

## Programme Specification Pro-forma (PSP)

### 1. GENERAL INFORMATION

1. **Programme Title:** MSc Electrical Power Engineering
2. **Final Award:** MSc Electrical Power Engineering
3. **Exit Awards:** PgD Electrical Power Engineering  
PgC Electrical Power Engineering
4. **Awarding Body:** Glasgow Caledonian University
5. **Period of Approval:** 28/3/2017
6. **School:** Computing, Engineering and Built Environment
7. **Host Department:** Department of Electrical and Electronics Engineering
8. **UCAS Code:** N/A
9. **PSB Involvement:** Institution of Engineering and Technology (IET)
10. **Place of Delivery:** Glasgow Caledonian University, Glasgow, UK
11. **Subject Benchmark Statement:** QAA Subject Benchmark for Engineering (UK-SPEC)
12. **Dates of PSP Preparation/Revision:** May 2020

### 2. EDUCATIONAL AIMS OF THE PROGRAMME

#### 2.1 Programme Philosophy

The MSc Electrical Power Engineering is designed to equip candidates with the timely skills and specialist knowledge required to significantly enhance their careers in the electrical power industry. This programme aims to develop candidates' power engineering skills via expert teaching and extensive research work conducted by staff in collaboration with industry. This will offer very exciting opportunities to understand the real challenges in future power networks and to develop innovative solutions. Moreover, during the MSc projects, students will work on topics relevant to industry problems or currently discussed in research centres.

This programme also aims to provide graduates with the ability to critically evaluate methodologies, analytical procedures and research methods in:

- Advanced power system analysis and integration of new technologies
- Advanced power electronic, HVDC and FACTS
- Condition monitoring and asset management

#### 2.2 General Aims of the Programme

The aims of this master programme are to enable the student to acquire:

- An understanding of the operational principles and management of future power networks
- An understanding of the importance of network asset management
- An ability to analyse and design power systems problems

- Managerial, communication and information technology skills
- An ability to accommodate future technological changes
- Sufficiently wide perspective of the subject area to evaluate problem solving approaches
- Knowledge to independently conduct research work

#### 4. PROGRAMME STRUCTURES AND REQUIREMENTS, LEVELS, MODULES, CREDITS AND AWARDS

The proposed programme consists of 8 taught modules and an industrially relevant project. Each module is credited with 15 credits and the final dissertation is credited with 60 credits. In accordance with the University guidelines, the following exit awards are available:

- Un-named, Postgraduate Certificate, when obtaining any 60 credits of the 120 taught credits
- Postgraduate Diploma, when obtaining 120 credits
- Master of Science, 180 credits (120 credits of taught modules and 60 credits dissertation)

Hence a student accumulating ONLY 60 taught credits would be eligible for the award of Postgraduate Certificate (un-named), student completing the 8 modules and accumulating 120 credits would be eligible for the award of a Postgraduate Diploma in Electrical Power Engineering. On successful completion of the 8 modules, and the project, the student would be awarded the MSc in Electrical Power Engineering.

***The Programme Structure is as follows:***

Table 4.1: Full-Time MSc Electrical Power Engineering - Programme Structure				Year
Module Code	Module Title	Credit	Trimester	
MMH723673	Project Planning & Management	15	A	
MMH623585	Power Electronics and Drive Systems	15	A	
MMH624493	Power System Operation & Protection	15	A	
MMH120620	Control Systems	15	A	
MMH223558	Energy Audit and Energy Asset Management	15	B	Y1
MMH624492	Smart Grid & Sustainable Energy Systems	15	B	
MMH624490	Advanced AC and DC Transmission Systems	15	B	
MMH623670	Condition Monitoring	15	B	
MMH621937	MSc Dissertation	60	A/B/C	
		180		

Table 4.2: Part-Time MSc Electrical Power Engineering – programme Structure				
Module Code	Module Title	Credit	Trimester	Year
MMH723673	Project Planning & Management	15	A	
MMH120620	Control Systems	15	A	
MMH623670	Condition Monitoring	15	B	Y1
MMH624492	Smart Grid & Sustainable Energy Systems	15	B	
MMH623585	Power Electronics and Drive Systems	15	A	
MMH624493	Power System Operation & Protection	15	A	Y2
MMH624490	Advanced AC and DC Transmission Systems	15	B	
MMH223558	Energy Audit and Energy Asset Management	15	B	
MMH621937	MSc Dissertation	60	A/B/C	
		180		

## 8. ASSESSMENT REGULATIONS

Students should expect to complete their programme of study under the Regulations that were in place at the commencement of their studies on that programme, unless proposed changes to University Regulations are advantageous to students.

The Glasgow Caledonian University Assessment Regulations which apply to this programme, dependent on year of entry can be found at:

[GCU Assessment Regulations](#)

or

The Glasgow Caledonian University Assessment Regulations which apply to this programme, dependent on the year of entry and with the following approved exceptions can be found at:

[GCU Assessment Regulations](#)

**Programme specific aspects: None**

### **Section 17:**

PgC (unnamed) may be awarded for successful completion of **any** four taught modules.

PgD Electrical Power Engineering may be awarded for successful completion of **the** eight taught modules.