of development proposals from local to national levels. International and local perspectives and case studies. Critical evaluation of development initiatives, and aspects such as culture, gender, diversity and sustainability. Role players in the development process.

(TPD 220) Theory of Strategic Integrated Development Planning 220(3 lectures)
Theories of and processes in strategic planning, forward planning, integrated development planning; origins and intentions of these concepts. International and local perspectives and case studies. Policy framework for Integrated Development Planning in the South African context; role players in integrated development planning processes, with specific reference to the role of the planner.

(TPD 310) Participatory Planning 310 (3 lectures)
Introduction to the concept, theories, aims and processes of participatory planning; participatory planning techniques and methods; democratisation of planning and the communicative nature of planning; role of the planner and other role players; evaluation, design and implementation of participatory planning processes.

(TPD 320) Local Economic Development 320 (3 lectures)
Local economic development strategies and instruments. Local development initiatives. The direct and indirect roles of local government, the private sector and the public in local economic development.
The role of networks, linkages, locality, marketing and information for local areas within the global economy. Government programmes and initiatives that can influence and promote local economic development.

(TPD 820) Integrated Development Planning 820 (20 credits)
Introduction to development and development planning theories; the integrated development process; legal, institutional and policy frameworks in which integrated planning functions in South Africa; implementation of integrated development plans; case studies of integrated development planning; simulations of integrated development planning exercises.

(TPE 351) Research Methodologies for Planners 351 (2 lectures)
Introduction to research, the changing nature of research and the application thereof in different phases in planning processes. Qualitative, quantitative and participatory research methods and techniques. Preparation of research programmes. The role of communication, information and the planner in research.

(TPE 410) Essay 410 (20 credits)
Identification and description of research problem. Literature study, research methodologies and programme. A study proposal in the prescribed format on a topic as approved by the head of the department.

(TPE 420) Essay 420 (20 credits)
Design, plan and undertake research. The gathering, synthesis and interpretation of data, in terms of study proposal in TPE 410, as well as the written and verbal communication of findings.

(TPI 451) Planning Interventions: Urban Areas 451 (2 lectures + 1 practical)
The drafting of urban development and design frameworks to ensure development of urban areas in a relevant, social and environmentally accountable way. Specific focus on rehabilitation of declining city centres, fast growing edge cities, and underdeveloped parts of urban areas. Critique on and improvements on current practice; simulated planning exercise.

(TPI 452) Planning Interventions: Peri-Urban and Rural Areas 452 (2 lectures + 1 practical)
Introduction to planning and management of small towns, rural settlements, and peri-urban/rural districts; examples of planning interventions in rural areas; approaches to rural development, techniques and methods for planning in rural areas. Critique on and improvements on current practice; simulated planning exercise.

(TPI 453) Planning Interventions: Metropolitan Areas 453 (2 lectures + 1 practical)
Introduction to planning at metropolitan level; examples of planning interventions at metropolitan level; approaches to and examples of the delivery of housing, infrastructure and facilities; tensions in resource allocation and prioritising of development in metropolitan areas; institutional requirements and implications of planning and management of metropolitan development; critiques and improvements on current practice; simulated planning exercise.

(TPI 454) Planning Interventions: Supranational, National and Provincial Scale 454 (2 lectures + 1 practical)
Introduction to planning at provincial, national and supranational scale. Approaches to planning and development of regions and provinces. Past and present examples of planning on each of these scales. Planners' roles in planning exercises at these scales; institutional requirements and implications of planning at these scales. Critiques and improvements on current practice; simulated planning exercise.

(TPI 810) Urban Restructuring 810 (25 credits)
Definition and rationale of urban restructuring; urban processes and outcomes; problems in urban areas, for example inner city decay, fringe development, housing, services backlog, the dysfunctional Apartheid landscape and dependency on private transport; types of intervention (inter alia spatial, economic and social) in order to accomplish restructuring in South Africa; international case studies; impact of globalisation on South African cities; simulated exercise in urban restructuring.

(TPI 820) Rural Restructuring 820 (25 credits)
Definition and rationale of rural restructuring; problems of rural settlements; rural urban linkages and their significance; problems facing rural settlements, for example the absence of an economic base and necessary infrastructure; conflict between development needs and conservation, tourism, limited access to land; types of interventions (inter alia spatial, economic and institutional) in order to accomplish rural restructuring; policy and legal structures for rural restructuring in South Africa; international case studies; simulated exercise in rural restructuring.

(TPS 120) Principles of Settlement Design 120 (2 lectures + 1 practical)
Introduction into the goals and principles of settlement design. Characteristics and measures of a good environment; the design elements of a good environment; settlement design within both urban and rural contexts. Aspects that will be covered include settlement structure (open space and movement systems), sense, symbolism and legibility, accessibility, diversity and opportunity, sustainability, safety, justice and equity.

(TPS 210) Settlement Design Concepts 210 (2 lectures + 1 practical)
The skills and techniques to design a layout of a new settlements, or part of an existing settlement. It includes design for the provision of housing for both high and low income groups, as well as commercial and social facilities, open space systems, transportation systems and services. Design sustainable and equitable areas. Site analysis and assessment; development of alternative concepts; the detail design including the division of erven, infrastructure network, land development control and design guidelines.

(TPS 220) Settlement Establishment and Housing Delivery 220 (2 lectures + 1 practical)
Institutional and legal frameworks in which township establishment and housing provision takes place; user and site requirements; housing typologies and densities; engineering services; role players; financing; township establishment in terms of current legislation; simulated exercise; the detail design including the division of erven, infrastructure network, land development control and design guidelines.

(TPS 310) Spatial Concepts 310 (2 lectures, 1 practical, 16 credits)
Spatial concepts regarding the development and planning of settlements. Morphological development processes such as decentralisation, counter urbanisation, residential infill and succession, urban sprawl. Spatial structuring elements, e.g. corridors, nodes, compact cities, mixed use.

(TPS 320) Metropolitan, District and Local Area Spatial Planning 310 (2 lectures + 1 practical)
Practice of strategic and integrated spatial planning and design; design and plan an integrated development planning process; components of an integrated development plan such as vision, situational analysis, goals and objectives, strategies and projects, spatial framework, monitoring framework; role of public participation, communication and geographic information systems; simulated exercise of spatial planning on metropolitan, district and local level.

(TPS 810) Sustainable Settlement Planning and Design 810 (20 credits)
Normative principles for sustainable settlement planning and design; design theory; planning and design processes; simulated urban and rural settlement planning and design exercise.

(TPS 820) Design for Safety 820 (10 credits)
Normative principles for the planning and design for safety in the built environment; environmental criminology; the role of design in the prevention of crime; design principles for safer buildings, streets and districts.
Case studies and design exercise.

(TPU 210) Land Use Management Theory 210 (3 lectures)
A brief history of land use management in South Africa; critiques of land use management; rationales for land use management; the link between land use

management and integrated urban development management; the characteristics of an appropriate land use management system for present-day South Africa; the current land use management system in the Gauteng province; the land use management system in selected developing and developed countries; ethics in land use management; the future of land use management systems.

(TPU 261) Economics of Land Development 261 (3 lectures)
The economics of settlements, including issues such as economic advantages; locational choices of urban land uses; density and intensity of development; the effects of densities, location and transportation economics on land values; implications of zoning; the cost of urban growth, whether by densification or sprawl.
The property market; the functioning of the property market; the key role players; how decisions are taken; urban planning, local government and the property market.

(TPU 262) Land Use Management Practice 262 (3 lectures)
Generic components of land use- and land development-related applications and application procedures; practical exercises in the lodging, processing and evaluation of land use management applications, policy-preparation in terms of land use management systems; appeals.

(TPU 810) Land Use Management and Land Development 810 (20 credits)
Definition and rationale of land use management; typology of land use management systems; international and South African examples of land use management systems, including the relevant institutional and legal frameworks; preparation, submission, processing and evaluation of land use and township establishment applications in terms of present legislation; guidelines for decision making in land use and township establishment applications.

(TRN 213) Site Surveying 213 (2 lectures + 1 practical)
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.

(TRP 110) Planning and Settlement Histories before the Industrial Revolution 110 (3 lectures, 12 credits)
An in-depth analysis of city building and urban and regional planning in pre-modern times. The influence on settlement design and planning within the social, political and economic context of the Pre-historic; Classic (Roman and Greek); Feudal and Mercantile eras. Aspects such as visions of ideal cities, settlement patterns, the treatment of public space, the development of the edge of the settlement, functional zones and segregation are covered. Attention is given to the function, role, character, practice and beneficiaries of planning and the role of planners.

(TRP 120) Planning and Settlement Histories since the Industrial Revolution 120 (3 lectures, 12 credits)
An in-depth analysis of city building and urban and regional planning in modern and post-modern times with special emphasis on the South African example. The influence on settlement design and planning within the social, political and economic context of Industrial and Post-industrial eras. Aspects such as visions of ideal cities, settlement patterns, the treatment of public space, the development of the edge of the settlement,

functional zones and segregation are covered. Attention is given to the function, role, character, practice and beneficiaries of planning and the role of planners.

(TRP 310) Institutional and Legal Structures for Planning 310 (3 lectures)
Overview of South African institutional and legal structures for planning and development, on national and provincial scale. Relevant legislation and policies that influence planning. Specific reference to the legal frameworks guiding land development, the environment, housing, transport, water, and Human Rights.

(TRP 410) Cities and Regions of the future 410 (3 lectures)
The future as a concept: the importance of thinking about, and planning for the future. The multiplicity of futures and the relation between the past, the present and the future. The practice of exploring and thinking about the future: past and present perspectives on the future. Techniques/methods of predicting and/or shaping the future: application of these techniques/methods.

(TRP 420) Planning Futures 420 (3 lectures)
Planning in the future: definitions, rationales, focus areas, processes and systems. Future planners' roles and work places, values and ethics.

(VKK 255*)* Gender Ideology in Visual Culture 255 (2 lectures)
(Presented by the Department of Visual Arts.)
Introduction to gender as an ideological system. Terminology and history of feminism and masculinism. Interpretation of images from the mass-media and art in terms of themes and issues in gender theory.

(VKK 256) History of film 256 (2 lectures)
(Presented by the Department of Visual Arts.)
Contextual approach to history of film. Aspects of history of film up to present. Reciprocal influence between art movements, art styles and films in the 20th century.

(VKK 257) Style and anti-style 1940 to present 257 (2 lectures)
(Presented by the Department of Visual Arts.)
Changes in the appearance of visual culture from 1940 to the present. Contextualisation of popular visual culture and consumer culture. Influence of youth- and sub-cultures such as Beatniks, Hippies, Punks, and Grunge on design styles. Influence of cultural codes and conventions on design styles. Description and contextualisation of design styles with reference to South Africa.

(VKK 258) Visual identity and branding 258 (2 lectures)
(Presented by the Department of Visual Arts.)
The aims and functions of visual communication in the marketing context. Visual communication as foundation for the creation of corporate, product and brand identity, as well as advertising and promotion. Methods of analysis and evaluation of advertisements and visual identity. Influence of target audience and media characteristics on visual communication.

MEDALS AND PRIZES IN THE SCHOOL FOR THE BUILT ENVIRONMENT

Name	Donor	Award
Department of Architecture		
Archneer Prize	Achneer CC	Best mark in any Environmental Studies course.
Cowin, Glennie and Jury Inc Prize	Cowin, Glennie and Jury Inc Architects	Best documentation of a project submitted for the BArch.
David Haddon Prize	The Institute of South African Architects	Student in Quantity Surveying or Architecture with the best achievement in Construction Contract Law.
Sheila Kirtley McIntosh Prize	The late William Gordon McIntosh	Student in Architecture in any year of study with the highest average in all the prescibed modules for the particular year.
Protea Prize	Protea Bookshop	Best mark in any History of the Environment course.
Robert Gustav Schmikl Prize	Family Schmikl	Best progress with postgraduate studies.
ILASA Book Prize	Institute of Landscape Architects in South Africa	Best Design student in each of the study years.
Louis Mook Design Bursary	Family Mook and Dept Architecture and Landscape Architecture	Best progress towards a distinction in Design at first-year level.
PIA Prize	Pretoria Institute for Architecture	Best Design student in Architecture in each of the study years.
Twllce Prize	Twllce	Best final-year Interior Architecture Project.
Department of Construction Economics		
Information regarding various prices and medals are available upon request at the Department of Construction Economics.		
Department of Town and Regional Planning		
Prize of the SA Planning Institution	SA Planning Institution	Best final-year student in Town and Regional Planning.
PLAN Associates-Prize	PLAN Associates	Final-year student with the best essay for the BTRP-degree (TPE 420).
Not limited to the Faculty of Engineering, Built Environment and Information Technology		
S_2A_3 Bronze Medal	The South African Society for the Promotion of Science	The medal is awarded to a student who has completed an exceptionally meritous master's study in a field traditionally linked to the activity of the South African Society for the Promotion of Science (S_2A_3).

Name	Donor	Award
Medal of the Vice Chancellor and Principal	University of Pretoria	The award consists of a silver medal as well as a cash prize and is awarded to candidates for outstanding academic achievement during the undergraduate years of study for any first bachelor's degree in a faculty.