Presidents Forum of Southeast and South Asia and Taiwan Universities

Annual Regional Meeting 2009

E-Classroom International Mobility Program

International Curriculum on Sustainability
- Capacity Building within Southeast and
South Asia

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+NCKU **Masters** in Sustainable Development **Practice** 2010 Fall ~

M.Sc.

M.A.

M.B.A.

M.L.

**National Chung Kung University** 

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Assistant Professor, Department of Environmental Engineering Director, International Organizations Division, Office of International Affairs

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# Sustainable Development

- An ideal interdisciplinary and international goal
- South and Southeast Asia will continue to increase its level of importance on the world
  - *Economic:* Many regions are in the midst of development
  - *Environmental:* Rich in natural resources, sensitive to global climate change
  - Social: Cultural diversity, Political Relevance
- Opportunities: Cooperative projects in research and education
  - Involve ourselves in shaping a better future of the region
  - Enhance academic competitiveness by accelerated innovation of theories & learning from challenges confronting the region

# Masters in Sustainable Development Practice

- NCKU wishes to better serve the region through its unique competitiveness in education and research
  - "Pristine Practicality": NCKU is renown for its educational achievements. (For over 10 years, our alumni are the most favored by Taiwanese Industries)
  - Core competence in key areas for sustainable development
    - Engineering

- Urban Design & Planning
- Medical Studies
- From recent experiences, we realize that the need for building capacities to encompass knowledge in different conventional fields, comprehend, and work out practical solutions is more and more apparent.

# Mission of the Program

#### **■**Education:

Educating the students to have the capacity to understand theories in sustainable development and to also acquire the skills to apply them in the real world

#### **■Research:**

Bringing about enhanced innovation of theories in sustainable development and creation of new research frontiers by learning from the significant issues that developing countries face.

# Creation of Center of Excellence in Sustainability Research and Education

#### ■ Research

- Accelerate innovation of theories/technologies for sustainable development
- Offer better opportunities to identify new needs and seeds of theories that could eventually evolve into new research fields in sustainable development

#### **■**Education

- Provide students and professors with chances to collaborate on an interdisciplinary & international research
- New development in pedagogies and textbooks tailored to Sustainability Education, with diversities in cultures and backgrounds engraved at its basic philosophy

# Regional Program Hub for the South and Southeast Asia

- Our middle-term (5 years~) desire is to assist other universities in developing similar programs and concepts, thereby building upon the regional network of Graduate Programs in Sustainable Development Practice.
- The CoE will keep development specialists connected by the network updated with the current trends, new technologies, and practices.
- Utilizing the unique strength of each university, developing countries with different development needs will be offered a localized solutions with varied combinations of best development knowledge. The hub will facilitate such actions being taken smoothly.
- The hub will connect with Global Networks in Sustainable Development. (e.g. IR3S, World Student Community for Sustainable Development, World Business Council for Sustainable Development, ProSPER.Net, etc.)

## Curriculum

In addition to those core courses, elective courses are available within the program

### **Basic Disciplines**

Field Training

Thesis

#### **Natural Sciences**

Research Projects, Presentation & / Discussion

Changing Environment and Health Implications

Intensive course on Sust. Dev. Practice

Sustainable Environment

Engineering, Design & Planning Sustainability Indicators

Project Design Management

Social Sciences & Management



# **Program Elective Courses**

#### **■ Natural Sciences**

- Mobility and Mobility Study of Chronicle Disease
- Epidemiologic Methods for the Study of Infectious Disease
- Physics and Chemistry in Environmental Sciences
- Biodiversity and Conservation

#### ■ Social Sciences & Management

- Ethics in Sustainable Development
- Social Sciences in Sustainable Development
- Environmental Policy
- Environmental Economics

#### Engineering, Design & Planning

- Water Technology
- Sustainability Assessment of Technologies
- Urban and Rural Planning
- Pollution Prevention and Sustainable Materials Management

12 professors from 5 schools offer core and elective courses entirely in English.

Besides, some of the classes in other international programs are also available as elective courses.



# Summer Intensive Course on Sustainable Development

- A refresher course outlining the foundations in Sustainable Development Practice
  - Epidemiology
  - Statistics
  - Economics



Period: ~ 2 weeks

- Objective: Help students to start the program on the same foot
  - Student may be coming from an array of backgrounds
  - Realize the cultural diversity in the region by getting to know each other more



# **Field Training**

All students will be engaged in Field Training Project developing country, including their home country. A roundtrip ticket is provided by the program.

### **■ Project Contents**

- Something the students are currently working on at the home country
- An area the students are interested in

#### Procedures

- Students propose the project when applying for the program
- Advisory committee approves the project proposal
- If approvable proposal were not made, the student will be provided for one.
  - Field Training Partner Universities/Organizations/Companies
- Must directly reflect their concentration and thesis topic



# **Student Body**



- No. of Students: 15~20
- Entirely international students in the first year
  - With achievements of the initial several years, we will attract students in Taiwan and in Developed countries
- Qualified backgrounds in a variety of disciplines related to Sustainable Development
- Actively recruit personnel in the midst of his/her career, as well as undergraduate students at local universities
  - Governmental/Public officers
  - NGO/NPO personnel

- University Lecturers
- Corporate managers



# Study options

The program may include students who are currently in the midst of their carriers. We prepare flexible study options to accommodate such students.

- Students must study in residence at NCKU for at least for 2 semesters and one summer
  - Students may go back to the home country and write thesis
  - Those who may not conceivably leave their job for a full year to study at NCKU may choose to study one semester on the first year, and finish taking rest of the courses in another semester in the subsequent year.
- Besides 15 core credits and other mandatory courses, students can take min. 15 credit courses from
  - Elective courses in the program
  - Other courses offered at NCKU or at Partner universities



# Thesis & Degree

- According to their study plan, successful students will be assigned with;
  - An advisor for master thesis in NCKU
  - A discipline division
    - Natural Sciences
    - Social Sciences and Management
    - Engineering, Design & Planning
- Degrees are conferred by the school which their advisor belongs to.
  - Master of Science (M.S.)
  - Master of Law (M.L.) Master of Art (M. A.)
  - Master of Business Administration (M.B.A.)







# Messages from the NCKU-MDP

- Realizing the strength of the university, it is possible to utilize the network of SATU and develop an international program
- If your school have strength in a field that would complement the curriculum of NCKU-MDP, we would welcome your participation in this program
  - culture, social science, philosophy, management, governance, policy, agriculture, marine, education
- Co-hosting classes
- Joining classes

