# FIT5157 Services science - Semester 1, 2013

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FIT5157 Services science - Semester 1, 2013

Services science draws from the social sciences, business, and engineering technology and applies scientific methods to the design and management of services. The use of IT is a crucial and essential part of services science and an understanding this area is of major importance to IT students. In the current business environment IT techniques and skills have become essential to successfully manage operations, services and projects. The focus of this unit is to provide students with sufficient knowledge of modern services science and business operations, concepts, and modern software, to work effectively in service operations roles in industry and government.

Mode of Delivery

Caulfield (Day)

Contact Hours

2 hrs lectures/wk, 2 hrs laboratories/wk

Workload requirements

Students will be expected to spend a total of 12 hours per week during semester on this unit. This includes:

- two-hour lecture
- two-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, including time for newsgroups/discussion groups.

Unit Relationships

Prerequisites

Students are expected to have a background in IT, Engineering or Science.

Chief Examiner

Dr Rodney Martin

Campus Lecturer

Caulfield

Mark Nolan

Consultation hours: TBA
Academic Overview

Learning Outcomes

At the completion of this unit students will:

- understand how service businesses operate and evolve;
- understand the management principles, concepts and standards that guide service operations and project management practices;
- be able to specify the organisational capabilities to support service operations management;
- have the skills to design and develop an appropriate management structure for service operations and the management of service projects.
## Unit Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Activities</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No formal assessment or activities are undertaken in week 0</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Introduction - Role and Nature of Services</td>
<td>Tutorial Participation assessed during each tutorial. Tutorials begin week 2.</td>
</tr>
<tr>
<td>2</td>
<td>Service Strategy</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Service Blueprint and Process Design</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Service Quality &amp; Benchmarking</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Service Design and Process</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Technology in Service</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>ANZAC Day no lecture</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Business Process Design Incorporating Services 1</td>
<td>Submit Assignment 1: Case Study due 29 April 2013</td>
</tr>
<tr>
<td>9</td>
<td>Business Process Design Incorporating Services 2</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Introduction to Service Oriented Architectures and Web Services</td>
<td>Submit Assignment 2: Business Process Analysis and Design due 23 May 2013</td>
</tr>
<tr>
<td>11</td>
<td>Introduction to Workflow and Business Process Management using Web Services</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Implementing WS-BPEL; The System Development Lifecycle and SOA, Service</td>
<td>No formal assessment is undertaken in SWOT VAC. Submit Assignment 3: BPEL Programming due 14 June 2013</td>
</tr>
<tr>
<td>Examination period</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Unit Schedule details will be maintained and communicated to you via your learning system.

## Assessment Summary

Examination (2 hours): 50%; In-semester assessment: 50%

<table>
<thead>
<tr>
<th>Assessment Task</th>
<th>Value</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case Study</td>
<td>20%</td>
<td>29 April 2013</td>
</tr>
<tr>
<td>Business Process Analysis and Design</td>
<td>10%</td>
<td>23 May 2013</td>
</tr>
<tr>
<td>BPEL Programming Assignment</td>
<td>10%</td>
<td>14 June 2013</td>
</tr>
<tr>
<td>Tutorial Participation</td>
<td>10%</td>
<td>Assessed during each tutorial</td>
</tr>
<tr>
<td>Examination 1</td>
<td>50%</td>
<td>To be advised</td>
</tr>
</tbody>
</table>
Teaching Approach

Lecture and tutorials or problem classes

This teaching and learning approach provides facilitated learning, practical exploration and peer learning.

Lectures will present the concepts and include examples of each concept.

Tutorials will concentrate on software examples of the concepts taught in lectures and where appropriate, particular topics will be taught in tutorials rather than in lectures.
Assessment Requirements

Assessment Policy

Faculty Policy - Unit Assessment Hurdles

Academic Integrity - Please see the Demystifying Citing and Referencing tutorial at
http://lib.monash.edu/tutorials/citing/

Assessment Tasks

Participation

Tutorial Participation:
Students are expected to complete the tasks assigned during tutorials and actively participate in
discussions.

• Assessment task 1

Title:
Case Study

Description:
A case study of a service business. Groups of 3 students. The case study will involve
planning out the operations of a service business, performing a strategic analysis of that
business, identify the target service market segment and consider and suggest changes
to that service business to change its market segment. The case study will also identify
automation opportunities in service provisioning, service delivery and control, service
quality control and service configuration. Variations on this description are invited.

Weighting:
20%

Criteria for assessment:
The criteria for assessment will be a subjective assessment of your case study.

The members listed for the group will receive equal marks.
The tutor will monitor individual contributions to the group when allocating marks to
members of the group

Due date:
29 April 2013

• Assessment task 2

Title:
Business Process Analysis and Design

Description:
Analyse the service business from the case study and identify one business process that
customers will request as a service. Create a diagram of the interaction between the
customer with that service. Document the service interface and create a service contract.

Weighting:
10%

Criteria for assessment:
Assessment will be based on clear identification of a service to be offered to customers depicted diagrammatically and the production of a service contract.

Due date:
23 May 2013

• Assessment task 3

Title:
BPEL Programming Assignment

Description:
Implement the business service identified above using the JDeveloper IDE.

Weighting:
10%

Criteria for assessment:
Assessment will be based on about 50% the BPEL workflow and 50% the implementation of web service called by that workflow.

Due date:
14 June 2013

• Assessment task 4

Title:
Tutorial Participation

Description:
Students are expected to complete the tasks assigned during tutorials and actively participate in discussion.

Weighting:
10%

Criteria for assessment:
Tutor's observation.

Due date:
Assessed during each tutorial

Examinations

• Examination 1

Weighting:
50%

Length:
2 hours

Type (open/closed book):
Closed book

Electronic devices allowed in the exam:
None

Learning resources

Monash Library Unit Reading List
http://readinglists.lib.monash.edu/index.html
Feedback to you

Types of feedback you can expect to receive in this unit are:

- Informal feedback on progress in labs/tutes
- Graded assignments with comments
- Graded assignments without comments
- Solutions to tutes, labs and assignments

Extensions and penalties

Submission must be made by the due date otherwise penalties will be enforced.

You must negotiate any extensions formally with your campus unit leader via the in-semester special consideration process:

Returning assignments

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

Referencing requirements

Referencing internet and electronic sources, Harvard reference style:

IEEE referencing:
http://www.lib.monash.edu/tutorials/citing/ieee.html

Assignment submission

It is a University requirement (http://www.policy.monash.edu/policy-bank/academic/education/conduct/plagiarism-procedures.html) for students to submit an assignment coversheet for each assessment item. Faculty Assignment coversheets can be found at http://www.infotech.monash.edu.au/resources/student/forms/. Please check with your Lecturer on the submission method for your assignment coversheet (e.g. attach a file to the online assignment submission, hand-in a hard copy, or use an online quiz).

Online submission

If Electronic Submission has been approved for your unit, please submit your work via the learning system for this unit, which you can access via links in the my.monash portal.

Required Resources

Please check with your lecturer before purchasing any Required Resources. Limited copies of prescribed texts are available for you to borrow in the library, and prescribed software is available in student labs.
Assessment Requirements

IBM ILOG CPLEX.


LINGO 13.0 - Optimization Modeling Software.


Recommended Resources

Please check with your lecturer before purchasing any resources. Limited copies of prescribed texts are available for you to borrow in the library. Prescribed software is available in student labs.

1 Oracle SOA Suite

2 Visio with Business Process Designer plugin

3 Oracle Business Process Architect

Recommended text(s)

Other Information

Policies

Monash has educational policies, procedures and guidelines, which are designed to ensure that staff and students are aware of the University’s academic standards, and to provide advice on how they might uphold them. You can find Monash’s Education Policies at: www.policy.monash.edu.au/policy-bank/academic/education/index.html

Key educational policies include:

- Plagiarism; http://www.policy.monash.edu/policy-bank/academic/education/conduct/plagiarism-policy.html
- Special Consideration; http://www.policy.monash.edu/policy-bank/academic/education/assessment/special-consideration-policy.html
- Grading Scale; http://www.policy.monash.edu/policy-bank/academic/education/assessment/grading-scale-policy.html
- Discipline: Student Policy; http://www.policy.monash.edu/policy-bank/academic/education/conduct/student-discipline-policy.html
- Academic Calendar and Semesters; http://www.monash.edu.au/students/dates/
- Orientation and Transition; http://intranet.monash.edu.au/infotech/resources/students/orientation/
- Graduate Attributes Policy
  http://www.policy.monash.edu/policy-bank/academic/education/management/monash-graduate-attributes-policy.html

Student services

The University provides many different kinds of support services for you. Contact your tutor if you need advice and see the range of services available at http://www.monash.edu.au/students. For Sunway see http://www.monash.edu.my/Student-services, and for South Africa see http://www.monash.ac.za/current/.

Monash University Library

The Monash University Library provides a range of services, resources and programs that enable you to save time and be more effective in your learning and research. Go to www.lib.monash.edu.au or the library tab in my.monash portal for more information. At Sunway, visit the Library and Learning Commons at http://www.lib.monash.edu.my/. At South Africa visit http://www.lib.monash.ac.za/.
Disability Liaison Unit

Students who have a disability or medical condition are welcome to contact the Disability Liaison Unit to discuss academic support services. Disability Liaison Officers (DLOs) visit all Victorian campuses on a regular basis.

Website: http://www.monash.edu/equity-diversity/disability/index.html Telephone: 03 9905 5704 to book an appointment with a DLO; or contact the Student Advisor, Student Community Services at 03 55146018 at Sunway Email: dlu@monash.edu Drop In: Equity and Diversity Centre, Level 1, Building 55, Clayton Campus, or Student Community Services Department, Level 2, Building 2, Monash University, Sunway Campus

Your feedback to Us

Monash is committed to excellence in education and regularly seeks feedback from students, employers and staff. One of the key formal ways students have to provide feedback is through the Student Evaluation of Teaching and Units (SETU) survey. The University’s student evaluation policy requires that every unit is evaluated each year. Students are strongly encouraged to complete the surveys. The feedback is anonymous and provides the Faculty with evidence of aspects that students are satisfied and areas for improvement.

For more information on Monash’s educational strategy, see:

www.monash.edu.au/about/monash-directions and on student evaluations, see:
www.policy.monash.edu/policy-bank/academic/education/quality/student-evaluation-policy.html

Previous Student Evaluations of this Unit

Previous feedback has highlighted the following strength(s) in this unit:
Learning objectives are consistently met, intellectually stimulating and the learning resources support the student’s studies.
Student feedback has shown that there is a high level of satisfaction and that the feedback provided was useful.

The teaching materials have been revised based on student feedback.

If you wish to view how previous students rated this unit, please go to https://emuapps.monash.edu.au/unitevaluations/index.jsp

Other

Lecture notes, tutorial exercises and worked examples will be available on Moodle.