General Regulations for Higher Degrees in the Faculty of Engineering and Regulations for Doctoral Training Centres in the Faculty

The content of our courses is reviewed annually to make sure it's up-to-date and relevant. Individual modules are occasionally updated or withdrawn. This is in response to discoveries through our world-leading research; funding changes; professional accreditation requirements; student or employer feedback; outcomes of reviews; and variations in staff or student numbers. In the event of any change the University will consult and inform students in good time and will take reasonable steps to minimise disruption.

GENERAL REGULATIONS FOR HIGHER DEGREES IN THE FACULTY OF ENGINEERING AND REGULATIONS FOR DOCTORAL TRAINING CENTRES IN THE FACULTY

1. The programmes of study within the Faculty shall, subject to any provision in the Regulations for particular programmes of study, extend over:
   (a) one year for both a Masters’s Degree and a Postgraduate Diploma for a full-time student, who will complete all components of the programme within the minimum period of study; or
   (b) not less than three consecutive years for a part-time student for a Master’s Degree, who will complete all components of the programme within the three year period; or
   (c) not less than two consecutive years for a part-time student for a Postgraduate Diploma, who will complete all components of the programme within the two year period.

REGULATIONS FOR DOCTORAL TRAINING CENTRES IN THE FACULTY OF ENGINEERING

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DTET10 E-FUTURES (PhD) (Full-Time)

DTET10 PROFESSIONAL SKILLS (PGDip) (Part-Time)

1. In Year One a student will take
   (a) FCE6000 F7 Carbon Challenge 5
   FCE6001 F7 Summer School 5
   FCE6003 F7 Introduction to Energy and Professional Skills 60
   FCE610 F7 Personal Effectiveness Skills 10
   (b) FCE6004 F7 Mini Project 1 30
   FCE6005 F7 Mini Project 2 30
   FCE6006 F7 Mini Project 3 30

2. In order to proceed to Year Two a student must pass not less than one hundred and sixty credits in respect of units listed at 1(a) and (b) above.

3. A student who has been awarded one hundred and twenty credits in respect of units listed at 1(a) (above) and does not proceed to Year Two will be eligible for the award of Postgraduate Diploma in E-futures (DTET01).

4. In Years Two to Four a student will pursue a programme of research in accordance with the General Regulations for Higher Degrees by Research, and will present a thesis in accordance with those Regulations.

5. In Years Two to Four a candidate shall take
   FCE6007 F7 Skills for Industry 15
   FCE6009 F7 Skills in Action 10
   FCE607 F7 Career Skills 5
   FCE609 F7 Public Engagement Project 10

6. A student will successfully complete the Doctoral Training Centre’s upgrading procedures before progressing to the third year of study.

7. A student who has been awarded one hundred and twenty credits in respect of 1(a) and 5 above will be awarded the Postgraduate Diploma in Professional Skills (DTET10).
MATR50 ADVANCED METALLIC SYSTEMS (Full-Time) (PhD) (DTC)
MATR56 ADVANCED METALLIC SYSTEMS (Full-Time) (EngD) (DTC)
(Joint programme with The University of Manchester)

1. In Year One a PhD candidate shall take units listed in (a) and (b) below. In Year One an EngD candidate shall take units listed in (a) and either (b) or (c) below. Alternative courses to the same credit value may be substituted at the discretion of the CDT Director.
   (a) MAT6292 F7 Structure, Properties and Modelling of Metallic Materials 15
   MAT6294 F7 Transformative Technologies 10
   MAT6511 F7 Phase Transformations in Materials Processing 15
   MATS64571 F7 High Performance Alloys 15
   MATS64601 F7 Materials Performance - Life Cycle Design 15
   (b) MAT6278 F7 Advanced Metals Manufacturing 20
   MAT6299 F7 Mini Research Project and Experimental Skills 30
   (c) MAT6289 F7 Extended Mini Research Project and Experimental Skills 50

*MAT6 codes denote University of Manchester units

2. In order to proceed to Year Two a student will satisfy the requirements of the CDT Academic Progression Committee.

A student will successfully complete the Doctoral Training Centre’s upgrading procedures before being upgraded to PhD status.

3. A candidate who has been awarded one hundred and twenty credits as described at 1 above and does not proceed to Year Two:
   (i) shall be eligible for the award of Postgraduate Diploma in Advanced Metallic Systems (MATT104) or
   (ii) may become instead a candidate for the award of MSc Advanced Metallic Systems (MATTXX) and in addition to 1 (a) above shall take EITHER 4(a) or 4(b) below:
   (a) MAT6278 F7 Advanced Metals Manufacturing 20
   MAT6XXX F7 Research Project 90
   (b) MAT6XXX F7 Research Project 110

DTNT03 NUCLEAR FISSION (PhD) (Full-Time)
(Joint programme with the University of Manchester)

1. In Year One a student will take
   MAT6801 F7 Introduction to the Chemistry and Physics of the Nuclear Fuel Cycle 15
   MAT6802 F7 Materials Science in the Nuclear Fuel Cycle 15
   MAT6803 F7 Site Visits, Winter School and Skills Training 15
   MAT6804 F7 Environmental Radiochemistry and the Science of Radioactive Waste Disposal 15
   MAT6805 F7 DTC Project Rotation 1 45
   MAT6806 F7 DTC Project Rotation 2 45

2. In order to proceed to Year Two a student must pass not less than one hundred and thirty-five credits in respect of units listed at 1 above.

3. A student who has been awarded not less than one hundred and thirty-five credits in respect of units listed at 1 above and does not proceed to Year Two may become instead a student for the award of MSc(Res) Nuclear Fission (DTNT02) and in addition will take
   MAT6800 F7 Extended Research Project 30

4. A student who has been awarded one hundred and twenty credits in respect of units listed at 1 above and does not proceed to Year Two will be eligible for the award of Postgraduate Diploma in Nuclear Fission (DTNT01).

5. In Years Two to Four a student will pursue a programme of research in accordance with the General Regulations for Higher Degrees by Research, and will present a thesis in accordance with those Regulations.

6. A student will not be permitted to complete either a Postgraduate Diploma in Professional Management and Leadership Skills or forty-five credits of the Doctoral Development Programme.

CPER05 ENERGY STORAGE AND ITS APPLICATIONS (PhD) (Full-Time)
CIVR100 ENERGY STORAGE AND ITS APPLICATIONS (PhD) (Full-Time)
EEER100 ENERGY STORAGE AND ITS APPLICATIONS (PhD) (Full-Time)
MATR100 ENERGY STORAGE AND ITS APPLICATIONS (PhD) (Full-Time)
(Joint programme with the University of Southampton)

For students whose registration was in the academic year 2014-15

1. In Year One a student will take
   CPE604 F7 An Introduction to Energy and the Environment 15
   CPE610 F7 Energy Storage CDT Mini-Project 15
   CPE612 F7 Applied Energy Storage 30
   CPE650 F7 Research project (Sheffield) 60
   FEEG6019 F7 Energy Storage Applications 30
   PSY6081 F7 The Social Science of Energy Storage 15
   SESG6041 F7 Introduction to Energy Technologies, Environment and Sustainability 15

2. Delivered during the second, third and fourth year
   CPE613 F7 Skills in Action 15
   CPE614 F7 Public Engagement 5
   CPE615 F7 Researcher Development 30
   FCE6007 F7 Skills for Industry 15
   FCE610 F7 Personal Effectiveness Skills 10
   FEEG6018 F7 Personal & Professional Skills 15
   MEC6314 F7 Innovation Management 10
   MEC6414 F7 Technology Strategy and Business Planning 10
   MEC6428 F7 Professional Responsibility of Engineers 10

3. In order to proceed to Year Two a student must pass not less than one hundred and fifty credits in respect of units listed at 1 above.

4. A student who has been awarded one hundred and eighty credits in respect of units listed at 1 above will be eligible for the MSc in Energy Storage and its Applications (CPET35).

5. A student who has been awarded one hundred and twenty credits in respect of units listed at 1 above will be eligible for the Postgraduate Diploma in Energy Storage and its applications (CPET36).

6. In the event of failure in CPE650 Research project (Sheffield) at the first attempt any resubmission is subject to the approval of the Board of Examiners.

7. A student who has been awarded one hundred and twenty credits in respect of units listed at 2 above will be eligible for the Postgraduate Diploma in Personal and Professional Skills.
8. A student who has been awarded sixty credits in respect of units listed at (a) and (b) of the stipulated Postgraduate Certificate in Professional Skills shall be eligible for the Postgraduate Certificate in Professional Skills.

9. In Years Two to Four a student will pursue a programme of research in accordance with the General Regulations for Higher Degrees by Research, and will present a thesis in accordance with those Regulations.

For students whose registration was in the academic year 2015-16, 2016-17 or 2017-18

1. In Year One a student will take
   - CPE604 F7 Global Energy Systems 15
   - CPE610 F7 Energy Storage CDT Mini-Project 15
   - CPE612 F7 Applied Energy Storage 30
   - CPE650 F7 Research project (Sheffield) 60
   - FEEG6018 F7 Professional and Research Skills 15
   - FEEG6019 F7 Energy Storage Applications 30
   - SESG6041 F7 Introduction to Energy Technologies, Environment and Sustainability 30

2. Delivered during the second, third and fourth year
   - CPE613 F7 Skills in Action 15
   - CPE614 F7 Public Engagement 5
   - CPE615 F7 Researcher Development 30
   - FCE6007 F7 Skills for Industry 15
   - FCE610 F7 Personal Effectiveness Skills 10
   - MEC6314 F7 Innovation Management 10
   - MEC6414 F7 Technology Strategy and Business Planning 10
   - MEC6428 F7 Professional Responsibility of Engineers 10
   - PSY6081 F7 Social Science of Energy Storage 15

3. In order to proceed to Year Two a student must pass not less than one hundred and fifty credits in respect of units listed at 1 above.

   A student who has been awarded one hundred and eighty credits in respect of units listed at 1 above will be eligible for the Postgraduate Certificate in Personal and Professional Skills (CPER08).

   A student who has been awarded one hundred and twenty credits in respect of units listed at 1 above will be eligible for the Postgraduate Diploma in Personal and Professional Skills.

   A student who has been awarded sixty credits in respect of units listed at 1 above will be eligible for the Postgraduate Diploma in Energy Storage and its applications (CPET35).

4. In Years Two to Four a student can take
   - FCE610 Personal Effectiveness Skills 10
   - FEEG6018 Personal & Professional Skills 15
   - MEC6314 Innovation Management 10
   - MEC6414 Technology Strategy and Business Planning 10
   - MEC6428 Professional Responsibility of Engineers 10
   - FCE607 Career Skills 5

   A student can take either
   - CPE614 Public Engagement 5
   - CPE634 Public Engagement 15

   A student can take either
   - CPE635 CDT Researcher Development 15
   - CPE615 CDT Researcher Development 30

5. In order to proceed to Year Two a student must pass not less than one hundred and fifty credits in respect of units listed at 1 above.

   A student who has been awarded one hundred and eighty credits in respect of units listed at 1 above will be eligible for the Postgraduate Diploma in Energy Storage and its applications (CPET35).

   A student who has been awarded one hundred and twenty credits in respect of units listed at 1 above will be eligible for the Postgraduate Diploma in Personal and Professional Skills.

   A student who has been awarded one hundred and twenty credits in respect of units listed at 2 above will be eligible for the Postgraduate Diploma in Energy Storage and its applications (CPET36).

   In the event of failure in CPE650 Research project (Sheffield) at the first attempt any resubmission is subject to the approval of the Board of Examiners.

6. A student who has been awarded one hundred and twenty credits in respect of units listed at 2 above will be eligible for the Postgraduate Diploma in Personal and Professional Skills (CPER08).

   A student who has been awarded sixty credits in respect of units listed at 2 above will be eligible for the Postgraduate Certificate in Personal and Professional Skills (CPER07).

7. In Years Two to Four a student will pursue a programme of research in accordance with the General Regulations for Higher Degrees by Research, and will present a thesis in accordance with those Regulations.

For students whose registration is in the academic year 2018-19

1. In Year One a student will take
   - CPE604 F7 Global Energy Systems 15
   - CPE610 F7 Energy Storage CDT Mini-Project 15
   - CPE612 F7 Fundamentals of Energy Storage 30
   - CPE650 F7 Energy Storage CDT Summer Research Project (Sheffield) 60
   - FEEG6019 F7 Energy Storage Applications 30

   PSY6018 F7 The Social Science of Energy Storage 15
   - SESG6041 F7 Introduction to Energy Technologies, Environment and Sustainability 15

   *SESG and FEEG codes denote University of Southampton units.

2. In Years Two to Four a student can take
   (a) CPE613 F7 Skills in Action 15
   - FCE610 Personal Effectiveness Skills 10
   - FEEG6018 Personal & Professional Skills 15
   - MEC6314 Innovation Management 10
   - MEC6414 Technology Strategy and Business Planning 10
   - MEC6428 Professional Responsibility of Engineers 10
   - FCE607 Career Skills 5

   (b) A student can take either
   - CPE614 Public Engagement 5
     or
   - CPE634 Public Engagement 15

   (c) A student can take either
   - CPE635 CDT Researcher Development 15
     or
   - CPE615 CDT Researcher Development 30

3. In order to proceed to Year Two a student must pass not less than one hundred and fifty credits in respect of units listed at 1 above.

   A student who has been awarded one hundred and eighty credits in respect of units listed at 1 above will be eligible for the MSc in Energy Storage and its applications (CPET35).

   A student who has been awarded one hundred and twenty credits in respect of units listed at 1 above will be eligible for the Postgraduate Diploma in Energy Storage and its applications (CPET36).

   In the event of failure in CPE650 Research project (Sheffield) at the first attempt any resubmission is subject to the approval of the Board of Examiners.

   A student who has been awarded one hundred and twenty credits in respect of units listed at 2 above will be eligible for the Postgraduate Diploma in Personal and Professional Skills.

   A student who has been awarded sixty credits in respect of units listed at 2 above will be eligible for the Postgraduate Certificate in Personal and Professional Skills.

   A student who has been awarded sixty credits from (i)

   (i) MAT3430 F6 Materials for Biological Devices 10
   - MEC6403 F7 Reciprocating Engines 10
   - MEC6429 F7 Mechanical Engineering of Railways 10
   - MEC6440 F7 Advanced Finite Element Modelling 10
   plus ten credits from (ii)
2. At (b) above, students may substitute other units with permission of the Programme Manager.

3. A student who has been awarded one hundred and twenty credits in respect of units listed at 1(a) and (b) above and who does not complete the requirements of the Degree of PhD will be eligible for the Postgraduate Diploma in Integrated Tribology (MEC).

4. Before proceeding to Year Two a student will complete MEC6908 Professional Skills.

5. In order to proceed to Year Two a student will satisfy the requirements of the CDT Academic Progression Committee.

6. A student will successfully complete the Doctoral Training Centre’s upgrading procedures before being upgraded to PhD status.

7. In Years Two to Four a student will pursue a programme of research in accordance with the General Regulations for Higher Degrees by Research, and will present a thesis in accordance with those Regulations.

MECR80 INDUSTRIAL DOCTORATE IN MACHINING SCIENCE (Full Time) (EngD)
ACSR80 INDUSTRIAL DOCTORATE IN MACHINING SCIENCE (Full Time) (EngD)
MATR80 INDUSTRIAL DOCTORATE IN MACHINING SCIENCE (Full Time) (EngD)
CPERXX INDUSTRIAL DOCTORATE IN MACHINING SCIENCE (Full Time) (EngD)
MECR09 MACHINING SCIENCE (Full Time) (PhD)
MECR91 MACHINING SCIENCE (Full Time) (PhD)
MECT07 DIPLOMA IN MACHINING SCIENCE (PG Dip) (Part-Time)

1. In Year One a student will take

(a) FCE610 F7 Personal Effectiveness 10
MEC6908 F7 IDC Personal and Professional Skills Development 20
MGT6256 F7 Managing Complex Projects and Risk Management 20

(b) units to the value of twenty credits from the following
ACS329 F6 Robotics 10
MAT6336 F7 Surfaces and Coatings 10

Other units may be substituted for those listed in 1(b) at the discretion of the Academic Director of the IDC.

2. In order to proceed to Year Two a student must pass one hundred and sixty credits in respect of units listed at 1(a), (b), and (c) above.

3. A student who has been awarded seventy credits in respect of 1(a), (b), and (c) above and does not proceed to Year Two, may instead become a student for the award of Postgraduate Diploma in Machining Science (MECT07 PG Dip) and in addition to 1(a), (b) and (c) above will take MEC6904 F7 IDC Machining Science Research Project 50

4. In Years Two to Four a student will pursue a programme of research in accordance with the General Regulations for Higher Degrees and will present a thesis in accordance with those Regulations.

5. In Years Two to Four a student will undertake further academic and professional skills related modules and activities appropriate to their studies, and also present at the AMRC Technical Fellows or IDC Student Conference.

6. A student will successfully complete the Industrial Doctorate Centre’s confirmation procedures before progressing to the third year of study.