

Management and Laws Associated with Electrical Facilities.

1 unit (selection)
Part-time Lecturer

Target) The objective of this lecture is to have students understand (1) the electric power industry law for managing electrical facilities, and (2) deregulation of electric utilities.

Outline) (1) Objectives, definition, and regulations of electric power industry, (2) law adapted to operation of the facility construction, and (3) method of energy management

Keyword) *Electrical Industry., Electrical facilities and their management., Technical standards., Overhead and underground power line., Electric power system operation.*

Fundamental Lecture) “**Fundamentals of Energy Engineering**”(0.2), “**Electric Power System Engineering (II)**”(0.2)

Relational Lecture) “**Fundamentals of Energy Engineering**”(0.2), “**Electric Power System Engineering (II)**”(0.2)

Requirement) Good understanding of the energy related subjects such as electric power generation, energy engineering and so on.

Goal)

1. Understanding of electric power industry law and related regulations.
2. Understanding of technical standard and specifications.
3. Understanding of method of electrical facility management.

Schedule)

1. Transition of electrical power industry and law with years.
2. Objectives and regulations of power industry.
3. Safety of electrical equipment for power industry
4. Safety of general-purpose electrical equipment.
5. fundamentals of technical standards (voltage and proximity).
6. fundamentals of technical standards (conductor).
7. fundamentals of technical standards (insulation and grounding).
8. Electrical equipment in power station and substation.
9. Overhead and underground power lines.
10. Electrical facilities (electric motor)
11. Electrical facilities (low voltage indoor distribution line)
12. Standard for electricity.
13. Power supply and Demand, and power source development.

14. Operation of power system.

15. Review talk and discussions.

16. Examination.

Evaluation Criteria) Examination counts 100%.

Relation to Goal) (A) 教養・倫理 30%, (D) 専門基礎 30%, (E)[主目標] 専門分野 (電気エネルギー)40%

Textbook) S. Takeno, ”Law and management of electrical facilities”, published by Tokyo Denki University Press.

Reference) Will be introduced in the class.

Contents) <http://cms.db.tokushima-u.ac.jp/cgi-bin/toURL?EID=216188>

Student) Able to be taken by night course student of same department

Contact)

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Note) 授業を受ける際には、2時間の授業時間毎に2時間の予習と2時間の復習をしたうえで授業を受けることが、授業の理解と単位取得のために必要である。