

University of Pretoria Yearbook 2016

BSc (Landscape Architecture) Landscape Architecture (12132004)

Duration of study 3 years

Total credits 422

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Programme information

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

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

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

Admission requirements

Applicants who matriculated before or in 2007

The following minimum requirements for admission apply: A grade 12 Certificate with university endorsement and at least 40% (E symbol) in Mathematics and Physical Science on Higher Grade or at least 50% (D symbol) for the same subjects at Standard Grade. A minimum M Score of 18 is required for Grade 12.

Applicants who matriculated in 2008 or thereafter

The following minimum requirements for admission apply: A National Senior Certificate with access to degree studies and a minimum Admission Point Score (APS) of 27; a minimum achievement level of 4 (at least 50%) for Mathematics and Physical Science; a minimum achievement level of 5 (at least 60%)

for Afrikaans or English (as home language or first additional language) and an achievement level of at least 4 (minimum 50%) for Life Orientation although this subject is not used in the calculation of the APS. The APS is calculated using two language subjects Mathematics Physical Science and any two other subjects excluding Life Orientation.

Please note: For the BScLArch study programme Physical Science or Life Science or Geography will be accepted; the minimum achievement level remains a 4.

Transfers

Students currently enrolled for other study programmes may apply for permission to transfer to the Department of Architecture. For these applicants round 1 of the selection process will be based on their Grade 12 results (refer to requirements for admission) their academic record and a detailed written motivation explaining reasons for wanting to transfer.

Students who are currently registered at UP should submit their applications directly to the Admissions Officer School for the Built Environment. Students who are registered at other tertiary institutions must apply through the Client Service Centre. Note the closing date. Applicants will not be permitted to register for any modules in advance (prior to having been granted final admission).

National Benchmark Test (NBT)

The Department of Architecture does not require all applicants to take the NBT (generally known as the National Benchmark Test). In special cases the Admissions Officer will inform candidates of the arrangements should the test be an additional requirement. Candidates who also apply at other departments or institutions are advised to enquire if these tests are required elsewhere.

Admission Requirements

- In order to register NSC/IEB/Cambridge candidates must comply with the minimum requirements for degree studies as well as with the minimum requirements for the relevant study programme.
- Life Orientation is excluded when calculating the APS.
- Grade 11 results are used in the provisional admission of prospective students.
- A valid National Senior Certificate (NSC) with admission to degree studies is required.
- Minimum subject and achievement requirements as set out below are required. On first-year level a student has a choice between Afrikaans and English as language medium. In certain cases tuition may be presented in English only for example in electives where the lecturer may not speak Afrikaans or in cases where it is not economically or practically viable.

Minimum requirements for 2016												
Achievement level												
Afrikaans or English				Mathematics				Physical Sciences				APS
NSC/IEB	HIGCSE	AS-Level	A-Level	NSC/IEB	HIGCSE	AS-Level	A-Level	NSC/IEB	HIGCSE	AS-Level	A-Level	

5	3	C	C	4	3	D	D	or Geogra- phy or Life Sciences 4	or Geogra- phy or Life Sciences 3	or Geogra- phy or Life Sciences D	or Geogra- phy or Life Sciences D	27
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- Selection programme: Selection includes an interview.

Practical requirement

At least one year of work or travel recommended.

Important dates

The academic year of the University of Pretoria starts in January and ends early in December. It is divided into two semesters (or four quarter modules) with short recesses in April July and September. In order to gain practical experience students are advised to work at a practice during the University recesses. The University calendar is available online at www.up.ac.za/calendars.

1 March: Applications for admission open for the next academic year. Applications should be handed in at the Client Service Centre or can be submitted electronically.

30 June: Last day to submit all undergraduate applications for admission to the Department of Architecture for the following academic year. This closing date also applies to all transfer applications.

June/July/August/September: Departmental selection tests are written on scheduled Saturdays. Dates are automatically allocated and cannot be rescheduled.

October recess: 4 October to 12 October 2015: Final selection interviews for applicants on the shortlist.

31 October: Selection results are available. Applicants are notified of the outcome in writing.

30 November: Last day for selected students to acknowledge their selection and pay deposits or make arrangements for payment.

Additional requirements

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

Other programme-specific information

Concurrent presentation

In the third year of study Design, Construction, Environmental studies, Plant science and Earth studies must be examined in the same year.

Awarding of degree

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

Promotion to next study year

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

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

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

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

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

Pass with distinction

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

Curriculum: Year 1

Minimum credits: 116

Fundamental modules

Academic orientation 112 (UPO 112)

Module credits	0.00
Language of tuition	Double Medium
Academic organisation	EBIT Dean's Office
Period of presentation	Year

Academic information management 102 (AIM 102)

Module credits	6.00
Service modules	Faculty of Education Faculty of Economic and Management Sciences Faculty of Humanities Faculty of Law Faculty of Health Sciences Faculty of Natural and Agricultural Sciences Faculty of Theology Faculty of Veterinary Science
Contact time	2 lectures per week
Language of tuition	Both Afr and Eng
Academic organisation	Information Science
Period of presentation	Semester 2

Module content

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

Core modules

Earth studies 110 (AAL 110)

Module credits	10.00
Prerequisites	No prerequisites.
Contact time	3 lectures per week
Language of tuition	Both Afr and Eng
Academic organisation	Architecture
Period of presentation	Semester 1



Module content

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

Construction 111 (KON 111)

Module credits 8.00

Prerequisites No prerequisites.

Contact time 3 lectures per week

Language of tuition Double Medium

Academic organisation Architecture

Period of presentation Semester 1

Module content

The context of architectural technology and the relationships between technology, theory, structure and materials. Drawing conventions. The typical city site. The construction and materials of a single storey dwelling with masonry walls and a pitched roof, from preparation for building work to substructure, retaining walls and floors.

Construction 121 (KON 121)

Module credits 8.00

Prerequisites KON 111 GS

Contact time 3 lectures per week, 1 practical per week

Language of tuition Double Medium

Academic organisation Architecture

Period of presentation Semester 2

Module content

Continuation of the construction and materials of a single storey dwelling. Superstructure: walls, opening, roofs, finishes and services.

Design communication 120 (OKU 120)

Module credits 6.00

Prerequisites No prerequisites.

Contact time 2 lectures per week

Language of tuition Double Medium

Academic organisation Architecture

Period of presentation Semester 2

Module content

Quarter 3: Introduction to basic computer aided design. Quarter 4: Introduction to the theory of structures: Forces, moments, stresses, strains, Young's Modulus, Structural components: beams, columns and trusses.

Environmental theory 110 (OML 110)

Module credits	6.00
Prerequisites	No prerequisites.
Contact time	2 lectures per week
Language of tuition	Double Medium
Academic organisation	Architecture
Period of presentation	Semester 1

Module content

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

Environmental studies 120 (OML 120)

Module credits	6.00
Prerequisites	No prerequisites.
Contact time	2 lectures per week
Language of tuition	Double Medium
Academic organisation	Architecture
Period of presentation	Semester 2

Module content

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

Design 100 (ONT 100)

Module credits	60.00
Prerequisites	No prerequisites.
Contact time	17 studio hours per week, 2 lectures per week
Language of tuition	Double Medium
Academic organisation	Architecture
Period of presentation	Year

Module content

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

Elective modules

Elective module 110 (ARC 110)

Module credits	6.00
Prerequisites	No prerequisites.
Language of tuition	Double Medium
Academic organisation	Architecture
Period of presentation	Semester 1

Curriculum: Year 2

Minimum credits: 144

Core modules

Earth studies 210 (AAL 210)

Module credits	8.00
Prerequisites	No prerequisites.
Contact time	3 lectures per week
Language of tuition	Both Afr and Eng
Academic organisation	Architecture
Period of presentation	Semester 1

Module content

Meso-environment:

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

Air: airflow patterns around structures, natural ventilation.

Water vapour: diffusivity, transfer and condensation.

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

Geomorphology of the built environment 265 (GGY 265)

Module credits	12.00
Service modules	Faculty of Engineering, Built Environment and Information Technology
Prerequisites	No prerequisites.
Contact time	4 lectures per week
Language of tuition	Double Medium
Academic organisation	Geography, Geoinf + Meteor
Period of presentation	Quarter 3

Module content

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

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

Introductory soil science 250 (GKD 250)

Module credits	12.00
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Service modules	Faculty of Engineering, Built Environment and Information Technology
Prerequisites	CMY 117 GS or TDH
Contact time	1 practical per week, 3 lectures per week
Language of tuition	Both Afr and Eng
Academic organisation	Plant Production and Soil Sc
Period of presentation	Semester 1

Module content

Origin and development of soil, weathering and soil formation processes. Profile differentiation and morphology. Physical characteristics: texture, structure, soil water, atmosphere and temperature. Chemical characteristics: clay minerals, ion exchange, pH, buffer action, soil acidification and salinisation of soil. Soil fertility and fertilisation. Soil classification. Practical work: Laboratory evaluation of simple soil characteristics. Field practicals on soil formation in the Pretoria area.

Community-based project 201 (JCP 201)

Module credits	8.00
Prerequisites	No prerequisites.
Contact time	1 other contact session per week
Language of tuition	Both Afr and Eng
Academic organisation	Informatics
Period of presentation	Year

Module content

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

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

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

Construction 210 (KON 210)

Module credits	8.00
Prerequisites	KON 111 and KON 121



Contact time 3 lectures per week

Language of tuition Both Afr and Eng

Academic organisation Architecture

Period of presentation Semester 1

Module content

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

Construction 220 (KON 220)

Module credits 8.00

Prerequisites KON 210 GS

Contact time 3 lectures per week

Language of tuition Both Afr and Eng

Academic organisation Architecture

Period of presentation Semester 2

Module content

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

Landscape architecture 212 (LAN 212)

Module credits 8.00

Prerequisites No prerequisites.

Contact time 3 lectures per week

Language of tuition Double Medium

Academic organisation Architecture

Period of presentation Semester 1

Module content

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

Landscape architecture 222 (LAN 222)

Module credits 8.00

Prerequisites LAN 212 GS

Contact time 3 lectures per week

Language of tuition Double Medium

Academic organisation Architecture

Period of presentation Semester 2

Module content

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

Environmental theory 210 (OML 210)

Module credits 6.00

Prerequisites No prerequisites.

Contact time 2 lectures per week

Language of tuition Both Afr and Eng

Academic organisation Architecture

Period of presentation Semester 1

Module content

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

Environmental studies 220 (OML 220)

Module credits 6.00

Prerequisites No prerequisites.

Contact time 2 lectures per week

Language of tuition Both Afr and Eng

Academic organisation Architecture

Period of presentation Semester 2

Module content

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

Design 202 (ONT 202)

Module credits 60.00

Prerequisites AAL 110, KON 111, KON 121, OML 110, OML 120 and ONT 100

Contact time 17 studio hours per week, 2 lectures per week

Language of tuition Both Afr and Eng

Academic organisation Architecture

Period of presentation Year

Module content

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

Curriculum: Final year

Minimum credits: 158

Core modules

Earth studies 320 (AAL 320)

Module credits	6.00
Prerequisites	AAL 210
Contact time	2 lectures per week
Language of tuition	Double Medium
Academic organisation	Architecture
Period of presentation	Semester 2

Module content

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

Business law 310 (BER 310)

Module credits	16.00
Service modules	Faculty of Engineering, Built Environment and Information Technology
Prerequisites	No prerequisites.
Contact time	4 lectures per week
Language of tuition	Both Afr and Eng
Academic organisation	Mercantile Law
Period of presentation	Semester 1

Module content

Introduction to law. General principles of the law of contract. Specific contracts: purchase contracts; letting and hiring of work; employment contracts. Agency. General aspects of entrepreneurial law. Dispute resolution – mediation and arbitration.

Construction 310 (KON 310)

Module credits	8.00
Prerequisites	KON 210 and KON 220
Contact time	3 lectures per week
Language of tuition	Double Medium
Academic organisation	Architecture
Period of presentation	Semester 1

Module content

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

Construction 320 (KON 320)

Module credits	8.00
Prerequisites	KON 310 GS
Contact time	2 lectures per week
Language of tuition	Both Afr and Eng
Academic organisation	Architecture
Period of presentation	Semester 2

Module content

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

Design communication 313 (OKU 313)

Module credits	6.00
Prerequisites	No prerequisites.
Contact time	2 studio hours per week, 2 lectures per week
Language of tuition	Double Medium
Academic organisation	Architecture
Period of presentation	Semester 1

Module content

Advanced graphic and presentation techniques.

History of the environment 310 (OMG 310)

Module credits	6.00
Prerequisites	No prerequisites.
Contact time	2 lectures per week
Language of tuition	Both Afr and Eng
Academic organisation	Architecture
Period of presentation	Semester 1

Module content

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

History of the environment 320 (OMG 320)

Module credits	6.00
Prerequisites	No prerequisites.
Contact time	2 lectures per week
Language of tuition	Both Afr and Eng
Academic organisation	Architecture
Period of presentation	Semester 2

Module content

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

Environmental studies 310 (OML 310)

Module credits	6.00
Prerequisites	No prerequisites.
Contact time	2 lectures per week
Language of tuition	Double Medium
Academic organisation	Architecture
Period of presentation	Semester 1

Module content

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

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

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

Environmental studies 320 (OML 320)

Module credits	6.00
Prerequisites	OML 310 GS
Contact time	2 lectures per week
Language of tuition	Double Medium
Academic organisation	Architecture
Period of presentation	Semester 2

Module content

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

Design 302 (ONT 302)

Module credits 60.00

Prerequisites KON 210, KON 220, OML 210, OML 220 and ONT 202

Contact time 17 studio hours per week, 2 lectures per week

Language of tuition Double Medium

Academic organisation Architecture

Period of presentation Year

Module content

Semester 1

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

Semester 2

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

Plant science 312 (PWT 312)

Module credits 8.00

Prerequisites LAN 212 and LAN 222

Contact time 3 lectures per week

Language of tuition Double Medium

Academic organisation Architecture

Period of presentation Semester 1

Module content

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

Technical aspects regarding the establishment of plants and the maintenance thereof. Approaches to the establishment of planting in complex urban environments.

Plant science 322 (PWT 322)

Module credits 8.00

Prerequisites	PWT 312 GS
Contact time	3 lectures per week
Language of tuition	Double Medium
Academic organisation	Architecture
Period of presentation	Semester 2

Module content

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

Practice management 320 (PJS 320)

Module credits	8.00
Prerequisites	No prerequisites.
Contact time	3 lectures per week
Language of tuition	Both Afr and Eng
Academic organisation	Construction Economics
Period of presentation	Semester 2

Module content

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

The information published here is subject to change and may be amended after the publication of this information. The [General Regulations \(G Regulations\)](#) apply to all faculties of the University of Pretoria. It is expected of students to familiarise themselves well with these regulations as well as with the information contained in the [General Rules](#) section. Ignorance concerning these regulations and rules will not be accepted as an excuse for any transgression.