

Undergraduate degree courses

Mechanical Engineering undergraduate degree courses

[Mechanical Engineering with Industrial Year MEng \(/undergraduate/courses/mechanical-engineering/mechanical-engineering-industrial-meng.aspx\)](/undergraduate/courses/mechanical-engineering/mechanical-engineering-industrial-meng.aspx)

Undergraduate Industrial professional experience, single honours 5 years

[Mechanical Engineering \(Automotive\) MEng \(/undergraduate/courses/mechanical-engineering/mechanical-engineering-automotive-meng.aspx\)](/undergraduate/courses/mechanical-engineering/mechanical-engineering-automotive-meng.aspx)

Undergraduate Single honours 4 years

[Mechanical Engineering BEng \(/undergraduate/courses/mechanical-engineering/mechanical-engineering-beng.aspx\)](/undergraduate/courses/mechanical-engineering/mechanical-engineering-beng.aspx)

Undergraduate Single honours 3 years

[Mechanical Engineering \(Automotive\) BEng \(/undergraduate/courses/mechanical-engineering/mechanical-engineering-automotive-beng.aspx\)](/undergraduate/courses/mechanical-engineering/mechanical-engineering-automotive-beng.aspx)

Undergraduate Single honours 3 years

[Mechanical Engineering MEng \(/undergraduate/courses/mechanical-engineering/mechanical-engineering-meng.aspx\)](/undergraduate/courses/mechanical-engineering/mechanical-engineering-meng.aspx)

Undergraduate Single honours 4 years

Foundation Year

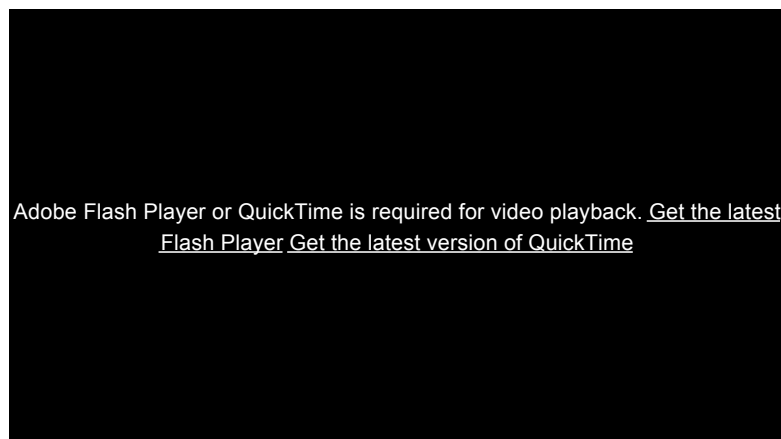
[Mechanical Engineering with Foundation Year \(/undergraduate/courses/fd/mechanical-engineering-foundation.aspx\)](/undergraduate/courses/fd/mechanical-engineering-foundation.aspx)

Undergraduate Foundation, single honours 1 year

[Engineering with Foundation Year BEng/MEng \(/undergraduate/courses/fd/engineering-foundation.aspx\)](/undergraduate/courses/fd/engineering-foundation.aspx)

Undergraduate Foundation, single honours 1 year

Second-year Mechanical Engineering students dismantle an Aston Martin sports car as an exercise in engineering analysis:



[Follow this link for a transcript of the video \(/accessibility/transcripts/eps/mechanical/aston-martin-mechanical-dissection-exercise.aspx\)](/accessibility/transcripts/eps/mechanical/aston-martin-mechanical-dissection-exercise.aspx), or roll over the video and click on the Captions button to display live subtitles.

The 2012 winners were Gregory Carty, Peter George, Izazi Haji Mosli ; Jack Garrod ; Philippa Hornsby ; Matthew Knights

At the end of our 2nd year, we were given the opportunity to inspect and dismantle an Aston Martin DB9. Split into groups, each small team of students focused on one part of the car, from the bodywork to the valve systems, and then presented their findings as a poster to an Aston Martin representative. A factory tour was offered as a prize for the best piece of work.

Our group chose to study the air intakes and intake manifold, which is the system that takes air from behind the front grill of the car, filters it, and then splits it up to ensure an even amount of air enters each of the Aston's 12 cylinders. We were able to dismantle the relevant components from the car in the laboratory, and inspect them for shape, form and material. By cutting the intake manifold in half we were able to see its complex internal geometry, responsible for generating the car's distinctive 'purr'. We presented our findings to our lecturers and the representatives of Aston Martin, who judged our work to be the best, winning us the tour of their factory in Gaydon, Warwickshire.

The tour allowed us to see every step of the production process up close, from the making of the aluminium tubs which keep the car stiff, to the interior trim shop and the final checking point where the car "gets its wings". We learnt that it takes an impressive 8 full hides of premium Scottish leather to upholster one car interior, and that the glue holding the pieces of the tub together is actually stronger than the tub itself! We were then given an exclusive behind-the-scenes tour of the prototype development lab, where modifications are made to test cars for analysis. The icing on the cake, however, was the opportunity to be driven around the test circuits in an Aston Martin Rapide by one of their experienced test drivers at speeds in excess of 150 miles per hour.

