Illumination Engineering - Video course

Radiation, colour, eye & vision; different entities of illuminating systems; Light sources: daylight, incandescent, electric discharge, fluorescent, arc lamps and lasers; Luminaries, wiring, switching & control circuits; Laws of illumination; illumination from point, line and surface sources. Photometry and spectrophotometry; photocells. Environment and glare. General illumination design. Interior lighting – industrial, residential, office departmental stores, indoor stadium, theater and hospitals. Exterior lighting- flood, street, aviation and transport lighting, lighting for displays and signaling- neon signs, LED-LCD displays beacons and lighting for surveillance. Utility services for large building/office complex & layout of different meters and protection units. Different type of loads and their individual protections. Selection of cable/wire sizes; potential sources of fire hazards and precautions. Emergency supply – stand by & UPS. A specific design problem on this aspect

1) Radiation & colour (2 Lectures)
2) eye & vision (2 Lectures)
3) different entities of illuminating systems (2 Lectures).
4) Light sources: daylight, incandescent, electric discharge, fluorescent, arc lamps and lasers – 4 Lectures
5) Luminaries, wiring, switching & control circuits – 3 Lectures
6) Laws of illumination; illumination from point, line and surface sources – 2 Lectures
7) Photometry and spectrophotometry; photocells – 2 Lectures
8) Environment and glare – 2 Lectures.
9) General illumination design – 2 Lectures.
10) Interior lighting – industrial, residential, office departmental stores, indoor stadium, theater and hospitals – 4 Lectures.
12) Utility services for large building/office complex & layout of different meters and protection units – 3 Lectures.
13) Different type of loads and their individual protections – 2 Lecture.
14) Selection of cable/wire sizes; potential sources of fire hazards and precautions. Emergency supply – stand by & UPS - 4Lectures.
15) A specific design problem on this aspect - 2 Lectures.