DEPARTMENT OF ARCHITECTURE

Subject information (overview of syllabus)
The syllabus content is subject to change to accommodate industry changes. Please note: A more detailed syllabus is available at the department or in the study guide that is applicable to a particular subject. On 4 September 2014, syllabus content was defined as follows:

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ADVANCED COMPUTER APPLICATIONS IV (ARA400T)  CONTINUOUS ASSESSMENT
*(Subject custodian: Department of Architecture)*
Visual communication and presentation software, website design and maintenance. (Total tuition time: ± 30 hours)

ADVANCED COMPUTER APPLICATIONS V (ARA500T)  CONTINUOUS ASSESSMENT
*(Subject custodian: Department of Architecture)*
Visual communication and presentation software, website design and maintenance. (Total tuition time: ± 30 hours)

APPLIED BUILDING SCIENCE I (ABC100B)  CONTINUOUS ASSESSMENT
*(Subject custodian: Department of Architecture)*

ARCHITECTURAL DESIGN I (ACH100T)  CONTINUOUS ASSESSMENT
*(Subject custodian: Department of Architecture)*
Design projects at a single-storey residential scale with simple circulation and zoning. Spaces around elements and elements in space. Ergonomics: design around human spatial requirements. Structure and material as generators. Introduction to environmental effects on design. The role of context in determining aesthetics. (Total tuition time: ± 108 hours)

ARCHITECTURAL DESIGN II (ACH200T)  CONTINUOUS ASSESSMENT
*(Subject custodian: Department of Architecture)*
Design projects of simple low-rise (double-storey) buildings with more complex circulation requirements, emphasising in issues such as: 1. Design process: determining design generators, concept, context and concept development; 2. Structure and material as design generators; 3. Environment and climate as design generators; 4. Introduction to problem analysis. (Total tuition time: ± 108 hours)

ARCHITECTURAL DESIGN III (ACH300T)  CONTINUOUS ASSESSMENT
*(Subject custodian: Department of Architecture)*
Design projects of simple multi-storey buildings (i.e. offices with a basement), as well as long-span structures (i.e. factories), emphasising issues such as: 1. Problem analysis as first step to synthesis; 2. Interpretation of the brief; 3. The effects of and solutions to environmental and climatic influences on design; 4. The principles of sustainability, as applied to buildings; 5. The fabric of the city: how a design solution acts as building block within the structure and fabric of the city. (Total tuition time: ± 108 hours)

ARCHITECTURAL DESIGN IV (ACH400T)  CONTINUOUS ASSESSMENT
*(Subject custodian: Department of Architecture)*
Design projects and exercises to promote creativeness and lateral thinking. Analysis of local heritage, town structure, climate and social structure. This will culminate in appropriate design proposals, with consideration to principles of sustainable development/green building where applicable, structure and material as major generators of design, structures with complex circulation and specialised design and/or construction and services (small auditorium, museum, etc.), as well as a mixed-use building, emphasising the following issues: problem analysis, interpretation and development of the brief. Environmental and climatic issues and their influence on design. Sustainability. Urban issues. (Total tuition time: ± 108 hours)

ARCHITECTURAL DESIGN V (ACH500T)  CONTINUOUS ASSESSMENT
*(Subject custodian: Department of Architecture)*
Design exercises with a quarterly focus on: Tracing one's academic origin, analysis and interpretation of an assignment in team context, urban renewal and the skyscraper, establishing a voice in the architectural competition and a mini-thesis. (Total tuition time: ± 225 hours)
ARCHITECTURAL MANAGEMENT: CONSTRUCTION MATERIALS V (ARM50QT) CONTINUOUS ASSESSMENT
(Subject custodian: Department of Architecture)
Contemporary materials for building applications based on case studies. (Total tuition time: ± 45 hours)

ARCHITECTURAL MANAGEMENT: CONSTRUCTION METHODS V (ARM50PT) CONTINUOUS ASSESSMENT
(Subject custodian: Department of Architecture)

ARCHITECTURAL PRACTICE III (AHC300T) CONTINUOUS ASSESSMENT
(Subject custodian: Department of Architecture)
Office management (drawing-office practice, forms of collaboration and doing business, strengths and weaknesses, space and equipment requirements and layout). The SAIA Practice Manual (client/architect agreement, accepting work at risk, remuneration for work at risk, styles of practice, multidisciplinary firms, agreement checklist, employment conditions, architect/consultant relationship, project managers, clerk of works, issuing drawings and documentation, the concept of principal agent). The building contract (tender procedures, types of building contracts, forms of subcontractors, dispute resolution, the role of consultants). (Total tuition time: ± 54 hours)

ARCHITECTURAL PRACTICE V (AHC500T) CONTINUOUS ASSESSMENT
(Subject custodian: Department of Architecture)
The architectural profession, including the services and duties of a professional, and conducting an architectural practice in accordance with the Architectural Profession Act, 2000 (Act No. 44, 2000) and the SACAP Board Notice 154 of 2009 (the Code of Professional Conduct). Topics are time as a resource, managing projects and clients and post-completion responsibilities, among others. (Total tuition time: ± 40 hours)

ARCHITECTURAL TECHNOLOGY PRACTICE II (ARC200T) CONTINUOUS ASSESSMENT
(Subject custodian: Department of Architecture)
Presentation drawings. Working drawings and specifications. Building and site surveying. Office procedures (electronic data-management procedures, printing and plotting, issuing drawings, library, filing, staff meetings, general office duties). Local authority procedures and approval of documents. Exposure to site inspections and meetings. Liaison with consultants and representatives. (No formal tuition hours)

BUILDING SERVICES III (BSV300T) CONTINUOUS ASSESSMENT
(Subject custodian: Department of Architecture)

BUSINESS MANAGEMENT V (BMN500T) CONTINUOUS ASSESSMENT
(Subject custodian: Department of Architecture)
Office organisation, including managing oneself, the team and the business within the Architectural profession. Marketing and generating an income while establishing new business avenues. (Total tuition time: ± 15 hours)

COMMUNICATION I (COM150C) CONTINUOUS ASSESSMENT
(Subject custodian: Department of Applied Languages)
Relevant terminology and professional vocabulary. Summarising techniques. Comprehension. Report writing. Writing refereed articles. (Total tuition time: ± 54 hours)

COMPUTER-AIDED DESIGN II (CMI200T) CONTINUOUS ASSESSMENT
(Subject custodian: Department of Architecture)
An advanced 3D software package, ArchiCAD and Studio VIZ. (Total tuition time: ± 40 hours)
COMPUGRADED DRAUGHTING I (CAI110T) CONTINUOUS ASSESSMENT
(Subject custodian: Department of Architecture)
ARCHICAD software: an introduction with emphasis on using 2D in the production of technical drawings. An introduction to AutoCAD. (Total tuition time: ± 40 hours)

COMPUGRADED DRAUGHTING III (CAI310T) CONTINUOUS ASSESSMENT
(Subject custodian: Department of Architecture)
Photoshop, 3-D modelling and rendering, REVIT for Architecture. (Total tuition time: ± 40 hours)

COMPUGRADED DRAUGHTING: COMPUTER HARDWARE IV (CDG40PT) CONTINUOUS ASSESSMENT
(Subject custodian: Department of Architecture)
An overview of all the current terminology, concepts and basics of computing hardware. Hardware support and software support for different operating systems. (Total tuition time: ± 10 hours)

COMPUGRADED DRAUGHTING: NETWORK SYSTEMS IV (CDG40QT) CONTINUOUS ASSESSMENT
(Subject custodian: Department of Architecture)
Current and emerging networking hardware basics and terminology. Operating system set-up for networking. Data security and maintaining networks. Basic network-related software support skills. (Total tuition time: ± 10 hours)

COMPUGRADED APPLICATIONS I (COA110B) CONTINUOUS ASSESSMENT
(Subject custodian: Department of Architecture)
MS Windows, MS Word, MS Excel, Photoshop. Basic hardware terminology. Introduction to the Internet and e-mail. Sketchup. (Total tuition time: ± 102 hours)

COMPUGRADED HARDWARE V (CHH500T) CONTINUOUS ASSESSMENT
(Subject custodian: Department of Architecture)
An overview of all the current terminology, concepts and basics of computing hardware. Hardware support and software support for different operating systems. (Total tuition time: ± 10 hours)

CONSTRUCTION AND DETAILING: CONSTRUCTION MATERIALS IV (CDL40QT) CONTINUOUS ASSESSMENT
(Subject custodian: Department of Architecture)

CONSTRUCTION AND DETAILING: CONSTRUCTION METHODS IV (CDL40PT) CONTINUOUS ASSESSMENT
(Subject custodian: Department of Architecture)

CONSTRUCTION MATERIALS I (CSM110T) CONTINUOUS ASSESSMENT
(Subject custodian: Department of Architecture)
CONSTRUCTION MATERIALS II (CSM200T) CONTINUOUS ASSESSMENT
(Subject custodian: Department of Architecture)

CONSTRUCTION MATERIALS III (CSM300T) CONTINUOUS ASSESSMENT
(Subject custodian: Department of Architecture)
Timber: softwoods and common hardwoods, jointing (particularly poles) and protection. Metals: steel, stainless steel, brass, copper and aluminium. Plastics: fibre-glass roof sheets, ABS, PMMA. Stone: marbles, types, concrete, load-bearing masonry. Tiles: suitable for commercial use and industrial applications. Thatch: for large structures, game lodges, fire protection. (Total tuition time: ± 54 hours)

CONSTRUCTION MATERIALS IV (CSM400T) CONTINUOUS ASSESSMENT
(Subject custodian: Department of Architecture)

CONSTRUCTION MATERIALS V (CSM500T) CONTINUOUS ASSESSMENT
(Subject custodian: Department of Architecture)
Contemporary materials for building applications based on case studies. (Total tuition time: ± 30 hours)

CONSTRUCTION METHODS I (KME110T) CONTINUOUS ASSESSMENT
(Subject custodian: Department of Architecture)

CONSTRUCTION METHODS II (KME210T) CONTINUOUS ASSESSMENT
(Subject custodian: Department of Architecture)

CONSTRUCTION METHODS III (KME310T) CONTINUOUS ASSESSMENT
(Subject custodian: Department of Architecture)

**CONSTRUCTION METHODS IV (KME400T) CONTINUOUS ASSESSMENT**

*(Subject custodian: Department of Architecture)*


**CONSTRUCTION METHODS V (KME500T) CONTINUOUS ASSESSMENT**

*(Subject custodian: Department of Architecture)*


**CONTRACT DOCUMENTATION I (CDO100T) CONTINUOUS ASSESSMENT**

*(Subject custodian: Department of Architecture)*

Drawing equipment and materials, lettering, line work and geometric exercises, graphic projections, scale, dimensioning and annotation. Working drawings: ground-floor plan, sections, elevations and site plan, application of the National Building Regulations, services layouts. Construction detailing, measuring existing work, drawing office equipment, storage of information, the role of the architect, technologist and other professional consultants, the building contractor and the client. (Total tuition time: ± 108 hours)

**CONTRACT DOCUMENTATION II (CDO200T) CONTINUOUS ASSESSMENT**

*(Subject custodian: Department of Architecture)*

Measured drawings for restoration or for additions. Preparation of drawings for submission and approval by local authorities. Detail drawings for discussion with consultants. Construction detail design drawings. Schedules: finishing, doors, windows, cupboards, etc. Details of components and fixtures. Working drawings, which will be used as contract documents with a bill of quantities, for measuring by a quantity surveyor. (Total tuition time: ± 54 hours)

**CONTRACT DOCUMENTATION III (CDO300T) CONTINUOUS ASSESSMENT**

*(Subject custodian: Department of Architecture)*


**CONTRACT DOCUMENTATION V (CDO500T) CONTINUOUS ASSESSMENT**

*(Subject custodian: Department of Architecture)*

No set syllabus, but this subject is based on the design thesis. It is integrated with Construction Methods V and Construction Materials V to produce a complete set of related working drawings. (Total tuition time: ± 54 hours)
FOUNDATION ARCHITECTURAL LANGUAGE AND COMMUNICATION (FPALC01)  CONTINUOUS ASSESSMENT

(Subject custodian: Department of Architecture)

Module 1 – Architectural presentation techniques: Introduction to the various methods of communicating design ideas and concepts to clients and peers (oratorical and linguistic tutoring). An introduction to the use of artistic media to present design ideas (pencil, markers, watercolour and 3D CAD programs). Building basic models for design development and presentation purposes (cutting boards, glue, skills in constructing models). Module 2 – Language cultural studies: Language course on writing, oral skills development and public speaking. Writing essays related to the architectural field. Prescribed reading: Architecture- and language-related (building architectural vocabulary, background and world view). Cultural stimulation and cultivation (visits to theatre, restaurants and historically significant buildings in South Africa). (Total tuition time: ± 240 hours)

FOUNDATION BUILDING BUSINESS LAW AND PRACTICE (FPBBL01)  CONTINUOUS ASSESSMENT

(Subject custodian: Department of Architecture)

Module 1 – Legislation (fundamental building regulations): Introduction to building regulations commonly applied to small, single-storey residential buildings, and terminology used in local authorities’ town planning schemes (building lines, street setback, zoning, etc.). Module 2 – Submission and approval procedures of building plans: Format of drawings needed for approval purposes, accompanying documentation (application forms, title deeds, etc.), and procedures of submission and approval. Visit to local council. Module 3 – Architecture as a career: The composition of the architectural profession as part of the field of physical design and construction. Module 4 – Architecture as business: Brief overview of the economics and legalities involved in providing architectural services (introduction to legal implications and professional indemnity insurance). Setting up and financing a studio (case studies of successful and failed offices). Registering the office to comply with legal requirements. A rough guide to the costing of building work (introducing the concept of quantity surveying and examples of different types of bills). Determining fees (SACAP list of tariffs). (Total tuition time: ± 240 hours)

FOUNDATION BUILDING SCIENCE (FPBSC01)  CONTINUOUS ASSESSMENT

(Subject custodian: Department of Architecture)

Module 1 – Theory: Constructing simple buildings (exposure-orientated): Theory of commonly used building construction methods and materials, relating to simple residential buildings (site visits and exposure to buildings during construction). Elementary principles of building science: calculation of area and volume, behaviour of simple beams, loads, stress (examples of relevant construction examples on site). Elementary services (what is drainage, sewerage, electricity, storm water and fire protection images and site visits). Module 2 – Practical: Learning to build: Practical building course: One-week course covering the basic aspects of building physically, such as foundation trenches, casting concrete foundations, laying bricks, installing a roof and ceiling, plastering, installing services (plumbing and drainage). (Total tuition time: ± 240 hours)

FOUNDATION PRINCIPLES OF ARCHITECTURAL DESIGN (FP PAD01)  CONTINUOUS ASSESSMENT

(Subject custodian: Department of Architecture)

Module 1 – Principles of architectural design: Introduction to the process of design. Focus on pragmatic planning principles, relationship of spaces, ergonomic principles and application of structure and construction as part of design decision-making. Module 2 – Architectural terminology and theory: Introduction to the language used in architectural theory. The focus will be on the correct use of terminology through examples and an explanation of their meaning. Module 3 – Overview of the history of architectural styles: A chronological overview of architectural styles and their context. (Total tuition time: ± 240 hours)

FOUNDATION TECHNICAL ARCHITECTURAL DRAWING (FPTAD01)  CONTINUOUS ASSESSMENT

(Subject custodian: Department of Architecture)

Module 1 – Introductory principles for architectural draughting: The development of draughting skills and principles relevant to architectural studies. The module starts with basic exercises aimed at developing small-motor skills with the purpose of preparing the student for first-year draughting. Introductory skills in drawing by hand (on a drawing board with instruments). Module 2 – Computers in architecture: Basic computer skills and understanding basic software packages (Microsoft Word, etc.). Overview of the use of computers in the architectural profession. Introduction to uses of design-focused software (Sketchup and Archicad). (Total tuition time: ± 240 hours)
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<td>LDE310T</td>
<td>LANDSCAPE DESIGN III</td>
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<td>LWC400T, LWC410T</td>
<td>LAW AND CONTRACT MANAGEMENT IV</td>
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**HISTORY OF ARCHITECTURE I (HAC100T)**

*Subject custodian: Department of Architecture*

Introduction and an overview of Western architecture, from the origins to the present day, and Southern African architecture, from the origins to the present day. Principal examples, as well as technological and cultural aspects, are highlighted and put in social context. Visits to local historical examples. (Total tuition time: not available)

**LANDSCAPE DESIGN III (LDE310T)**

*Subject custodian: Department of Architecture*


**LAW AND CONTRACT MANAGEMENT IV (LWC400T, LWC410T)**

*Subject custodian: Department of Architecture*


**NETWORK SYSTEMS V (NSY500T)**

*Subject custodian: Department of Architecture*

Networking hardware basics and terminology. Operating system set-up for networking. Data security and maintaining networks. Basic network-related software support skills. (Total tuition time: ± 10 hours)

**OFFICE PRACTICE: ARCHITECTURAL PRACTICE IV (OFP40PT)**

*Subject custodian: Department of Architecture*

The services and duties of the professional practitioner of architecture as defined by Act No. 44, 2000: Architectural Profession Act and the SACAP Board Notice 154 of 2009 (the Code of Professional Conduct). Specific themes include time as a resource, managing projects and clients, as well as post-completion responsibilities. (Total tuition time: ± 30 hours)

**OFFICE PRACTICE: BUSINESS MANAGEMENT IV (OFP40QT)**

*Subject custodian: Department of Architecture*

Office organisation, including managing oneself, the team and the business in the architectural profession. Marketing and generating an income while establishing new business avenues. (Total tuition time: ± 15 hours)

**PRESENTATION TECHNIQUES I (PTT100T)**

*Subject custodian: Department of Architecture*


**PRINCIPLES OF URBAN DESIGN IV (PUD400T)**

*Subject custodian: Department of Architecture*

Brief historical overview and shifts in policy. The pre-industrial and early colonial city, the later colonial city, the modernist city, the apartheid city. Elements of cities and urban environments. Empirical rules and principles in urban design. Urban design theories. Sustainability. Urban housing. (Total tuition time: ± 50 hours)
PROJECT MANAGEMENT IV (PJG410T, PJG420T)  
**CONTINUOUS ASSESSMENT**  
*Subject custodian: Department of Architecture*  

RESEARCH METHODOLOGY (RMD500D)  
**CONTINUOUS ASSESSMENT**  
*Subject custodian: Department of Architecture*  
Research methodology: scope and nature of the dissertation, administrative procedures, research topics, the problem and its setting, research proposals, applications for funding, research protocols and research planning. Design as a problem-solving process: formulation of design principles, solving conflicting requirements, precedent studies, design thinking and the evaluation of design. Technical structure of a dissertation: format, layout, numbering system, typography, bibliography and referencing. (Total tuition time: ± 108 hours)

RESEARCH METHODOLOGY V (RMD510D)  
**CONTINUOUS ASSESSMENT**  
*Subject custodian: Department of Architecture*  
Research methodology: scope and nature of the dissertation, administrative procedures, research topics, the problem and its setting, research proposals, applications for funding, research protocols and research planning. Technical structure of a dissertation, format, layout, numbering system, typography, bibliography and referencing. (Total tuition time: ± 20 hours)

RESEARCH REPORT: ARCHITECTURAL TECHNOLOGY: TECHNOLOGY V (ATG500T)  
**CONTINUOUS ASSESSMENT**  
*Subject custodian: Department of Architecture*  
The dissertation involves the investigation of a relevant research problem. (No formal tuition hours)

RESEARCH REPORT: ARCHITECTURE: PROFESSIONAL V (ATG510T)  
**CONTINUOUS ASSESSMENT**  
*Subject custodian: Department of Architecture*  
Appraisal and definition: clarifying the problem statement and design objectives, formulating functional relationships, collecting information on the state of the art, formulating requirements and needs. Design concept: searching for conceptual solutions, producing alternative concepts, evaluating alternative solutions, determining the final conceptual form. Building design: producing a refined design, producing alternatives, technical evaluation, selecting the final design for detailed formulation. (No formal tuition hours)

SPECIFICATION V (SFN500T)  
**CONTINUOUS ASSESSMENT**  
*Subject custodian: Department of Architecture*  
Purpose and use of specifications. Formats of specifications. Compilation of a specification document from standard clauses. Writing specification clauses. Specification as part of the legal framework. (Total tuition time: ± 18 hours)

SPECIFICATION AND QUANTITIES III (SPQ300T)  
**CONTINUOUS ASSESSMENT**  
*Subject custodian: Department of Architecture*  
The following aspects of specification and quantities are covered: introduction to bills, specifications for bills of quantities, interaction between drawings and other contract documentation, as well as estimates, feasibility, measuring units, costing and influencing factors. (Total tuition time: ± 36 hours)

STRUCTURES IV (STR400T)  
**CONTINUOUS ASSESSMENT**  
*Subject custodian: Department of Civil Engineering*  
STUDIO WORK: CONTRACT DOCUMENTATION IV (STW40PT) CONTINUOUS ASSESSMENT
(Subject custodian: Department of Architecture)
No set syllabus, but this subject is based on the design thesis. It is integrated with the subject Construction Methods and Materials to produce a complete set of related working drawings. (Total tuition time: ± 54 hours)

STUDIO WORK: SPECIFICATION IV (STW40QT) CONTINUOUS ASSESSMENT
(Subject custodian: Department of Architecture)
The purpose and use of specifications, forms of specification, preliminary items and the specification of all building trades. (Total tuition time: ± 18 hours)

SURVEYING FOR ARCHITECTURE III (SFA300T) CONTINUOUS ASSESSMENT
(Subject custodian: Department of Architecture)

THEORY OF DESIGN I (THD100T) CONTINUOUS ASSESSMENT
(Subject custodian: Department of Architecture)
Visits to buildings. The process of design: Part 1. Relevant topics relating to design projects. Space, form, proportion, scale. Organising principles. Circulation. Theory: Bauhaus, modern movement, international style. (Total tuition time: ± 54 hours)

THEORY OF DESIGN II (THD200T) CONTINUOUS ASSESSMENT
(Subject custodian: Department of Architecture)

THEORY OF DESIGN III (THD300T) CONTINUOUS ASSESSMENT
(Subject custodian: Department of Architecture)

THEORY OF DESIGN IV (THD400T) CONTINUOUS ASSESSMENT
(Subject custodian: Department of Architecture)
Visits to buildings. Relevant topics relating to design projects. Green architecture. Commercialism. Selected topic from the social and behavioural sciences. The hidden dimension. Selected period from the fine arts, including painting and sculpture. Theory: the work of individual architects and architectural firms. International and local. History: the vernacular architecture of Northern Africa. Islam. Australian architecture. (Total tuition time: ± 54 hours)

THEORY OF DESIGN V (THD500T) CONTINUOUS ASSESSMENT
(Subject custodian: Department of Architecture)
Architectural theory as a precursor to the built form. Formulating a normative position within the broad development of architectural theory. Research paper related to a specific field of interest. (Total tuition time: ± 40 hours)