

Engineering Management

Module Information

2022.01, Approved

Summary Information

| Module Code | 6505ICBTBE |
|---------------------|----------------------------------|
| Formal Module Title | Engineering Management |
| Owning School | Pharmacy & Biomolecular Sciences |
| Career | Undergraduate |
| Credits | 10 |
| Academic level | FHEQ Level 6 |
| Grading Schema | 40 |

Teaching Responsibility

| LJMU Schools involved in Delivery | |
|-----------------------------------|--|
| LJMU Partner Taught | |

Partner Teaching Institution

| Institution Name |
|--|
| International College of Business and Technology |

Learning Methods

| Learning Method Type | Hours |
|----------------------|-------|
| Lecture | 30 |
| Tutorial | 9 |

Module Offering(s)

| Display Name | Location | Start Month | Duration Number Duration Unit |
|--------------|----------|-------------|-------------------------------|
| JAN-PAR | PAR | January | 12 Weeks |

Aims and Outcomes

| Aims | The Module aim is to master the application of theories, frameworks and concepts of management relevant to various industry/ engineering management problems and project management. |
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After completing the module the student should be able to:

Learning Outcomes

| Code | Number | Description |
|------|--------|--|
| MLO1 | 1 | Critical understanding of management and business practices. |
| MLO2 | 2 | Critical understanding of tools and systems used to control and manage finance within an operations environment. |
| MLO3 | 3 | Ability to apply theoretical concepts to practical managerial situations. |
| MLO4 | 4 | Ability to apply a range of financial tools that can be used to control cost and manage a business. |

Module Content

| Outline Syllabus | The module introduces business practices and topics related to engineering management. It covers relevant aspects of human resource management, operations, marketing, finance, personal development and project management. Health & safetyHow to develop appropriate systems and procedures in the workplace. More specifically, it covers risk assessment and risk mitigation at the same time discussing hazard spotting, safety management systems and strategies. Team workAdditional managerial topics are introduced which embrace teamworking, appraisal systems and ethical behaviour. Team roles and team-problem solving techniques are presented, at the same time clarifying the use of enabling methods such as are reviewed and the use of qualitative versus quantitative approaches debated. Engineering ethicsStudents are encouraged to reflect on ethics in engineering and the ethical principles outlined in the codes and practices stipulated by professional bodies. Case studies underpin the concepts and cause the participants to question beliefs and behaviours. Business awarenessThe module examines the roles of other key functions providing wider business awareness. These functions include quality, marketing and finance. Commencing with quality, the total quality management (TQM) process and the concepts of quality and zero defects are discussed. Operational financeOperational finance topics are covered. These include product costing: direct, marginal, standard, profit and loss accounts (P & I), cash flow, break-even analysis, managing and controlling budgets. Project managementThe student is systematically taken through the full project life cycle including project planning, feasibility, evaluation and control. As part of this delivery, all of the relevant project management techniques are covered. |
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| Module Overview | |
| Additional Information | This module is part of the Level 6 of the BEng(Hons) in Biomedical Engineering |

Assessments

| Assignment Category | Assessment Name | Weight | Exam/Test Length (hours) | Module Learning Outcome Mapping |
|---------------------|-----------------------|--------|--------------------------|------------------------------------|
| Exam | Examination | 70 | 2 | MLO1, MLO2, MLO3 |
| Portfolio | Coursework Assignment | 30 | 0 | MLO4 |

Module Contacts

Module Leader

| Contact Name | Applies to all offerings | Offerings |
|--------------|--------------------------|-----------|
| Katie Evans | Yes | N/A |

Partner Module Team

| Contact Name Applies to all offerings Offerings | |
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|---|--|