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| Title: | Eng. Project Management APPROVED |
| Long Title: | Engineering Project Management |
| Module Code: | INTR9007 |
| Credits: | 5 |
| NFQ Level: | Expert |
| Field of Study: | Interdisciplinary Engineering |
| Valid From: | Semester 1 - 2014/15 (September 2014) |
| Module Delivered in | 10 programme(s) |
| Module Coordinator: | DES WALSH |
| Module Author: | MARY MOLONEY |
| Module Description: | This module will equip Students with the tools and techniques necessary to undertake and manage a project using project management techniques. The Student will also become familiar with alternative Engineering Finance evaluation techniques |
| Learning Outcomes | |
| <i>On successful completion of this module the learner will be able to:</i> | |
| LO1 | Evaluate key elements of contemporary management & engineering finance in project execution |
| LO2 | Critically appraise the use of procurement and supply chain management in project execution |
| LO3 | Critically analyse and evaluate risk and value in a project |
| LO4 | Critique capital investment appraisal techniques and their application in project execution |
| Pre-requisite learning | |
| Module Recommendations | |
| <i>This is prior learning (or a practical skill) that is strongly recommended before enrolment in this module. You may enrol in this module if you have not acquired the recommended learning but you will have considerable difficulty in passing (i.e. achieving the learning outcomes of) the module. While the prior learning is expressed as named CIT module(s) it also allows for learning (in another module or modules) which is equivalent to the learning specified in the named module(s).</i> | |
| No recommendations listed | |
| Incompatible Modules | |
| <i>These are modules which have learning outcomes that are too similar to the learning outcomes of this module. You may not earn additional credit for the same learning and therefore you may not enrol in this module if you have successfully completed any modules in the incompatible list.</i> | |
| No incompatible modules listed | |
| Co-requisite Modules | |
| No Co-requisite modules listed | |
| Requirements | |
| <i>This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed. You may not enrol on this module if you have not acquired the learning specified in this section.</i> | |
| Modules as recommended above or equivalent | |
| Co-requisites | |
| No Co Requisites listed | |

Module Content & Assessment

Indicative Content

Contemporary Project Management Fundamentals

Project organisational structures, Time management, Conflicts and conflicts resolution. Project governance

Risk Management

Risk categories, risk identification and measurement/assessment, risk register and prioritisation in a project, risk cost

Value Engineering

Value engineering and impacts on the cost and time for completion, quality management in a project

Cost Management in Projects

Identifying and tracking the costs at the various stages of a project, cost communication in a project, accounting for the value and risk aspects, target costs and total project budgets

Procurement and Supply Chain Management

Project procurement routes, resource allocation. Resource levelling. RFT(right first time) techniques, electronic procurement

Capital Investment analysis and finance decision making

Capital investment analysis, Project appraisal/evaluation techniques - cost-benefit analysis, socio-economic appraisal, multiple criteria analysis, sustainability criteria, return on investment and sources of finance for investment

Project Management Case Studies

n/a

Assessment Breakdown

%

Course Work

100.00%

Course Work

| Assessment Type | Assessment Description | Outcome addressed | % of total | Assessment Date |
|-----------------|---|-------------------|------------|-----------------|
| Project | Apply Project Management tools and techniques from this module to prepare project plan and definition proposal for Students project | 1,2 | 30.0 | Week 4 |
| Project | Develop risk plan and assessment, with project appraisal of a selected project. | 1,3,4 | 70.0 | Sem End |

No End of Module Formal Examination

Reassessment Requirement

Coursework Only

This module is reassessed solely on the basis of re-submitted coursework. There is no repeat written examination.

The institute reserves the right to alter the nature and timings of assessment

Module Workload

Workload: Full Time

| <i>Workload Type</i> | <i>Workload Description</i> | <i>Hours</i> | <i>Frequency</i> | <i>Average Weekly Learner Workload</i> |
|---|-----------------------------|--------------|-------------------|--|
| Lecture | Lecture | 2.0 | Every Week | 2.00 |
| Independent & Directed Learning (Non-contact) | Self Study | 4.5 | Every Week | 4.50 |
| Lecturer-Supervised Learning (Contact) | tutorial | 1.0 | Every Second Week | 0.50 |
| Total Hours | | | | 7.50 |
| Total Weekly Learner Workload | | | | 7.00 |
| Total Weekly Contact Hours | | | | 2.50 |

Workload: Part Time

| <i>Workload Type</i> | <i>Workload Description</i> | <i>Hours</i> | <i>Frequency</i> | <i>Average Weekly Learner Workload</i> |
|---|-----------------------------|--------------|------------------|--|
| Lecture | Lecture | 2.0 | Every Week | 2.00 |
| Lecturer-Supervised Learning (Contact) | tutorial | 1.0 | Every Week | 1.00 |
| Independent & Directed Learning (Non-contact) | Self Study | 4.5 | Every Week | 4.50 |
| Total Hours | | | | 7.50 |
| Total Weekly Learner Workload | | | | 7.50 |
| Total Weekly Contact Hours | | | | 3.00 |

| Module Resources |
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| <i>Recommended Book Resources</i> |
| <ul style="list-style-type: none"> • John V. Chelsom, Andrew C. Payne, Lawrence R. P. Reavill, <i>Management for engineers, scientists, and technologists</i> [ISBN: 0470021268] • John R. Canada, William G, Sullivan, Dennis J. Kulonda, John A. White 2004, <i>Capital Investment Analysis for Engineering and Management</i>, 3rd Edition Ed., Pearson Prentice Hall [ISBN: 013143408X] • Project Management Institute (Corporate Author) 2013, <i>A Guide to the Project Management Body of Knowledge: Pmbok Guide</i> [ISBN: 978-1935589679] |
| <i>This module does not have any article/paper resources</i> |
| <i>Other Resources</i> |
| <ul style="list-style-type: none"> • www.hm-treasury.gov.uk: UK Government Treasury Department <i>Various Articles</i> • http://www.finance.gov.ie: Irish Government Department of Finance <i>Various Articles</i> • Website: Stat Central, Irish Statistics portal www.statcentral.ie • Website: n/a http://www.pmi.org |

Module Delivered in

| Programme Code | Programme | Semester | Delivery |
|----------------|--|----------|-----------|
| CR_ECHBI_9 | <u>Master of Engineering in Chemical and Biopharmaceutical Engineering</u> | 2 | Elective |
| CR_CENEN_9 | <u>Master of Engineering in Civil Engineering (Environment and Energy)</u> | 2 | Elective |
| CR_EMENG_9 | <u>Master of Engineering in Mechanical Engineering</u> | 2 | Elective |
| CR_CARCT_9 | <u>Master of Science in Architectural Technical Design</u> | 2 | Elective |
| CR_DINAR_9 | <u>Master of Science in Interior Architecture</u> | 2 | Elective |
| CR_CSTRU_9 | <u>Masters of Engineering in Structural Engineering</u> | 2 | Elective |
| CR_CCOPM_9 | <u>Masters of Science in Construction Project Management</u> | 2 | Mandatory |
| CR_CENVE_9 | <u>Postgraduate Diploma in Civil Engineering (Environment and Energy)</u> | 2 | Elective |
| CR_CCNPM_9 | <u>Postgraduate Diploma in Science in Construction Project Management</u> | 2 | Mandatory |
| CR_CSTRE_9 | <u>Postgraduate Diploma in Structural Engineering</u> | 2 | Elective |