UNU Institute for the Advanced Study of Sustainability (UNU-IAS)

Spring 2018 Semester Course

As of January 12th, 2018

**Title**: Sustainable Cities

**Coordinator(s):** Dr. Riyanti Djalante and Dr. Phillip Vaughter

**Schedule**: April – May 2018

**Purpose**: Cities are home to half the world's seven billion people and contribute to about 75% of global economic output. An additional three billion people are estimated to live in cities by 2050, increasing the urban share of the world's population to two-thirds. Yet, cities and urban areas across the world face major challenges: poverty, unemployment, poor housing and lack of basic services for over 1 billion slum dwellers, constraints on productivity due to lack of basic infrastructure, and a concentration risk due to natural disasters and climate change. They are also responsible for a large share of the world's pollution and greenhouse gas emissions. However, not everything about city life is bleak – for example, urban citizens tend to be many more times resource andd energy efficient than their suburban and rural counterparts. This classical view of the city, as a site of inextricable problems has inhibited interest and investment in them as sites of opportunity, innovation, and change.

Sustainable cities build on the extraordinary potential of urban areas to enable global change due to concentration of economic activity, innovation and job creation; the potential for social transformation, high levels of concentration of culture, people, infrastructure and buildings and the ability to redefine the relationship between rural and urban, enabling prosperity for both. The world aims "to make cities and human settlements inclusive, safe, resilient and sustainable" by 2030, leaving no person and no place behind.

**Learning Outcomes**: This course explores what sustainable cities are all about. It examines how urban sustainability can be delivered: how cities function as systems of systems; how we can increase urban productivity and reduce urban poverty and inequality, enable urban inclusion and safety; provide universal basic services, housing and infrastructure; protect the urban environment,

reduce risk and vulnerability, and increase resource and energy efficiency. It further explores what actions need to be taken to improve urban governance and financing for sustainable development and key institutions and agents that can make this possible.

**Course Outline**

| Lecture | Date | Content | Instructor | Key Literature |
|---|---|---|---|---|
| Lecture 1 | 3 April 2018<br>11.00-12.30 | Introduction of the course.<br><br>Decision on city case study (Lecturers to prepare)<br><br>Policy Brief.<br><br>Theories on Sustainable Cities and sustainable urban development | Dr. Riyanti Djalante / Dr. Phillip Vaughter | |
| Lecture 2 | 3 April 2018<br>14.00-15.30 | CITIES AND HUMAN DEVELOPMENT: How can we reduce urban poverty and inequality, and make cities inclusive and safe? | Dr. Phillip Vaughter | |
| Lecture 3 | 5 April 2018<br>14.00-15.30 | LEARNING FROM CITIES: What lessons can we learn about resource and energy use from urban density and smart design? | Dr. Phillip Vaughter | |
| Assignment 1 | 13 April 2018, 23.55pm | Annotated bibliography | | |
| Assignment 2 | 27 April 2018, 23.55pm | Mini Essay | | |

| Lecture | Date | Content | Instructor | Key Literature |
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| Lecture 4 | 8 May 2018 14.00-15.30 | GREEN CITIES: How can the urban environment be protected? | Dr. Riyanti Djalante | |
| Lecture 5 | 10 May 2018 14.00-15.30 | SMART CITIES: Management of Smart Urban Energy and infrastructure Systems | Dr. Phillip Vaughter | |
| Lecture 6 | 15 May 2018 14.00-15.30 | SMART CITIES: Smart Urban Transportation Systems | Dr. Phillip Vaughter | |
| Lecture 7 | 17 May 2018 14.00-15.30 | CLIMATE RESILIENT CITIES: Concepts and practice of resilient cities | Dr. Riyanti Djalante | |
| Lecture 8 | 22 May 2018 14.00-15.30 | CLIMATE RESILIENT CITIES: Cities contribution to Greenhouse Gas Emissions | Dr. Riyanti Djalante | |
| Lecture 9 | 22 May 2018 16.00-17.30 | CLIMATE RESILIENT CITIES: Vulnerable groups in urban areas, and Climate change vulnerability assessments in urban areas | Dr. Riyanti Djalante | |
| Lecture 10 | 24 May 2018 14.00-15.30 | CLIMATE RESILIENT CITIES: How can we achieve urban resilience? actions on urban mitigation and adaptation | Dr. Riyanti Djalante / Dr. Phillip Vaughter | |
| Lecture 11 | 24 May 2018 16.00-17.30 | CLIMATE RESILIENT CITIES: Integrating | Dr. Riyanti Djalante | |

| Lecture | Date | Content | Instructor | Key Literature |
|---|---|---|---|---|
| | | climate change into local planning | | |
| Lecture 12 | 28 May 2018 14.00-15.30 | CLIMATE RESILIENT CITIES: Mobilizing financial resources | Dr. Riyanti Djalante | |
| Lecture 13 | 30 May 2018 14.00-15.30 | GOVERNANCE of sustainable cities: theories | Dr. Riyanti Djalante | |
| Lecture 14 | 4 June 2018 14.00-15.30 | GOVERNANCE sustainable cities: stakeholders | Dr. Phillip Vaughter | |
| Lecture 15 | 6 June 2018 14.00-15.30 | Closing of classes | Dr. Riyanti Djalante / Dr. Phillip Vaughter | |
| Assignment 3 | | Class Presentation of the policy brief. | | |
| Assignment 4 | 5 June 2018, 23.55pm | Extended essay + policy brief | | |

**Assessment**:

- Class Participation and Discussion: 10%
- Assignment 1: Annotated bibliography
    - 15% of total marks
    - Write an annotated bibliography on sustainable cities
    - 20 References @ 50-75words. (min 10 journal articles, and reports), word count at the end of text.
    - Arial 12, 1.5 space, justified alignment, double side, cover page, references (in-text, bibliography) (academic articles only)
- Assignment 2 Mini Essay
    - 15% of total marks
    - Write a literature review on different initiatives/program aiming for specific sustainability issue in cities, with examples from different cities all around the world
    - 1500 words (maximum), word count at the end of text.
    - Arial 12, 1.5 space, justified alignment, double side, cover page, references (in-text, bibliography) (reports and academic articles)
- Assignment 3: Class Presentation of the Project Proposal and Policy Brief.
    - 10% of total marks
    - 5-minute presentation
    - Maximum 5 slides (Profile + problems of the city, initiatives/solutions/programs identification, proposed research design, 10-point policy recommendations)
    - Make your presentation to the mayor of the city
- Assignment 4: Project Proposal + Policy Brief
    - 50% of total marks

- 3000 words,
- Arial 12, 1.5 space, justified alignment, double side, cover page, references (reports and academic articles), word count at the end of text.
- Write a project proposal for a sustainable development issue within the city you were assigned:
    - Summary of relevant information on city
    - Literature review on initiatives/solutions/ programs to deal with the issue your identified. Use examples from different cities in the world.
    - Framing the problem, design research needed to solve the problem
- Write an policy brief outlining issues, and 10-point policy recommendations for better planning and implementation of sustainable city program for the given city