The University Of Sheffield.

Electronic & Electrical Engineering.

EEE394 YEAR IN INDUSTRY

Credits: 120

Course Description including Aims

Students on a Year in Industry degree programme must spend a placement year working in a relevant industry. The placement must be at least 38 weeks in length. To be able to transfer onto (or remain on) a Year in Industry programme a student must be able to show an offer letter and job description to satisfy the department as to the duration of the placement and the nature of the job (is it a graduate placement).

Outline Syllabus

Not relevant

Time Allocation

38 weeks spent in a relevant graduate placement on a full-time basis.

Recommended Previous Courses

Students are expected to have passed the second year of any EEEU degree programme. Students are expected to gain an overall average of 54.5% to continue on a industrial placement but discretion down to circa 50% can be exercised.

Assessment

Students are expected to complete a interim report in the middle of the placement (January/February) of circa 1000 words, a final report at the end of the placement (August/September) of circa 2000 words. They are required to maintain an online diary throughout the placement and to make a presentation to an audience of staff and students on their return (this is usually timed to coincide with the Department's career day).

Recommended Books
None

Objectives
The primary objective is for students to gain a knowledge and appreciation of working in a real engineering job in a real company. Students are expected to gain experience of a range of things: application of technical understanding; use of industry standard software, design methodologies and processes; time planning and management; communication; professional behaviour; working in teams and developing leadership skills; marketing; interacting with clients/customers. Obviously, the exact mix will depend on the company in which each student is placed.

Detailed Syllabus
Not relevant

EEE394 UK-SPEC/IET Learning Outcomes
It is difficult to be prescriptive about the range of learning outcomes that are met be each placement and we will not attempt to claim any beyond recognising that many will be met or contributed to. However, given that for any of the Year in Industry programmes, the placement year in in addition to the years spent studying on the underlying degree programme – each of which already meets the required learning outcomes.

AHEP LO	Supporting Statement
SM1p	Students on placement will learn new science, technology and methodologies to underpin the work that they are doing.
SM3p	Students will need to relate and integrate understanding from a range of different disciplines, that relate to the business of the industrial company hosting their placement, to the work that they are doing
SM4m	Students tend to work in high technology companies and necessarily develop an understanding of new technologies that relate to their own work.
SM6m	Non-engineering issues and constraints impinge upon the project work that students undertake. Students need to incorporate these and determine the relationship between the issues and their work. Typically, students work in teams in companies and generally play different roles throughout the year.
EA1p / EA1m	Students on placements are expected to apply their knowledge and understanding to underpin their work. The work is expected to be technical in nature and, indeed, to extend the student's understanding.
EA2p / EA2m	Students are expected to use modeling an analysis to solve problems and to understand the behavior of the systems that they are developing.
EA3p / EA3m	Modelling, simulation, and programme development are universal parts of the work that students undertake at various times on their placement.
EA4p / EA4m	Students sit in teams that address complex, practical problems on their placement
EA6m	Students will work with data and be expected to understand, analyse and apply it to the solution of real, unfamiliar problems as part of their project work in their placement.

D1m to D8m	Students on placement will undertake design work as part of a team. They will work in different roles, looking at various aspects of design. They will be given responsibility for substantial parts of the work. They will interact with clients and customers. They will be expected to adhere to relevant standards. They will be expected gather, understand, apply data to solution of problems and fill in the gaps when data is incomplete. They will be expected develop new, creative and rigorously worked-out solutions to unfamiliar problems to meet real customers' needs. They will be expected to learn and apply methodologies that underpin their design work. They will be expected to communicate to various other people within their company – some of whom will be technically-educated although others will not be. Students will necessarily be engaged on individual aspect of work but will work with others in teams also.
ET1p	Students will be working in a professional environment and will be expected to conform to these professional standards in their work. Companies have codes of ethics that underpin the behavior of staff member and it will be a contractual requirement for placement students to adhere to these codes of conduct.
ET2p / ET2m	Placement students will be involved in the commercial and economic life of their company. They will be involved in costing, procurement and reporting on the projects on which they are involved.
ET3p	Placement students will be involved in being managed and understand the issues that underpin management in an industrial environment.
ET5p / ET5m	The legal context of professional life will be an important aspect of any placement. These will extend to all aspects of the job and will include personnel issues, heath & safety, IPR, safety and liability.
ET7m	Any business is driven by various factors and understanding of the factors that lead to success will be a fundamental part of life in a company.
EP1p to EP9p, EP2m to EP8m	Practice rather than learning in a University environment will be the everyday norm in a placement. Operations, management, equipment, processes, products, etc. Students will work practically singly and in various roles in a team, and will use various sources of information and literature to support their activities. Students will need to weigh up the accuracy of the information that they use and will need to adapt to its limitations. Industry standards and codes of practice will govern their work and quality and improvement will be core to their activities.

Students are formally assessed by a report that details the work undertaken, the skills developed and their understanding of the company (there is an interim and full, final report) and a presentation that is delivered to staff and students on their return. However, a student's performance is, necessarily, informally assessed on a continuous basis by their line manager (influencing the type of tasks allotted). Furthermore, the line manager feeds back an assessment of the student to the tutor during the site visit.