WOLLO UNIVERSITY

KOMBOLCHA INSTITUTE OF TECHNOLOGY

Department of Water Resources and Irrigation Engineering

Course Title: Environmental impact assessment | **Academic year:** 2019/20

Course Code: WRIE5192 | **Year: V**

Program: B.Sc. in Water Resources and Irrigation Engineering | **Semester:** II

Pre-requisites: Dam Engineering II, Irrigation Structures II & Drainage Engineering II | **L-T-P/L:** 2-0-0

Instructor: Seid.E

Course Description

- Environment and sustainable development Policy, Social, Institutional, and legal context of EIA
- EIA Process, impacts of water-related projects, and EIA report:
- Environmental Impact statement
- Preparation of Terms of Reference

Course Objectives

The objective of the course is to present the philosophy and methodology used to assess the environmental impacts of water resources development and to present methods to integrate the EIA and water resources planning processes.

Competences to be Acquired

Students will be able to know:

- The basic concepts of environment
- The need for environmental assessment
- EIA process
- Identify major impacts of water-related projects, EIA report and review

1. INTRODUCTION

1.1 Environment, Environmental impact and sustainable development

1.2 Environmental impact assessment (EIA)

1.3 History of EIA and the concept of sustainable development

1.4 Purpose and Significance of EIA

2. POLICY, SOCIAL, INSTITUTIONAL AND LEGAL ASPECTS OF EIA

2.1. Environmental Policy of Ethiopian (EPE)

2.2. Legal Framework for EIA

3. EIA PROCESS

3.1. Public participation for EIA

3.3. Basic steps of EIA Process

3.3.1 Screening

3.3.2 Scoping

3.3.3 Impact Analysis (Impact identification, prediction and Evaluation)

3.3.4 EIA Terms of Reference

3.3.5 Impact mitigation

4. EIA REPORTING, REVIEW & DECISION MAKING

4.1 Reporting

4.2 Main steps in EIA reviewing

4.3. Decision making in EIA

5. ENVIRONMENTAL IMPACTS OF MAJOR WRD PROJECTS

5.1. Groundwater and River Training Projects

5.2. Dam/reservoir/hydropower projects

ASSESSMENT/EVALUATION

- 50% Continuous assessment (Quiz, Assignment/Project and mid-term exam)
- 50% Final exam

ATTENDANCE REQUIREMENTS

- A student must attend at least 80 % of the classes

REFERENCES

1. Environmental Engineering Mackenziel Davis New York, 2008
2. Environmental Engineering, N.N. Basak, London 2007
3. Principles of Environmental Engineering and Sciences, Davis Boston, 2004.
4. Environmental Sciences and Engineering, Heinke America, 1996.
5. Environmental Engineering, Weiner Boston 2003