

|  |  |                 |                        |  |
|--|--|-----------------|------------------------|--|
| <b>Asignatura: Modelado de Sistemas Eléctricos por Ordenador</b> |  |                 |                        |  |
| <b>Titulación: Grado en Ingeniería Eléctrica</b>                 |  | <b>CURSO: 3</b> | <b>CUATRIMESTRE: 2</b> |  |

| Semana | Sesión | Descripción                  | 2 teachers | Hours (class) | Hours (class + home) |
|--------|--------|------------------------------|------------|---------------|----------------------|
| 1      | 1      | Introduction                 | NO         | 1:40          | 5                    |
|        | 2      | Creating a new case I        | YES        | 1:40          | 5                    |
| 2      | 3      | Power flows and voltages I   | YES        | 1:40          | 5                    |
|        | 4      | Power flows and voltages II  | YES        | 1:40          | 5                    |
| 3      | 5      | Load modelling               | NO         | 1:40          | 5                    |
|        | 6      | Shunt compensators           | NO         | 1:40          | 5                    |
| 4      | 7      | Tap changers                 | NO         | 1:40          | 5                    |
|        | 8      | Reactive limits              | NO         | 1:40          | 5                    |
| 5      | 9      | Contingency analysis I       | NO         | 1:40          | 5                    |
|        | 10     | Contingency analysis II      | NO         | 1:40          | 5                    |
| 6      | 11     | Contingency analysis III     | NO         | 1:40          | 5                    |
|        | 12     | Voltage stability I          | NO         | 1:40          | 5                    |
| 7      | 13     | Voltage stability II         | NO         | 1:40          | 5                    |
|        | 14     | Optimal power flow I         | NO         | 1:40          | 5                    |
| 8      | 15     | Optimal power flow II        | NO         | 1:40          | 5                    |
|        | 16     | Initializing a simulation    | NO         | 1:40          | 5                    |
| 9      | 17     | Running a simulation         | NO         | 1:40          | 5                    |
|        | 18     | Task automatization          | NO         | 1:40          | 5                    |
| 10     | 19     | Critical fault clearing time | NO         | 1:40          | 5                    |
|        | 20     | Synchronous generator        | NO         | 1:40          | 5                    |
| 11     | 21     | Excitation system            | NO         | 1:40          | 5                    |
|        | 22     | Turbine governor             | NO         | 1:40          | 5                    |
| 12     | 23     | Power system stabilizer      | NO         | 1:40          | 5                    |
|        | 24     | Other models                 | NO         | 1:40          | 5                    |
| 13     | 25     | Protections I                | NO         | 1:40          | 5                    |
|        | 26     | Protections II               | NO         | 1:40          | 5                    |

|    |    |                          |     |      |   |
|----|----|--------------------------|-----|------|---|
| 14 | 27 | Small signal analysis I  | NO  | 1:40 | 5 |
|    | 28 | Small signal analysis II | NO  | 1:40 | 5 |
| 2  |    | Creating a new case II   | YES | 1:40 |   |
|    |    | Preparation of the exam  |     |      | 7 |
|    |    | Exam                     |     |      | 3 |