

**ADVANCED STRUCTURAL ENGINEERING (ONLINE – JANUARY START - PART TIME)
(MSc/PgDip/PgCert)**

63UH21B1/ 63UH21VX/63UH21VZ

Duration: MSc 27 months part-time; PgDip 24 months part-time; PgCert 12 months part-time

Content: *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 structural engineering disciplines in order to work in various industrial sectors.

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

Year 1

- EG555T Mathematical Optimisation (15 credit points)
- EG556R Lightweight Structures (15 credit points)
- EG505F Structural Vibrations (15 credit points)
- EM501A Advanced Composite Materials (15 credit points)

Year 2

Two from the following:

- EG556E Finite Element Methods (15 credit points)
- EG55G9 Riser Systems and Hydrodynamics (15 credit points)
- EG55Q2 Engineering Risk and Reliability Analysis (15 credit points)

Plus two from the following:

- EG501G Fire and Explosion Engineering (15 credit points)
- EG503G Computational Fluid Dynamics (15 credit points)
- EA50JH Offshore Structural Design (15 credit points)

Year 3

- EG555N MSc Individual Project (60 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.