Master's Programme in Sustainable Development

PROSPECTUS 2015

SPECIALISATIONS:

Sustainable Development
Sustainable Development Planning
Sustainable Food Systems
Renewable and Sustainable Energy

A multi-disciplinary global programme in the planning, management and practice of sustainable development aimed at early and mid-career specialists and generalist professionals in the public, private and non-profit sectors

Delivered by the School of Public Leadership in partnership with
Sustainability Institute
Centre for Renewable and Sustainable Energy Studies
Centre for Green Economy Transitions (currently known as TsamaHub)
Stellenbosch University

Learning for Sustnable African Futures

SUSTAINABILITY INSTITUTE

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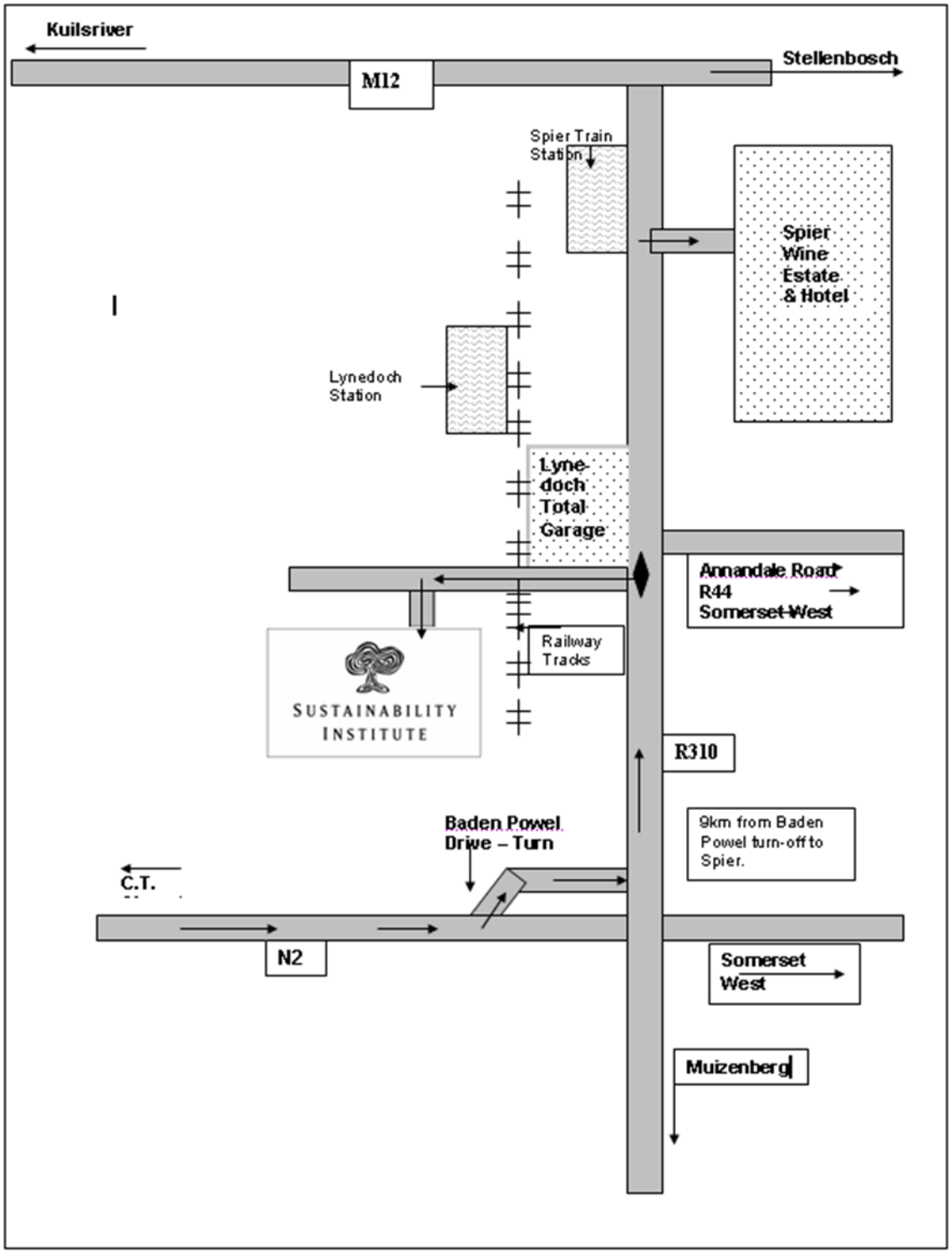

OVERVIEW: MASTER'S PROGRAMME IN SUSTAINABLE DEVELOPMENT

AIMS

This structured transdisciplinary programme, with four available specialisations (streams), has been jointly designed and developed by the *School of Public Leadership* (*www.schoolofpublicleadership*) and the *Sustainability Institute* (*www.sustainabilityinstitute.net*).

The main aim of this taught, multi-disciplinary programme is to provide participants with an understanding and practical experience of the wide ranging contextual, conceptual and thematic issues involved in the planning, management and practice of sustainable development throughout the world. As the various global social and environmental crises deepen, a new generation is rising up into leadership positions in the public, private and non-profit sectors that are required to possess a broad trans-disciplinary understanding of the various dimensions of these crises and related solutions. This integrated Master's Programme (which comprises two connected formal degrees at the Honours and Masters level) aims to equip these people with the knowledge, experience and skills they will need if they are to grow and develop within this new field of career development. This will be done by combining the following:

- a Postgraduate Diploma in Sustainable Development (PGD) comprising a set of 8 core modules that will be taught from an international perspective by leading experts in their fields, followed by
- an Mphil in Sustainable Development comprising either an Integrated Thesis (with optional variations) plus two or four electives;
- a teaching methodology that combines formal teaching, case methods, facilitated discussion learning, and self-managed learning in a way that allows each participant to shape their own study focus;
- a residential living and learning context that is rooted in a functioning sustainably built and operated community that provides participants with opportunities for direct experiences of sustainable development work in the farming, construction, landscape, infrastructure and educational fields that will complement their respective learning programmes.

COMPOSITION OF PROGRAMME

1. **Postgraduate Diploma in Sustainable Development** (one year full-time***** or two years part-time******), which is a 120 credit Honours-level qualification comprising a compulsory Orientation and eight modules that will be selected from the modules that are available. PGD graduates will have an automatic right to apply for registration for the MPhil if they obtain an average of at least 65% for each of the 8 modules.
   ***Full-time**: This means a student has to complete all 8 modules within 1 year.
   ****Part-time**: This means that a student may complete 8 modules over two-years (e.g. 4 modules in the first year of registration and 4 modules in the second year of registration).
   NB: Full-time and part-time students must attend the full week (Monday–Saturday) of classes at the Sustainability Institute (Lynedoch Road, off R310) in Lynedoch, for each of the modules they choose. **Anyone who misses a half day or more for any reason will be asked to leave the course.**

2. **MPhil in Sustainable Development** (one year full-time or two years part-time), worth 180 credits which comprises the following:
   - A research component (an academic thesis or various options including a Project Proposal or Academic Journal articles – more details below);
   - Research Methodology Course (5 days) (which takes place towards the end of the previous year).
   - Two or four electives. Students who receive/d a bursary from the Centre for Renewable & Sustainable Energy may be required to choose energy related electives.

All students (no matter what prior qualifications they may have at any level or with any other institution) are required to complete the PGD before starting the MPhil. Under no circumstances will any student be allowed direct entry into the MPhil without having completed the PGD. No other degree will be recognized as an entry requirement to the MPhil.

Students will graduate with two separate qualifications, namely a PGD in Sustainable Development, and an MPhil in Sustainable Development. The PGD is ideal for students who are only interested in the modules and have no interest in research. Students who complete the modules but want to complete the research component a few years later can exit with an Honours-level qualification (i.e. PGD) and then register for the MPhil whenever it suits them. Because the MPhil degree is defined as a research-based MPhil it is more highly rated in the national higher education system than a two year course work MPhil. In other words, not only do students graduate with two qualifications from this Programme, they also get a highly rated research-based Master's degree from the University of Stellenbosch which is one of South Africa's leading research Universities.

DISTANCE EDUCATION

No distance education options are available.

TEACHING METHODOLOGY

Approach and Methods of Tuition

During formal one week block sessions, an interactive teaching method will be used that will consist of formal lecturing, facilitated discussion learning, case method learning (in small group discussion and in plenary) and various kinds of structured group work. The main aim of this teaching approach is to ensure that members of the group learn from each other and establish strong working relationships. The facilitated discussion learning and case learning is designed to ensure that participants complement reading and listening with experiential learning that builds the capacity for sound judgement and practical wisdom. In addition, course participants will be required to undertake certain daily practical tasks related to the general upkeep of the Institute and the development of the surrounding projects. These shared experiences of practical work will feed directly into the overall learning experience during the block sessions.

The normal teaching day (Tuesdays to Fridays) will start at 08:00 with an hour of community work, followed by a formal teaching session until lunch time. Mondays willstart at 08:30. Between 14:00 and 16:00, group work takes place, normally in preparation for group presentations on Saturday morning. There is normally a late afternoon session from 16:00 to 17:30. Overnight reading preparation is expected. All these components of the day, including the community work session, are accredited elements of the course and therefore attendance is mandatory for those who require accreditation either for their PGD, MPhil or as Executive Candidates.

Between block sessions, course participants who return to their places of work will need to work largely on their own and connected to others via email and Moodle where this is practically possible. However, others may choose to stay on at the Institute where they may work in groups or work with Institute staff on various projects. In both cases, however, it should be assumed that approximately 100 hours of self-managed work time will be needed between blocks for reading and writing up of assignments.

Language of Instruction

The language of instruction during tuition, discussions and presentations will be in English.

Examination Requirements and Evaluation

This structured study programme consists of separate modules. Written theoretical, practical and oral examinations may be required in the respective modules. The final mark for each module will be based on an assessment of classroom performance and written work.

The following requirements apply:

- a module pass mark is 50% on condition that the mark for the individual assignments is 50% or more
- a module distinction pass mark is 75%
- the pass mark for the Research Component is 50%
- the pass mark for the programme is a 50% average for all the modules combined plus a 50% pass mark for each of the eight (8) core modules
- the programme distinction pass mark (*cum laude*) is a 75% average for all the core modules combined.

If a candidate fails a module, s/he will be required to do one or both of the following: (a) repeat the Module and pay anew in full for the module, and/or (b) resubmit the written assignment by a certain date. The Programme Coordinator has sole discretion as to which remedial action will apply.

MODULE DESCRIPTIONS

Sustainable Development (FOUNDATION MODULE)

Aim: This module will be the foundation stone of the entire programme. It will provide course participants with an overview of the most significant global environmental, social and economic challenges that face humankind, and an insight into the solutions suggested by the universal commitment to sustainable development. Course participants will be able to recognise, understand and apply the divergent interpretations of sustainable development that currently exist. The main themes will include:

- review of the most important environmental problems, such as climate change, waste and pollution, biodiversity destruction, and the general contradiction between resource use and carrying capacity;
- review of the most significant social challenges, including demographic change and expansion, pandemics, poverty, endemic violence, migration and urbanisation;
- review of the key global economic trends that currently determine and shape the dynamics of national and local economies;
- introduction to the history of, and different approaches to, the notion of sustainable development;
- case studies of sustainable development in practice at the policy and project levels.

Applied Economics

Aim: This module aims to introduce participants to the basic concepts of and insights into the crafty art and artistic craft of the orthodoxies and heterodoxies of economics in the theoretical and practical realms. The grain and texture of the course is admittedly coarse, connected to the breath/width of the module and its orientation towards the paradigms and practices of economic planning, generally, and development planning, more specifically. The elaboration – at different and linked spatial and institutional scales – of theories, policies, programmes, plans and other interventions to further the objectives and installation of pro-poor economic growth and distributional paths/trajectories/regimes constitutes the foundation/anchor of this module. Given these parameters and scope, the module grapples with a multiplicity of development planning problematic spanning the role of the state (national, provincial and local) in and the interconnections between economic and human development, refracted through the lenses of poverty eradication, redistribution and socio-economic empowerment in and beyond market-conditioned/mediated formats. Hence, the module hones in on the developmental state in its national, regional and local manifestations and the form and materiality of its interventions/activities related to macroeconomic management, employment generation and industrial development, income and asset transfer programmes, human capability enhancement, regional and local economic and infrastructure development (and more). The following broad themes are dealt with in the module:

- Introduction to Economics: Orthodoxies and Heterodoxies
- The Role of the State in Economic Development: Historical Overview
- Macro-economic Policy and Reform: Evolution, International (Dis)/Consensus and the National Trajectory
- Economy, Employment and (In)Equality: Trade and Industrial Policy, Economy and Poverty
- Geography, Economy and Planning: National and Regional Planning, Local Economic Development
- Land, Property and Financial Markets
- The Economy and the Fiscus
- Growth Paths, the State and the Future

Biodiversity and Ecosystem Services

This course will focus on the global dynamics of biodiversity and ecosystem resilience. Whereas climate change and resource depletion are two of the well-known concerns within the sustainability field, the scientific focus on biodiversity and ecosystems constitutes the third leg of sustainability science research. This module will help students understand critical ecosystem services such as freshwater, crop production, grazing, climate regulation that underpin the well-being of different societal groups in South Africa, and how these ecosystem services can be managed or restored to build resilience and support transitions in complex, interconnected social-ecological systems (SES). This will entail an analysis of which parameters influence feasible investments in restoration of ecosystems and their services, and the potential for green infrastructure to act as an alternative for physical man-made infrastructure. Particular attention will be paid to identifying possible tipping points that could trigger large, abrupt, nonlinear changes that threaten critical ecosystem services and hence the potential for structurally transforming the economy and alleviating poverty. Using the Inclusive Wealth framework students will be introduced to assessment methods that value key ecosystem services and the potential economic consequences of transgressing possible tipping points. The major types of SES in South Africa will be described and their ecological, social and economic sustainability assessed in order to identify key leverage points for transitioning to more sustainable SES. To balance out this economic perspective, students will also be introduced to deep ecology perspectives that value the non-quantifiable benefits of a reconnection to nature.

Bioenergy (Engineering module)

The course will consider the practical and commercial application of the various technologies for biomass conversion into bio-energy. The production of first and second generation bio-fuels as well as other forms of renewable energy, such as electricity, will be covered, with an emphasis on the critical issues of thermal efficiency, sustainability and commercial feasibility. The following technologies for biomass conversion will be included:

- Bio-ethanol production, including substrate preparation, microbial conversion and separations
- Thermo-chemical conversions, including combustion, gasification and pyrolysis, and the use of these for green electricity production
- Biogas production, both from landfill sites, animal dung and waste water treatment
- Biodiesel production, including process basics, product purification and waste treatment

The selection of the most appropriate technology from the demand side perspective will be a central thread through the course.

Complexity Theory and Systems Thinking

Aim: to provide students with a general introduction to a theoretical field that has emerged in recent decades from the natural sciences and which has since penetrated both the management sciences and more recently certain sections of the social sciences. As the new paradigm for rethinking the connection between natural and social systems within the wider context of sustainability, it is essential that course participants have mastered the basic concepts of this approach. Central themes will include:

- history of systems thinking, with special reference to the emergence of conceptions of complexity, chaos and dynamic self-organising systems;
- complexity, post-structuralism and the rethinking of science;
- the organising principles of all life forms;
- complexity and post-modernism;
- implications of complexity theory for an understanding of the relationship between natural and human systems;
- applications within the management and social sciences;
- complexity and sustainability.

Development Planning and Environmental Analysis

Aim: this module will provide participants with an understanding of the links between science, knowledge, evidence-based policy and action for sustainability and the role of planning and environmental techniques, assessments and analyses in this process. An overview will be given on extracting, processing and presenting data; demographic and socio-economic, poverty and inequality assessments, environmental impact analysis (EIA), strategic environmental assessment (SEA), sustainability assessments and sustainability indicators. Cost-benefit analysis, multi-criteria decision analysis, transport, infrastructure, regional and urban economic analyses will also be addressed. The focus of the module will be on exploring new techniques for sustainability, of which the main themes are:

- knowledge- policy-action for sustainability;
- socio-economic analysis and profiling of communities for integrated development planning;
- social, poverty and inequality analyses, including participatory and action research;
- "pre-design" environmental analysis, "post-design" environmental impact assessment (EIA); strategic environmental analysis (SEA) and sustainability assessments;
- sustainability and ecological indicators, including the ecological footprint of a city, material flow analysis and alternative economic assessments.

Development Planning Systems, Law and Policy

Aim: this module will provide participants with an understanding of the constitutional, legislative, policy and procedural dimensions of the South African planning system, linking to what is happening in the rest of Africa and the world. The module will focus on how to promote justice, human rights (Bill of Rights), equity and sustainability through law. This will include an understanding of the concepts of the developmental state, co-operative governance, the distribution of planning powers and obligations across the different spheres of government, environmental, land use, land reform, rural, urban and regional development legislation and policy, in order to analyse, critique and apply these frameworks. Central themes will include:

- planning, development and environmental management systems, both informal and formal, and their links to social systems
- making institutions, legislation and policy more responsive to poor people and the application of human rights and other normative approaches, such as environmental justice, the just city, deliberative democracy, and what constitutes citizenship
- the role of a developmental government and local authority and criteria to assess the success of their integrated development planning in promoting sustainability (both the products and the process)
- planning systems for sustainable development, linking land use, transport, squatting, housing and environmental law
- criteria for analysing constitutional, legislative and policy frameworks

Development Planning Theory and Practice

This module will provide a brief introduction to mainstream and heterodox economics; the complex relationship between ideology, money and social power; the politics, economics and sociology of policy reform, state-building and developmental statecraft. To unpack this, this module introduces students to mainstream theories of development; crisis of/in development thinking; poverty-inequality-power nexus (refracted through race, class, gender, food, knowledge, culture); state and development (centrality of

class in critical development studies, politics of Empire, politics of development); compressed development and different pathways to growth (orthodox and heterodox explanations of development in diverse countries (including China, India, Brazil, Botswana, Mauritius, S-E Asia); Africa and the World Economy (aid, trade, debt, growth).

Ecological Design for Community Building

Aim: to enable module participants to describe, analyse, critically evaluate and apply the range of emerging techniques for designing and implementing sustainable communities. Central themes will include:

- overview of different conceptions of ecological design;
- implications of global agreements and policies for the design professions;
- review of the main international standards (e.g. ISO);
- trends in ecological urban design ("green urbanism");
- trends towards "green architecture";
- "zero waste" perspectives on sanitation and solid waste management;
- sustainable engineering solutions for energy alternatives (solar, wind, hydrogen) and car-dominated transportation systems;
- sustainable food and water supplies for local communities, towns and cities;
- decision-support systems for analysing and selecting building materials.

Facilitation for Sustainability Transitions

During this course, we will explore the possibilities inherent in having, and facilitating, conversations that matter to us. We will look at facilitation as the conscious use of process, substance, and space. From a process perspective, we will look at some theories of dialogue and facilitation, some ways of thinking about group process and different kinds of dialogue. Participants will have opportunities to engage in facilitated group conversation, and to experience themselves more consciously in this process. The substance of the conversations will be evoked, in part, by living case studies that speak of some of the complex socio-ecological realities we live in. Participants will also bring to the course the issues that they are grappling with and about which they want to initiate conversation in their own contexts. Lastly, we will look at the question of space; choices about the physical places in which to host dialogue and how those relate to nature and the outdoors, spatial arrangements in those spaces, as well as more metaphorical aspects of internal spaciousness in the facilitation role and the idea of boundaries. How can we support a group to find both its yes and its no, in ways that will generate more clarity and potentially galvanize action? How can we as facilitators find both our yes and our no and use these skilfully in the groups we work with?

Food Security and Globalised Agriculture

Course participants will be required to describe, analyse and critically evaluate the different options for ensuring food security from a sustainable development perspective, within a globalised food system.
Central themes will include:

- Overview of Globalised Food Systems
- South African Agriculture within Global Food Systems
- Food Security – global status, varying policy responses and debates
- Nutritional Security
- Responses to Globalised Food Systems – effect on the poor and marginalised, including groups responding (Via Campesino, Slow Food, Fair Trade, Landless People's Movements)
- Debate on the Impact of Genetically Modified Crops on Food Security
- Urban Food Security in South Africa and Africa
- The Alliance for a Green Revolution in Africa: undermining food security?

Governance, Globalisation and Civil Society

Aim: to provide module participants with an understanding of the changing modes of governance at the local, national and international levels within a context characterised by globalised information-based economic dynamics, the rise of civil society and the challenge of sustainable development. The main themes will be:

- changing conceptions of governance over the last century (social democracy, liberal, statist, corporatist and now green);
- review of the institutional structures of global governance;
- the rise of local governance and local economies;
- the rise of civil society at the local and global levels;
- the implications of sustainable development for governance at the global, regional, national and local levels;
- case studies of "green states".

Introduction to Development Planning

Aim: this introductory planning module provides participants with an introductory overview of the developing field of trans-disciplinary and integrated development planning to promote sustainability. This includes an examination of the international, African and South African planning context, and the introduction of new planning language, procedures, techniques and tools that are being used in the management of the built environment, environment, social, economic and institutional development. The course will also give an overview of substantive, procedural and normative theoretical planning models, and ethical dilemmas in professional practice. Main themes are:

- An introduction to sustainable development and planning concepts and language, concepts such as social capital, social-ecological systems and resilience, sustainable livelihoods, capabilities, right-based development and planning
- planning within a globalised world and the role of markets versus the role of states, as well as the limits of planning
- planning as 'the official story' versus 'insurgent planning' and an overview of various models and typologies of planning (rational, comprehensive, incremental, mixed scanning, implementation-orientated, strategic, advocacy, transactive/ social learning, equity, critical pragmatist, Marxist, radical, communicative/ collaborative)
- the role of informality and participation in planning and development, processes; social learning, and conflict transformation
- the role of spatial planning within an integrated planning process, regional and rural planning and the planning of sustainable human settlements
- planning tools and instruments for dealing with complex and 'wicked' problems such as urbanisation, migration, poverty, social exclusion, inequity, inequitable and inefficient urban form and degradation of the built and natural environment (such as the South African Integrated Development Planning concept, Local Agenda 21 planning and City Development Strategies).

Introduction to Solar Energy (Engineering module)

The course consists of a study of both Photovoltaics (PV) and Solar-thermal technologies for generating electricity or for producing heat from sunlight. The course starts with the relevant principles of sunlight including:

- The position and quality of energy from the sun at any time of day and location;
- Measurement and modelling of solar irradiation;
- The importance of knowing the solar resource.

The principles, manufacturing technologies, efficiencies, advantages and limitations of various PV cells will be considered. The students should be able to design a manufacturing plant as well as practical installations of various PV components and systems in a cost effective way. The main themes will include:

- principles of operation of PV cells;
- manufacturing technologies of crystalline and thin film PV cells;
- balance of system (BOS): regulators, inverters and storage;

- design of stand-alone PV systems;
- design of roof mounted grid connected PV systems;
- design of large MW PV systems;
- concentrators: combined heat and power generation (CHP).

The various solar-thermal technologies will be introduced with the basic heat transfer and thermodynamics principles that apply. Both bulk electricity generation and smaller stand-alone systems will be covered. The main themes will include:

- theory of mirror reflection and concentration of sunlight;
- absorption of concentrated sunlight: selective absorbers;
- generation of electricity: Stirling, Rankine and Brayton heat cycles;
- combined heat and power generation (CHP);
- energy storage: heat and other technologies.

Leadership and Environmental Ethics

Aim: to enable module participants to develop leadership capabilities that are premised on the capacity to recognise, describe, analyse and apply the different ethical models and value systems that underpin socioecological action. Central themes will include:

- the underlying ethical value systems of different leadership approaches;
- philosophical models for conceptualising environmental problems and the related approaches to environmental ethics – and why understanding these enables pragmatic action in conflicts in and around sustainable solutions
- relationship between environmental and social ethics, e.g. economic efficiency, freedom, equality and justice;
- models of, and approaches to, leadership within society and human organisations;
- the ethics of sustainability and process-oriented leadership;
- complexity, ethics and leadership;
- creativity, spirituality and personal unfolding;
- case studies and exercises

Policy & Legal Framework for Rural Development (to be renamed Regional Food Systems in 2016)

The food we eat is dependent on the functioning of a particular food system. This system is changing because of the impacts and consequences of converging and mutually reinforcing transitions coupled with the impacts of globalisation. This module will address these challenges and review new ways of understanding and engaging in the food system. Traditionally, strategic food system planning and responses have generally been located at the national scale, focussing on policy and net production, or at the household scale, where welfarist responses dominate. An alternative scale of analysis and action is required that focusses on the regional scale. This module critically considers a variety of nascent regional food system concepts, responses and theoretical perspectives. These include, but are not limited to, regionalism and localisation, urban and peri-urban agriculture, regional food security, food sovereignty, pluralistic food governance, food deserts, supermarketisation and alternative regional food movements. Much of the regional food system discourse has emerged in the Global North and concepts are often uncritically transferred to, and at times imposed on, the Global South. This module challenges this approach by exploring approaches more appropriate to Southern responses to these global food system trends.

Note: Although the Regional Food Systems module will be delivered in 2015, it is not yet registered on the University system. Therefore, students doing this module in 2015 will have 'Policy & Legal Framework for Rural Development' reflecting on their academic transcript.

Renewable Energy Finance

The global drivers of decoupling economic growth and addressing climate change have seen much emphasis placed on the development of renewable energy projects. This module enables participants to understand the parameters that influence the financial aspects and project design of renewable energy initiatives in Africa. The participant will get to be familiar with a range of instruments, the financial structuring tools needed to attract investors, and how to use alternative financial sources, like carbon finance, outside of the commercial financial institutions to ensure the financial viability of renewable energy projects. The module therefore aims to empower professionals to incorporate appropriate financing into their decision-making pertaining to renewable energy projects. This includes:

- The basic financial metrics such as IRR, NPV and DSCR,
- Understanding the economic justification and impact of renewable energy projects,
- Understanding of what sustainability drivers have an effect on the renewable energy business,
- Understanding what barriers exist to renewable energy project implementation from a financial perspective, and
- Understanding what opportunities exist to facilitate renewable energy implementation.

The module is mainly aimed at sensitising participants to qualitative issues in renewable energy projects, but also enables participants to deal with quantitative measures.

Renewable Energy Policy

Aim: To provide participants with an overview of the policy context, which must be understood as the regulatory, institutional and market setting for renewable energy technologies (RETs). To understand the policy context the sustainability of RETs, from the perspectives of policy-makers and other stakeholders, must be understood. The module is subsequently designed to address the following questions:

- What do sustainable RETs mean?
- How can sustainable RETs be assessed, identified and prioritised?
- How may appropriate RETs be managed as sustainable energy value chains in Africa?
- What tools can be used to promote appropriate and sustainable RETs?

Renewable Energy Systems (Engineering module)

The course will give the students a thorough understanding of the basic concepts of energy, power, mechanical work and heat. They will be able to evaluate the practical possibilities and limitations of renewable energies and compare it with conventional carbon based energy systems. The present energy resources and demands of the world will be analysed and renewable energy scenarios that are technologically feasible and economically viable for the future will be investigated. The main themes will include:

- concepts of energy, power, work and heat;
- efficient conversions of different forms of energy into other useful forms;
- basic principles of thermodynamics and electricity as applied in the use of energy;
- resources, technology and viability of renewable energies: Geothermal, Hydro, Waves, Oceanic, Wind and Biomass;
- Solar Energy: solar water heating, principles and technologies of photovoltaic cells (PV) and solar-thermal generation of electricity;
- future technologies: hydrogen economy, fuel cells;
- energy statistics: resources and demands of energy in the world; future renewable energy scenarios.

Sustainable Enterprise

Under the rubric of Sustainable Enterprise or related terms, such as corporate social responsibility (CSR), corporations are facing increasing pressures to contribute to sustainable development, and many of them are trying to respond. This module will investigate the motives and manifestations of Sustainable Enterprise, with special emphasis on developing country contexts, particularly South Africa. An overarching question is whether Sustainable Enterprise reflects a genuine shift in attitudes and behaviour, or is it a veil for business as usual? Key themes include the following:

- Defining Sustainable Enterprise
- Drivers for Sustainable Enterprise and the corporate response
- The challenge and complexity of implementing Sustainable Enterprise
- Sustainable Enterprise as discourse and controversy
- Partnerships and critical collaboration
- Social entrepreneurship
- Is Sustainable Enterprise making a difference?
- The future of Sustainable Enterprise

Sustainable Cities

Aim: to provide module participants with a general and comparative understanding of the combined economic, social and environmental impact of the following three trends: the expansion of the world population to at least 9 billion people over the next 20 years, the transition to a predominantly urban world by 2005, and the negative environmental impact of urban systems that have yet to be re-designed in line with the principles of sustainable development. Given that the majority of the world's largest cities will be in the developing world, it is these cities that will be the core focus of this course. Course participants will be required to critically evaluate and analyse current trends, and test and apply a range of policy alternatives. Central themes will include:

- comparative history of the city across the developed and developing world;
- current urban trends, including urbanisation, urban poverty, urban economic trends and local governance;
- the challenge of unsustainable urban systems for food supplies, waste, energy, water and CO2 emissions;
- the social dynamics of cities, with special reference to African cities;
- globalisation and the changing role of cities in the global economy;
- policy prescriptions for urban problems from the main international institutions (World Bank Group, IMF and United Nations);
- case studies of sustainable development in practice.

System Dynamics Modelling

Aim: to provide participants with an appropriate way of visualising the complex interrelationships between various parts of real-world problems; problems that continually change over time and are resistant to corrective action. The module therefore provides a solid foundation for developing strategies and managing problems for which conventional reductionist ways of thinking are ineffective. The module is subsequently designed to provide the understanding of the following:

- What is system dynamics and why use it?
- What are the modelling approach / processes?
- What are the basic feedback structures?
- How does one develop a system dynamics model?

Therefore, this module introduces the concepts of system dynamics modelling, including the modelling process, fundamental modes of dynamic behaviour, and the stock-flow-feedback structures that generate them, system mapping tools, and modelling human behaviour. Emphasis will be on examples from the energy and water sectors, and aquaculture management, but students have the opportunity to engage with their own real-world problems.

Systems & Technologies for Sustainable Agriculture

Aim: Participants will understand the principles of these alternative farming systems and be able to apply them to different crop and animal production systems through case study teaching. Students will learn about crop and animal production using the inputs of soil, water, energy, labour and capital (assets) in a sustainable way that includes local environmental conditions, economic considerations and social networks. Systems and Technologies for Sustainable Agriculture II will deepen the understanding developed in Systems and Technologies I by way of a course that gets delivered in India in partnership with an NGO

called Dharmitra. Led by Professor Tarak Kate, this course will provide students with a direct and hands-on experience of sustainable agriculture practices in Maharashtra State, India.

Wind and Hydro Energy (Engineering module)

This module deals with the harvesting of energy from the motion of air and water. The different types of machines applicable to wind, waves, tides and currents will be introduced. Identification of suitable zones and locations of such systems in Southern Africa. The main elements of the course are listed below.

- General introduction: Basic fluid dynamic principles in the context of wind and hydro engineering.
- Wind power: Introduction, cost and growth. Wind energy: Wind variability and turbine power. Turbine types, scale and siting. Basic wind turbine theory. Debate for and against wind power: pollution, long term potential, intermittency, feasibility, aesthetics.
- Basic wave generation theory. State of the art methods, floating and submerged. Debate for and against wave power: ecology, long term potential, feasibility, aesthetics.
- Basic consideration of other ocean related power generation systems: currents and tides. Combined systems.

DATES AND DEADLINES

The dates during which modules will be presented, are listed on the last page of this prospectus.

POSTGRADUATE DIPLOMA IN SUSTAINABLE DEVELOPMENT

ENTRY REQUIREMENTS

Candidates may apply to enter this taught PGD Programme if they are in possession of one of the following qualifications:

- Any Bachelor's or BTech degree or a relevant four-year diploma with a 60% pass mark in one of the following major subjects: Town and Regional Planning, Housing, Geography and Environmental Studies, Social Sciences (sociology, politics, etc), Psychology, Economics, Public and Development Management, Geology, Botany, Zoology, Forestry, Ecology/Nature Conservation, Mathematics, Statistics, Agricultural Economics, Transport Economics, Forestry, Civil Engineering, Architecture, Land Surveying or ***any other degree approved*** by the Programme Committee. Relevant work experience will be considered for admission.
- Any three year diploma with at least five years relevant work experience and conformity with the University's RPL (Recognition of Prior Learning) policy. According to this policy, the equivalent of 120 credits at NQF level 6 (Bachelor's degree) must be offered in one or more of the following ways, subject to the decision of the Programme Committee, which consists of the Director of the School of Public Leadership, the Programme Coordinator and other relevant persons:
    - Completion with a total 65% mark of at least three modules from the PGD curriculum
    - Recognition of all the professional short , in-service training courses and completed subjects for another degree or diploma programme
    - Submission of a learning portfolio, with copies of written work
    - Passing of an entrance examination if so required by the Programme Coordinator

If a candidate has obtained a Merit Certificate for one or more individual modules that were completed for non-degree purposes, the candidate may apply for the certificate(s) to be converted into credits towards the degree. The Programme Coordinator has sole discretion over whether or not to grant this request. S/he will take into account the performance of the candidate and the time that may have lapsed between the completion of the Certificate and the application to register for the degree.

Application

- Closing date for PGD application: 31 August of the year prior to the year during which the programme commences. (Please note that all the supporting documents of your application must have reached Stellenbosch University by this date; i.e. you need to do the actual online application at least one week prior to 31 August.)
- A detailed explanation of the application procedure can be found on page 25 of this Prospectus.
- Any other entry requirements for postgraduate study prescribed by the University of Stellenbosch in its various public documents will apply.

Selection

- Selection will take place in October/November after which successful candidates will be informed. **Selected PGD students will be eligible to pay a non-refundable deposit fee of R2000 by 15 November of the year prior to the year in which they are taking up studies to confirm and secure their position on the programme**. This amount will be deducted from the registration fee payable in January of the year in which you are taking up studies. Failure to adhere to this will forfeit your position on this programme. If you do not arrive at registration for whatever reason or if you decide not to participate in the programme for whatever reason, this deposit fee will also be forfeited.
- The **criteria for selection** include academic excellence, work experience, an appropriate mix of disciplines, career commitment in the broad field of sustainable development and a well-written motivation.

STRUCTURE

The PGD has a foundation module (Sustainable Development) that **everyone** must complete, plus five clusters of modules known as Specialisations. These Specialisations are as follows:

- Sustainable Development: foundation module plus 7 modules;
- Sustainable Development Planning: Sustainable Development, 5 Core Modules from the development planning Specialisation, plus 2 additional modules;
- Renewable and Sustainable Energy: Sustainable Development, 3 additional specified Core Modules delivered by the School of Public Leadership, plus 4 Core Modules from the Renewable and Sustainable Energy Specialisation, some which are delivered by the Engineering and Forestry faculties;
- Sustainable Food Systems: Sustainable Development, plus 5 compulsory Core modules and 2 modules selected from any of the specialisations.

The programme is presented formally during the scheduled contact sessions, with assignments completed during the interim periods between blocks. The Orientation, which commences with registration, is compulsory for all PGD students. Students who do not participate in the Orientation will not be permitted to register for any module.

The Renewable and Sustainable Energy modules (delivered in partnership with the *Centre for Renewable and Sustainable Energy Studies) a*re Core Modules for the RSE programme option but can be selected by any student on condition the rules for each specialisation/stream specified below are adhered to.

Each module will **as far as possible** be delivered at these fixed times. This means that a course participant can mix and match his/her participation to suit each person's practical circumstances. For example, it will be possible for someone to complete the entire course work programme for the PGD in one year (full-time) by attending eight core modules and completing the assignments **or** over 2 years (part-time) by attending 4 core modules per year and completing the assignments (or, for that matter, 5 modules one year and 3 modules the other year). Completing the PGD over three years will only be permitted under exceptional circumstances.

As far as sequencing is concerned, the only course requirement is that all participants must do the Foundation Module (Sustainable Development I) before they enrol for any other module. No sequencing is applicable to any of the other sustainable development core modules (although we do make recommendations for certain combinations). This will allow for the maximum possible flexibility for course participants.

It is recommended that participants who want to enrol for all the planning core modules follow the Foundation Module: *Sustainable Development* I with the planning modules in the following order: namely first *Introduction to Planning,* then followed consecutively by *Development Planning Theory and Practice; Development Planning Systems, Policy and Law; Development Planning and Environmental Analysis;* and *Applied Economics*. However, it is not compulsory to follow this order.

For the programme to be financially viable, a minimum number of 15 participants are required for each module. The preferred class size is 30 participants, but this may expand to as much as 55 for certain modules.

Each module requires at least 150 hours of your time i.e. 50 hours class/contact time, 50 hours reading time, and 50 hours spent writing up the assignments.

Module Completion

All candidates must attend and complete the Foundation Module: *Sustainable Development I* before proceeding to register for any other module. Candidates wanting to follow the 'Development Planning Theory and Practice' and 'Development Planning Systems, Law and Policy' modules are highly recommended to only do it after completion of the 'Introduction to Development Planning' module. Otherwise, candidates can structure the sequencing of their Module selections to suit their own practical circumstances and intellectual preferences. Each candidate must make his/her own arrangements with respect to electives. The Programme Director and supervisors will be available for advice and on request; the Sustainability Institute will actively suggest viable options.

Students will be required at the start of the programme to commit to participating in certain modules at certain times. If a student changes his/her plans by deciding to register for a Module that s/he did not sign up for at the start, and if the Module s/he has applied for is full, then s/he will be put onto a waiting list. Non-attendance of modules for which students have registered will result in failure of a module. A student will then have to re-register and pay for the module in the subsequent year.

Candidates who fall into arrears with their payments for modules will be not be allowed to register the following year and their final marks will be withheld until payment has been received.

CURRICULUM

The PGD curriculum comprises eight (8) Core Modules each worth fifteen (15) credits. The eight Core Modules must be selected as follows:

The Foundation Module, *Sustainable Development I,* and an Orientation is compulsory and must be attended before participation in any of the other modules will be authorised.

<u>Sustainable Development Stream</u>

Students who require a general transdisciplinary understanding of global trends in sustainability thinking and sustainable development in particular are encouraged to select this stream. These students must select 8 modules from the following options. Each of these modules has a value of 15 credits:

<u>*Compulsory module:*</u>
Foundation Module: Sustainable Development [Note: this is a two-week course]

The remaining seven modules must be selected from the following Core Modules and Energy-related modules:

Applied Economics
Biodiversity and Ecosystem Services
Complexity Theory and Systems Thinking
Development Planning and Environmental Analysis
Development Planning Systems, Law and Policy
Development Planning Theory and Practice
Food Security & Globalised Agriculture
Facilitation for Sustainability Transitions
Ecological Design for Community Building
Renewable Energy Finance
Governance, Globalisation and Civil Society
Introduction to Development Planning
Leadership and Environmental Ethics
Policy & Legal Framework for Agricultural Sectors
Renewable Energy Policy
Sustainable Cities
Sustainable Enterprise
Systems & Technologies for Sustainable Agriculture
System Dynamics Modelling [Note: this is a two-week course]

A maximum of two modules can be selected from the following list of energy-related modules:

Renewable Energy Systems
Bioenergy
Introduction to Solar Energy
Wind & Hydro Energy

It is recommended that the Complexity Theory and Systems Thinking module is completed ***before*** the Leadership and Environmental Ethics, and that the Sustainable Cities module is completed ***before*** the Ecological Design module.

Sustainable Development Planning Stream

Students who intend practicing in the applied disciplinary field of development planning and the allied built environment sphere in South Africa are advised to select this programme option. Students are required to complete certain compulsory modules, and to select additional modules from the list of core modules (8 modules in total). Each module has a 15 credit value.

Important Note: It is recommended (though not compulsory) that students first complete the "Introduction to Development Planning" module before attending the Development Planning Theory and Practice or Development Planning Systems, Law and Policy modules.
After completion of the PGD, students intending to eventually work as planners in SA are also advised to select the 120 credit option for the MPhil with 4 additional modules, as listed under the MPhil degree. The research component for the MPhil will also need to have a "Sustainable Development Planning" focus.

Compulsory Module:

Foundation Module: Sustainable Development

Compulsory Core Modules:

Introduction to Development Planning
Development Planning Theory and Practice [Note: renamed Development Theory and Practice as from 2016]
Development Planning Systems, Law and Policy
Applied Economics

Development Planning & Environmental Analysis

The remaining two modules for the PGD must be selected from the following Core Modules and Energy-related modules (although certain modules are highly recommended for the PGD or MPhil module option):

Biodiversity and Ecosystem Services
Complexity Theory and Systems Thinking - *Recommended*
Ecological Design for Community Building - *Recommended*
Renewable Energy Finance
Food Security and Globalised Agriculture
Facilitation for Sustainability Transitions
Leadership and Environmental Ethics
Policy & Legal Framework for Rural Development
Renewable Energy Policy
Sustainable Cities - *Recommended*
Sustainable Enterprise
Globalisation, Governance and Civil Society
Systems & Technologies for Sustainable Agriculture
System Dynamics Modelling [Note: this is a two-week course]

A maximum of two modules can be selected from the following list of energy-related modules:

Renewable Energy Systems
Bioenergy
Introduction to Solar Energy
Wind & Hydro Energy

Sustainable Food Systems Stream

Students interested in the entire food chain stretching from primary production, to the consumption of food, through to food waste are encouraged to select this option. Students must complete the following 8 modules. Each module has a 15 credit value:

Compulsory module:

Foundation Module: Sustainable Development

Compulsory Core Modules

Food Security and Globalised Agriculture
Leadership & Environmental Ethics
Systems & Technologies for Sustainable Agriculture
Policy & Legal Framework for Rural Development

The remaining four modules must be selected from the following Core Modules and Energy-related modules:

Applied Economics
Biodiversity and Ecosystem Services [recommended]
Complexity Theory and Systems Thinking [recommended]
Development Planning and Environmental Analysis
Development Planning Systems, Law and Policy
Development Planning Theory and Practice
Ecological Design for Community Building
Facilitation for Sustainability Transitions
Renewable Energy Finance
Governance, Globalisation and Civil Society
Introduction to Development Planning
Leadership and Environmental Ethics
Renewable Energy Policy
Sustainable Enterprise
Sustainable Cities
System dynamics Modelling [Note: this is a two-week course]

A maximum of two modules can be selected from the following list of energy related modules:

Renewable Energy Systems
Bioenergy
Introduction to Solar Energy
Wind & Hydro Energy

Studying Sustainable Agriculture in India

Starting in 2013, students were offered the opportunity to do a module on sustainable agriculture in India. Subject to financial viability, this opportunity will be offered again in 2015 and beyond. The following options are available:

- PGD students must first do Systems and Technologies for Sustainable Agriculture before they go to India – the course in India will be called Comparative Studies in Regenerative Food Systems and must be done as a 9th module that will be accredited as an elective in the MPhil rather than one of the required 8 modules for the PGD;
- MPhil students who want to take up the India study opportunity may do so irrespective of whether they have done the Systems and Technologies I module or not – they will be registered for a module called Advanced Studies in Sustainable Development.

Renewable and Sustainable Energy Stream

This specialisation is offered in partnership with the Centre for Renewable and Sustainable Energy Studies at Stellenbosch University (see www.sun.ac.za/crses). This Centre is a joint initiative by four Faculties of the University plus the Sustainability Institute, and the South African National Energy Research Institute (which is a subsidiary of the Government's Central Energy Fund). The teaching programme is jointly managed by the Department of Mechanical Engineering, School of Public Leadership and the Sustainability Institute. All modules will take place at the Sustainability Institute or at the Engineering Faculty in the event that access to laboratories or experimental units is required. It is important to note that the Foundation Module plus the four modules from the Renewable and Sustainable Energy Specialisation (see below) are also the component modules of the Master's in Engineering specialising in Renewable and Sustainable Energy delivered by the Department of Mechanical Engineering. This means that students who enrol for the Renewable and Sustainable Energy Specialisation in the PGD/MPhil programme will be studying together with engineering students registered for the MEng degree. This will create a challenging learning environment that will prepare people for working across disciplines which is what will be required for those who pursue careers in the sustainable energy field. After completing the PGD, the research component for the MPhil will need to have a renewable and sustainable energy focus. All modules have a 15 credit value.

Compulsory Module:
Foundation Module: Sustainable Development
Compulsory Core Modules:

Ecological Design for Community Building
Renewable Energy Finance
Renewable Energy Systems
Renewable Energy Policy

The remaining three modules must be selected from the following Core modules and Energy-related modules:

Applied Economics
Biodiversity and Ecosystem Services
Complexity Theory and Systems Thinking
Development Planning and Environmental Analysis
Development Planning Systems, Law and Policy
Development Planning Theory and Practice
Food Security and Globalised Agriculture
Facilitation for Sustainability Transitions

Governance, Globalisation and Civil Society
Introduction to Development Planning
Leadership and Environmental Ethics
Policy & Legal Framework for Rural Development
Sustainable Cities
Sustainable Enterprise
Systems & Technologies for Sustainable Agriculture
System Dynamics Modelling [Note: this is a two-week course]

A maximum of two modules can be selected from the following list of energy related modules offered by the Engineering Faculty:

Bioenergy
Introduction to Solar Energy
Wind and Hydro Energy

The normal combination for the Renewable and Sustainable Energy programme is the five Compulsory Modules, one or two Energy-related Modules plus one or two additional modules selected from the list of Core Modules.

FEE STRUCTURE

Deposit

Students who have been accepted on the programme pay a non-refundable deposit of R2000 by 15 November.

Registration fee

The registration fee for 2015 will be R7700. Deducting the R2000 deposit, this means that R5700 is payable by 23 January 2015. This is the first installment on tuition fees.

Course fees (all course Readers and prescribed learning material are included in this fee)

R4660 per module (School of Public Leadership) (fees for modules offered by the Dept. of Engineering may be higher/lower than those offered by the School of Public Leadership)

- Full-time study (all eight modules in 2015): R4660 x 8 = R37280
- Part-time study (four modules per year over two years):
  2015: R4660 x 4 = R18640
  2016: R4660 x 4 + 10% inflation = R20504

These course fees are provisional amounts for budgeting purposes only and not binding on Stellenbosch University or any of its employees/representatives. Accommodation and meals are not included in the course fees.

International fees

All *international students* who are in South Africa on a study permit pay the following *additional* fees which may increase in 2015:

- **SADC students including Namibian**: International registration fee (R2950) + service fee (R5500)
- **Non-SADC students**: International registration fee (R5620) + service fee (R5500)

Please refer to *http://www0.sun.ac.za/pgstudies/fees.html* for more information.

Fees payable by registration date:

- South African students and international students not on a study permit are required to pay the registration fee (first instalment on class fees) by 23 January 2015. The deposit amount (R2000) will be deducted from the registration fee.
- International students on a study permit are required to pay all academic fees, international registration fees and service fees upfront before registration. The deposit amount (R2000) will be deducted from these fees.

Students will be charged for (a) modules that they repeat; (b) additional modules over and above the 8 core modules; and (c) any additional fees that their electives may entail.

The University, as represented by the duly authorised decision-making body, reserves the right to amend all fees payable to the University. As a result, the above quoted fees may change by the time that registration takes place in January 2015. The School of Public Leadership and the staff associated with the management of this programme cannot be held accountable if for any reason the above quoted fees are changed by a duly authorised University decision-making body.

MPHIL IN SUSTAINABLE DEVELOPMENT

ENTRY REQUIREMENTS

Application and selection

Candidates may submit a written application to enter this Programme if they comply with the following:

- A PGD in Sustainable Development qualification or have passed 8 core modules from the above mentioned PGD programme, but have not yet graduated.
- Preference will be given to applicants who have obtained an average of 65% or higher for each of the 8 modules of the PGD; **AND**
- A completed Research Concept Note and attendance of the compulsory Research Workshop.
- Closing date for MPhil application: 30 September of the year prior to the year during which the programme commences.
- A detailed explanation of the application procedure can be found on page 25 of this Prospectus.
- Any other entry requirements for postgraduate study prescribed by the University of Stellenbosch in its various public documents will apply.

STRUCTURE & CURRICULUM

After completing the eight Core Modules and graduating with a PGD qualification, the student must apply to register for the MPhil, and also submit a research concept note. Registration will only be possible after attending the Research Workshop in November and if an adequate Research Proposal has been completed and accepted. The Research Proposal must comply with the prescribed format and must also define which of the options below will be selected.

Both options 1 and 2 below make provision for electives. An elective is any module delivered as part of the PGD programme, or any module delivered by other degree programmes in the School of Public Leadership, or any other module delivered by any other Departments at Stellenbosch University, or a module delivered by another institution (subject to approval by the Programme Coordinator). If a student selects a module that is not part of the PGD programme, to facilitate the participation by the student in this module the student will be registered for a general module called *Advanced Studies in Sustainable Development.* (For example, if a student wants to do a module in Land Studies or Physics at Stellenbosch University or

elsewhere, the student will be registered for a module called *Advanced Studies in Sustainable Development*.)
Two further electives are offered as part of the Master's Programme in Sustainable Development, i.e. *Research Methodology* and *Research Dissemination*. Research Methodology is a module that takes place in November where students seeking admission to the MPhil submit and present proposals. These are formally evaluated and marked. The Research Dissemination module takes place at the end of the MPhil and is an opportunity for MPhil students to convert their research into a publishable paper.

After completion of the PGD, students wishing to complete the Sustainable Development Planning specialisation (in order to work as planners in SA, are advised to select the 120 credit thesis plus 4 electives option. It is recommended that these 4 additional modules are selected from the Sustainable Development Planning Stream of the PGD; or from the MPhil Environmental Management or HonsPA or MPA programmes delivered by SPL; or from the Masters of Urban and Regional Planning (MURP) or the MPhil in Urban and Regional Science offered by the Centre of Regional and Urban Innovation and Statistical Exploration (CRUISE) which is part of the Geography and Environmental Studies Department in the Faculty of Arts. Besides the PGD modules listed earlier, other specific electives that are recommended are *Geographical Information Systems in Environmental Analysis and Management (or a similar GIS module)*, *Project Management (SPL)* and *Urban Management Processes (*CRUISE*)*. The research component for the MPhil will also need to have a "Sustainable Development Planning" focus.

The School of Public Leadership offers two project management courses: a basic course called *Project Management* and an advanced course called *Advanced Project Management*. Both of these courses can be selected as electives and will be accredited under these titles.

Note: the page numbers below are based on a letter size of 12 and line spacing of 1½ (with about 375 words per page). Double line spacing (about 250 words per page) will lead to a longer thesis.

Option 1

Research component plus Two Electives Programme: a 150 credit research component (see options below) plus two electives worth 15 credits each selected from the modules on offer in the PGD programme or from any other Programme at the University of Stellenbosch or other learning institution on condition these have been approved by the Programme Coordinator. The Programme will consist of the following:

- Research Methodology Course, **plus**
- Two Electives: 15 Credits each plus
- Research Component: 150 Credits with the following options:
    i. Two academic journal articles in the format and style of the School of Public Leadership template and in accordance with the requirements of the University, the School and the supervisor (±8000 words [±24 pages] per journal article).
    OR
    ii. A project proposal for a given development project that must define the goal, objectives, implementation plan, budget, and monitoring and evaluation mechanism in accordance with the Logical Framework Analysis project management approach (±40 000 words [±120 pages]).
    OR
    iii. A traditional thesis in accordance with the normal academic format and requirements of the University, the School and the supervisor (±40 000 words [±120 pages]).

Option 2

Research component plus Four Electives Programme: a 120 credit research component (see options below) plus four electives worth 15 credits each selected from the modules on offer in the PGD programme or from any other Programme at the University of Stellenbosch or other learning institution on condition these have been approved by the Programme Coordinator. The Programme will consist of the following:

- Research Methodology Course, **plus**
- Four Electives: 15 Credits each plus
- Research Component: 120 Credits with the following options:
  i. Two academic journal articles in the format and style as prescribed by the School of Public Leadership template and in accordance with the requirements of the University, the School and the supervisor (±8000 words [±24 pages]).
  OR
  ii. A Project Proposal for a given development project that must define the goal, objectives, implementation plan, budget, and monitoring and evaluation mechanism in accordance with the Local Framework Analysis project management approach (±30000 words [±90 pages]).
  OR
  iii. A traditional thesis in accordance with the normal academic format and requirements of the University, the School and the supervisor (±30000 words [±90 pages])

- ***Scheduling***: Candidates must submit a research proposal, written in accordance with the Departmental Guidelines for Research Proposals and acceptable to the Programme Coordinator and the Research Committee, by mid-December; for registration end February.
- ***Supervision***: The Research Committee will assign a Supervisor for each candidate in accordance with available expertise and equitable distribution of the supervision load, plus two Examiners.

FEE STRUCTURE

Registration fee

The registration fee for 2015 will be R7700.

Course fees

- **Option 1**: 150 credit thesis R17820 + 2 modules @ R4660/module = R27140
- **Option 2**: 120 credit thesis R14260 + 4 modules @R4660/module = R32900

Note: 30% of thesis fees will be charged for the second year of study; and full thesis fees will be charged for every year of study after the second year. However, continuation after two years is not a given fact but is a privilege that is only granted under exceptional circumstances.

Editing fees

MPhil students must also take into account that their thesis document must be edited before final submission. Depending on the type of editing needed, fees vary from R1800 (form edit) to ± R10000 (content edit). Editing fees are not included in the course fees.

These course fees are provisional amounts for budgeting purposes only and not binding on Stellenbosch University or any of its employees/representatives. Accommodation and meals are not included in the course fees.

International fees

All *international students* who are in South Africa on a study permit pay the following *additional* fees which may increase in 2015:

- **SADC students including Namibian**: International registration fee (R2950) + service fee (R5500)
- **Non-SADC students**: International registration fee (R5620) + service fee (R5500)

Please refer to *http://www0.sun.ac.za/pgstudies/fees.html* for more information.

Fees payable by registration date:

- South African students and international students not on a study permit are required to pay the registration fee (first instalment on tuition fees) before registration. This date differs for new and second year students.
- International students on a study permit are required to pay all academic fees, international registration fees and service fees upfront before registration.

The University, as represented by the duly authorised decision-making body, reserves the right to amend all fees payable to the University. As a result, the above quoted fees may change by the time that registration takes place in January 2015. The School of Public Leadership and the staff associated with the management of this programme cannot be held accountable if for any reason the above quoted fees are changed by a duly authorised University decision-making body.

GENERAL INFORMATION

STELLENBOSCH UNIVERSITY BANKING DETAILS

Name:	Stellenbosch University
Bank:	ABSA
Branch code:	632005
Account no.:	041 020 4789
Reference:	Your student number
Swift code:	ABSAZAJJCCT

BURSARIES AND SCHOLARSHIPS

Information on financial aid can be found on the web page of the Postgraduate & International Office: *http://www0.sun.ac.za/pgstudies/scholarships-and-opportunities.html*

INTERNATIONAL STUDENTS

Information on visas, fees, language requirements and long term accommodation can be found on the website of the Postgraduate & International Office: *http://www0.sun.ac.za/pgstudies/living-in-stellenbosch/accommodaton.html*

ACCOMMODATION OPTIONS

Accommodation depends on individual circumstances:

- longterm University accommodation in Stellenbosch;
- longterm private rented accommodation in Stellenbosch or surrounds (room/flat/house):
  - http://www0.sun.ac.za/pgstudies/living-in-stellenbosch/accommodaton.html
- shortterm – guesthouses near the SI:
  - Drie Gewels Guesthouse in the Lynedoch EcoVillage: Contact Tania Klink, tel. +27 21 8813196 ext 200; tania@sustainabilityinstitute.net;.

  - Onze Rust Guesthouse; www.stellenboschstay.com
  - Soverby Guesthouse; www.soverby.co.za
- guesthouses in Stellenbosch - http://www.stellenbosch.travel/stay

Students are responsible for their own accommodation arrangements.

COMMUTING OPTIONS

All modules are delivered on the premises of the Sustainability Institute. These premises are located within the emerging Lynedoch EcoVillage Development which is located on the R310 (turnoff into Lynedoch Road) diagonally opposite the Spier Wine Estate, 12 km outside Stellenbosch. Students are responsible for their own transport arrangements. Most students, if they aren't staying in the Drie Gewels Guesthouse on site, travel by car and often arrange lift shares amongst themselves. The only public transport available is a train service between Stellenbosch and Lynedoch (9 minute journey). The Lynedoch train station is 3 minutes' walk from the SI.

DAILY ROUTINE*

* Meals are available on request

Mondays:

07:00 – 08:00	*breakfast*
08:30 – 13:00	main teaching session
13:00 – 14:00	*lunch*
14:00 – 15:30	group work
15:30 – 16:00	*tea*
16:00 – 17:30	teaching session
18:00	*dinner*

Tuesdays – Fridays

07:00 – 8:00	*breakfast*
08:15 – 08:25	gather in the hall for morning briefing, notices, messages and task assignments
08:25 – 09:15	community work
09:15 – 09:30	freshen up and proceed to classroom
09:30 – 13:00	main teaching session
13:00 – 14:00	*lunch*
14:00 – 15:30	group work
15:30 – 16:00	*tea*
16:00 – 17:30	teaching session
18:00	*dinner*

Saturdays

07:00 – 08:00	*breakfast*
09:00 – 13:00	group presentations

APPLICATION PROCEDURE

CLOSING DATES FOR APPLICATIONS:

31 AUGUST (Postgraduate Diploma in Sustainable Development)
30 SEPTEMBER (MPhil in Sustainable Development)

The University must be in possession of ALL your supporting documents by these dates

Please familiarise yourself with the entry requirements before applying for either of the two programmes.

PGD IN SUSTAINABLE DEVELOPMENT

CLOSING DATE FOR APPLICATIONS:
31 AUGUST OF THE YEAR PRIOR TO THE YEAR FOR WHICH YOU ARE APPLYING

The application process for the PGD in Sustainable Development programme is two-fold, namely:

- firstly, by applying to Stellenbosch University; and
- secondly, if accepted by the University, by applying to the Department, namely the School of Public Leadership.

The complete process is described below.

1. STELLENBOSCH UNIVERSITY APPLICATION

Step 1

- Information you will need for your application:
  - Faculty: Economic and Management Sciences
  - Department: School of Public Leadership
  - Programme: Postgraduate Diploma in Sustainable Development
- From 1 May in the year preceding the year that you wish to study, apply online at: http://www0.sun.ac.za/pgstudies/
- **Students enrolled at Stellenbosch University at the time of application** apply via My.Sun.ac.za. Click on *Administration* and then *Re-apply for studies*.
- If it is impossible to apply online, an application form may be requested from the Programme Administrator (see below for contact details).
- All external applicants receive a student number via email or sms (text message). This is not an indication that you have been accepted by the University.
- If you have applied online, you need to mail proof of payment of admission fees (not applicable to international students), certificates and a signed agreement to the University at info@sun.ac.za .
- Your application will not be processed further unless the University receives all the documents described above.
- If you submit a paper application form please include all documents described above and post them to the address on the application form; or scan&email them to info@sun.ac.za .. Please ensure that the scanned copies are clear and easy to read. The application forms do not fax well and you are advised not to fax your applications.

- **All the documents mentioned above need to be submitted to the University by 31 August, in other words the University must be in possession of your complete application by 31 August, otherwise your application may miss the selection process**.
- It is your responsibility to follow up with the University Call Centre to confirm that your application is on the system and that all supporting documents have been received.

Step 2

Once your application has been successfully processed by University Admissions you will receive an email or sms (text message) with your University password. Please note that this is not an indication that you have been accepted for the PGD in Sustainable Development.

Step 3

Your application is reviewed by the Faculty Secretary (and International Office if you are an international student) to ensure that you comply with the entry requirements for the PGD in Sustainable Development programme.

Step 4

The names of applicants accepted by Faculty are sent to the Department.

2. DEPARTMENTAL APPLICATION

Step 5

The Programme Administrator will email a departmental application form to you if you have been accepted by Faculty. There may be a substantial time lapse between your University application submission and contact by the Programme Administrator – most often this is due to university applications being incomplete, but also because the Faculty review process may not commence until June/July. It is the applicant's responsibility to follow up on applications submitted. The completed departmental application form plus a motivation (1000 words) of why you wish to study the PGD in Sustainable Development must be emailed back to the Programme Administrator within 10 days of receiving the email and departmental application form.

Step 6

Your departmental application will be reviewed and you will be notified whether your application was successful or not by the end of the second week in November. If your application has been successful, you will be required to pay a **deposit** of R2000 by **15 November** to secure your place on the programme.

MPHIL IN SUSTAINABLE DEVELOPMENT

CLOSING DATE FOR APPLICATIONS:
30 SEPTEMBER OF THE YEAR PRIOR TO THE YEAR FOR WHICH YOU ARE APPLYING

Preference will be given to students who obtained 65% or higher for each of their respective modules in the BPhil/PGD programme.

The application process is twofold, namely:

1. **Research Concept note**

   All applicants must submit an electronic copy of a 1000 word research concept note to the Programme Administrator by 30 September of the year prior to the year for which you are applying . The concept note template is available from the Programme Administrator.

2. **Stellenbosch University application**

   ***** Students enrolled at Stellenbosch University at the time of application complete an abbreviated application form which is available from the Programme Administrator.

   * All other applicants must complete an online registration form at: http://www0.sun.ac.za/pgstudies/. This link will be active from 1 May.
   Information you will need for your application:
   - Faculty: Economic and Management Sciences
   - Department: School of Public Leadership
   - Programme: MPhil in Sustainable Development

See Steps 1-4 above.

Please note: Students who are conditionally accepted for MPhil studies are required to attend:

- a **Research Workshop** from 10 to 12 November 2014; and
- a **Colloquium** (where current students present their research) on 13 and 14 November 2014.

Attendance is compulsory for these two events.

CONTACT THE CORRECT DIVISION FOR ENQUIRIES RELATING TO THE APPLICATION PROCEDURE:

- Enquiries relating to your *online university application*: University Call Centre, tel. +27 21 808 9111; info@sun.ac.za .
- Enquiries relating to your PGD *departmental application* or MPhil *research concept note*: Beatrix Steenkamp (Programme Administrator), tel. +27 21 881 3952; email Beatrix.steenkamp@spl.sun.ac.za .
- Enquiries relating to *funding, visas, language proficiency, etc.*: Postgraduate & International Office, tel. +27 21 808 2565; http://www0.sun.ac.za/pgstudies/; email interoff@sun.ac.za;

USEFUL CONTACT INFORMATION

Programme Administrator Beatrix Steenkamp; beatrix.steenkamp@spl.sun.ac.za	+27 (0)21 881 3952
Stellenbosch University Call Centre	+27 (0)21 808 9111
Accommodation: University (long-term) http://www0.sun.ac.za/pgstudies/living-in-stellenbosch/accommodaton.html	+27 (0)21 808 3892
Accommodation: Sustainability Institute (short-term) Tania Klink; tania@sustainabilityinstitute.net	+27 (0)21 881 3196
Bursaries: Postgraduate http://www0.sun.ac.za/pgstudies/scholarships-and-opportunities.html beursnavrae_nagraads@sun.ac.za)	+27 (0)21 808 4208
Bursaries & Loans: General	+27 (0)21 808 4627
Bursaries: Centre for Renewable Energy Studies (***Renewable & Sustainable Energy Students only***) http://www.crses.sun.ac.za/studies-bursaries.php	+27 (0)21 808 4069
Division Student Fees	+27 (0)21 808 4913/ /4519/4521
Division Student Records	+27 (0)21 808 4575
Faculty Secretary: Ms Nazli Daniels, naniels@sun.ac.za	+27 (0)21 808 4837
Postgraduate & International Office http://www0.sun.ac.za/pgstudies/; interoff@sun.ac.za)	+27 (0)21 808 2565

LECTURER CONTACT DETAILS

Prof Mark Swilling: Division Head, Sustainable Development, School of Public Leadership and Coordinator of the Master's Programme in Sustainable Development	swilling@sun.ac.za
Prof Alan Brent: Professor of Engineering Management and Sustainable Systems, Dept. of industrial Engineering, and Associate Director, Centre for Renewable & Sustainable Energy Studies; Faculty of Engineering	alan.brent@spl.sun.ac.za
Ms Anneke Muller: Coordinator, Sustainable Development Planning Stream, School of Public Leadership	anneke.muller@spl.sun.ac.za
Dr Firoz Khan: Senior Lecturer, Sustainable Development Planning Stream, School of Public Leadership	firoz.khan@spl.sun.ac.za
Ms Eve Annecke: Director, Sustainability Institute	eve@sustainabilityinstitute.net
Ms Candice Kelly: Sustainable Food Systems stream, Sustainability Institute	candice@sustainabilityinstitute.net
Sustainable Food Systems stream, Sustainability Institute	
Dr. Josephine Musango: Senior Lecturer in the School of Public Leadership and Coordinator of the MPhil in Sustainable Development	Josephine.Musango@spl.sun.ac.za

DATES AND DEADLINES 2015*

*These dates are subject to change

Module	Module codes			SUNLearn code	Date presented	Assignment due date
Compulsory Orientation/Induction		**PGD**	**MPhil**		**28 – 30 Jan**	N/A
Sustainable Development I (compulsory)	58718	771	871		02 – 13 Feb	
Sustainable Development II (PDE, MEng & Env Managem; international students on exchange)	58718	771	871		02 – 07 March	
Intro to Development Planning	12230	771	873		02 – 07 March	
Sustainable Dev III (UCT, execs, PhD s/school)	58718	771	871		09 – 14 March	
Complexity Theory & Syst Think	11190	772	871		09 - 14 March	
Food Security & Glob Agricult.	12232	774	874		13 – 18 April	
Leadership & Env Ethics	11491	773	873		20 - 25 April	
DP Theory & Practice	11194	772	871		04 - 09 May	
Facilitation for Sustainability Transitions	11489	772	872		25 – 30 May	
DP Systems, Policy & Law	11182	772	872		11 - 16 May	
Renewable Energy Policy	11651	771	871		11 – 16 May	
Ecological Design for Com Build	11188	776	876		18 – 23 May	
Systems & Techn for SA	12231	774	874		01 - 06 June	
Sustainable Cities	11199	775	875		01 – 06 June	
Biodiversity & Ecosystem Services	11490	772	872		08 - 13 June	
Policy & Legal Framework/Regional Food Systems	11181	772	871		22 – 27 June	
Sustainable Enterprise	60763	774	874		???	
Governance, Globalis & Civ Soc	11195	773	873		06 – 11 July	
DP & Environmental Analysis	55492	771	873		20 - 25 July	
Renewable Energy Finance	12531	771	871		27 July – 01 August	
System Dynamics Modelling	12530	771	871		17 – 28 August	
Applied Economics	11198	775	874		17 - 22 August	
SI Explorers Food Security & Globalised Agriculture (INDIA)					18 Aug – 1 Sept TBC	
SI Explorers Ecological Design for Community Building (NEPAL)					09 – 28 Sept TBC	
MPhil 2016 concept note					N/A	30 September
MPhil research workshop / Research Methodology	51764		871		02 – 03 November	
MPhil research colloquium / Research Dissemination	11273		871		04 – 06 November	
MPhil 2016 research proposal					N/A	11 December
RENEWABLE & SUSTAINABLE ENERGY MODULES (OFFERED BY DEPT OF ENGINEERING)						
Renewable Energy Systems	64890	714	814			TBA
Introduction to Solar Energy	11294	747	847			TBA
Bioenergy	64904	744	844			TBA

Wind & Hydro Energy	11948	774	874			TBA
Ocean & Hydro/Special Topic						TBA