**Module: Managing complex projects, products and systems (890N1)**

**Coursework: Module papers**

Formal assessment of the course is made on the basis of a paper (3,000 words) submitted by the deadline indicated in Sussex Direct.

Papers should be developed by the students. This can be done in consultation with the module convenor. The paper will give students the chance to more closely explore a topic from the course. Please use the module reading list and any supplemental readings you can find on your chosen topic. Evaluation of the module paper will take into account the student's ability to identify, outline and discuss a particular problem of his or her own interest related to one of the module themes presented in the lectures and/or discussed in classwork exercises/seminars. The paper may take one of two forms, critical essay or project case study.

***Critical essay***

The critical essay should be an analytical assessment of one of the module themes presented in the lectures and/or discussed in classwork exercises/seminars. Essays should be developed by the student (i.e. essay titles are not set by the module convenor).

The essay can apply concepts, frameworks and approaches from module material and articles to a particular case (e.g. a project, firm, industry or category of CoPS). It can also critically evaluate the claims made by one of the articles in the module reading list. Think about conflicting theories and approaches, exceptions to the rule, competing hypotheses and the generalisability of your conclusions across different types of projects, firms and industries. If possible, try to provide empirical support for your argument, using data from various sources such as newspapers, company websites and trade press. A comparison between CoPS and high-volume industries can be a helpful way of emphasising the distinctive characteristics of CoPS. Also comparing and contrasting different levels of complexity in projects and their environment can be explored and exploited. A critique of the traditional approach to project management can also be developed: for example, a critique on the limitations of planning and control as the optimum solution to the problem of managing complex projects effectively.

The key criterion for the module evaluation of the critical essay is the ability to show an awareness of the challenges of managing complex projects, products and systems related to specific issues such as:

* product complexity and the dynamics of innovation
* project management capability, performance and strategies
* critical views/approaches of project management
* systems integration and competitive strategies
* project organisations and the innovation environment
* managing complex software development
* learning in temporary project organisations
* strategies, capabilities and organisations for delivering integrated solutions
* application of the lessons learned from CoPS to high-volume (and other industries
* innovative project management methods
* megaprojects
* sustainability in the management of projects: managing the project ‘effect’ or ‘impact’)

***Project case study***

The case study should show how the experiences of one or more projects relate to one of the module themes presented in the lectures and/or discussed in classwork exercises/seminars. Referring to project and company background information from personal experience or secondary sources, the case study should reveal interesting project events, facts, people, organisational approaches, challenges and how these are overcome (or not).

The key criterion for the module evaluation of the case study is the ability to identify key lessons about managing projects from one or more project cases. The project case study may cover a number of issues such as:

* The project goal.
* Type of project (e.g. using the NTCP framework).
* The project success measures.
* The project web: systems integrator/prime contractor, customers, subcontractors, government agencies, finance, etc.
* The project organisation: matrix, project-based organisation (PBO) or functional structures.
* Project life cycle: phases of the project from invitation to tender (ITT), through bid and contract, to project execution and hand-over to the customer.
* ‘Hot spots’ in the project: problem areas that had to be overcome during the project life cycle.
* ‘Beauty spots’: areas of good practice in the project, innovative methods being deployed.
* Appropriate and inappropriate approaches for the project according to its type (e.g. managing a high-tech project as a medium-tech one).
* User participation in the project.
* Core capabilities/competencies involved in the project, e.g. systems integration, project management, bid management, software engineering, marketing, etc.
* Broader issues affecting megaprojects (e.g. risks, decision-making, etc.)