

ELEC-E8406: Electricity Distribution and Markets

| Course outline, dates and events | | | | Lectures, Discussions, Q&As Wednesdays: 10.15-12.00, in T1-C202 or T2-C15 (Computer Science Building) and Fridays: 10.15-12.00 normally in TU1 (Maarintie 8) * | Calculation exercises (Wednesdays: 12.15-14.00 in T1-C202) | Overview |
|----------------------------------|-----------|--------------------------|----------------|--|---|------------------------------------|
| We | 10.1.2024 | T1-C202 (Maarintie 6) | ED&M01 | Introduction → Context → power systems → contemporary challenges → this course... | 1. Power flow | Context |
| Fri | 12.1.2024 | TU1 (Maarintie 8) | ED&M02 | Crude power flow and thermal rating | | |
| We | 17.1.2024 | T1-C202 | ED&M03 | Voltage, (essay topic and group formation? If enough responses!) | 2. Voltage drop and rise | Electricity Distribution Basics |
| Fri | 19.1.2024 | TU1 | ED&M04 | Losses and their cost (load and no-load), basic economics | | |
| We | 24.1.2024 | T1-C202 | ED&M05 | Short circuits, voltage sags (dips), reclosing | 3: Voltage sags | |
| Fri | 26.1.2024 | TU1 | ED&M06 | Reliability | | |
| We | 31.1.2024 | T1-C202 | ED&M07 | Single-phase earth faults | 4: Reliability | |
| Fri | 2.2.2024 | Zoom | ED&M08 | LV networks https://aalto.zoom.us/j/64668289887?pwd=a2JSczQxUlI2MVh3cU9kWWNyUlpZz09 | | |
| We | 7.2.2024 | T1-C202 | ED&M09 | Distributed generation and the grid, and renewables | 5: General with economics | |
| Fri | 9.2.2024 | TU1 | ED&M10 | Summary of technical content and the role of computer tools | | |
| We | 14.2.2024 | T1-C202 | ED&M11 | Group planning task (Assignment essays would be appreciated at midnight 15.2.2024) | John available 12:00-14:00 for group meetings | |
| Fri | 16.2.2024 | TU1 | Group meetings | Group meetings and assignment work (John available) | | |
| We | 28.2.2024 | T2-C105 | Group meetings | Group meetings (John available for group bookings, 10-14) | John available 12:00-14:00 for group meetings | |
| Fri | 01.3.2024 | TU1 | ED&M12 | Assignment discussion and Markets 1 Lecture!!! : | | Markets and Regulation |
| We | 06.3.2024 | T2-C105 | ED&M13 | Markets 2 | John available 12:00-14:00 for group meetings | |
| Fri | 08.3.2024 | TU1 | Group meetings | Group meetings (John available, 10-12) | | |
| We | 13.3.2024 | T2-C105 | Group meetings | Group meetings (John available, 10-12) | 6: Markets (T2-C105) | |
| Fri | 15.3.2024 | TU1 | Group meetings | Group meetings (John available, 10-12) | | |
| We | 20.3.2024 | T2-C105 | Presentations | Assignment planning and essay tasks due (midnight) and presentations (10:15→13.45) | (T2-C105) | |
| Fri | 22.3.2024 | TU1 | ED&M14 | Markets 3 | | |
| We | 27.3.2024 | T2-C105 | ED&M15 | Feedback about Assignment, info about exam, questions... | | |
| Fri | | | | | | |
| We | 17.4.2024 | AS1 | 9:00-12:00 | Final exam: Note the time and place, but check SISU!!! | | April |
| Mo | 06.5.2024 | ??? | 16:30-19:30? | Another chance for the final exam (the one and only 'retake' exam) | | May |



Group Assignment Essay

Group Assignment Network Planning Task