UN☺HABITAT
FOR A BETTER URBAN FUTURE

CALL FOR PROPOSALS

Strengthening Urban Climate Change Education – Module Development for the Cities and Climate Change Academy

Project Title	Strengthening Urban Climate Change Education – Module Development for the Cities and Climate Change Academy
Duration:	12 months
Deadline for submission of proposal:	9 October 2011
Starting Date:	1 November 2011 [proposed]
Completions Date:	30 September 2012 [proposed]
Executing Agency:	UN-HABITAT
Implementing partners:	[pending]
UN-HABITAT contribution:	[pending]

A. Background

A. Background

UN-HABITAT has initiated the **Habitat Partner University Initiative** (HPUI)[1] in order to respond to the effects of today's rapid urbanization. Universities produce the leaders, managers and planners required for adopting innovative and robust approaches to city development and they have the human capital and knowledge resources for promoting the solutions for sustainable urbanization which are needed if cities are to deal with the challenges of the future. The Initiative aims at strengthening the cooperation between UN-HABITAT and institutions of higher education, as well as facilitating exchange and cooperation between universities in developing and developed countries.

The **Cities and Climate Change Initiative** (CCCI)[2] of UN-HABITAT aims to build momentum for local governments to more readily respond to the climatic threats they face (Climate Change adaptation) and take bold steps in reducing cities' climate footprint (Climate Change mitigation). CCCI aims to enhance policy dialogue and advocacy on the

---

[1] For more information on the Habitat Partner University Initiative please visit: www.unhabitat.org/hpui
[2] For more information on the Cities and Climate Change Academy please visit: www.unhabitat.org/ccci

local, sub-national, national, regional as well as on the global level. Knowledge generation and management through the CCCI website and publications, Capacity building for all stakeholders through tool development and partnerships with the professional associations, universities and local government training institutes are other key elements of the initiative.

One key output of the Cities and Climate Change Initiative is to have Habitat Partner Universities, local universities and local continuous learning institutions adapting their teaching curricula and research to incorporate the issue of cities and climate. It also aims at creating linkages with the broader education initiative of the Habitat Partner University Initiative and the activities relating to continuous professional development of urban practioners on Climate Change.

Cities and Climate Change Academy[3]

The term Cities and Climate Change Academy was coined at a global workshop (Rotterdam, May 2009) and describes the way by which climate change education can be strengthened in urban programmes. Two regional workshops were organized to develop a better understanding of the experiences and needs of Universities in Asia and Africa. The first workshop was held in Manila, 1-5 March 2010. The Africa Regional workshop was held in Kampala, 3-5 May 2011. A regional workshop for Latin America is being planned for later in 2011.

The Global Workshop "Strengthening Climate Change in Urban Education: Cities and Climate Change Academy (CCCA)"[4], held in Bonn, 1-2 June 2011, preceding the ICLEI World Congress on Cities and Adaptation to Climate Change 2011, brought together 34 participants representing planning universities from all over the world.

Key outcomes of the Workshop were:

- Participants shared experiences on the status-quo, gaps and opportunities of Climate Change in Urban Education at the university level from all over the world;

- Six modules for further elaboration were agreed upon focussing on (i) Theory and Concepts of Climate Change and Cities, (ii) Practice of Urban Climate Change Adaptation and Mitigation, (iii) Planning for Climate Change, (iv) Climate Change and Urban Water Cycle Management (incl. Sanitation), (v) Climate Change and urban Energy (including urban transport), (vi) Climate Change and Shelter/Housing.

- A generic module design framework was agreed;

- Based on the module design framework, substantive Terms of Reference were drafted for all of the prioritized modules;

- Partnership arrangements were proposed to ensure that the generic modules took account of the local and regional specifies, in terms of climate change impacts and urban development as well as urban educational needs;

- A roadmap was agreed upon, the main milestones being: report finalization, tendering the call for proposals for module development, selection of developers,

---

[3] All documents relating to the Cities and Climate Change Academy can be accessed on the UN-HABITAT website: http://www.unhabitat.org/content.asp?typeid=19&catid=657&cid=9317. It is highly recommended that those interested in contributing to module development, who did not attend previous meetings of the CCCA should familiarize themselves with the workshop reports.
[4] http://www.unhabitat.org/downloads/docs/10205_1_594064.pdf

support to developers, pre-testing (at a seminar in and for Latin America and the Caribbean), finalization of drafts, field-testing and finalization of modules. Initial ideas for the next phase were also discussed.

▪ A Steering Committee comprising of UN-HABITAT and university partners was set up in order to support the above process.

B. Purpose

The purpose of this call for proposals is to invite interested parties to contribute to the development of the initial modules of the Cities and Climate Change Academy as set out in the objectives, process of module development, target group, format, design and content.

Given the inconsistency in the use of terms, for the purpose of the Cities and Climate Change Academy module, course and programme are defined as follows:

A module is a unit with a refined title, consisting of a minimum of 2 contact (lecture) hours plus student-led learning activities such as seminars/studios.

An undergraduate or post graduate (semester) course (for example: 101 Introduction to urban planning) would usually consist of 12 to 15 modules, that is, one module per week.

An undergraduate, or postgraduate programme in the context of this call would normally be a Bachelor's or Master's programme (or equivalent) and may extend to PhD programmes as well as Diploma programmes. Targeted programmes would be within the fields of urban planning, urban management, urban development, architecture, urban design, urban geography, urbanization and associated fields.

Objectives

Given the importance for Human Settlements, climate change related research and university-teaching is emerging and more and more lecturers have taken interest in the issue. However studies from a number of continents and individual countries show that at this stage no systematic approach to mainstreaming climate change in urban education exists.

Such studies, as well as the discussions between UN-HABITAT and university networks, imply that there is a significant demand, and in fact an urgent need for supporting urban university programmes in strengthening climate change education.

Numerous climate change related tools and publications already exist highlighting the role of cities and local governments with regard to climate change mitigation and adaptation. The proposed modules aim at drawing on existing resources and making these easily available for tertiary education. Each module is to be self-contained, but providing linkages to other modules, consisting of a substantive lecture, lecture notes, case studies, reading lists, links to available open-source resources, and suggestions for student-led learning. Overall guidelines on the use of the modules will be developed and module roll-out will be supported by training of lecturers, by directly supporting selected universities in implementing the courses, by marketing the modules and by supporting a community of practice. Objectives of the Cities and Climate Change Academy and its modules are:

- To provide those teaching urban courses with sufficient material to confidently teach climate change related subject matter. Whilst the modules are to be generic, case studies and specific examples will focus on issues of developing countries making the modules particularly relevant to universities in Africa, Asia and the Pacific and Latin America and the Caribbean and courses in any part of the world that focus on international issues;
- To provide users with a one-stop, easy-access and attractive resource for urban climate change education.
- To provide all users with sufficient regional and local content to easily adapt the modules to the relevant climatic zone, climate change impacts and prevailing climate change response framework.
- To provide users with a dynamic web platform, allowing uploading of local module adaptation as well as other related resources.
- To provide users with a platform to interact with one another during development and application supporting the creation of a community of practice.
- To have well tested tools available to scale up climate change responses by cities and local governments;

Process of module development

==Modules will be developed in different phases. Initially six modules are to be developed by the successful respondents to the call. Key components of the initial module development process are:==

- ==The first six modules for development are:==
    - (i) Theory and Concepts of Climate Change and Cities,
    - (ii) Planning for Climate Change,
    - (iii) Practice of Urban Climate Change Adaptation and Mitigation,
    - (iv) Climate Change and Urban Water Cycle Management (incl. Sanitation),
    - (v) Climate Change and urban Energy (including urban transport),
    - (vi) Climate Change and Shelter/Housing.
- Proposals in response to this Call will be assessed by the steering committee leading to the selection of consultants / partners who can develop one or ideally several tools.
- UN-HABITAT and the steering committee, in discussion with those tendering for module development, may suggest the creation of larger consortia to ensure regional and substantive diversity.
- The regional meeting in Latin America may serve as venue to further develop the outline of the modules.
- UN-HABITAT and the external steering committee will support the module development, partly through technical advice and primarily through the facilitation of dialogue between all those involved in the tool development.
- Peer review and field testing is planned.
- Initial drafts of the tools should be available for testing in January 2012 and final drafts should be available by April 2012.

Target Group
- It is expected that the modules will be most relevant for programmes addressing urban issues in developing countries; for example the case studies will highlight issues in Africa, Asia-Pacific and Latin America and Caribbean.

- Immediate target group are lecturers of urban courses (urban planning as well as architecture and urban design, urban development, urban management, geography and other related disciplines) in developing countries and those that teach urban courses with a global perspective.
- The ultimate target group are students, (and in-service scholars) i.e. future urban professionals, who will need to be well equipped to address climate change. For the purpose of module development it should be assumed that the students would be in their second-to-last-or last year of an urban undergraduate programme (with a fair understanding of urban planning and environmental management) or are enrolled in a Master's Programme.

Format and design

Each module will consist of a module note providing the user with all relevant information as well as a lecture, lecture notes, reading list and case studies.

The box below provides an overview of the generic module design and components as proposed by the global workshop, Bonn, 1-2 June 2011.

Generic Module Design
Module Note
   i.   Module title
  ii.   Module objective(s)
 iii.   Expected Outcomes
  iv.   Rationale for the module
   v.   Short description of module in the broader context of the Cities and Climate Change Academy, the use of the lecture (lectures) and student-led learning, and how to use the module in different contexts and for different target learners.
  vi.   Learning objectives
 vii.   Target learners
viii.   Key content of the course
  ix.   Key ideas for student-led learning (seminars, studios, guest speakers, gaming, scenario planning etc.)
   x.   The use of local case studies
  xi.   Suggestions on collaboration with other departments
 xii.   Means of assessment
Annexes:
xiii.   Lecture (or lectures if double module (i.e. double the contact hours)
 xiv.   Lecture notes
  xv.   Reading list
 xvi.   Case studies from different regions

Module Content

As described above, the global workshop of the Cities and Climate Change Academy developed guidelines for module development. Based on these inputs, more standardized terms of reference for each module were drafted for consideration of the module developers. These guidelines are attached in the Annex. In addition to the six modules an introductory module on **"Introduction to Climate Science for Urban education"** will be developed by UN-HABITAT and the Steering Committee.

C. Specific tasks of the consultant(s)/ cooperation partner(s)

The consultant/partner will undertake the following specific tasks under the overall supervision of the Training and Capacity Building Branch of UN-HABITAT in close consultation with the Urban Environment and Planning Branch.

- Conduct a desk review of existing documentation relating to the module(s) in question.
- Review and identify gaps in urban education and capacity development needs of urban professionals as related to the module, with emphasis on developing countries**.**
- Based on cutting edge thinking, concepts, theories and practices associated with sustainable urban development and climate change, propose the outline, format, design and approach of the module(s) in question.
- Possibly present the proposal during an international expert group meeting which would aim at harmonizing and improving the concepts for the four tools.
- Draft the module in question according to "generic module design" and the agreed upon outline.
- Regularly update UN-HABITAT and the steering committee on the progress made in order to facilitate harmonization between modules.
- Present the draft module for feedback by UN-HABITAT and partners and for field-testing.
- Consolidate and incorporate the comments received into the final module.

D. Final Product of the Consultancy / Cooperation

- Each module should follow a common approach:

Syllabus (a template will be provided):

  i. Module title
 ii. Module objective(s)
iii. Expected Outcomes
 iv. Rationale for the module
  v. Description of module in the broader context of the Cities and Climate Change Academy, the use of the lecture (lectures) and student-led learning, and how to use the module in different contexts and for different target learners with a particular emphasis on how to mainstream the module in existing courses (8 pages).
 vi. Learning objectives: The suggested learning objectives (see Annex) are rather 'descriptive' and insufficiently 'analytic'. The proposed learning objectives of the final modules should ideally draw on Bloom's taxonomy (see, for example, http://www.odu.edu/educ/roverbau/Bloom/blooms_taxonomy.htm).
vii. Target learners

viii. Key content of the course (abstract)
ix. Key ideas for student-led learning (seminars, studios, guest speakers, gaming, scenario planning etc.) of approximately 5 pages.
x. Suggestions for the use of the provided case studies in the lecture and the student-led learning components. In addition provide suggestions on the development and use of locally developed case studies, of cities in the countries of the module users.
xi. Suggestions on collaboration with other departments
xii. Means of Assessment

Annexes:
xiii. Lecture (or lectures if double module (i.e. double the contact hours). The lecture should be at least 120 minutes, 45 slides minimum, with text/picture ratio of 70/30. And not more than six lines of text with no more than 8 words of text per line. A template for the power point presentation will be provided.
xiv. Lecture notes. A template for the lecture notes will be provided
xv. Reading list (required and supplementary reading)
xvi. Case studies from different regions. At least three substantive case studies of up to ten pages each, one from Africa, one from Latin America and the Caribbean and one from Asia, with relevant references (templates will be provided).

General
- The modules are to focus on sustainable urban development (environmental, economic and social sustainability, including the gender dimension), broad participation and good urban governance emphasizing the realities of cities in Africa, Asia and the Pacific, Latin America and the Caribbean.
- Modules are to suggest a mix of solutions (policy, technical, global, local etc.)

E. Deliverables

The main deliverables from the final agreement will be:

(i) Inception Report, outlining the proposed work plan and methodological approach
(ii) Regular Blogs on the CCCI website
(iii) Draft module (for extensive review and field testing)
(iv) Final module

F. Provisional Timeline

The assignment is to be completed within an agreed upon number of working days spread over the project period. The schedule for payment of fees is as set out below. The time frame for completing the assignment should agree with the milestones set out in the table below.

	Outputs	Payment schedule
1	Start of assignment	
2	Inception report	20%
3	First draft	40%

4	Comments by UN-HABITAT (and partners)	
5	Final draft	40%

G. Required qualifications and experience of the consultant(s) / cooperation partner (team leader/team members)

- Advanced degree (Masters or Ph.D.) in field related to sustainable urban development/urban planning/climate change;
- Solid international reputation and proven experience in the field of sustainable urban development/urban planning/climate change, preferably with publications in the field of cities and climate change.
- Team leader should have at least 7 years of experience as urban educator at the tertiary level, including curriculum development; preferably with significant experience in the field of climate change.
- Team members should have significant experience in delivery of urban education at the tertiary level including climate change.
- Extensive knowledge of local government systems and functions as well as urban planning in developing countries;
- Demonstrated ability to develop and deliver realistic plans, observing standards and timeliness;
- Strong English writing and presentation skills: proven ability to prepare English language education modules;

H. Contract period, level of engagement and duty station.

The contract is expected to start on 1 November 2011. The number of working days and total contract period will be agreed upon according to the proposals.

Home duty station (i.e. module developers do not need to relocate) with limited travel (possibly one expert group meeting / field test).

I. Application and Deadline

Interested parties should send applications (by e-mail) to the address specified below by 9 October 2011. Applications need to include the following:
- Technical proposal specifying the modules to be developed
- CV(s)
- Financial proposal (e.g. fees and expenses – not including field-testing / piloting other than minimal expenses at a participating institution)
- Copies of (or links to) relevant publications

NOTE: APPLICATIONS MAY BE FOR 1 OR MORE MODULES. FOR EACH MODULE A TECHNICAL PROPOSAL SHOULD BE INCLUDED.

J. Selection Criteria

All proposals will be evaluated by the steering committee. In addition, UN-HABITAT technical officers will evaluate proposals for modules relating to their field of expertise.

- Technical proposal interprets well the call for proposals.
- Individuals proposed meet the requirements as stipulated in G (above).
- Demonstrated capacity of the submitter (background of individual submitters as well as regional and thematic diversity of submitting institutions and individuals).
- Financial Proposal.
- Proposal identifies opportunities for testing/implementation in institutions submitters are affiliated to.
- Suggested case studies
- Previous engagement with the Cities and Climate Change Initiative, the Habitat Partner University Initiative and in particular the Cities and Climate Change Academy would be an advantage.

K. Contact information

All correspondence related to this call for proposals should be directed to

Mr. Bernhard Barth
Human Settlements Officer
Training and Capacity Building Branch
United Nations Human Settlements Programme (UN-HABITAT)
P.O. Box 30030, Nairobi 00100, Kenya
Tel.: +254-20-7624883; Fax.: +254-20-7623092

E-mail: bernhard.barth@unhabitat.org

Annex – outline of Terms of Reference for the six initial modules

Module 1: "Theories and Concepts of Climate Change and Cities"

Tentative objectives of the module:
- To frame shared concepts and theories used throughout all cities and climate change modules
- To become familiar with key concepts for climate change

Proposed learning outcomes:
At the end of this module, students should:
- Be familiar with / be able to explain current concepts in climate change as they are relevant to cities
- Develop a shared understanding of current concepts
- Be able to investigate how key concepts are being applied in plans and policies for urban development
- Be able to recognise the complexity of cities and climate change

KEYWORDS:
- Climate Change, Greenhouse Gases
- Vulnerability, Exposure, Sensitivity
- Risk, Risk Management
- Resilience
- Impacts
- Uncertainty
- Mitigation, Adaptation
- Scenario
- Equity, Justice, Ethics
- Complexity, (regional/within cities themselves)
- City – solution or problem?
- Urban Systems, Coupled Socio-cultural-ecological Systems
- Urbanisation
- Social Capacity
- Scenarios and/or/vs Projections
- Disasters, Hazards

Proposed delivery mode
- **Lecture(s) 2-3 hours**
- **Studio project** – students read the adaptation and mitigation plans/development plan from cities in their region/set case studies and investigate how the concepts learned throughout the course are being applied/misapplied locally.
- **Seminar** – discussions based on group studies of current divergent concepts and definitions to come up with definitions applicable to cities within the trajectory of current climate change scenarios.
- **Post-Grad** – simulation session /role play setting "opposing" stakeholders to debate a current sensitive case study. Hint: stakeholder should be asked to exchange their traditional roles for the debate.

Case Studies
Case Studies are needed for comparative analysis of cities in: different regions (developing vs developed; geographical locations), different scenarios (climate regimes), different locations (coastal vs inland), different scales (megacities vs small island states).
the same case studies can be carried across all the modules and investigated over various specialised aspects/sub-topics.

Module 2 "Planning for Climate Change"

Tentative objectives of the module
- To understand how climate change concerns can be mainstreamed in the planning process.

Proposed learning outcomes

At the end of this module, students should:
- Be able to understand the broad policy context of climate change and the planning process.
- Understand how climate change considerations can be mainstreamed in strategic planning and urban design.
- Understand how climate change considerations can be mainstreamed into urban and regional planning at the national, state/provincial, regional, and local level.
- Have gained skills in applying a range of tools for implementing planning for climate change.
- Have gained skills in complex problems solving and policy formulation.

Key content (proposed):
- Planning for Climate Change/International to Local Planning Policy.
- Strategic Planning, Statutory Planning/Urban Design- Mainstreaming Climate Change.
- Integration of Climate Change into Budgets.
- Tools for climate change assessments and implementation.
- Climate Proofing Projects.
- Community Participation

Proposed delivery mode

- Lecture (2-6 contact hours). Possibly two lectures on planning for climate change if this module contributes to a course on cities and climate change. The first one could follow an introductory module and the second module could be the last and concluding course module.
- Studio / Workshop on Scenario Planning / Gaming
- Field work or Group Project: Neighbourhood Design
- Seminar

Case Studies
- Climate change plans from different sites.
- Live projects relevant to the location of the course (and hence the students' reality) vis-à-vis the projected climate change impacts: drought, flood, cyclones, extreme weather, etc.

Module 3: "Practice of Urban Climate Change Adaptation and Mitigation"

Tentative objectives of the module
- To understand urban realities in the face of climate change as well as response options

Proposed learning outcomes
At the end of this module, students should:
- Understand how urban development in general and urban sectors in particular contribute to the emission of greenhouse gases
- Understand how climate change can impact on cities
- Conceptualize/Understand how cities can adapt to climate change (reducing the vulnerability of the most vulnerable populations, sectors and locations) and be able to propose adaptation measures in their city or for a case study.
- Conceptualize/Understand how cities can mitigate climate change – reduce greenhouse gases through various policy interventions and be able to propose mitigation measures in their city or for a case study.
- Be able to discuss why climate change action has been limited.

Key content (proposed):
- Cities' contribution to climate change and their relative contribution to Greenhouse Gas emissions (including boundary and scope issues). Introduction to Greenhouse Gas emission assessments.
- Long-term Climate Change impacts, extreme events and disaster risk
- Introduction to climate change vulnerability assessments
- Broad-ranging mitigation and adaptation options / measures (within the prevailing institutional and cultural context).
- Climate change response and sustainable urban development.

Proposed delivery mode

- Lecture (2-3 contact hours)
- Studio
- Workshop
- Practical work
- Seminar
- Group Project

Case Studies
- Case studies on coastal cities on local and regional level in climate change adaptation and mitigation
- Case studies in selected cities on the addressed issues
- Experiences from Climate resilient cities in different countries

Module 4: "Climate Change and Urban Water Cycle Management (incl. Sanitation)"

Tentative objectives of the module
- To provide an overview of the impact of climate change vis-à-vis urban water demand and supply

Proposed learning outcomes
At the end of this module, students should:
- Understand the impact of climate change on the Urban Water Cycle
- Be able to discuss how climate change affects urban water demand and supply (both in the short term, i.e. extreme weather events as well as in the long term, i.e. dryer or wetter climate).
- Understand the techniques and approaches for urban water management which local and national governments as well as water utilities can use, including: flood control, water storage, land use planning, management of level of permeability of the soils in the city, etc.

Key content (proposed):
- Global Water Cycle
- Climate Change models and scenarios for annual and seasonal precipitation and temperature change.
- Water geography and Hydro-system components (basin, banks, valley under-ground water table) and their features as well as basics of water geography.
- Land use & level of permeability of the soils in the city
- Flood mapping
- Urban water management and governance, role of utilities

Proposed delivery mode
- Lecture (2-6 contact hours) – possibly two modules
- Studio: assessment of flood vulnerability maps, assess the water components of urban climate change vulnerability assessments and adaptation plans
- Practical work, group projects: assess local water related vulnerability and propose adaptation measures.
- Excursion to Climate Change Mitigation – for example energy needed to store and pump water.

Case Studies
- Coastal cities and cities in river deltas
- Cities with special water needs
- Cities that are particularly vulnerable to climate change

Module 5: "Climate Change and urban Energy (including urban transport)"

Tentative objectives of the module
- To provide an overview of how urban form and urban development are related to urban energy demand and the relationship with climate change; present concepts and good practices for decoupling energy demand from urban development and provide students with corresponding tools.

Proposed learning outcomes
At the end of this module, students should:
- Understand the linkage between urban structure and function and energy utilization
- Be able to explain how better urban planning can reduce energy consumption
- Be able to explain how urban energy provision and climate change Adaptation are related
- Be able to understand the urban energy planning process and the opportunities for climate change adaptation and mitigation.

Key content (proposed):
- Theory and concepts of urban energy in the context of climate change (adaptation and mitigation)
- Sustainable energy with emphasis on energy savings, energy efficiency and renewable energy
- Energy supply and climate change adaptation
- Urban transport and energy
- Energy policy
- Energy planning

Proposed delivery mode
- Lecture (2-6 contact hours) – possibly two modules (however an introductory module would have to be a stand-alone module, the second module would have to be an advanced module).
  Student-led learning
- Seminars etc. Energy planning for climate change, assessments of case studies, urban climate change mitigation strategies
- Field work or Group Project: Energy inventory and assessment, energy planning; modelling and prediction, mitigation measures (urban form, density, land use, building and transportation), Economic Assessment

Case Studies
- City wide energy work: Curitiba, Australian cities, Beijing, Freiburg
- Case studies: urban climate change mitigation plans

Module 6: "Climate Change and Shelter & Housing"

Tentative objectives of the module
- To provide an overview of how Shelter/Housing impact Climate Change and are impacted by Climate Change, present concepts and good practices for solutions and provide students with corresponding tools.

Proposed learning outcomes
At the end of this module, students should:
- Understand the conditions of the built environment relating to climate, location, availability of building materials
- To appreciate the impact of climate (and weather, in particular extreme weather events) and shelter needs (as well as their broader determinants such as: social, cultural and economic).
- To appreciate the impact of building design and urban form on energy consumption (including lifecycle) and greenhouse gas emissions.
- To understand options for energy efficient and climate resilient housing (in particular low cost housing).
- To understand the relationship of shelter and urban policy and legislation (including building codes).
- Be aware of tools at the disposal of urban professionals to address shelter/housing in the context of Climate Change.

Key content (proposed):
- Definition of Housing
- Housing Vulnerability and Climate type
- Climate Change Housing Construction and Upgrading
- Climate Change Housing Configuration and Form

- Climate Change Housing Management and Reconstruction
- Climate Change Housing Services
- Climate change and Housing Policy

Proposed delivery mode
- Lecture (2-6 contact hours) – possibly two modules (however an introductory module would have to be a stand-alone module, the second module would have to be an advanced module).

Student-led learning
- Seminars etc. Assessments of Housing Strategies, Shelter Profiles etc, design principles, green building standards, low-cost housing design, slum upgrading.
- Workshop on Design, Simulations, Mapping and Testing of low income housing
- Field work or Group Project: Neighbourhood Design

Case Studies
- Housing programmes from different countries that take (or do not take) climate change into consideration.
- Shelter strategies
- Slum upgrading case studies
- Post-disaster reconstruction