



MPhil in URBAN INFRASTRUCTURE DESIGN & MANAGEMENT

STUDENT HANDBOOK



UNIVERSITY OF CAPE TOWN
IYUNIVESITHI YASEKAPA • UNIVERSITEIT VAN KAAPSTAD

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1. Welcome

Welcome to the MPhil programme in Urban Infrastructure: Design and Management at the University of Cape Town. Congratulations on your success in gaining the opportunity to study at one of Africa's top-ranked universities, and the premier academic meeting point between South Africa, the rest of Africa and the world. At UCT you will be in contact with some of the most advanced and novel contemporary urban research and scholarship.

This handbook provides an introduction to the MPhil programme and the facilities available within the university. It will also help you to understand the requirements of the programme and to plan your course of study. While every effort has been made to ensure the information in this handbook is accurate, operational requirements, presenter schedules and certain programmatic changes may occur over the course of the year, resulting in changes to the programme. Please check the Vula Site (explained later in the document, see section 2.4) regularly in order to keep abreast of any possible programme changes. If you are unsure about something, or find conflicting information, please check with a member of Faculty staff.

1.1 Brief description of the programme

A central issue for both South Africa and the broader African continent is the delivery of urban services and infrastructure to rapidly growing urban populations, enabling the urban residents to live and work in sustainable and integrated environments.

The Master of Philosophy in Urban Infrastructure: Design and Management programme is aimed at building capacity amongst government and the private sector practitioners who are committed to the future of African cities, and in particular, to the servicing of poorer urban inhabitants. The programme is presented by the Department of Civil Engineering, within the Faculty of Engineering and the Built Environment and is supported by the African Centre for Cities.

The programme has a strong inter-disciplinary focus, as the Faculty believes that urban problems can only be addressed through the proactive integration of specific disciplinary backgrounds. To this end the programme draws on staff from engineering, architecture, planning, environmental sciences, geography, the social sciences, and management. Whilst presenting perspectives from their specific disciplines, the presenters have been selected specifically for their experience in approaching challenges that require inter-disciplinary approaches. This is a central theme of the degree programme. Course activities will include both formal lectures and problem-based learning, through projects and cases specifically aimed at seeking out solutions that go beyond business as usual and fundamentally question current paradigmatic perspectives. Course material is thus a mix between academic work and practitioner experience.

The programme includes some of the world's best academics and practitioners in this field, using the Fellowship programme which has been funded by the Ove Arup foundation. The Ove Arup Foundation's grant is "targeted at an area where new skills are required and which promotes the

multidisciplinary nature of design in engineering and architecture"
(www.theovearupfoundation.org).

1.2 Structure of the programme

As the majority of the participants in the programme are working professionals, the MPhil has been designed to allow for flexibility in the nature of the degree programme. We strongly advise that students select an option that aligns with their desired learning need, their professional obligations, interests and competency.

The degree is constituted and operated as a module-based degree. Students are able to graduate by completing one of the following degree approach options, each amounting to 180 credits:

Option 1: Module based degree approach: Four (4) core modules (20 credits each), elective coursework to the value of 40 credits and a research report (to the value of 60 credits); or

Option 2: Modules and reduced dissertation approach: Three (3) core modules and a part dissertation (120 credit dissertation); or

Option 3: Research degree: Full dissertation (100%) (180 credits).

If registered as a part time student, students are permitted to do a maximum of four modules per year. Students are permitted to start the coursework component of the programme with any module. However, it is strongly advised to start with the module Developing Cities: Issues and Strategies (CIV5064Z), which will run from 04 – 08 March 2013. The programme can be completed in 18-24 months. Modules can also be completed as stand-alone executive courses.

On registration, selection of the degree approach option (Module based degree approach, Modules and reduced dissertation approach or Research degree) must be made and students will be registered accordingly. Changes to the option selected can only be made between options 1 and 2 but change requires a formal request to faculty and requests are subject to approval by the Dean of the faculty.

Modules account for 20 credits of the total degree credit value of 180 credits. A module is required to entail 150 hours of notional learning. Thus, each module entails significant pre reading (generally 50 notional hours), an intensive week of lectures, tutorials and group work based at the University of Cape Town (50 notional hours). This is followed by work on a home assignment (50 notional hours). It is strongly advised that the course is not viewed as simply being the module sessions but is viewed in terms of the hours of learning and input required. Completion of a module requires an intensive amount of preparation (including prior reading), coursework, discipline and effective timekeeping for the completion of the assignment.

2. The MPhil in Urban Infrastructures: Design and Management programme

2.1 Location and facilities

The MPhil programme is presented by the Department of Civil Engineering within the Faculty of Engineering and the Built Environment, with the support of the African Centre for Cities.

The programme convenor is Associate Professor **Romano Del Mistro** of the Department of Civil Engineering.

Professor Edgar Pieterse, Director of the African Centre for Cities, also plays an active teaching and coordinative role in the programme.

All modules are however presented on the UCT Campus. Every effort will be made to retain the same teaching venue for all modules but students are required to check with the course convenor prior to arrival so as to avoid late arrival and confusion at the commencement of a module. Elective modules generally take place in different venues. Students are advised to confirm elective module venues prior to arrival on the module.

The Department of Civil Engineering is located in the Snape Building, within the Engineering Mall, the African Centre for Cities is located within the Environmental and Geographical Science (ENGEO) building, both on UCT's Upper Campus.

If you have trouble finding these buildings, you can find a map of UCT Upper Campus here:

<http://www.uct.ac.za/images/uct.ac.za/contact/campusmaps/big/upper.jpg>

2.2 Programme fees

The total degree cost is made up of module fees, elective fees and fees associated with the thesis option selected. **The fees listed below are for 2012 and may be subject to an increase of 10% in 2013**

The fee for each module is **R 6 810** (2012 fee and subject to change in 2013)

The Minor Thesis attracts a fee of R 8 060 (as per option 2). (2012 fee and subject to change in 2013)

Masters by Dissertation only (180 credits) R 18 730 (2012 fee and subject to change in 2013)

More information on fee structures and payment methods can be found on the UCT Fees Office website (<http://www.uct.ac.za/apply/fees/>), where you can download the Student Fees handbook for 2012 and when released, for 2013.

UCT offers financial assistance to eligible postgraduate students through the Postgraduate Scholarships Office. Details are available at www.pgfo.uct.ac.za

2.2.1 Executive students options

Each module can be attended for non-degree purposes.

Module CPD credits do apply. Please contact the faculty officer as these may differ according to specific professional credit schedules. The general applicable ruling is that as these are 5 day modules, 5 CPD credits apply per module.

Executive students will only be awarded CPD credits if they participate fully in the module programme. This entails full attendance throughout the module period, full participation in all group work and the completion of the required written assignment, examination, or both, dependant on the selected module examination criteria.

Participation in the module presentations without participation in the other class activities, such as group work, is not an option in this programme.

Executive student fees are R 7 400 per module. Places on the modules are limited and applications are essential. Application forms can be obtained from Heidi Tait (Heidi.Tait@uct.ac.za) or on 021 650 5793.

All prices listed are inclusive of VAT.

2.3 Contact information

Core Degree Contact:

Department of Civil Engineering:

Isabel Ncube

Room 2

Department of Civil Engineering

Snape Building, Upper Campus

University of Cape Town

Private Bag X3

Rondebosch

7701

Tel: +27 21 650 2605; Fax: +27 21 6897471

Email: info.uidm@uct.ac.za

Website: www.urbaninfrastructure.uct.ac.za

ACC enquiries:

African Centre for Cities:

Maryam Waglay

Room 5.06,

Environmental & Geographical Science Building

Upper Campus

University of Cape Town

Private Bag X3

Rondebosch

7701

Tel: +27 21 6505903; Fax: +27 21 6502032

Email: maryam.waglay@uct.ac.za

Website: <http://www.africancentreforcities.net>

2.4 Communication

Most course based communication concerning lectures, reading assignments, submission deadlines and general communication will be conducted via email. For this reason, students are required to provide a functional email address for all correspondence. This should be checked regularly in order to stay updated. In the absence of a specific email, your UCT assigned email address will be used (name.surname@uct.ac.za). Please inform your lecturers and the programme administrators of any changes to your email address. This is critical as correspondence between students and faculty is critical in ensuring a trouble free study experience.

The university makes use of a student web based portal to facilitate a variety of learning oriented services. This portal is called Vula and is a key support service to the degree. Vula is UCT's online collaboration and learning environment, used to support UCT courses as well as other UCT-related groups and communities. The Vula website can be accessed at <https://vula.uct.ac.za/portal/>.

The degree programme will load the majority of readings and other course related notices on the Vula site. This is the only way to access readings and course material remotely. Course administrators are not able to email or courier reading materials or other types of course material to students.

Following registration, you will be added to a MPhil in Urban Infrastructures Vula group and assigned a username and password.

2.5 Student representation

Each year two class-elected MPhil students are invited to sit on the programme's Advisory Board and participate in board meetings.

In addition, the Engineering and Built Environment Student Council (EBESC) in the Faculty represents the interests of the student body. The EBESC and its counterparts in other faculties are concerned with promoting the academic and social interests of the students they represent. A Faculty Postgraduate Student Council represents the specific interests of postgraduate students. Further information concerning the Council is obtainable from the EBESC Office, Room 337 Menzies Building.

2.6 African Centre for Cities (ACC) at UCT

The African Centre for Cities (ACC) was established in 2007 to serve as a platform for interdisciplinary research on urban issues - both theoretical and applied - across the University of Cape Town.

The primary focus is on applied research to address complex, intractable urban problems and challenges. This is undertaken in a manner that advances novel ways of thinking about and

understanding urbanism across the global South, yet is rooted in the realities of African urban spaces. Applied research is primarily done through the CityLab initiative. This is an initiative in which multi-year research on the advancement of sustainable human settlement is conducted. There are a number of sub labs within the overarching CityLab process, each with a specific urban challenge related research theme. The current research themes focus on urban violence, the determinants of healthy cities, urban ecology, sustainable human settlements and urban culture. In addition to this there are further multi-disciplinary labs researching “super diversity”, “urban futures” and “ways of knowing”. In addition to the CitiLab process, the ACC also hosts a number of research projects and initiatives with a distinct African urban focus.

The ACC drives a national research programme on the space economy of South Africa, aimed at developing an empirical base to inform public policy decision-making on **targeted** infrastructure expenditure and poverty reduction programmes.

The ACC supports the MPhil programme in Urban Infrastructure and Design, which seeks to equip a new generation of built environment professionals with the knowledge to conduct sustainable urban development in a fast changing world

The ACC seeks to stimulate debate and learning on current urban issues and facilitates public forums for engagement on critical urban related public policy issues.

The ACC is a University of Cape Town research signature theme, led by Professor Edgar Pieterse, the director of the ACC.

For more information, please visit the ACC website: <http://africancentreforcities.net>.

2.6.1 ACC programme streams

The strategic position of the ACC demands a strong constituency of inter-disciplinary engagement embedded at UCT. This is pursued through the CityLab, sponsorship of research and regular academic exchanges. The core research of the ACC is applied and this finds expression in a ‘live’ research laboratory on sustainable human settlements – the CityLab – conducted in partnership with government bodies, the private sector and civil society groups.

At the same time, the ACC tracks national and international policy debates in the fields of urban management and planning, ensuring research and capacity building links with and engages in these discourses. Finally, strong, focused and deepening institutional networks with like-minded organisations in South Africa, Africa and the global South, are key to the ACC’s long-term success and relevance.

2.6.2 ACC seminars and debates

The monthly **ACC Seminar Series** provides scholars with an opportunity to share their latest research findings and analyses. The ACC Seminar Series is the preeminent forum for the UCT academic community interested in cutting-edge urban studies.

Once a month a more informal, but equally vibrant, discussion is convened on contemporary developments in the urban development policy field – the **ACC Brown Bag Sessions**. The Brown Bag Sessions allow for discussions on work-in-progress and research insights that are current, at times controversial, but always challenging.

As part of the public information dissemination role played by the ACC, regular **public debates and seminars** are held to facilitate an engagement between ordinary citizens, scholars, civil society and public officials on pertinent issues that affect the nature and prospects of African cities.

A voluntary **PhD Seminar Series** provides a space for PhD students working on urban topics across UCT to meet on a regular basis. The seminar series provides a space for exploring cutting edge literature and honing methodological skills. Most importantly, it provides a collegial atmosphere for future scholars to foster deep cross-disciplinary friendships.

If you would like to find out more about upcoming seminar events, or would like to be placed on the ACC's mailing list, please contact Maryam Waglay (maryam.waglay@uct.ac.za).

2.6.3 ACC personnel

Edgar Pieterse: is the Department of Science and Technology (DST)/National Research Foundation (NRF) South African Research Chair in Urban Policy and Director of the African Centre for Cities. From 2004-2007, he was appointed Special Policy Advisor in the Office of the Premier, Western Cape Provincial Government. He is a co-founder and Board member of the Sustainability Institute. He is also co-founder and Director of the Isandla Institute, a development policy think-tank. Edgar has worked extensively in the NGO sector in South Africa in various capacities, ranging from policy research (including local governance, democratisation, urban policy, NGO enablement, gender), to training and management. In 1995 he obtained his Masters Degree in Development Studies at the Institute of Social Studies in The Hague, The Netherlands and his PhD from London School of Economics in 2006. He has published over 60 scholarly articles, numerous policy reports and 8 books, including *Counter-Currents: Experiments in Sustainability in the Cape Town region* (2010); *City Futures: Confronting the Crisis of Urban Development* (2008) and *Consolidating Developmental Local Government: Lessons from the South Africa Experiment* (2008).

Susan Parnell: is an urban geographer in the Department of Environmental and Geographical Sciences and is the Director of the 'CityLab' at the African Centre for Cities. Prior to her appointment as Professor at UCT she taught in the Wits University Geography Department (Johannesburg) and

the School of Oriental African Studies (London). She is the author of over 80 academic papers, 4 edited volumes and 2 co-authored books. Sue is on the editorial boards of 11 academic journals.

Vanessa Watson: is Professor in the School of Architecture, Planning and Geomatics at the University of Cape Town (South Africa) and Deputy Dean of the faculty. Vanessa holds degrees from the Universities of Natal, Cape Town and the Architectural Association of London, and a PhD from the University of Witwatersrand. She is the author/co-author of 7 books, 40 journal articles and numerous chapters and published conference papers in the field of planning. Vanessa's particular areas of focus are planning theory, the institutional context of planning and large-city planning and a particular interest in developing perspectives on planning from the global South. Vanessa has undertaken consultancy work for UN Habitat on the 2009 Global Report and is an editor of the journal *Planning Theory* (UK) and is on the editorial board of *Planning Practice and Research* (UK); the *Journal of Planning Education and Research* (USA) and *Progress in Planning* (UK). Vanessa represents the Association of African Planning Schools on the Global Planning Education Association Network (GPEAN), which she co-chairs; and is on the executive committee of the African Centre for Cities.

Adjunct Professors

Andrew Boraine: is the Chief Executive of the Cape Town Partnership, a multi-stakeholder agency established to develop, manage and promote the Cape Town Central City. He has previously served as the chairman of the South African Cities Network and special advisor to the South African Minister for Provincial and Local Government. Andrew has held a number of posts in the public sector during his career; he has served as the City Manager for the City of Cape Town, as well as a senior official in the Department of Constitutional Development in South Africa during the post-apartheid transition and as a member of the Financial and Fiscal Commission of South Africa assigned to the local government finance portfolio. Andrew's publications and perspectives have included themes such as urban renewal and cultural strategies; urban regeneration and public-private partnerships for city development.

Dr Dave De Groot: is a local government/urban development specialist with more than 30 years of experience primarily in Africa and Asia, previously with the World Bank and Cities Alliance.

Ian Palmer: is a founding partner of Palmer Development Group (PDG) of which he is currently managing director. PDG is a leading consultancy in South Africa in the field of municipal services policy, research, strategy and management.

Visiting international fellows

Each year one or more internationally renowned researchers visit the African Centre for Cities and teach on the MPhil programme. Visiting fellows will be confirmed in due course:

2.7 MPhil module/course convenors

Edgar Pieterse: Developing Cities: Issues and Strategies module.

Edgar's details are as per point 2.6.3 above.

Harro von Blottnitz: Sustainable Urban Systems module:

Harro holds a Dr-Ing of Aachen University of Technology, Germany. He is currently an Associate Professor in the Department of Chemical Engineering with main interests in the processing of biomass to fuels and the life cycle assessment of engineered processes to identify environmental improvement opportunities. His group also applies process and systems engineering skills to the closure of substance cycles in the economy, and to minimise environmental impacts by wastes and emissions, especially in South Africa's resource processing industries.

Mercy Brown-Luthango: Community Development module:

Mercy has a background in Sociology of Work. She has worked on a diverse range of research topics. Between 1998 and 2001, Mercy worked at the Development Policy Research Unit on a project called the South African Network of Skills Abroad (SANSA) researching and quantifying the extent of the "brain drain" from South Africa. Following this, she joined a labour supporting NGO, the Labour Research Services, where her research work included studying labour practices on wine farms, gender relations in the workplace and the effect of global restructuring in the wine industry on South African wine farms. In 2006, she joined the Development Action Group, a housing and urban development NGO, where her key responsibility was coordinating DAG's value capture programme. Mercy's current research interests include the economics of land use planning and the manner in which poor communities organise themselves to realise their land and housing aspirations.

Ismail Farouk: Urban Renewal module:

Ismail Farouk is an artist and urban researcher living and working in Cape Town. He holds the position of Researcher at the African Centre for Cities, where he convenes the Central Citylab project and is responsible for the urban culture portfolio. In his artistic practice, he focuses on developing creative responses to social, spatial and economic injustices. His work has appeared in several exhibitions: *Afropolis* (Rautenstrauch-Joest-Museum, Cologne, 2010); *Urban Concerns*; *ZA: Young Art from South Africa* (Palazzo delle Papesse, Sienna, Italy, 2008); *Apartheid: The South African Mirror* (CCCB, Barcelona, 2007). In 2008, he was a fellow at the MAK Centre for Art and Architecture, Los Angeles; this residency gave rise to the exhibit *Canceled Without Prejudice* (2008-2009). Ismail Farouk was the first recipient of the Sylt Quelle Cultural Award for Southern Africa (2008), presented by the Goethe Institut, South Africa.

Romano Del Mistro: Municipal Infrastructure Management modules:

Romano is an Associate Professor within the Department of Civil Engineering where he is responsible for Urban Engineering. Romano is Convenor of the postgraduate programme in Urban Infrastructure Design and Management. Romano graduated in civil engineering and town and regional planning from the University of Cape Town in 1969 and 1978 respectively. He also holds a postgraduate

diploma in transportation engineering from the IHE (UK). Romano obtained his doctorate in town and regional planning from the University of Pretoria in 1988. Romano’s career includes municipal service with Cape Town and Benoni, research at the CSIR, and appointments at the Universities of the Witwatersrand and Pretoria, where he was responsible for urban engineering and transportation engineering. Romoano’s current research interests include modelling travel decision making, land use modelling, and strategic cost models for urban infrastructure and public transport. He has co-authored 3 papers that were been awarded the prize for the best paper by the SAICE Division of Transportation Engineering in 1999, 2000 and 2002. One of these papers also won the award for the best paper at SATC in 1999. Romano was recently elected to the IMESA National Council and Western Cape Committee.

Neil Armitage: Integrated Urban Water Management module

Neil is a graduate of the Universities of Natal, Cape Town and Stellenbosch and has more than 25 years experience, both as a consultant and as an academic, in a wide range of water-related work including; urban water supply, sanitation, urban drainage, river modelling, water and wastewater treatment, hydrology and coastal engineering. Currently Neil is Associate Professor and Deputy Head of the Civil Engineering Department at UCT with responsibility for the Undergraduate Civil Engineering Programme. He leads the cross-disciplinary Urban Water Management group which is currently investigating: The measurement of sustainability in the provision of urban water services for the National Research Foundation of South Africa (NRF), Sustainable urban drainage systems (SUDS)(WRC), and Alternative sewerage systems (WRC). Neil is a member of various Reference Groups for other WRC research projects and is currently the only African representative on the Joint Committee on Urban Drainage (JCUD) of the International Association of Hydraulic Engineering and Research and the International Water Association (IAHR/IWA). Neil is also involved in the Water Sensitive Urban Design (WSUD) and the Sewer Systems and Processes (SS&PWG) Working Groups under the JCUD. He has authored or co-authored some 50 academic publications.

2.8 Programme modules

2.8.1 Core modules

Core Courses

Number	Course	HEQF Credits	HEQF Level
CIV5064Z	Sustainable Urban Transitions in the Global South	20	09
CIV5065Z	Urban Renewal	20	09
END5042Z	Sustainable Urban Systems	20	09
END5043Z	Community Development	20	09
END5037Z	Minor Dissertation	60	09

Elective Courses (select 2 modules - 40 credits)

Number	Course	HEQF Credits	HEQF Level
CIV5067Z	Municipal Infrastructure Management	20	09
CIV5107Z	Integrated Urban Water Management	20	09
CON5016Z	Project Implementation and Management	20	09
END5036Z	Local Area Transport Planning, Management & Design	20	09
END5038Z	Integrated Land-Use & Transport Planning	20	08

Total credits..... 180

Note: Due to the interdisciplinary approach adopted in this programme, a number of different presenters are used. This approach adds variety to the content and allows for the emergence and engagement in a wide variety of perspectives. From an evaluation point of view, the approach of the programme has been to allow each module leader the opportunity to apply the adjudication methodology that they feel applies best to their particular module. For this reason, you will notice a variety of different assessment methods and scoring applicable to each. However, each module remains rated at 20 credits.

It is the students responsibility to ensure that the assignment briefs are fully understood and that submissions apply with the specific module assessment requirements.

CIV5064Z: SUSTAINABLE URBAN TRANSITIONS IN THE GLOBAL SOUTH (20 credits)

Dates: 04 - 08 March 2013

Convenor: Professor Edgar Pieterse

Description: The over-arching learning objectives of the module are to:

- Understand the nature, drivers and consequences of the second urban transition from a sustainability perspective;
- Understand the connections between urbanization and long-term sustainability outcomes in different contexts and settings (or scales);
- Understand the actual and potential roles of infrastructure systems in advancing greater urban sustainability;
- Be introduced to the wide range of policy frameworks and tools to promote sustainable urban infrastructure, planning and management;
- Appreciate the economic, fiscal, political and institutional complexity of effecting normative urban transitions in an extractive market economy context.

- Identify specific individual and collective actions to address the imperatives of sustainable urbanism, particularly in a developing country context.

Content: International and South African urban conditions and urban policy trends; contemporary approaches to understanding cities and development; poverty, health and urban services; popular organization, protest, participation, governance, informality, public sphere and livelihoods.

Teaching: 1-week block-release contact.

Coursework: Group assignment and individual assignment.

Assessment: Take home essay/written assignment 90%; group assignment 10%.

Email contact: Isabel.ncube@uct.ac.za

END5042Z: SUSTAINABLE URBAN SYSTEMS (20 credits)

Dates: 13 - 17 May 2013

Convenor: Associate Professor Harro von Blottnitz

Description: The quest for sustainable development is a major contemporary challenge. A fundamental condition for achieving this is restructuring the processes of production, consumption and waste generation within urban/industrial complexes. This **transdisciplinary** course explores the need for, and ways of, undertaking 'restructuring', including the following:

- The imperative of Sustainable Development; physical constraints based on energy and mass balances and thermodynamics;
- General Systems Theory with respect to the interactions between industrial/Urban systems and ecological systems;
- Environmental/Ecological Economics; the concept of Industrial/Urban metabolism;
- Case studies of Industrial and Urban Ecology in practice;
- Institutional constraints and Decision Making Tools for Industrial/Urban sustainability.

Content: Advanced concepts of sustainable development and sustainability, specifically in the context of urban sustainability and development problems, tools and methodologies for assessing the sustainability of urban systems, and examples of 'best practice' in sustainable development of urban infrastructure.

Teaching: 1-week block-release contact.

Coursework: Group assignment and individual assignment.

Assessment: Take home essay/written assignment 35%; project 65%.

Email contact: Isabel.ncube@uct.ac.za

END5043Z: COMMUNITY DEVELOPMENT (20 credits)

Dates: 12 - 16 August 2013

Convenor: Dr Mercy Brown-Luthango

Description: Tracking how current international community development themes shape practice to provide a context for community development as an ideal:

- The concepts of governance and livelihoods and models to analyse communities and their relationship to infrastructure planning;
- Good governance and livelihood security, predicated on participation and partnerships;
- The relationship between infrastructure and development;
- The historical and current roles played by the national and local state in supplying basic infrastructure services and the implications for the urban and peri-urban poor;
- Community-driven process in the context of the Right to the City and governance debates;
- Community-driven processes to address the housing and infrastructure rights and needs of poor women and men in informal settlements;
- Data collection techniques, including participatory tools for getting and analysing information, setting and prioritising objectives, sorting out options and evaluating tradeoffs, and assessing risks (e.g. Planning for Real, Action planning);
- Qualitative and quantitative;
- Planning surveys including experimental design, questionnaire design and survey management.

Content: Community, community development, community participation, participatory budgeting, participatory infrastructure delivery and social surveys.

Teaching: 1-week block-release contact.

Coursework: Group assignment and individual assignment.

Assessment: Take home essay/written assignment 90%, group Assignment 10%

Email contact: Isabel.ncube@uct.ac.za

CIV5065Z: URBAN RENEWAL (20 credits)

Dates: 07 - 11 October 2013

Convenor: Ismail Farouk

Description: Urban transformation is an international phenomenon, caused by a range of factors including urbanisation, migration trends, globalisation and poverty. Internationally, the process of change does not affect all cities equally or in the same manner, but the overall trend is towards greater polarisation and lack of balance between concentrations of wealth and poverty within and between cities. The ability of government to respond to this process is impacted upon by broader debates on the role of government in general and the relationship between local government, the

private sector and civil society in particular. In the South African context, the process of urban transformation has been complicated by local factors including the legacy of apartheid.

The module covers three aspects of urban renewal, namely upgrading informal settlements, revitalising 'townships' and regenerating CBDs. The upgrading of informal settlements is the major focus of the module and is covered in terms of the dynamics of urban settlement, upgrading processes and institutional frameworks, housing typologies, layout, delivery and funding, engineering service standards, related infrastructure and costs, and community facilities including hard and soft open spaces. The revitalisation of 'townships' including the conversion of hostels into housing and the improvement of the public space is also covered, along with the regeneration of CBDs through public-private initiatives to develop affordable housing, employment opportunities and upgrading public places.

Content: Urban renewal context and policy; informal settlement upgrading; 'township' revitalisation; city centre regeneration; municipal engineering services; community services; housing.

Teaching: 1-week block-release contact.

Coursework: Group assignment and individual assignment.

Assessment: Take home essay/written assignment 90%; group assignment 10%.

Email contact: Isabel.ncube@uct.ac.za

2.8.2 Elective Modules

The elective modules include the following module options:

CIV5107Z: INTEGRATED URBAN WATER MANAGEMENT (20 credits)

Dates: 28 October – 01 November 2013

Convenor: Associate Professor Neil Armitage

Description: The management of the urban water cycle as a single system. Focusing mainly on the management of water supply, sanitation and urban drainage, the module theme considers the social imperatives, the technical options, the environmental considerations and the economic challenges with a view to promoting increased sustainability.

Content: Introduction to Integrated Urban Water Management (IUWM). The urban water cycle; description, social imperatives, environmental considerations and economic challenges.

- Water supply - availability, service levels / technical options, Free Basic Water, demand management, loss control, use of recycled water.
- Sewage - public health considerations, service levels / technical options, the dry versus wet sanitation debate, social acceptance, greywater management.
- Drainage - Service levels / technical options, Sustainable Urban Drainage Systems (SUDS), urban litter management, urban rivers, risk management, groundwater issues.

- Management - Water Sensitive Urban Design (WSUD), introduction to asset management GIS as a water management tool, sustainability indicators.

Teaching: 1-week block-release contact, group work, followed by two major assignments.

Coursework: Group assignment and individual assignments.

Assessment: Oral presentation, 10 %, two take home essay/written assignment, 45% each.

Email contact: Isabel.ncube@uct.ac.za

CIV5067Z: MUNICIPAL INFRASTRUCTURE MANAGEMENT (20 credits)

Dates: 25 – 29 March 2013

Convenor: Associate Professor Romano Del Mistro

Content: Context and need for MIM; institutional requirements; the MIM process; preparing an MIM plan; data requirements for MIM.

Teaching: 1-week block-release contact.

Coursework: Group assignment and individual assignments.

Assessment: Take home essay/written assignment 90%, group assignments 10%.

Email contact: Isabel.ncube@uct.ac.za

CON5016Z: PROJECT IMPLEMENTATION AND MANAGEMENT (20 credits)

Dates: to be confirmed

Convenor: Mark Massyn

Content: The need for planning, which includes the rules for planning and control; scope management, project strategy, project methodology; project scheduling techniques; project budgeting; change management and project integration.

Teaching: 1-week block-release contact.

Coursework: Individual assignments and examination.

Assessment: Three hour examination at end of module 40%; take home essay/written assignment 60%.

Email contact: [Ms Mareldia Fagodien \(mareldia.fagodoien@uct.ac.za\)](mailto:Ms Mareldia Fagodien (mareldia.fagodoien@uct.ac.za))

END5036Z: LOCAL AREA TRANSPORT PLANNING, MANAGEMENT AND DESIGN (20 credits)

Dates: Date to be confirmed

Convenor: Associate Professor R Behrens

Content: The planning and implementation of transport improvements at a local area (as opposed to citywide) scale. Urban design, landscaping and geometric design of streets. The design and management of local area movement networks. Accommodating pedestrians, bicycles and persons with movement disabilities in local area movement networks.

Teaching: 40 lectures (block contact time over one week)

Assessment: Take home essay/written assignment 75% and class test 25%.

Email contact: Ms Rowen Geswindt (Rowen.geswindt@uct.ac.za)

END5038Z: INTEGRATED LAND-USE AND TRANSPORT PLANNING (20 credits)

Dates: Date to be confirmed

Convenor: Associate Professor R Behrens

Content: Theoretical perspectives on the relationship between transport systems and urban activity systems. Co-evolution of transport systems and urban form. Sustainable transport and the problem of 'automobile dependent' cities. Planning paradigms and rationales for public intervention into land use and transport systems. Legislative, institutional and financial frameworks for land use and transport planning in South Africa. Conceptual framing and practical application of approaches to integrated land use-transport planning in the South African context. Local and international case studies and experiences.

Teaching: 40 lectures (block contact time over one week).

Assessment: Take home essay/written assignment 75% and class test 25%.

Email contact: Ms Rowen Geswindt (Rowen.geswindt@uct.ac.za)

2.8.3 What is expected of you

The urban challenge requires new ways of understanding the issues and the integration of knowledge, theory and practice. The modules are designed to reflect these complexities and different view points and perspectives. Each module is designed to be intense, with a high number of student-teacher contact hours fit into 'lecture blocks' spread over a single week. Students are expected to have completed the allocated module pre readings in order to be able to actively participate in the class debates, argue perspectives and question contradictions. As part of the

teaching methodology applied, this engaged processes serves to enhance the general module learning and students who are unprepared hinder the overall learning process, negatively impacting on other students in the class. Students thus have an obligation to themselves **and** their classmates.

2.8.4 Assessment and grading

Three main forms of assessment are used: groupwork, examinations and take-home essays (these are indicated in the module/course descriptions presented above, see 2.8.1).

Due to the different assessment methods, differently skills and competencies are able to be assessed. There are a number of different assessed outputs evaluated through the assessment methods. The following rules and processes generally apply:

Groupwork:

Work carried out in small groups assessing a particular problem or theme. Students are expected to work through the question and share perspectives on the issue. These perspectives are then collated and a central argument presented to the rest of the class. These perspectives and the supporting debates are drawn from experience, pre reading and the course work.

While the general quality of the presentation is important, assessment is based more on content and less on the quality of the students PowerPoint skills. As participation is a core theme within the programme, the same ethic applies here; all members of the group are required to actively participate in the presentation process (one person presenting the group's work is deemed insufficient). The following are key points that would inform evaluation:

- Response to the problem statement
- General rigour and content
- Complexities, debates and contradictions presented and argued
- Participation and work distribution within group
- Quality of presentation
- Timekeeping and adherence to the brief
- Class questions, **interest** and engagement in presentation

Examinations:

This processes tests the individual students comprehension of core themes presented during the week and is directly supported by pre readings and questions of clarity pursued during the work. This is an individual process where the exams are designed to assess the students' grasp of the subject matter and to evaluate how the student is able to apply specific taught perspectives to a particular problem or set of problems.

Take home essays (written assignments):

A written assignment is generally used to assess how the students present a particular argument and/or reflect on a particular case, using theories and perspectives offered in the module as the core

thread upon which the various arguments are based. In a written assignment, as student would be expected to present an argument and using literature references (correctly applied as per the course format), grey literature, interviews (correctly cited as per course format) and other sources either defend or challenge the argument presented. The student would then be expected to draw a conclusion and offer a perspective that related to the points raised.

The take home essays are critical in that the evaluation processes allows for feedback and a review of both the paper and the writing skills. This feedback is critical to the development of the requisite skills required for the written thesis component of the degree.

A general guide to grading at the University of Cape Town is presented below:

First (75%)	<p>An excellent essay: Clearly written, well-argued answer to the question, and originally presented.</p> <ul style="list-style-type: none"> • 80 to 85% for essays that are outstanding. Such essays demonstrate unusual sophistication or originality. (Relatively rare.) • 90% for brilliant essays. Such essays constitute publishable work. (Extremely rare, if ever.)
Upper Second (70% to 74%)	<p>A very good essay: Possesses most of the attributes of a First Class essay, but is sufficiently deficient either in clarity, the quality of argument or the originality of presentation not quite to deserve a First.</p> <ul style="list-style-type: none"> • 74% for essays that very narrowly miss a First. • 72% for comfortable Upper Seconds. • 70% for essays that barely meet the standards of an Upper Second.
Lower Second (60% to 69%)	<p>A good essay: Demonstrates a good understanding of the material, is a reasonably well-argued answer to the question and demonstrates some originality in presentation.</p> <ul style="list-style-type: none"> • 69% for essays that very narrowly miss an Upper Second • 65% for comfortable Lower Seconds. • 60% for essays that barely meet the standards of a Lower Second.
Third (50% to 59%)	<p>A competent essay: Demonstrates a passable understanding of the material and a minimally competent argument. May often lack originality of structure (but cannot be so bad as to constitute plagiarism).</p> <ul style="list-style-type: none"> • 59% for essays that very narrowly miss a Lower Second • 55% for comfortable Thirds. • 50% for essays that barely meet the standards of a Third.
Fail (<50%)	<p>An incompetent essay: Does not demonstrate a passable understanding of the material or a minimally competent argument, or is irrelevant.</p> <ul style="list-style-type: none"> • 45% to 47% for essays that approximate a pass. • 5% to 44% for failing essays with fewer or more redeeming features • 0% for essays that are either plagiarised or without any redeeming features.

The urban space is rapidly transforming and new skills are required to respond to these changes. Located within the developing world and particularly within Africa, these skills are critical if African cities are to respond to the dynamic, yet exciting, transition taking place across the continent. This degree offers students a unique opportunity to engage in this transition, to delve into the complexities and contradictions of the development trajectories. Students graduating from this

programme will be uniquely placed to play a vital role in the development of just and sustainable African cities.

2.9 Rules for the degree

The below section offers insights into the rules and applicable requirements associated with participating in programmes at UCT. These processes are dynamic and updated regularly. At the time of producing this information guide, the information contained within was correct. It is however the students responsibility to ensure that the most recent information is used. Please consult: <http://www.uct.ac.za/apply/handbooks/> for updated information.

Please see below a set of the most important and relevant rules applicable to the degree programme.

NOTE: These rules should be read with the general rules for Master's degrees available in Volume 3 of the 2013 UCT Student Handbook (should this not be available at this time, please check the 2012 UCT Student Handbook and ensure that your understanding of this is updated when the 2013 UCT Student Handbook is published).

Minimum Admission Requirements

A person shall only be admitted as a candidate for the degree if she or he meets the following criteria:

- a) is a university graduate with a four-year bachelor level or honours degree in a field related to the built environment; or
- b) holds an approved three year degree and (i) who has a minimum of five years experience relevant to the urban sustainability and infrastructure field, or (ii) who in addition to the standard programme requirement first completes a minimum of 144 credits of approved coursework; or
- c) has passed at any University or at any Institution recognised by Senate for the purpose, such examinations as are, in the opinion of Senate, equivalent to a degree in terms of (a) above; or
- d) has in any other manner attained a level of competence which, in the opinion of Senate, on the recommendation of the Faculty, is adequate for the purposes of admission as a candidate for the degree.

Selection

Selection is based on an applicant's academic record and experience.

Duration

A candidate must be registered for the degree for at least two academic years.

Students are required to complete all aspects of the degree within 4 years from the date of registration. Should a student not complete the degree within the required 4 years, a formal written application for a continuance needs to be made to the Dean of the Faculty of the Built Environment.

The student's quality of work and general participation are key factors that influence the approval of a continuance request. All continuance requests are subject to a penalty fee equivalent to the value of the minor dissertation cost. This fee is applicable annually.

Registration Requirements

- A candidate must register or re-register by not later than the end of Registration Week if taking first semester courses or, if any of the courses begins earlier, by not later than the date on which the first course starts.
- A candidate must register or re-register by not later than 28 February if taking only second semester courses.
- Except with the permission of the Senate, a candidate may not withdraw from a course which he or she is repeating. A candidate, other than one registering for the first time for the degree must reregister by not later than 28 February if registering only for a dissertation or only for a project. A candidate who is registering for the degree for the first time and, only for a dissertation, may register at any time during the year.

Minimum Number of Courses

A candidate must register for at least two courses, other than the dissertation or the research project, per year except where only one course module is required to complete the degree.

Obtaining the Degree

A candidate shall be required to complete advanced study by coursework (as prescribed) of a minimum value of 120 credits and a research report on the subject of a minor dissertation of a minimum value of 60 credits. Alternatively, the degree can be obtained by completing a full thesis (180 credits) or a half thesis (120 credits) and 60 credits of course work.

Courses Completed at this or another University/Institution

- For the purpose of granting credit for and/or exemption from a course prescribed as a curriculum requirement, the Senate may recognise a course or courses completed at this or another university or institution recognised for the purpose, provided that (i) such courses have not been counted for a qualification at the University or at any other institution and (ii) at least half the courses prescribed for the Degree shall be attended and passed at the University and (iii) the total period of attendance shall not be less than one year.
- Course credits of more than 10 years standing, whether obtained in this Faculty, other faculties or other universities, shall not be carried forward for credit except by special permission of Senate.

Examination

- A candidate shall complete prescribed courses to the value of 120 credits and a research report on the subject of the minor dissertation to a value of 60 credits.
- A candidate who fails the Research Report examination shall not be permitted to reregister for the Research Report

- A candidate may be required to present himself or herself for an oral examination on the subject of the research report

Progress Report

A candidate shall submit a written report to the Head of Department by 31 July each year, setting out, briefly, the progress made during the preceding twelve months or, if the period of registration is less than twelve months, the period that is relevant.

Readmission

- Except by permission of the Senate, a candidate may not renew his or her registration if he or she, in the courses recognised for the degree, fails to complete courses of a value of not less than 50% of the total credits for which he or she is registered in the year concerned (or if he or she fails to make progress with his or her dissertation and/or research project to the satisfaction of Senate).
- Except by permission of the Senate, a candidate may not renew his or her registration if he or she, in the courses recognised for the degree fails to complete a course after having been registered for it twice, or in the case of the Research Report, submits the report and fails the examination.

Submission of Minor Dissertaion

- A candidate intending to submit a minor dissertation in the hope of the completion of the requirements for the award of the degree in either June or December, must, in the year in which the project is to be submitted, inform the supervisor in writing of such intention by 15 March or 15 August respectively in the year in which the report is to be submitted. The final date for receipt of the minor dissertation submitted in the hope of the award of the degree either in June or December is 30 April or 30 September respectively. Regardless of submission on these dates, the University and programme leaders do not guarantee that the student will graduate on the dates planned. While every effort is made to adhere to planned graduation dates, graduation is subject to an adjudication process that may delay graduation.
- After consultation with the supervisor, a candidate shall submit two bound copies and one CD ROM in specified digital format of his/her minor dissertation to the supervisor who is responsible for appointing an external examiner of the minor dissertation. Where more than two examiners are appointed a candidate may be required to submit an appropriate number of additional bound copies.
- No minor dissertation or part thereof which has previously been submitted for examination for any degree at any university shall be accepted for a Master's degree in the Faculty of Engineering & the Built Environment.

Publication

- When presenting his or her minor dissertation the candidate shall by so doing grant a free licence to the University to publish it in whole or part at any time and in any manner or format that the University deems fit.

- No publication may, without the prior permission of the University, contain a statement that the published material was or is to be submitted in part or in full for this degree.

Award of the Degree

- The degree is not awarded with distinction.
- The University does not undertake to reach a decision on the award of the degree by any specific date.

2.10 Plagiarism

Whenever you do written work you must differentiate between your own ideas and those, which you did not think of yourself, but which you have read elsewhere – in particular you must distinguish what you have written from what you are quoting.

You commit plagiarism in written work when you use another person’s words, ideas or opinions without acknowledging them as being from that other person. You do this when you copy the work word-by- word (verbatim); or submit someone else’s work in a slightly altered form (such as changing a word with one meaning to another word with the same meaning); and you do not acknowledge the borrowing in a way that shows from whom or where you took the words, ideas or reasoning.

More information on the University’s plagiarism policy, and advice on how to avoid committing plagiarism can be found in the UCT document ‘Avoiding Plagiarism: A Guide for Students’, available here: http://www.uct.ac.za/downloads/uct.ac.za/about/policies/plagiarism_students.pdf.

UCT students are typically required to provide a plagiarism declaration for any piece of written work. An example of a plagiarism declaration is given below. Complete and place this statement, or one like it, at the beginning of any submitted work:

<p>Declaration</p> <ol style="list-style-type: none"> 1. I know that plagiarism is wrong. Plagiarism is to use another’s work and pretend that it is one’s own. 2. I have used the convention for citation and referencing. Each contribution to, and quotation in, this essay/report/project/..... from the work(s) of other people has been attributed, and has been cited and referenced. 3. This essay/report/project/..... is my own work. 4. I have not allowed, and will not allow, anyone to copy my work with the intention of

3. Information about studying at UCT

The information contained below is of general interest and has been included for ease of reference. The University of Cape Town and the Faculty of the Built Environment regularly update information and as such, there may be variances between information contained herein and other university and faculty information. While every effort has been taken to ensure that the information is current, students need to consult the most recent UCT Student Handbook and faculty information.

3.1 Registration

If you have not yet registered with the Faculty of Engineering and the Built Environment, information may be found here:

http://www.uct.ac.za/downloads/uct.ac.za/currentstud/undergrad/registration/EBE_Registration_2011.pdf

Generally, a late registration fee of R 2000 will automatically be charged to the account of any student who registers late. Waiver of the fee will be considered by the Dean only in the most exceptional of circumstances upon receipt of a written motivation.

3.2 Terms and holidays

Please visit the UCT 'Calendar & Events' webpage: <http://www.uct.ac.za/calendar/>.

3.3 Student support services

3.3.1 Postgraduate Centre

The Postgraduate Centre is situated in the Otto Beit Building, Upper Campus. This state-of-the-art facility houses the executive committee of the Postgraduate Students Association (PGSA) as well as the Postgraduate Funding Office. The centre is equipped with IT facilities and includes a seminar room. This facility is open to all Master's and Doctoral students as well as postdoctoral research fellows. Postgraduates are encouraged to make full use of this centre, in particular, the Funding Office, which administers all postgraduate bursaries and scholarships. The Postgraduate Centre may be contacted at gradcentre@uct.ac.za. or visited at www.pgfo.uct.ac.za.

3.3.2 Disabled service

The UCT Disability Service works towards the removal of any physical, policy, information and attitude barriers that might prevent students and staff from fulfilling their potential. It advocates the policy of equal opportunities adopted by the university.

Consequently, UCT has a number of policies specifically designed to respond to the needs of staff and students with disabilities. These policies cover:

- The Disability Service mission statement
- UCT operating principles in respect of disability
- Rights and responsibilities of UCT in respect of staff and students with disabilities
- Rights and responsibilities of disabled students and staff at UCT
- Students with disabilities

For more information visit the following webpage: <http://www.uct.ac.za/services/disability/>.

3.3.3 Financial support

A number of opportunities exist for financial assistance to your postgraduate studies. For information on what opportunities are available, and how you can apply, please read the Postgraduate Financial Assistance Handbook, available at:

http://www.uct.ac.za/downloads/uct.ac.za/apply/handbooks/postgradfunding_2012.pdf

3.4 Official academic transcripts

Students receive three (3) copies of their official Academic Transcript with their Degree / Diploma certificate at graduation. Extra Academic Transcripts can be obtained from the Student Records Office at a cost of Fifty Rand (R50) for five (5) copies. More information may be found here:

<http://www.uct.ac.za/students/records/academic/>

3.5 Student Self Administration Service

The Student Administration Self Service (PeopleSoft) can be used to:

- Check application status
- Check current enrolments
- Access course results
- Request proof of registration document

- Check and maintain address details
- Check and maintain bank account details
- Check fee account
- Select a tutorial group (limited to certain courses)
- Get unofficial academic transcript

You may access the service by clicking on the relevant link on the following webpage:

<http://www.uct.ac.za/students/postgraduates/administration/>

3.6 Emailing at UCT

UCT email accounts are operated using Novell GroupWise software. Upon registration you will be automatically provided with a GroupWise account and a university email address. You can also access your university email off-campus by visiting the following webpage:

<http://webmail.uct.ac.za/>.

3.7 ICTS

The UCT Information and Communication Technology Services (ICTS) offer technical support to university staff and students. On the ICTS website (<http://www.icts.uct.ac.za/>) you can access a host of web-based services as well as download certain licensed software and patches. ICTS also operate a Helpdesk to deal with your queries or problems (for example, concerning your computer or email account). To log a call with the Helpdesk either phone X4500, log the call online (via the web address given above) or send an email to icts-helpdesk@uct.ac.za.

3.8 Codes of ethics

UCT has produced a code of ethics for student publications, which is presented in Volume 3 of the 2011 UCT Student Handbook; also available online:

http://www.uct.ac.za/downloads/uct.ac.za/apply/handbooks/policiesrules_2011.pdf

The 'UCT Code of Ethics Involving Human Subjects' is the code by which all UCT researchers in the Humanities are bound, and is a good starting point for conducting ethical research in the social sciences. Download the document here:

<http://www.uct.ac.za/downloads/uct.ac.za/about/policies/ethicscode.pdf>

The Faculty of Humanities has produced a 'Guide to Research Ethics', which explains some major ethical issues in research and gives guidance on how to gain ethical clearance. This is available here:

http://www.humanities.uct.ac.za/downloads/humanities/research/ethics/UCT_Humanities_Ethics_Guide.pdf

3.9 General academic and student rules

Volume 3 of the 2011 UCT Student Handbook discusses the University's general rules pertaining to academic degrees in addition to disciplinary issues, student conduct, residences, traffic, libraries and so on. The Handbook is available for download here:

http://www.uct.ac.za/downloads/uct.ac.za/apply/handbooks/policiesrules_2011.pdf

3.10 UCT Libraries

The UCT Libraries website (<http://www.lib.uct.ac.za/>) is an invaluable resource to students. Amongst other things, it provides information on library opening hours; access to the online searchable publication catalogue (ALEPH), as well as links to electronic resources and e-journals. To access a journal article online, click on the 'Find e-journal' link on the right hand side of the Libraries homepage. You may also access journal articles from off-campus, by clicking on the EZProxy link (below the e-journal link) and entering your standard UCT username and password.

3.11 Timetables

The UCT Timetable Site provides for semester timetables per course, exam timetables, departmental timetables and venue booking facilities. Please visit the following website for more information:

<http://srvwinweb001.wf.uct.ac.za/SPlusTTable/>