

**ADVANCED MECHANICAL ENGINEERING (ON- CAMPUS) (JANUARY START)  
(MSc/PgDip/PgCert)**

**57H30JB1**

*Duration:* MSc 12 months full-time; PgDip 9 months full-time; PgCert 4 months full-time

The course can be studied full-time on campus

*Content:* This programme emphasises the application of advanced techniques and packages to solve complex engineering problems. It offers students a broad range of subjects across the mechanical engineering disciplines in order to work in various industrial sectors.

Candidates shall be required to attend the following designated programme of courses:

Stage 1

PD5506 Getting Started at the University of Aberdeen (0 credit points)  
EG55M1 Finite Element Methods (15 credit points)  
EG551T Mathematical Optimisation (15 credit points)  
EG55P6 Engineering Risk and Reliability Analysis (15 credit points)

*Plus one from the following:*

EG55F9 Riser Systems and Hydrodynamics (15 credit points)  
EG552U Marine and Wind Energy (15 credit points)

Stage 2

EG59M2 MSc Individual Project (60 credit points)

Stage 3

EG501V Computational Fluid Dynamics (15 credit points)  
EG501S Numerical Simulation of Waves (15 credit points)  
EM501Q Advanced Composite Materials (15 credit points)

*Plus one from the following:*

EG5071 Fire and Explosion (15 credit points)  
EG50T9 Structural Vibrations (15 credit points)  
EG5067 Project Management (15 credit points)

*Assessment:* By a combination of written examination and course work as prescribed for each course. In addition, MSc candidates must submit a dissertation on their individual project, and may be required to undergo an oral examination. The Degree of MSc shall not be awarded to a candidate who fails to achieve a CGS Grade of D3 or above in the individual project, irrespective of their performance in other courses.