WHO'S INVOLVED

Ametek Taylor Hobson
(Precision Measuring Machines)

JCB
(Diggers)

Siemens
(Gas Turbines)

Bentley Motors
(Cars)

Perkins Engines
(Diesel Engines)

Xerox
(Copying Machines)

Thorworld Industries
(Lifts and Ramps)

Terex Pegsons
(Rock Crushing Machines)

BP Chemicals
(Chemicals)

Elster Metering
(Water Meters)

Four Square Vending
(Vending Machines)

engCETL FOYER

CONTACT US:

Helen Sankey
Teaching Contract Secretary
Wolfson School of Mechanical & Manufacturing Engineering
Loughborough University
Leicestershire LE11 3TU

Tel 01509 227511
Fax 01509 227513
Email h.m.sankey@lboro.ac.uk
Web www.lboro.ac.uk/departments/mm

teaching contract scheme

WOLFSON SCHOOL OF MECHANICAL AND MANUFACTURING ENGINEERING

engCETL linking education with industry

Loughborough University

WHAT IS THE TEACHING CONTRACT SCHEME?

A consortium of companies who agree to provide projects for a number of students and give continuity of industrial support at the heart of the curriculum. Small teams of students tackle real problems set by companies and engage with company staff in a number of factory visits and progress meetings.

There is a choice of either 2nd year students or final year students. Some companies prefer 2nd year students because of the reduced time commitment and the possibility of recruiting future sandwich placement students while others prefer the more advanced level of the final year project work.

Companies prepare an initial statement of their project ideas. A tutor will then visit the company to discuss the suitability of the ideas and offer advice on how the task should be set, and arrange a date for an initial factory visit for students in the early weeks of term.

The primary educational objective of the scheme is to develop teamworking, creativity, commercial awareness, project planning and associated transferable skills.

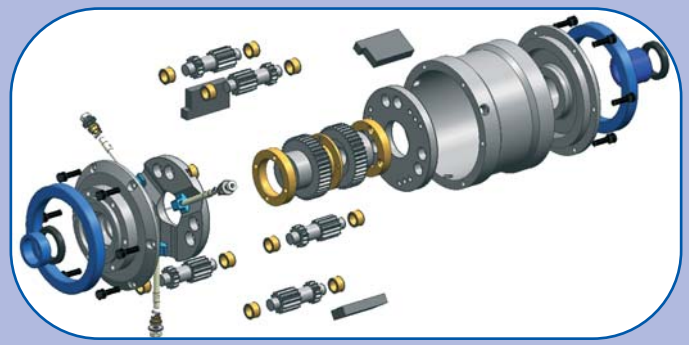
Students prepare a formal written report together with an oral presentation to the company and peer group. Copies of all reports and drawings are made available for the company to keep. Academic supervisors are responsible for all aspects of assessment but will normally seek advice from the industrialists.

Industry projects provide an excellent vehicle to apply engineering science in context and practice key transferable skills that are so valuable to employers.

BENEFITS TO COMPANIES

- Many of the ideas put forward by the students have been taken up and developed by the participating companies.
- Many companies have told how they benefit from the unrestrained basic research done with fresh and open minds, and how this often leads to novel and otherwise ignored conceptual solutions to longstanding problems.
- Allows companies to tackle problems which they would like to solve but which are perhaps not critical to daily production and which they would not otherwise resource.
- Access to University research using tools not available in the company.
- Excellent publicity for the company raising its profile amongst a large body of young articulate students and seasoned professionals.
- Accelerated access to placement students and potential employees.
- Potential access to more extensive research projects.
- Industry staff involved usually enjoy the experience.
- An excellent staff development opportunity for new graduates who act as company tutors.

Assembly exploded view



AVERAGE TIMELINE

Mid October – Students visit the company.

Late November – Company representatives visit University.

Early February – Company representatives visit University.

Mid May – Students make final presentations to companies and academic tutors.

EXAMPLES OF PREVIOUS PROJECTS:

Design of the ultimate cup-holder.

In situ strength testing of corroded pipe flange bolts.

Hydraulic digger functionality improvements.

Variable power steering.

An improved hand-pump manufacturing cell

A hydrodynamic bearing test cell.

Innovations in automatic vending machines.

Testing the longevity of pipe joints in a vehicle air conditioning system.

Measuring torque on a racing motorcycle.