FACULTY OF ENGINEERING

DEPARTMENT OF MECHANICAL AND AEROSPACE ENGINEERING

AEROSPACE ENGINEERING

Master of Science in Aerospace Engineering
Postgraduate Diploma in Aerospace Engineering
Postgraduate Certificate in Aerospace Engineering

These regulations are to be read in conjunction with General Academic Regulations - Postgraduate Taught Degree Programme Level.

Admission

1. Notwithstanding the General Academic Regulations - Postgraduate Taught Degree Programme Level, applicants shall possess:

   i. First-class or second-class honours degree (or international equivalent) in engineering or physical sciences, or equivalent professional qualification (including knowledge on Thermodynamics, Mechanics, Dynamics and Control). A lower-class degree may be considered with relevant work experience; or
   ii. a qualification deemed by the Programme Leader acting on behalf of Senate to be equivalent to i. above.

2. In all cases, applicants whose first language is not English, shall be required to demonstrate an appropriate level of competence.

Duration of Study

3. See General Academic Regulations - Postgraduate Taught Degree Programme Level.

Mode of Study

4. The programmes are available by full-time or part-time study.

Curriculum

5. All students shall undertake an approved curriculum as follows:

Compulsory Modules

Module Code	Module Title	Level	Credits
ME517	Spaceflight Systems	5	10
ME537	Atmospheric Flight Dynamics and Control	5	10
ME533	Lightweight Structures	5	10
ME975	Satellite Data Assimilation and Analysis	5	10
ME981	Research Methodology	5	10
ME538	Professional Skills for Senior Engineers	5	10
Students for the degree of MSc only:			

ME900	Project	5	60

Optional Modules

No more than 20 credits from the following:

Module Code	Module Title	Level	Credits
EF931	Project Management	5	10
EF932	Risk Management	5	10
EFXXX	Design Methods and Management	5	10
DM992	Strategic Procurement Management	5	10
AB975	Sustainability	5	10
DM943	Sustainable Product Design and Manufacturing	5	10
EC978	Natural Resources, Sustainability and Governance	5	10

Modules, bringing taught credit total to 120 credits, to be chosen from:

Module Code	Module Title	Level	Credits
16599	Aerodynamic Propulsion Systems	5	10
ME532	Aerodynamics of Supersonic Aircraft	5	10
ME528	Control Systems Design	5	10
ME512	Spaceflight Mechanics	5	10
ME929	Electrical Power Systems	5	10
ME931	Industrial Metallurgy	5	10
ME962**	Degradation of Metals and Alloys	5	10
ME963**	Structural Integrity	5	10
ME965**	FEA in Mechanical Engineering Design	5	10
ME966**	Fundamentals of Materials Science	5	10
ME978	Advanced Materials Processing and Manufacture	5	10
ME977	Machine Learning for Satellite Data	5	10
CS989	Big Data Fundamentals	5	10
CS986	Fundamentals of Machine Learning for Data Analytics	5	10

EE992	Neural Networks and Deep Learning	5	10
DM954	Intelligent Sensing and Reasoning through Machine Learning	5	10
DM994	Systems Engineering Concepts	5	10
DM947	Advanced Forming Technology Systems	5	10

**denotes those modules delivered by online learning. A maximum of 20 credits spread over two semesters by online learning may be selected.

Exceptionally, such other Level 5 modules, totalling no more than 20 credits, as approved by the Programme Leader.

Postgraduate Diploma students only will be able to choose the following optional module:

Module Code	Module Title	Level	Credits
ME973	Mechanical and Aerospace Engineering PGDip Dissertation	5	20

Not all optional modules in these lists will be available in each academic year. Please check your programme handbook for confirmation of which optional modules will run.

Examination, Progress and Final Assessment

6. See General Academic Regulations - Postgraduate Taught Degree Programme Level.

7. The final award will be based on performance in the examinations, coursework and the project where undertaken.

Award

8. **Degree of MSc:** In order to qualify for the award of the degree of MSc in Aerospace Engineering, a candidate must have performed to the satisfaction of the Board of Examiners and must have accumulated no fewer than 180 credits, of which 60 must have been awarded in respect of the project ME900.

9. **Postgraduate Diploma:** In order to qualify for the award of the Postgraduate Diploma in Aerospace Engineering, a candidate must have accumulated no fewer than 120 credits from the taught modules of the programme.

10. **Postgraduate Certificate:** In order to qualify for the award of the Postgraduate Certificate in Aerospace Engineering, a candidate must have accumulated no fewer than 60 credits from the taught modules of the programme.