This unique MSc course covers the essential technology required for the participants to take a lead role within their organisation on the specification, design and development of gun systems. The course is intended for officers of the armed forces and for scientists and technical officers in government defence establishments and the defence industry. It is particularly suitable for those who, in their subsequent careers, will be involved with the specification, analysis, development, technical management or operation of weapons systems. The Gun System Design MSc is part of the Weapon and Vehicle Systems Engineering Programme. This course offers the underpinning knowledge and education to enhance the student's suitability for senior positions within their organisation. This course provides education and training in selected weapons systems and provides students with the depth of knowledge to undertake engineering analysis or the evaluation of relevant sub systems.

Course structure
This MSc course is made up of two essential components: the equivalent of 12 taught modules (including some double modules, typically of a two-week duration), and an individual project. MSc and PGDip students take 11 compulsory modules and one Elective module. PGCert students take four compulsory modules and two Elective modules.

Individual project
In addition to the taught part of the course, students can opt either to undertake an individual project or participate in a group design project. The aim of the project phase is to enable students to develop expertise in engineering research, design or development. The project phase requires a thesis to be submitted and is worth 80 credit points.

Group project
Armoured Fighting Vehicle and Weapon Systems Study to develop the technical requirements and characteristics of armoured fighting vehicles and weapon systems, and to examine the interactions between the various sub-systems and consequential compromises and trade-offs.

Future career
Many previous students have returned to their sponsor organisations to take up senior programme appointments and equivalent research and development roles in this technical area.

Example modules
**Compulsory:**
- Introductory Studies,
- Element Design,
- Fundamentals of Ballistics,
- Finite Element Methods in Engineering,
- Gun System Design,
- Military Vehicle Propulsion and Dynamics,
- Modelling, Simulation and Control,
- Solid Modelling CAD,
- Survivability,
- Vehicle Systems Integration,
- Weapon Systems Technology,
- Dissertation

**Elective:**
- Guided Weapons,
- Military Vehicle Dynamics,
- Reliability and System Effectiveness,
- Uninhabited Military Vehicle Systems.

**Duration:**
- MSc: Full-time - one year, part-time - up to three years,
- PgDip: Full-time - up to one year, part-time - two years,
- PGCert: Full-time - up to one year, part-time - two years.

**Start date:**
September.

**Location:**
Shrivenham.

**Entry requirements:**
Normally a first or second class Honours degree or equivalent in science, engineering or mathematics. Alternatively, a lesser qualification together with appropriate work experience may be acceptable.

**ATAS Certificate:**
Students requiring a visa to study in the UK may need to apply for an ATAS certificate to study this course.

**Contact details**
T: +44 (0)1793 785400
E: cdsadmissionoffice@cranfield.ac.uk

For further information please visit
[www.cranfield.ac.uk/courses/taught/gun-systems-design](http://www.cranfield.ac.uk/courses/taught/gun-systems-design)