## UNITED STATES INTERNATIONAL UNIVERSITY-AFRICA

ENV 3200: WATER USE AND MANAGEMENT

COURSE SYLLABUS CREDIT: 3 UNITS

# **COURSE DESCRIPTION**

The course will explore the limitations of World Water Resources and increased conflicts; critical importance of conservation with emphasis on increasing efficiency of the use and reuse.

The course will use Case Studies and applied problems to examine cultural conflicts and opportunities for cooperation in Water Resources Management.

#### COURSE OBJECTIVES

- To examine water as a resource.
- To examine the increasing conflicts on water use and management.
- To examine the importance of conservation
- To examine cultural conflicts and opportunities for cooperation in water resources management.

### TEACHING METHODOLOGY

Lectures, Power Point Presentations, and Class discussions.

Video shows will be shown in class when available at the end of a relevant topic.

The lecturer will give lectures in class to explain to the students the various topics on water use and management.

The lecturer will keep students alert by frequently asking questions and encouraging class discussions.

The lecturer will also be free to answer questions from the students in the course of the lecturers.

**ASSIGNNMENT CRITERIA:** Each student will be given an individual assignment on a relevant topic; which the lecturer thinks is important and relevant to the course, but may not be adequately covered in class due to limited time.

## **COURSE CONTENT**

### Week 1

- General introduction
- Water as a resource
- Water uses
- Water sources.

## Week 2

• International River Basins of the World, Africa, Europe, North American & South America.

### Week 3

- Water and state sovereignty
- The hydropolitical challenges for states in arid regions.
- The scarcity of water in the third world

## Week 4

- Water and conflict
- The geopolitics of shared water resources
- Transboundary disputes

## Week 5

- Conflict over river waters
- The Nile basis
- The Nile waters agreement

## Week 6

- The Jordan Basin
- The Physical Geography
- The Economic and Political Geography
- Hydropolitics

## Week 7

- The Ganges Brahmaputra (Barak Basin).
- Physical Geography
- Political Geography
- Hydropolitics
- Conflict and Cooperation.

# Week 9

- Water sharing rights.
- Systems for sustainable Management of Water Resources.

#### Week 10

- Water sharing rights
- Systems of sustainable management of water resources.

### Week 11

• The role of community in water conservation

### Week 12

- The value of cooperation in resolving international river basin disputes.
- Obstacles and opportunities.

### Week 13

• Water management and policy reform.

### Week 14

• Final Examination as scheduled.

# **COURSE TEXT**

Miller, G.T. Jur (2002) Living in the Environment, Principles, Connections and Solutions.

## REFERENCE BOOKS

- 1. Aaron T. Wolf. The Management of Water Resources, Conflicts, Prevention and Resolution in Water systems.
- 2. Miriam R. Lowi. Water and Power. The Politics of a scarce resource in the Jordan River Basin.
- 3. Arun P. Elhance. Hydropolitics in the 3rd world conflict and cooperation in international river basins.
- 4. Mark W. Rosegrant, Ximing Cai, Sara a. Cline World water and food 2025. Dealing with scarcity.
- 5. J.A. Allan The Middle East Water question.

## **COURSE EVALUATION**

| Attendance              | - | 10% |
|-------------------------|---|-----|
| Grpass                  | - | 10% |
| Assignment (Individual) |   | 10% |
| Term Paper              | - | 15% |
| Mid-Semester Exam       | - | 25% |
| Final Exam              | - | 30% |

## **GRADING**

| A                    | 90-100 |
|----------------------|--------|
| A-                   | 87-89  |
| $\mathbf{R}_{\perp}$ | 84-86  |

B+ 84-86

B 80-83 B- 77-79

C+ 74-76

C 70-73

C- 67-69

D+ 64-66 D 62-63

D- 60-61

F 0-59