

ENV 5008: Jamaica - SYLLABI
APPROPRIATE TECHNOLOGIES FOR DEVELOPING COUNTRIES
Prerequisites: ENV 3001 or Equivalent and/or Permission of the Instructor
Department of Civil and Environmental Engineering
Florida International University
Fall 2007

Instructor: Professor Fuentes, Ph.D., P.E., D.E.E.
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Office Hours: T&R: 9:30AM-12M
First-come/first-served policy during office hours.
Other Office Hours by Appointment.

Lecture location and time: UTECH Jamaica; 10/26 &27, 11/16&17, 11/23&24 and 11/30&12/01;
F (6:00-9:00PM) and S (9AM-4:00PM)

A. Course Description & Objective

This course focuses on three main aspects of environmental protection in developing regions and countries of the world: 1) the identification and study of international, regional and national strategies and agendas that seek the implementation of environmental protection; 2) the identification and assessment of technologies, methodologies and experiences that should be considered in finding solutions to environmental-related needs and problems in communities of developing countries; and 3) Applying engineering knowledge to design appropriate and sustainable solutions to problems in communities of developing countries.

B. Textbook & Reading Assignments

Required textbook/material:

The instructor will guide the students to identify and make copies of selected publications in support of their study. Publications will come from a combination of journals, international and national organizations, the latter including governmental, private and not-for profit. Students should be able to assemble their own notebook of relevant literature by the end of the term.

Students are expected to access and consult other literature (e.g., journal publications, governmental reports, and textbooks, as applicable, in support of their design effort.

C. Use & Management of Class Time

Class time is used to present, illustrate and discuss relevant themes of sustainability, institutional framework, methodologies to assess technologies, and case studies. Lectures will follow the sequence of topics, as listed below.

<u>Theme</u>	<u>Description</u>
1.	<u>Introduction</u> Syllabi Definitions & Concepts Towards a Sustainable Environment
2.	<u>The Institutional Framework</u> Industrialized & Developing Countries The UN and the Environment Agenda 21 From Stockholm to Rio & Johannesburg The Millennium Goals The USA & EU & the Environment Latin American & Caribbean Countries
3.	<u>Legislative & Regulatory Framework</u>
4.	<u>Industrial Activity & the Environment</u>
5.	<u>Improved Manufacturing Operations</u>
6.	<u>Methodologies</u> i. LCA ii. DfE iii. P2
7.	<u>Case Studies & Student Projects</u>

D. Grading Policies

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| 1. Search and report a list of relevant journals (+10) that address environmental or sustainability or both issues in developing countries (written) (Due 11/10/07 - via e-mail) | 10 |
| Critical Analysis of a Selected Journal Publication (Due 11/10/07 - via e-mail) | 10 |
| 2. Report on International Framework & Country of Focus (written and oral) – Due 11/16/06 | 25 |
| 3. Report on Inventory of Appropriate | |

Technologies in the Selected Area/Theme (written and oral) (Due 11/23/07)	25
4. Team Project Final Report in the Selected Area/Theme Written due 11/30/07 – Oral presentation 12/01/07	30
<i>Total Maximum (see criteria in addendum)</i>	<i>100</i>

All reports will be collected on the scheduled day at the beginning of the lecture or should be electronically submitted on the scheduled day. All reports must comply with requested criteria and format. Late written reports and missed oral presentations will receive zero points, except in extraordinary circumstances, including health emergencies if properly justifiable. Refer to addenda on criteria for reports.

ADVICE: BEGIN YOUR STUDY AND ASSIGNMENTS PROMPTLY. COMPLAINTS ON GRADES WILL ONLY BE CONSIDERED WITHIN THE SEVEN WORKING DAYS FOLLOWING THEIR OFFICIAL ANNOUNCEMENT (e-mail communication is acceptable)

Final grade is a function of the total number of points accumulated by the student at the end of the course, as follows:

93.3 ≤ A	≤ 100.0	73.3 ≤ C	< 76.7
90.0 ≤ A-	< 93.3	70.0 ≤ C-	< 73.3
86.7 ≤ B+	< 90.0	66.7 ≤ D+	< 70.0
83.3 ≤ B	< 86.7	63.3 ≤ D	< 66.7
80.0 ≤ B-	< 83.3	60.0 ≤ D-	< 63.3
76.7 ≤ C+	< 80.0	F	< 60.0

E. Other Performance Policies

Students will automatically lose 1.65 points per unjustified absence. No make-ups or incomplete grades will be considered, unless properly justified and documented emergencies. Please be in time for all classes and keep beepers and cell-phones off during lectures.

G. Some Recommended References

Journal articles that address sustainability and developing countries environmental issues.

www.un.org, www.undp.org, www.unep.org

www.oea.org

www.epa.gov

www.eea.europa.eu

www.eia.doe.gov

www.watsanweb.ch

www.nies.go.jp

www.solarcities.org

www.ewb-usa.org