INFS5870
OPERATIONS MANAGEMENT

Course Outline
Semester 2, 2013

Part A: Course-Specific Information

Please consult Part B for key information on ASB policies (including those on plagiarism and special consideration), student responsibilities and student support services.
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PART A: COURSE-SPECIFIC INFORMATION

1 STAFF CONTACT DETAILS
Lecturer-in-charge: Shilu Tong
Room: 2086 Quad
Phone: 9385-7126
Email: sl.tong@unsw.edu.au
Consultation Times: Tuesday 14:00 – 16:00 and by appointment.

I am happy to be contacted by email with course specific inquiries. If you need to contact the School urgently you can contact the School Office on 9385-5320 or email istm@unsw.edu.au.

2 COURSE DETAILS

2.1 Teaching Times and Locations
Lectures start in Week 1 (to Week 12): The Time and Location are:
Monday 6:00pm – 9:00pm, Quadrangle Building 1047 (K-E15-1047)

2.2 Units of Credit
The course is worth 6 units of credit.
There is no parallel teaching in this course.

2.3 Summary of Course
This course introduces major concepts and tools used to design, control, and improve business processes from the principles of Operations Management. For various types of operations that produce tangible goods or intangible services, the course covers issues and topics in operations management such as process measurement; bottleneck management; service improvement; process synchronization and improvement; statistical quality control techniques and six sigma approaches. There will be lectures, cases, team projects and an in-class simulation game.

2.4 Course Aims and Relationship to Other Courses
Operations Management is concerned with the management of business processes that produce tangible goods or intangible services. Terms such as just-in-time, six-sigma quality and supply chain management appear regularly in the business press in publications such as Financial Times, The Economist and Business Week. This course looks at ways in which operations can be improved, including the wider concerns that are characteristic of quality control approaches. The lectures focus not only on quantitative techniques but also on managerial implications.

The course introduces a novel approach to studying the core concepts in operations, which is one the three major functional fields in business management, along with finance and marketing. The students can get familiar with tools, analytical frameworks and general principles for managing business processes and operations. INFS5871 Supply Chain and Logistics Planning focus specifically on interactions between firms.
within a supply chain, such as information sharing, contracting and coordination. The knowledge provided by INFS5871 can add value to process improvement.

INFS5870 is an elective course. This course has no prerequisites. The course aims to

1. Understand business process and operations from a general management perspective.
2. Learn tools, analytical frameworks and general principles for managing operations.
3. Enhance communication, reflection and team work skills.

2.5 Student Learning Outcomes

The Course Learning Outcomes are what you should be able to DO by the end of this course if you participate fully in learning activities and successfully complete the assessment items.

<table>
<thead>
<tr>
<th>1. Analyze business operations using appropriate performance measures, such as flow time, throughput rate and capacity.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Propose business solutions in written and verbal forms for operations improvement and process design projects.</td>
</tr>
<tr>
<td>3. Identify inefficiency and ineffectiveness in business operations and propose adequate minor changes or major redesigns to improve the process.</td>
</tr>
<tr>
<td>4. Understand the theory and implementations of quality control activities for different industries.</td>
</tr>
<tr>
<td>5. Use computing software to determine optimal capacity under various situations in a process.</td>
</tr>
<tr>
<td>6. Practice team skills to organize a functioning team to analyze and improve business process.</td>
</tr>
</tbody>
</table>

The Learning Outcomes in this course also help you to achieve some of the overall Program Learning Goals and Outcomes for all postgraduate coursework students in the ASB. Program Learning Goals are what we want you to BE or HAVE by the time you successfully complete your degree (e.g. ‘be an effective team player’). You demonstrate this by achieving specific Program Learning Outcomes – what you are able to DO by the end of your degree (e.g. ‘participate collaboratively and responsibly in teams’).

**ASB Postgraduate Coursework Program Learning Goals and Outcomes**

1. **Knowledge:** Our graduates will have current disciplinary or interdisciplinary knowledge applicable in local and global contexts.
   You should be able to identify and apply current knowledge of disciplinary or interdisciplinary theory and professional practice to business in local and global environments.

2. **Critical thinking and problem solving:** Our graduates will have critical thinking and problem solving skills applicable to business and management practice or issues.
You should be able to identify, research and analyse complex issues and problems in business and/or management, and propose appropriate and well-justified solutions.

3. Communication: Our graduates will be effective communicators in professional contexts.
   You should be able to:
   a. Produce written documents that communicate complex disciplinary ideas and information effectively for the intended audience and purpose, and
   b. Produce oral presentations that communicate complex disciplinary ideas and information effectively for the intended audience and purpose.

4. Teamwork: Our graduates will be effective team participants.
   You should be able to participate collaboratively and responsibly in teams, and reflect on your own teamwork, and on the team’s processes and ability to achieve outcomes.

5. Ethical, social and environmental responsibility: Our graduates will have a sound awareness of ethical, social, cultural and environmental implications of business issues and practice.
   You should be able to:
   a. Identify and assess ethical, environmental and/or sustainability considerations in business decision-making and practice, and
   b. Consider social and cultural implications of business and/or management practice.

6. Leadership: Our graduates will have an understanding of effective leadership. (MBA and MBT programs only).
   You should be able to reflect on your personal leadership experience, and on the capabilities necessary for leadership.

For more information on the Postgraduate Coursework Program Learning Goals and Outcomes, see Part B of the course outline.

The following table shows how your Course Learning Outcomes relate to the overall Program Learning Goals and Outcomes, and indicates where these are assessed (they may also be developed in tutorials and other activities):

<table>
<thead>
<tr>
<th>Program Learning Goals and Outcomes</th>
<th>Course Learning Outcomes</th>
<th>Course Assessment Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>This course helps you to achieve the following learning goals for all ASB postgraduate coursework students:</td>
<td>On successful completion of the course, you should be able to:</td>
<td>This learning outcome will be assessed in the following items:</td>
</tr>
<tr>
<td>1 Knowledge</td>
<td>Understand the theory and implementations of quality control activities for different industries.</td>
<td>• Exam</td>
</tr>
</tbody>
</table>
| 2 Critical thinking and problem solving | Analyze business operations using appropriate performance measures, such as flow time, throughput rate and capacity. Use computing software to determine optimal capacity under various situations in a process. | • Quiz  
• Report  
• Exam |
| 3a Written communication | Propose business solutions in written and verbal forms for operations improvement and process design projects | • Report |
| 3b Oral communication | Interact with team members to achieve group objectives and communicate effectively | • Participation |
4. Teamwork

Work collaboratively to complete a project

5a. Ethical, environmental and sustainability responsibility

Not specifically addressed in this course.

5b. Social and cultural awareness

Not specifically addressed in this course.

3 LEARNING AND TEACHING ACTIVITIES

3.1 Approach to Learning and Teaching in the Course

This course is developed and delivered within the context of the following learning and teaching philosophy.

To maximize the effect of classroom learning, students are expected to read assigned course materials before attending each class. Students should also be aware that real world examples of operations can be found in their surroundings and daily life. Therefore, students are encouraged to pay attention to discover them.

The learning experience offered by this course includes lectures, homework assignments, group case studies, class discussions, and presentations. Through the case studies, students will analyze different business operations and suggest approaches to improve them. Students will also be engaged in classroom discussion about case studies and findings. In addition to students learning the fundamental content of the course, the content is designed to foster critical thinking and to facilitate the acquisition of life-long learning skills. The course and its delivery are designed with a view to assisting the development of problem solving skills.

Assessment is weighted toward informed, reasoned and well argued personal opinion based on the contextual factors and constraints presented in the various scenarios and is consequently, not based on the acquisition of knowledge alone.

3.2 Learning Activities and Teaching Strategies

The course involves three key components – the lecture, the tutorial, and out-of-class study.

Lectures

Each lecture provides an overview of specific topics in the textbook. The instructor in each lecture goes over the concepts and issues that are deemed important or more difficult to understand. Lecture slides can be downloaded from Blackboard prior to each lecture. The instructor will not make hard copies of lecture slides for the students.

Tutorials

By interacting with students, the instructor will blend tutorial sessions with regular lectures. In the tutorial session, the instructor uses examples to interact with the students to practice more quantitative issues. The instructor may also use the tutorial sessions to interact with the students to discuss findings of their case reports. It is also a good opportunity to convey any of your questions to the instructor.
Out-of-Class Study
While each student may have preferred individual learning strategy, it is important to note that most learning will be achieved outside of class time. Lectures can only provide a structure to assist your study. An “ideal” strategy may include:

1. Reading of the relevant chapter(s) of the textbook and accessing the lecture slides from Blackboard before the lecture. This will give you a general idea of the topic area.
2. Do the homework assignments. You may discuss problems or difficulties encountered with fellow students or the instructor. But you must write the assignments by yourself.
3. Participate and contribute to your group discussions for the cases and team project.

4 ASSESSMENT

4.1 Formal Requirements
To receive a pass grade in this course, you must meet ALL of the following criteria:

- Attain an overall mark of at least 50%.
- Attend at least 80% of all scheduled classes.
- Attain a satisfactory performance in each component of the course. A mark of 45 percent or higher is normally regarded as satisfactory.
- Attain a mark of at least 45% in the final exam.
- In the case of peer assessed group work, the mark assigned to each member of the group may be scaled based on peer assessment of each member’s contribution to the task.

The School reserves the right to scale final marks to a mean of 60%. It should be noted that group members are expected to work in a harmonious and professional fashion which includes adequate management of non-performing members.

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case study</td>
<td>10%</td>
</tr>
<tr>
<td>Quiz</td>
<td>20%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>50%</td>
</tr>
<tr>
<td>Team Project</td>
<td>15%</td>
</tr>
<tr>
<td>Participation</td>
<td>5%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

4.2 Assessment Details
The final composite marks for this course are summarized in the following table.
<table>
<thead>
<tr>
<th>Assessment Task</th>
<th>Weighting</th>
<th>Learning Outcomes Assessed</th>
<th>ASB Graduate Attributes Assessed</th>
<th>Handed out Date</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case Study</td>
<td>10%</td>
<td>2,3,4,5,6</td>
<td>2,3,4,5,6</td>
<td>23/09</td>
<td>14/10</td>
</tr>
<tr>
<td>Quiz</td>
<td>20%</td>
<td>1,2,3</td>
<td>1,2,3</td>
<td></td>
<td>2/09</td>
</tr>
<tr>
<td>Team Project</td>
<td>15%</td>
<td>1,2,3,4,5,6</td>
<td>1,2,3,4,5,6</td>
<td></td>
<td>9/10</td>
</tr>
<tr>
<td>Final Exam</td>
<td>50%</td>
<td>1,2,3,4</td>
<td>1,2,3,4,6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participation</td>
<td>5%</td>
<td>1,2,3,4,5,6</td>
<td>1,2,3,4,5,6</td>
<td>Ongoing</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>

Details of each assessment task:

**Case Study**
There is one case to study in this course. The case is viewed as more challenging homework assignment and therefore, is tackled by groups. The case describes a scenario followed by several questions. Your group must submit a report, in which you should answer all questions given in the case.

**Quiz**
All students are expected to take the quiz given in Week 6 in class. The quiz will cover materials covered in lectures during Weeks 1-5.

**Team Project**
The purpose of this group project is for students to analyze and improve real-world business operations by applying the knowledge learned in this course. This project exposes students to important business process modelling and design steps. Students will need to 1) investigate a real-world business operation, 2) identify the corresponding business processes in use, 3) measure the performance of existing business operations, 4) suggest an alternative business design, and 5) evaluate the improvement of the newly suggested business design.

**Final Exam**
The final exam will be held during the University examination period with the date and time determined by the University. It will cover materials covered in lectures and tutorials during Weeks 1 – 12 (inclusive).

**Participation**
To encourage effective interaction, a mark will be awarded for your participation in terms of your attendance and the degree to which you engage in class discussions. Assessment will be based on your attendance, the frequency and quality of your contribution to class discussion, and your participation in team activities.

### 4.3 Assessment Format
The reports of case studies and final project must be typed. Detailed instructions will be given during the lecturer. There is no specific format for the homework assignments although answers should be neatly set out and legible if handwritten.
4.4 Assignment Submission Procedure
The assignments should be submitted by handing to the instructor during the lecture in
the relevant week. Students should keep a copy of all work submitted for assessment
and keep returned marked assignments. Electronic submission may be arranged for
the reports of case studies and final project.

4.5 Late Submission
The late submission of assignments carries a penalty of 10% of the maximum marks
for that assignment per day of lateness (including weekends and public holidays),
unless an extension of time has been granted. An extension of time to complete an
assignment may be granted by the course co-ordinator in case of misadventure or
illness. Applications for an extension of time should be made to the course co-ordinator
by email or in person. You will be required to substantiate your application with
appropriate documentary evidence such as medical certificates, accident reports etc.
Please note that work commitments and computer failures are usually consider
insufficient grounds for an extension.

Quality Assurance
The ASB is actively monitoring student learning and quality of the student
experience in all its programs. A random selection of completed assessment tasks
may be used for quality assurance, such as to determine the extent to which
program learning goals are being achieved. The information is required for
accreditation purposes, and aggregated findings will be used to inform changes
aimed at improving the quality of ASB programs. All material used for such
processes will be treated as confidential.

5 COURSE RESOURCES
The textbook required for this course is:


6 COURSE EVALUATION AND DEVELOPMENT
We will be seeking feedback from the students about the offering of this course and
use it as a basis for continual improvement. UNSW’s Course and Teaching Evaluation
and Improvement (CATEI) Process is one of the ways in which student evaluative
feedback is gathered. In this course, we shall use your course-level feedback, both
quantitative and qualitative, to guide our continued review and redesigning of the
course.
## 7 COURSE SCHEDULE

The following is a tentative schedule for lectures and tutorials.

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Subject</th>
<th>Reading</th>
<th>Note</th>
</tr>
</thead>
</table>
| 1    | 29/07  | • Course introduction  
|      |        | • Operations strategy                            | Ch 1        |                       |
| 2    | 5/08   | • Process selection and process measures         | Ch 2        |                       |
| 3    | 19/08  | • Flow time, flow rate and capacity analysis     | Ch 3        |                       |
| 4    | 26/08  | • Waiting line management                        | Ch 8        |                       |
| 5    | 12/08  | • Project management                             | Ch 5        |                       |
| 6    | 2/09   | • Introduction to the team project  
|      |        | • Quiz                                           |             |                       |
| 7    | 9/09   | • Process improvement game – Sailboat Game       |             |                       |
| 8    | 16/09  | • Process quality management I                   | Ch 10       |                       |
| 9    | 23/09  | • Process quality management II                  | Ch 10       | Case handed out       |
|      |        | • Process improvement: lean operations and       |             |                       |
|      |        | Just-in-time systems                             |             |                       |
| 10   | 7/10   | • Public Holiday; No Class                       |             |                       |
| 11   | 14/10  | • Case discussion                                | Ch 17       | Case due              |
|      |        | • Process improvement in supply chain            |             |                       |
| 12   | 21/10  | • Project presentation                          |             |                       |
|      |        | • Course Review                                  |             |                       |

* Chapters refer to those of the textbook