

PGDFLP15: LEGAL AND REGULATORY FRAMEWORK

Course Objective

To provide students with a comprehensive understanding of the legal and regulatory frameworks governing construction, engineering, architecture, and allied fields in India. The course covers laws, standards, and regulations to ensure compliance, safety, and ethical practices in professional activities.

Module 1: Introduction to Legal and Regulatory Frameworks

- Importance of legal compliance in construction and engineering.
 - Overview of Indian legal systems: Constitution of India and its influence on regulatory frameworks.
 - Statutory bodies and authorities: Roles and responsibilities (e.g., BIS, NHAI, CPCB, etc.).
 - Concept of liability: Civil, criminal, and professional.
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Module 2: Construction Laws and Building Regulations

- National Building Code of India (NBC 2016): Structure, purpose, and key provisions.
 - Development control regulations and zoning laws.
 - Land acquisition laws and the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation, and Resettlement Act, 2013.
 - Real Estate (Regulation and Development) Act (RERA), 2016.
 - Transfer of Property Act, 1882: Key aspects.
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Module 3: Environmental and Sustainability Laws

- Environmental Protection Act, 1986.
 - Air (Prevention and Control of Pollution) Act, 1981.
 - Water (Prevention and Control of Pollution) Act, 1974.
 - Forest Conservation Act, 1980.
 - Energy Conservation Act, 2001.
 - Guidelines for green buildings and sustainable development (e.g., GRIHA, IGBC).
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Module 4: Labor Laws and Workplace Safety

- Factories Act, 1948: Health, safety, and welfare provisions.
- Employees' Provident Fund and Miscellaneous Provisions Act, 1952.

- Employees' State Insurance Act, 1948.
 - Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996.
 - Occupational Safety, Health, and Working Conditions Code, 2020.
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Module 5: Contracts and Dispute Resolution

- Essentials of a valid contract under the Indian Contract Act, 1872.
 - Types of contracts: Lump sum, item rate, EPC, BOT, PPP models.
 - Breach of contract and remedies.
 - Arbitration and Conciliation Act, 1996: Alternative dispute resolution mechanisms.
 - Construction claims and dispute management.
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Module 6: Intellectual Property and Technology Laws

- Intellectual Property Rights (IPR) relevant to engineering and architecture: Patents, copyrights, trademarks.
 - Protection of designs under the Designs Act, 2000.
 - Data privacy and cyber security laws in engineering projects.
 - Legal aspects of using emerging technologies (IoT, AI, BIM) in construction.
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Module 7: Fire Safety and Disaster Management Regulations

- Fire Services Act and NBC fire safety provisions.
 - Disaster Management Act, 2005: Framework and guidelines.
 - Risk assessment and mitigation measures in infrastructure projects.
 - Compliance for high-risk projects: Industrial plants, high-rises, and public spaces.
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Module 8: Ethical and Professional Practices

- Professional ethics for engineers and architects.
 - Role of professional bodies (e.g., COA, IEI, ASHRAE).
 - Legal implications of unethical practices.
 - Case studies on ethical dilemmas in engineering and architecture.
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Module 9: International Standards and Practices

- Overview of ISO standards relevant to construction and engineering.

- Comparative analysis of Indian regulations with international standards (e.g., OSHA, Eurocodes).
 - Adapting global best practices in Indian contexts.
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Module 10: Case Studies and Practical Applications

- Analysis of landmark legal cases in engineering, architecture, and construction.
- Practical exercises on contract drafting and dispute resolution.
- Compliance audit projects for a construction site or industrial facility.