



MONASH University

FIT3102
Operations management systems

Unit guide

Semester 2, 2008

Last updated : 04 Aug 2008

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FIT3102 Operations management systems - Semester 2 , 2008

Unit leader :

Rodney Martin

Lecturer(s) :

Clayton

- Rodney Martin

Tutors(s) :

Clayton

- Malini Jayaganesh

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

ASCED Discipline Group classification: 029999 Information Technology not elsewhere classified.

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.
- Contract law
- The unit will also explain different types of organisations and their business strategies.

Learning outcomes

At the completion of this unit students should:

- Have sufficient understanding of operations to do computing, management and operational work in a manufacturing or service organization.
- Understand the differences between business strategies of different organizations.
- Appreciate the structure and functionality of management software. Assist in the design and programming of software for management of operating organizations.
- Understand the essential aspects of contemporary productive systems.
- Be familiar with international quality standards.
- Understand how to do a literature search on an operations management topic.

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

Before attempting this unit you must have satisfactorily completed

FIT1006 or equivalent

, or equivalent.

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

, or equivalent..

You may not study this unit and

BUS4630, BUS5630, BUS4560, MBA5470, GCO3803, GCO3806 Translation: BUS3530

in your degree.

Continuous improvement

Monash is committed to 'Excellence in education' and strives for the highest possible quality in teaching and learning. To monitor how successful we are in providing quality teaching and learning Monash regularly seeks feedback from students, employers and staff. Two of the formal ways that you are invited to provide feedback are through Unit Evaluations and through Monquest Teaching Evaluations.

One of the key formal ways students have to provide feedback is through Unit Evaluation Surveys. It is Monash policy for every unit offered to be evaluated each year. Students are strongly encouraged to complete the surveys as they are an important avenue for students to "have their say". The feedback is anonymous and provides the Faculty with evidence of aspects that students are satisfied and areas for improvement.

Student Evaluations

The Faculty of IT administers the Unit Evaluation surveys online through the my.monash portal, although for some smaller classes there may be alternative evaluations conducted in class.

If you wish to view how previous students rated this unit, please go to <http://www.monash.edu.au/unit-evaluation-reports/>

Over the past few years the Faculty of Information Technology has made a number of improvements to its courses as a result of unit evaluation feedback. Some of these include systematic analysis and planning of unit improvements, and consistent assignment return guidelines.

Monquest Teaching Evaluation surveys may be used by some of your academic staff this semester. They are administered by the Centre for Higher Education Quality (CHEQ) and may be completed in class with a facilitator or on-line through the my.monash portal. The data provided to lecturers is completely anonymous. Monquest surveys provide academic staff with evidence of the effectiveness of their teaching and identify areas for improvement. Individual Monquest reports are confidential, however, you can see the summary results of Monquest evaluations for 2006 at <http://www.adm.monash.edu.au/cheq/evaluations/monquest/profiles/index.html>

Improvements to this unit

The course has been revised based on student feedback.

Unit staff - contact details

Unit leader

Mr Rodney Martin

Lecturer

Phone +61 3 990 55289

Contact hours : Tuesdays 2:00 pm - 5:00 pm, Fridays 2:00 pm - 5:00 pm

Lecturer(s) :

Mr Rodney Martin

Lecturer

Phone +61 3 990 55289

Tutor(s) :

Mrs Malini Jayaganesh

PhD Student

Phone +61 3 990 55457

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.

Communication, participation and feedback

Monash aims to provide a learning environment in which students receive a range of ongoing feedback throughout their studies. You will receive feedback on your work and progress in this unit. This may take the form of group feedback, individual feedback, peer feedback, self-comparison, verbal and written feedback, discussions (on line and in class) as well as more formal feedback related to assignment marks and grades. You are encouraged to draw on a variety of feedback to enhance your learning.

It is essential that you take action immediately if you realise that you have a problem that is affecting your study. Semesters are short, so we can help you best if you let us know as soon as problems arise. Regardless of whether the problem is related directly to your progress in the unit, if it is likely to interfere with your progress you should discuss it with your lecturer or a Community Service counsellor as soon as possible.

Unit Schedule

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

		assignment
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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>
- Text book: J Walker et al, *Worked Examples in Project and Operations Management*, Epsilon Publishing, Sydney, Australia, 1999
- Text books are available from the Monash University Book Shops. Availability from other suppliers cannot be assured. The Bookshop orders texts in specifically for this unit. You are advised to purchase your text book early.

Recommended text(s) and readings

- Text book: J Walker et al, *Worked Examples in Project and Operations Management*, Epsilon Publishing, Sydney, Australia, 1999

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>

Lectures are taped and available on the MULO site

Library access

The Monash University Library site contains details about borrowing rights and catalogue searching. To learn more about the library and the various resources available, please go to <http://www.lib.monash.edu.au>. Be sure to obtain a copy of the Library Guide, and if necessary, the instructions for remote access from the library website.

Monash University Studies Online (MUSO)

All unit and lecture materials are available through MUSO (Monash University Studies Online). Blackboard is the primary application used to deliver your unit resources. Some units will be piloted in Moodle. If your unit is piloted in Moodle, you will see a link from your Blackboard unit to Moodle (<http://moodle.monash.edu.au>) and can bookmark this link to access directly. In Moodle, from the Faculty of Information Technology category, click on the link for your unit.

You can access MUSO and Blackboard via the portal: <http://my.monash.edu.au>

Click on the Study and enrolment tab, then Blackboard under the MUSO learning systems.

In order for your Blackboard unit(s) to function correctly, your computer needs to be correctly configured.

For example:

- Blackboard supported browser
- Supported Java runtime environment

For more information, please visit: <http://www.monash.edu.au/muso/support/students/downloadables-student.html>

You can contact the MUSO Support by: Phone: (+61 3) 9903 1268

For further contact information including operational hours, please visit:

<http://www.monash.edu.au/muso/support/students/contact.html>

Further information can be obtained from the MUSO support site:

<http://www.monash.edu.au/muso/support/index.html>

Assessment

Unit assessment policy

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 Task**

Title : NQA1 Financials

Description :

A practice question on the first numerical topic Financial Calculations

Weighting : 2%

Criteria for assessment :

This is a numerical question. Worked examples with solutions are provided in the lecture notes and other examples. Marks will be allocated on you demonstrating your understanding of the topic, and the percentage of the answers which you get correct.

Due date : 15/8/2008

- **Assignment Task**

Title : NQA2 Project Networks

Description :

A practice question on the second numerical topic Project Networks

Weighting : 2%

Criteria for assessment :

This is a numerical question. Worked examples with solutions are provided in the lecture notes and other examples. Marks will be allocated on you demonstrating your understanding of the topic, and the percentage of the answers which you get correct.

Due date : 22/8/2008

- **Assignment Task**

Title : NQA3 Project Compression

Description :

A practice question on the third numerical topic Project Compression

Weighting : 2%

Criteria for assessment :

This is a numerical question. Worked examples with solutions are provided in the lecture notes and other examples. Marks will be allocated on you demonstrating your understanding of the topic, and the percentage of the answers which you get correct.

Due date : 5/9/2008

- **Assignment Task**

Title : NQA4 Inventory Control

Description :

A practice question on the fourth numerical topic Inventory Control.

Weighting : 2%

Criteria for assessment :

This is a numerical question. Worked examples with solutions are provided in the lecture notes and other examples. Marks will be allocated on you demonstrating your understanding of the topic, and the percentage of the answers which you get correct.

Due date : 19/9/2008

- **Assignment Task**

Title : NQA5 MRP

Description :

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

Weighting : 2%

Criteria for assessment :

This is a numerical question. Worked examples with solutions are provided in the lecture notes and other examples. Marks will be allocated on you demonstrating your understanding of the topic, and the percentage of the answers which you get correct.

Due date : 26/9/2008

- **Assignment Task**

Title :

Description :

VISUAL Enterprise software assignment.

Weighting : 10%

Criteria for assessment :

Assessment will be based on students writing a report where they demonstrate that they have worked through the tutorial exercise and explained the steps they did.

Due date : 10/10/2008

Examinations

- **Examination**

Weighting : 80%

Length : 2 hours

Type (open/closed book) : Closed book

Assignment submission

Assignments will be submitted by [**electronic/paper**] submission to [**enter submission URL/location**] On-campus Students Submit the assignment to the [**enter submission location**] by [**enter submission date**], with the appropriate cover sheet correctly filled out and attached Off Campus (OCL) students [OCL only] Mail your assignment to the Off-Campus Learning Centre with the cover sheet attached. Singapore and Hong Kong Students [Gippsland only] Mail your assignment to the Distance Education Centre with the cover sheet attached. Do not email submissions. The due date is the date by which the submission must be received/the date by which the the submission is to be posted.

Assignment coversheets

Students should include an assignment coversheet. Assignment coversheets can be found at <http://infotech.monash.edu.au/resources/student/assignments>

University and Faculty policy on assessment

Due dates and extensions

The due dates for the submission of assignments are given in the previous section. 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 seldom regarded as appropriate reasons for granting extensions. Students are advised to NOT assume that granting of an extension is a matter of course.

Late assignments will be accepted without penalty up to the date of the examination, or publication of the solution, whichever is earlier.

Arrangements will be made in the case of illness or other serious reasons.

Late assignment

Late assignments will be accepted without penalty up to the date of the examination, or publication of the solution, whichever is earlier.

Arrangements will be made in the case of illness or other serious reasons.

Return dates

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

Assessment for the unit as a whole is in accordance with the provisions of the Monash University Education Policy at <http://www.policy.monash.edu/policy-bank/academic/education/assessment/>

We will aim to have assignment results made available to you within two weeks after assignment receipt.

Plagiarism, cheating and collusion

Plagiarism and cheating are regarded as very serious offences. In cases where cheating has been confirmed, students have been severely penalised, from losing all marks for an assignment, to facing disciplinary action at the Faculty level. While we would wish that all our students adhere to sound ethical conduct and honesty, I will ask you to acquaint yourself with Student Rights and Responsibilities (<http://www.infotech.monash.edu.au/about/committees-groups/facboard/policies/studrights.html>) and the Faculty regulations that apply to students detected cheating as these will be applied in all detected cases.

In this University, cheating means seeking to obtain an unfair advantage in any examination or any other written or practical work to be submitted or completed by a student for assessment. It includes the use, or attempted use, of any means to gain an unfair advantage for any assessable work in the unit, where the means is contrary to the instructions for such work.

When you submit an individual assessment item, such as a program, a report, an essay, assignment or other piece of work, under your name you are understood to be stating that this is your own work. If a submission is identical with, or similar to, someone else's work, an assumption of cheating may arise. If you are planning on working with another student, it is acceptable to undertake research together, and discuss problems, but it is not acceptable to jointly develop or share solutions unless this is specified by your lecturer.

Intentionally providing students with your solutions to assignments is classified as "assisting to cheat" and students who do this may be subject to disciplinary action. You should take reasonable care that your solution is not accidentally or deliberately obtained by other students. For example, do not leave copies of your work in progress on the hard drives of shared computers, and do not show your work to other students. If you believe this may have happened, please be sure to contact your lecturer as soon as possible.

Cheating also includes taking into an examination any material contrary to the regulations, including any bilingual dictionary, whether or not with the intention of using it to obtain an advantage.

Plagiarism involves the false representation of another person's ideas, or findings, as your own by either copying material or paraphrasing without citing sources. It is both professional and ethical to reference clearly the ideas and information that you have used from another writer. If the source is not identified, then you have plagiarised work of the other author. Plagiarism is a form of dishonesty that is insulting to the reader and grossly unfair to your student colleagues.

Register of counselling about plagiarism

The university requires faculties to keep a simple and confidential register to record counselling to students about plagiarism (e.g. warnings). The register is accessible to Associate Deans Teaching (or nominees) and, where requested, students concerned have access to their own details in the register. The register is to serve as a record of counselling about the nature of plagiarism, not as a record of allegations; and no provision of appeals in relation to the register is necessary or applicable.

Non-discriminatory language

The Faculty of Information Technology is committed to the use of non-discriminatory language in all forms of communication. Discriminatory language is that which refers in abusive terms to gender, race, age, sexual orientation, citizenship or nationality, ethnic or language background, physical or mental ability, or political or religious views, or which stereotypes groups in an adverse manner. This is not meant to preclude or inhibit legitimate academic debate on any issue; however, the language used in such debate should be non-discriminatory and sensitive to these matters. It is important to avoid the use of discriminatory language in your communications and written work. The most common form of discriminatory language in academic work tends to be in the area of gender inclusiveness. You are, therefore, requested to check for this and to ensure your work and communications are non-discriminatory in all respects.

Students with disabilities

Students with disabilities that may disadvantage them in assessment should seek advice from one of the following before completing assessment tasks and examinations:

- Faculty of Information Technology Student Service staff, and / or
- your Unit Coordinator, or
- [Disabilities Liaison Unit](#)

Deferred assessment and special consideration

Deferred assessment (not to be confused with an extension for submission of an assignment) may be granted in cases of extenuating personal circumstances such as serious personal illness or bereavement. Information and forms for Special Consideration and deferred assessment applications are available at <http://www.monash.edu.au/exams/special-consideration.html>. Contact the Faculty's Student Services staff at your campus for further information and advice.