

## Course plan

Name: Power Quality  
 Course code: ELA14EK02  
 Extent: 3 ep  
 Language: Swedish  
 Responsible EP: ELA  
 Prerequisites: Rotating Motors

### Competence and assessment matrix

Specific competence	Grade		
	1	3	5
1. Generator protection	Knows different protection functions in generator protection relays, and their suitable setting values	Knows in detail the protection functions in generator protection relays, and also able to calculate their suitable setting values	Able to select generator protection relay, and also able to calculate its setting values for a demanding application
2. Symmetrical components	Knows symmetrical components and is able to calculate simple examples	Able to describe the use of symmetrical components and is able to calculate more difficult examples	Able to describe in detail the use of symmetrical components and is able to calculate complex applications
3. Voltage and reactive power control	Knows the basic principles for voltage and reactive power control	Able to specify the basic principles for voltage and reactive power control	Able to specify in detail how voltage and reactive power control is implemented
4. Frequency and active power control	Knows the basic principles for frequency and active power control	Able to specify how frequency and active power control is implemented	Able to specify in detail how frequency and active power control is implemented
5. Static stability	Knows the principles of achieving static stability	Able to calculate how static stability is achieved	Able to calculate how static stability is achieved and also able to describe how different factors are having impact on stability
6. Dynamic stability	Knows the principles of achieving dynamic stability	Able to describe how static stability is achieved	Able to calculate how dynamic stability is achieved and also able to describe how different factors are having impact on stability