

# **ENGINEERING PROFESSIONAL PRACTICE SYLLABUS IV/II**

## **ENGINEERING PROFESSIONAL PRACTICE SYLLABUS[CE 752]**

Lecture : 2 Year : IV

Tutorial : 0 Part : II

Practical : 0

Course Objective:

To familiarize the students with their roles in the society, ethical and legal environment in which engineering is practiced, contract administration, regulatory environment and contemporary issues in Engineering.

### 1. History of Engineering Practices [3 hours]

- 1.1. Man and Society
- 1.2. Technology and Society
- 1.3. History of Engineering Practice in Eastern Society
- 1.4. History of Engineering Practice in Western society
- 1.5. Engineering Practices in Nepal

### 2. Profession and Ethics [6 hours]

- 2.1. Profession: Definition and Characteristics
- 2.2. Professional Institutions
- 2.3. Relation of an Engineer with Client, Contractor and Fellow Engineers
- 2.4. Ethics, Code of Ethics and Engineering Ethics
- 2.5. Moral Dilemma and Ethical Decision Making
- 2.6. Detailed Duties of an Engineer and Architect
- 2.7. Liability and Negligence

### 3. Professional Practices in Nepal [3 hours]

- 3.1. Public Sector practices

3.2. Private Sector Practices

3.3. General Job Descriptions of Fresh Graduates in both Public and Private Sector

4. Contract Management [6 hours]

4.1. Methods of work execution/contracting

4.2. Types of Contracts

4.3. Tendering Procedure

4.4. Contract agreement

5. Regulatory Environment [5 hours]

5.1. Nepal Engineering Council Act

5.2. Labor Law

5.3. Intellectual Property Right

5.4. Building Codes and Bylaws

5.5. Company Registration

6. Contemporary Issues in Engineering [3 hours]

6.1. Globalization and Cross Cultural Issues

6.2. Public Private Partnership

6.3. Safety, Risk and Benefit Analysis

6.4. Development and Environment

6.5. Conflict and Dispute Management

7. Case Studies based on Engineering Practices [4 hours]

This should more focus on the relevant department basis.

## References:

1. Carson Morrison and Philip Hughes “Professional engineering Practice – Ethical Aspects”, McGraw-Hill Ryerson Ltd.’ Toronto 1982
2. Dr Rajendra Adhikari, “Engineering Professional Practice – Nepalese and international Perspectives” Pashupati Publishing House, Kathmandu Nepal 2010
3. M. Govindarajan; S Natarajan and V.S. Senthikumar., “ Engineering Ethics” – PHI Learning Pvt. Ltd. New Delhi 2009
4. Nepal Engineering Council Act
5. Contract Act
6. Labor Act
7. Company Act
8. Copyright Act
9. Public Procurement Act
10. Building By-Laws

## Evaluation Scheme:

The questions will cover all the chapters in the Syllabus. The evaluation scheme will be as indicated in the table below.

Chapter	Hours	Marks distribution*
1	3	4
2	6	8
3	3	4
4	6	8
5	5	6
6	3	4
7	4	6
Total	30	40

\* There may be minor deviation in marks distribution.