

Engineering Professional Practice

BEG 456 CI

Year: 4 Semester: II

Teaching Schedule Hours/Week			Examination Scheme						Total Marks	Remarks
			Final			Internal Assessments				
			Theory		Practical		Theory Marks	Practical Marks		
L	T	P	Duration	Marks	Duration	Marks				
0	0	0	1.5	40	--	--	10	--	50	

Course Objectives:

To introduce ethical and legal environment in which engineering is practiced

Course Content:

1.0 Engineering Professionalism:

[4 hrs]

- 1.1 Profession/Professional and Professionalism.
- 1.2 Moral and ethics in engineering profession.
- 1.3 Codes of ethics and guidelines for engineering Profession.
- 1.4 Relationship of the engineering Profession to basic science and technology;
Relationship to other Profession
- 1.5 Key roles of engineers in development activities.
- 1.6 Law of ethics in engineering practices.
- 1.7 Fundamental canons for professional engineers.

2.0 History of engineering Practices:-[2 hrs]

- 2.1 Concept about society, elements of society and types of society.
- 2.2 History of engineering practice in eastern and western society.

3.0 Engineering Professional Practice in Nepal:[12 hrs]

- 3.1 Nepal Engineering Council and Nepal Engineering Association.
- 3.2 Contract Law, Elements and types of Contract Law.
- 3.3 Types of Contract: Sealed quotation and tender.
- 3.4 Quotation and quotation notice.
- 3.5 Tender and Tender notice.
- 3.6 Tender guarantee.
- 3.7 Tender documents and its preparation before inviting tender.
- 3.8 Prequalification works of contractors.
- 3.9 Evolution of tenders and selection of contractors.
- 3.10 Contract acceptance.
- 3.11 Conditions of Contract.

- 3.12 Tort liability, Elements of Tort liability and Types of Tort liability.
- 3.13 Business and labor laws.
- 3.14 Relationship to foreign firms working in Nepal.

4.0 Professional Practice Sectors in Nepal: [4 hrs]

- 4.1 One Job description of engineers working in public sectors
- 4.2 One Job description of engineers working in private sectors

5.0 Engineering Professional Practice in Other Countries: [2 hrs]

- 5.1 Other Asian Countries
- 5.2 USSR and Eastern Europe.
- 5.3 Western Europe
- 5.4 North America

6.0 Issues on Engineering Professional Ethics: [6 hrs]

- 6.1 Intellectual property rights: copy rights, Trademark and Patent protection.
- 6.2 Industrialization and environmental protection.
- 6.3 Risk/benefit considerations in public transportation.
- 6.4 Science and technology for medicine
- 6.5 Engineers in international development.

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 Natrajan and Senthikumar. "Engineering Ethics"- PHI- Learning Pvt. Ltd. New Delhi 2009

Mark Distribution:

The questions will cover the syllabus. The evaluation scheme will be as indicated in the table below:

Chapter	Marks Distribution	Remark
1	5	
2	3	
3	15	
4	6	
5	3	
6	8	
Total	40	

* Above mentioned marks distribution can be with minor variation

Comment [P1]: To be added