MONASH University

FIT3102
Operations management systems

Unit Guide

Semester 2, 2009

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FIT3102 Operations management systems - Semester 2, 2009

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Introduction

Welcome to FIT 3102 Operations Management Systems. This 6 point unit is optional to all undergraduate degrees in the Faculty of IT. The unit has been designed to provide you with an understanding of the management, operational aspects, and software used in manufacturing and service organizations. It covers the organizational structure, financial calculations, projects, inventory control, material requirements planning, just in time, barcoding, contract law and business strategy.

Unit synopsis

This unit presents operations management in manufacturing and service organisations. Topics include: Financial calculations, funds employed, product pricing, budgets, cash flow. Accounting terms, definitions. Contracts and contract law. An introduction to computer software systems in a management context. Production scheduling, planning and control. Students will prepare sales, purchasing and productions schedules. Materials requirements planning. History, methods, uses . Project management with cash flow, financial statements, quotations and costing. Students will learn how to plan and manage small to medium sized projects. Students will study project network calculations, critical path, floats, barcharts, scheduling. Just-in-time systems. The unit concentrates on the mechanics of material flow in Just-in-Time systems. Barcoding. EAN-13, Code 39, TUN's and Interleaved 2-of-5. Students will learn how to encode and decode the most common types of linear barcodes. Two dimensional barcodes will be described. The ISO9000 standards and quality standards. The unit will also explain different types of organisations and their business strategies.

Learning outcomes

At the completion of this unit students should:

1. have sufficient understanding of operations to do computing, management and operational work in a manufacturing or service organisation;
2. understand the differences between business strategies of different organisations;
3. appreciate the structure and functionality of management software and assist in the design and programming of software for management of operating organisations;
4. understand the essential aspects of contemporary productive systems;
5. be familiar with international quality standards;
6. understand how to do a literature search on an operations management topic.

Contact hours

3 hours per week

Workload

One two-hour lecture and

One one-hour tutorial

A minimum of 2-3 hours of personal study per one hour of contact time in order to satisfy the reading and assignment expectations.

You will need to allocate up to 5 hours per week in some weeks, for use of a computer.

Unit relationships

Prerequisites

FIT1006 or ETC1000 or BUS1100 or equivalent.

Prohibitions

BUS4630, BUS5630, BUS4560, MBA5470, GCO3803, GCO3806, BUS3530.

Relationships

FIT3102 is an elective unit in the BBIS and all undergraduate degrees in the Faculty of IT.

Before attempting this unit you must have satisfactorily completed FIT1006 or equivalent.

Teaching and learning method

There will be a 2 hour lecture and a one hour tutorial per week.

The tutorials will concentrate on the numerical topics and the software VISUAL Enterprise.

There will be a numerical questions assignment where students will do a practice exercise on each numerical topic.

There will be a software assignment where students will learn how to use modern management software.

Timetable information

For information on timetabling for on-campus classes please refer to MUTTS, http://mutts.monash.edu.au/MUTTS/

Tutorial allocation

On-campus students should register for tutorials/laboratories using the Allocate+ system:
http://allocate.cc.monash.edu.au/

Unit Schedule

Week	Topic	Key dates
1	Introduction	
2	Financials	
3	Financials	
4	Project networks	
5	Compression	21/08/09: Submit NQA1 Financials assignment
6	Inventory Control	28/08/09: Submit NQA2 Project Networks assignment
7	Materials Requirements Planning	
8	Materials Requirements Planning	11/09/09: Submit NQA3 Project Compression assignment
9	Materials Requirements Planning and JIT	
10	JIT and Barcoding	25/09/09: Submit NQA4 Inventory Control assignment
Mid semester break		
11	Contract Law and Business Strategy	09/10/09: Submit NQA5 MRP assignment
12	Business Strategy	16/10/09: Submit VISUAL Enterprise software assignment

Unit Resources

Prescribed text(s) and readings

Lecture notes, tutorial exercises, examples are provided on the Blackboard site and ftp site
ftp://ftp.monash.edu.au/pub/rlmartin

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Equipment and consumables required or provided

Students studying off-campus are required to have the minimum system configuration specified by the Faculty as a condition of accepting admission, and regular Internet access. On-campus students, and those studying at supported study locations may use the facilities available in the computing labs. Information about computer use for students is available from the ITS Student Resource Guide in the Monash University Handbook. You will need to allocate up to **n** hours per week for use of a computer, including time for newsgroups/discussion groups.

Study resources

Study resources we will provide for your study are:

Lecture notes, tutorial exercises, examples and past exams with solutions are available on the Blackboard site and ftp site ftp://ftp.monash.edu.au/pub/rlmartin

Assessment

Overview

Assignments: 20%; Examination (2 hours): 80%.

Faculty assessment policy

To pass a unit which includes an examination as part of the assessment a student must obtain:

- 40% or more in the unit's examination, and
- 40% or more in the unit's total non-examination assessment, and
- an overall unit mark of 50% or more.

If a student does not achieve 40% or more in the unit examination or the unit non-examination total assessment, and the total mark for the unit is greater than 44% then a mark of no greater than 44-N will be recorded for the unit.

To pass this unit, a student must obtain:

40% or more in the unit's examination and

40% or more in the assignments

and

an overall unit mark of 50% or more

If a student does not achieve 40% or more in the unit examination or the assignments then a mark of no greater than 44-N will be recorded for the unit

Assignment tasks

Assignment coversheets

Assignment coversheets are available via "Student Forms" on the Faculty website:
http://www.infotech.monash.edu.au/resources/student/forms/
You MUST submit a completed coversheet with all assignments, ensuring that the plagiarism declaration section is signed.

Assignment submission and return procedures, and assessment criteria will be specified with each assignment.

- ## Assignment task 1

  Title:
  > NQA1 Financials
  Description:
  > A practice question on the first numerical topic Financial Calculations
  Weighting:
  > 2%
  Due date:
  > 21/08/2009

- **Assignment task 2**

  Title:
  > NQA2 Project Networks

  Description:
  > A practice question on the second numerical topic Project Networks

  Weighting:
  > 2%

  Due date:
  > 28/08/2009

- **Assignment task 3**

  Title:
  > NQA3 Project Compression

  Description:
  > A practice question on the third numerical topic Project Compression

  Weighting:
  > 2%

  Due date:
  > 11/09/2009

- **Assignment task 4**

  Title:
  > NQA4 Inventory Control

  Description:
  > A practice question on the fourth numerical topic Inventory Control.

  Weighting:
  > 2%

  Due date:
  > 25/09/2009

- **Assignment task 5**

  Title:
  > NQA5 MRP

  Description:
  > A practice question on the 5th numerical topic Materials Requirements Planning.

  Weighting:
  > 2%

  Due date:
  > 09/10/2009

- **Assignment task 6**

  Title:
  Description:
  > VISUAL Enterprise software assignment.

  Weighting:
  > 10%

  Due date:
  > 16/10/2009

Examination

- **Weighting:** 80%
  Length: 2 hours
  Type (open/closed book): Closed book

See Appendix for End of semester special consideration / deferred exams process.

Due dates and extensions

Please make every effort to submit work by the due dates. It is your responsibility to structure your study program around assignment deadlines, family, work and other commitments. Factors such as normal work pressures, vacations, etc. are not regarded as appropriate reasons for granting extensions. Students are advised to NOT assume that granting of an extension is a matter of course.

Students requesting an extension for any assessment during semester (eg. Assignments, tests or presentations) are required to submit a Special Consideration application form (in-semester exam/assessment task), along with original copies of supporting documentation, directly to their lecturer within two working days before the assessment submission deadline. Lecturers will provide specific outcomes directly to students via email within 2 working days. The lecturer reserves the right to refuse late applications.

A copy of the email or other written communication of an extension must be attached to the assignment submission.

Refer to the Faculty Special consideration webpage or further details and to access application forms:
http://www.infotech.monash.edu.au/resources/student/equity/special-consideration.html

Return dates

Students can expect assignments to be returned within two weeks of the submission date or after receipt, whichever is later.

Appendix

Please visit the following URL: http://www.infotech.monash.edu.au/units/appendix.html for further information about:

- Continuous improvement
- Unit evaluations
- Communication, participation and feedback
- Library access
- Monash University Studies Online (MUSO)
- Plagiarism, cheating and collusion
- Register of counselling about plagiarism
- Non-discriminatory language
- Students with disability
- End of semester special consideration / deferred exams