

Mechanical Engineering Postgraduate Regulations

Faculty of Engineering

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MECT13 POSTGRADUATE CERTIFICATE IN MECHANICAL ENGINEERING

- A candidate shall take
MEC6601 F7 Research Project 60

MECT30 ADVANCED MECHANICAL ENGINEERING (MSc(Res)) MECT35(PGCert) (Full-Time)

- A candidate shall take
 - units to the value of *thirty-five* credits from the following

GSC6000	F7	Web Skills for Researchers	15
MEC6008	F7	Graphical Programming with LabView	10
MEC6009	F7	Finite Element Analysis with Ansys	10
MEC6010	F7	Fortran for Engineers	15
MEC6314	F7	Innovation Management	10
MEC6414	F7	Technology Strategy and Business Planning	10
 - units to the value of *fifty* credits from the following

MEC6345	F7	Aero Propulsion	10
MEC6403	F7	Reciprocating Engines	10
MEC6404	F7	Computational Fluid Dynamics	10
MEC6405	F7	Experimental Stress Analysis	10
MEC6406	F7	Engineering Composite Materials	10
MEC6407	F7	Fundamental Biomechanics	10
MEC6409	F7	Signal Processing and Instrumentation	10
MEC6410	F7	Structural Vibration: Analysis and Practice	10
MEC6411	F7	Tribology of Machine Elements	10
MEC6412	F7	Control of Structural Vibrations	10
MEC6413	F7	Advanced Aircraft Systems	10
MEC6415	F7	Condition Monitoring	10
MEC6416	F7	Computer Modelling and Validation	10
MEC6421	F7	Sports Engineering	10
MEC6422	F7	Nuclear Thermal Hydraulics and Heat Transfer	10
MEC6424	F7	Aerodynamic Design	10

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|---------|----|--------------------------------------|----|
| MEC6426 | F7 | Advanced Composite Structures | 10 |
| MEC6427 | F7 | Theory and Application of Turbulence | 10 |
| MEC6429 | F7 | Mechanical Engineering in Railways | 10 |
| MEC6430 | F7 | Solid Biomechanics | 10 |
| MEC6440 | F7 | Advanced Finite Element Modelling | 10 |
| MEC6441 | F7 | Advanced Solid Mechanics | 10 |
- MEC6001 F7 MSc(Res) Research Project 95
- A candidate who has been awarded *sixty* credits in respect of units listed at 1(a) and (b) shall be eligible for the award of the Postgraduate Certificate in Advanced Mechanical Engineering.
 - In the event of failure in MEC6001 at the first attempt, any resubmission is subject to the approval of the Board of Examiners.

MECT31 AERODYNAMICS AND AEROSTRUCTURES (MSc(Res)) MECT36 (PGCert) (Full-Time)

- A candidate shall take
 - units to the value of *thirty-five* credits from the following

GSC6000	F7	Web Skills for Researchers	15
MEC6008	F7	Graphical Programming with LabView	10
MEC6009	F7	Finite Element Analysis with Ansys	10
MEC6010	F7	Fortran for Engineers	15
MEC6314	F7	Innovation Management	10
MEC6414	F7	Technology Strategy and Business Planning	10
 - units to the value of *fifty* credits from the following

MEC6345	F7	Aero Propulsion	
MEC6403	F7	Reciprocating Engines	10
MEC6404	F7	Computational Fluid Dynamics	10
MEC6405	F7	Experimental Stress Analysis	10
MEC6406	F7	Engineering Composite Materials	10
MEC6407	F7	Fundamental Biomechanics	10
MEC6409	F7	Signal Processing and Instrumentation	10
MEC6410	F7	Structural Vibration: Analysis and Practice	10
MEC6411	F7	Tribology of Machine Elements	10
MEC6412	F7	Control of Structural Vibrations	10
MEC6413	F7	Advanced Aircraft Systems	10
MEC6415	F7	Condition Monitoring	10
MEC6416	F7	Computer Modelling and Validation	10
MEC6421	F7	Sports Engineering	10
MEC6422	F7	Nuclear Thermal Hydraulics and Heat Transfer	10
MEC6424	F7	Aerodynamic Design	10
MEC6426	F7	Advanced Composite Structures	10
MEC6427	F7	Theory and Application of Turbulence	
MEC6429	F7	Mechanical Engineering in Railways	10
MEC6430	F7	Solid Biomechanics	10
MEC6440	F7	Advanced Finite Element Modelling	10
MEC6441	F7	Advanced Solid Mechanics	10
 - MEC6001 F7 MSc(Res) Research Project 95
- A candidate who has been awarded *sixty* credits in respect of units listed at 1(a) and (b) shall be eligible for the award of the Postgraduate Certificate in Aerodynamics and Aerostructures.
 - In the event of failure in MEC6001 at the first attempt, any resubmission is subject to the approval of the Board of Examiners.

MECT32 AUTOMOTIVE ENGINEERING (MSc(Res))

MECT37 (PGCert) (Full-Time)

- A candidate shall take
 - units to the value of *thirty-five* credits from the following

GSC6000	F7	Web Skills for Researchers	15
MEC6008	F7	Graphical Programming with LabView	10
MEC6009	F7	Finite Element Analysis with Ansys	10

MEC6010	F7	Fortran for Engineers	15
MEC6314	F7	Innovation Management	10
MEC6414	F7	Technology Strategy and Business Planning	10
(b)	units to the value of <i>fifty</i> credits from the following		
MEC6345	F7	Aero Propulsion	10
MEC6403	F7	Reciprocating Engines	10
MEC6404	F7	Computational Fluid Dynamics	10
MEC6405	F7	Experimental Stress Analysis	10
MEC6406	F7	Engineering Composite Materials	10
MEC6407	F7	Fundamental Biomechanics	10
MEC6409	F7	Signal Processing and Instrumentation	10
MEC6410	F7	Structural Vibration: Analysis and Practice	10
MEC6411	F7	Tribology of Machine Elements	10
MEC6412	F7	Control of Structural Vibrations	10
MEC6413	F7	Advanced Aircraft Systems	10
MEC6415	F7	Condition Monitoring	10
MEC6416	F7	Computer Modelling and Validation	10
MEC6421	F7	Sports Engineering	10
MEC6422	F7	Nuclear Thermal Hydraulics and Heat Transfer	10
MEC6424	F7	Aerodynamic Design	10
MEC6426	F7	Advanced Composite Structures	10
MEC6427	F7	Theory and Application of Turbulence	10
MEC6429	F7	Mechanical Engineering in Railways	10
MEC6430	F7	Solid Biomechanics	10
MEC6440	F7	Advanced Finite Element Modelling	10
MEC6441	F7	Advanced Solid Mechanics	10
(c)	MEC6001	F7 MSc(Res) Research Project	95
2.	A candidate who has been awarded <i>sixty</i> credits in respect of units listed at 1(a) and (b) shall be eligible for the award of the Postgraduate Certificate in Automotive Engineering.		
3.	In the event of failure in MEC6001 at the first attempt, any resubmission is subject to the approval of the Board of Examiners.		

MECT33 COMPUTATIONAL BIOMECHANICS (MSc(Res))
MECT38 (PGCert) (Full-Time)

1.	A candidate shall take		
(a)	units to the value of <i>thirty-five</i> credits from the following		
GSC6000	F7	Web Skills for Researchers	15
MEC6008	F7	Graphical Programming with LabView	10
MEC6009	F7	Finite Element Analysis with Ansys	10
MEC6010	F7	Fortran for Engineers	15
MEC6314	F7	Innovation Management	10
MEC6414	F7	Technology Strategy and Business Planning	10
(b)	units to the value of <i>fifty</i> credits from the following		
MEC6345	F7	Aero Propulsion	10
MEC6403	F7	Reciprocating Engines	10
MEC6404	F7	Computational Fluid Dynamics	10
MEC6405	F7	Experimental Stress Analysis	10
MEC6406	F7	Engineering Composite Materials	10
MEC6407	F7	Fundamental Biomechanics	10
MEC6409	F7	Signal Processing and Instrumentation	10
MEC6410	F7	Structural Vibration: Analysis and Practice	10
MEC6411	F7	Tribology of Machine Elements	10
MEC6412	F7	Control of Structural Vibrations	10
MEC6413	F7	Advanced Aircraft Systems	10
MEC6415	F7	Condition Monitoring	10
MEC6416	F7	Computer Modelling and Validation	10
MEC6421	F7	Sports Engineering	10
MEC6422	F7	Nuclear Thermal Hydraulics and Heat Transfer	10
MEC6424	F7	Aerodynamic Design	10
MEC6426	F7	Advanced Composite Structures	10
MEC6427	F7	Theory and Application of Turbulence	10
MEC6429	F7	Mechanical Engineering in Railways	10

MEC6430	F7	Solid Biomechanics	10
MEC6440	F7	Advanced Finite Element Modelling	10
MEC6441	F7	Advanced Solid Mechanics	10
(c)	MEC6001	F7 MSc(Res) Research Project	95
2.	A candidate who has been awarded <i>sixty</i> credits in respect of units listed at 1(a) and (b) shall be eligible for the award of the Postgraduate Certificate in Computational Biomechanics.		
3.	In the event of failure in MEC6001 at the first attempt, any resubmission is subject to the approval of the Board of Examiners.		

MECT34 STRUCTURAL INTEGRITY (MSc(Res)) (Full-Time)
MECT39 (PGCert) (Full-Time)

1.	A candidate shall take		
(a)	units to the value of <i>thirty-five</i> credits from the following		
GSC6000	F7	Web Skills for Researchers	15
MEC6008	F7	Graphical Programming with LabView	10
MEC6009	F7	Finite Element Analysis with Ansys	10
MEC6010	F7	Fortran for Engineers	15
MEC6314	F7	Innovation Management	10
MEC6414	F7	Technology Strategy and Business Planning	10
(b)	units to the value of <i>fifty</i> credits from the following		
MEC6345	F7	Aero Propulsion	10
MEC6403	F7	Reciprocating Engines	10
MEC6404	F7	Computational Fluid Dynamics	10
MEC6405	F7	Experimental Stress Analysis	10
MEC6406	F7	Engineering Composite Materials	10
MEC6407	F7	Fundamental Biomechanics	10
MEC6409	F7	Signal Processing and Instrumentation	10
MEC6410	F7	Structural Vibration: Analysis and Practice	10
MEC6411	F7	Tribology of Machine Elements	10
MEC6412	F7	Control of Structural Vibrations	10
MEC6413	F7	Advanced Aircraft Systems	10
MEC6415	F7	Condition Monitoring	10
MEC6416	F7	Computer Modelling and Validation	10
MEC6421	F7	Sports Engineering	10
MEC6422	F7	Nuclear Thermal Hydraulics and Heat Transfer	10
MEC6424	F7	Aerodynamic Design	10
MEC6426	F7	Advanced Composite Structures	10
MEC6427	F7	Theory and Application of Turbulence	10
MEC6429	F7	Mechanical Engineering in Railways	10
MEC6430	F7	Solid Biomechanics	10
MEC6440	F7	Advanced Finite Element Modelling	10
MEC6441	F7	Advanced Solid Mechanics	10
(c)	MEC6001	F7 MSc(Res) Research Project	95
2.	A candidate who has been awarded <i>sixty</i> credits in respect of units listed at 1(a) and (b) shall be eligible for the award of the Postgraduate Certificate in Structural Integrity.		
3.	In the event of failure in MEC6001 at the first attempt, any resubmission is subject to the approval of the Board of Examiners.		

MECT40 MECHANICAL ENGINEERING AND INDUSTRIAL MANAGEMENT (MSc)
MECT41 (PGDip) (Full-Time)
MECT42 (PGCert) (Full-Time)

1.	A candidate shall take		
(a)	units to the value of <i>thirty-five</i> credits from the following		
MEC6003	F7	Dissertation Planning	5
MEC6004	F7	Organic Knowledge Management	15
MEC6314	F7	Innovation Management	10
MEC6408	F7	Marketing Management	10
MEC6414	F7	Technology Strategy and Business Planning	10

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| MEC6428 | F7 | The Professional Responsibility of Engineers | 10 |
| (b) | | units to the value of <i>eighty</i> credits from the following | |
| MEC6316 | F7 | Renewable Energy | 10 |
| MEC6345 | F7 | Aero Propulsion | |
| MEC6403 | F7 | Reciprocating Engines | 10 |
| MEC6404 | F7 | Computational Fluids Dynamics | 10 |
| MEC6405 | F7 | Experimental Stress Analysis | 10 |
| MEC6406 | F7 | Engineering Composite Materials | 10 |
| MEC6407 | F7 | Fundamental Biomechanics | 10 |
| MEC6409 | F7 | Signal Processing and Instrumentation | 10 |
| MEC6410 | F7 | Structural Vibration: Analysis and Practice | 10 |
| MEC6411 | F7 | Tribology of Machine Elements | 10 |
| MEC6412 | F7 | Control of Structural Vibrations | 10 |
| MEC6413 | F7 | Advanced Aircraft Systems | 10 |
| MEC6415 | F7 | Condition Monitoring | 10 |
| MEC6416 | F7 | Computer Modelling and Validation | 10 |
| MEC6421 | F7 | Sports Engineering | 10 |
| MEC6422 | F7 | Nuclear Thermal Hydraulics and Heat Transfer | 10 |
| MEC6424 | F7 | Aerodynamic Design | 10 |
| MEC6426 | F7 | Advanced Composite Structures | 10 |
| MEC6427 | F7 | Theory and Application of Turbulence | 10 |
| MEC6429 | F7 | Mechanical Engineering in Railways | 10 |
| MEC6430 | F7 | Solid Biomechanics | 10 |
| MEC6440 | F7 | Advanced Finite Element Modelling | 10 |
| MEC6441 | F7 | Advanced Solid Mechanics | 10 |
| (c) | | MEC6002 F7 Individual Project | 40 |
2. A candidate who has been awarded *one hundred and twenty* credits in respect of units listed at 1(a) and (b) shall be eligible for the award of the Postgraduate Diploma in Mechanical Engineering and Industrial Management.
 3. A candidate who has been awarded *sixty* credits in respect of units listed at 1(a) and (b) shall be eligible for the award of the Postgraduate Certificate in Mechanical Engineering and Industrial Management.
 4. In the event of failure in MEC6002 at the first attempt, any resubmission is subject to the approval of the Board of Examiners.

MECT44 MECHANICAL ENGINEERING (MSc(Res))

1. A candidate shall take

(a)	GSC6000	F7	Information Management	15
	MEC330	F7	Experiments and Modelling	15
(b)			units to the value of <i>thirty</i> credits from the following	
	MEC6345	F7	Aero Propulsion	10
	MEC6403	F7	Reciprocating Engines	10
	MEC6404	F7	Computational Fluid Dynamics	10
	MEC6405	F7	Experimental Stress Analysis	10
	MEC6406	F7	Engineering Composite Materials	10
	MEC6407	F7	Fundamental Biomechanics	10
	MEC6409	F7	Signal Processing and Instrumentation	10
	MEC6410	F7	Structural Vibration: Analysis and Practice	10
	MEC6411	F7	Tribology of Machine Elements	10
	MEC6412	F7	Control of Structural Vibrations	10
	MEC6413	F7	Advanced Aircraft Systems	10
	MEC6415	F7	Condition Monitoring	10
	MEC6416	F7	Computer Modelling and Validation	10
	MEC6421	F7	Sports Engineering	10
	MEC6424	F7	Aerodynamic Design	10
	MEC6426	F7	Advanced Composite Structures	10
	MEC6427	F7	Theory and Application of Turbulence	10
(c)	MEC6XXX	F7	MSc(Res) Research Project	120
2. A candidate who has been awarded *sixty* credits in respect of units listed at 1(a) and (b) shall be eligible for the award of the Postgraduate Certificate in Mechanical Engineering.

3. In the event of failure in MEC6001 at the first attempt, any resubmission is subject to the approval of the Board of Examiners.

MECT50 ADVANCED MANUFACTURING TECHNOLOGIES (MSc Res) MECT51(PGCert) (Full-Time)

1. A candidate shall take

(a)	GSC6000	F7	Web Skills for Researchers	15
(b)			units to the value of <i>ten</i> credits from the following	
	MEC314	F7	Innovation Management	10
	MEC6414	F7	Technology Strategy and Business Planning	10
(c)			units to the value of <i>thirty</i> credits from the following	
	ACS329	F7	Robotics	10
	MAT472	F7	Advanced Materials and Manufacturing	10
	MEC6405	F7	Experimental Stress Analysis	10
	MEC6406	F7	Engineering Composite Materials	10
	MEC6409	F7	Signal Processing and Instrumentation	10
	MEC6416	F7	Computer Modelling and Validation	10
	MEC6440	F7	Advanced Finite Element Modelling	10
(d)			units to the value of <i>thirty</i> credits from the following	
	MAT474	F7	High Temperature Materials for Aerospace	10
	MEC6009	F7	Finite Element Analysis with ANSYS	10
	MEC6411	F7	Tribology of Machine Elements	10
	MEC6412	F7	Control of Structural Vibrations	10
	MEC6415	F7	Condition Monitoring	10
	MEC6426	F7	Advanced Composite Structures	10
	MEC6441	F7	Advanced Solid Mechanics	10
(e)	MEC6012	F7	Individual Project	95
2. A candidate who has been awarded *sixty* credits in respect of units listed at 1 (a), (b), (c) and (d) shall be eligible for the award of the Postgraduate Certificate in Advanced Manufacturing Technologies.
3. In the event of failure in MEC6012 Individual Project at the first attempt, any resubmission is subject to the approval of the Board of Examiners.

MECT53 ADVANCED MECHANICAL ENGINEERING (MSc) MECT54 (PGDip) (Full-Time) MECT55 (PGCert) (Full-Time)

1. A candidate shall take

(a)			units to the value of <i>forty</i> credits from the following	
	GSC6000	F7	Web Skills for Researchers	15
	MEC6008	F7	Graphical Programming with LabView	10
	MEC6009	F7	Finite Element Analysis with Ansys	10
	MEC6010	F7	Fortran for Engineers	15
	MEC6013	F7	Introducing MATLAB	5
	MEC6014	F7	Introducing SolidWorks	5
	MEC6314	F7	Innovation Management	10
(b)			units to the value of <i>eighty</i> credits from the following	
	MEC6345	F7	Aero Propulsion	10
	MEC6403	F7	Reciprocating Engines	10
	MEC6404	F7	Computational Fluid Dynamics	10
	MEC6405	F7	Experimental Stress Analysis	10
	MEC6406	F7	Engineering Composite Materials	10
	MEC6407	F7	Fundamental Biomechanics	10
	MEC6409	F7	Signal Processing and Instrumentation	10
	MEC6410	F7	Structural Vibration: Analysis and Practice	10
	MEC6411	F7	Tribology of Machine Elements	10
	MEC6412	F7	Control of Structural Vibrations	10

MEC6413	F7	Advanced Aircraft Systems	10
MEC6415	F7	Condition Monitoring	10
MEC6416	F7	Computer Modelling and Validation	10
MEC6421	F7	Sports Engineering	10
MEC6422	F7	Nuclear Thermal Hydraulics and Heat Transfer	10
MEC6424	F7	Aerodynamic Design	10
MEC6426	F7	Advanced Composite Structures	10
MEC6427	F7	Theory and Application of Turbulence	10
MEC6429	F7	Mechanical Engineering in Railways	10
MEC6430	F7	Solid Biomechanics	10
MEC6440	F7	Advanced Finite Element Modelling	10
MEC6441	F7	Advanced Solid Mechanics	10
(c) MEC6XXX	F7	Individual Research Project	60

2. A candidate who has been awarded *one hundred and twenty* credits in respect of units listed at 1(a) and (b) shall be eligible for the award of the Postgraduate Diploma in Advanced Mechanical Engineering.
3. A candidate who has been awarded *sixty* credits in respect of units listed at 1(a) and (b) shall be eligible for the award of the Postgraduate Certificate in Advanced Mechanical Engineering.
4. In the event of failure in MEC6XXX (Individual Research project) at the first attempt, any resubmission is subject to the approval of the Board of Examiners.