FIT3046
Operating environments

Unit Guide

Semester 1, 2014
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Mode of Delivery

- Gippsland (Day)
- Gippsland (Off-campus)
- South Africa (Day)

Workload Requirements

Minimum total expected workload equals 12 hours per week comprising:

(a.) Contact hours for on-campus students:
- Two hours of lectures
- One 2-hour laboratory

(b.) Study schedule for off-campus students:
- Off-campus students generally do not attend lecture and tutorial sessions, however should plan to spend equivalent time working through the relevant resources and participating in discussion groups each week.

(c.) Additional requirements (all students):
- A minimum of 8 hours independent study per week for completing lab and project work, private study and revision.

Unit Relationships

Prohibitions
FIT2022, FIT2070, GCO2814, GCO3818

Prerequisites
FIT1031 or FIT1001
Chief Examiner

Professor Bala Srinivasan

Campus Lecturer

Gippsland

Manzur Murshed

South Africa

Paula Murray

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 strengths in this unit:

- In-depth knowledge displayed by the lecturers;
- Well-developed materials with full-scale solutions to all tutorial and assignment problems;
- Timeliness and quality of assignment feedback;
- Availability of past lecture recording;
- Quick and helpful replies by the lecturer in the online discussion forums; and
- Dedicated discussion forum for exam preparation with active participation by the lecturer.

Student feedback has also informed the following improvements to this unit:

- Fresh lecture recording to reflect some minor changes in the new edition of the prescribed textbook.

If you wish to view how previous students rated this unit, please go to
Academic Overview

Learning Outcomes

At the completion of this unit students will:

- know the general purpose and functions of operating systems;
- understand the hardware and software mechanisms used to carry out these functions;
- be familiar with the principal differences between common major operating systems such as Windows and Linux;
- be able to install new operating systems on PC hardware;
- be willing to select operating systems based on their merits rather than their marketing.
# Unit Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Activities</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td>No formal assessment or activities are undertaken in week 0</td>
</tr>
<tr>
<td>1</td>
<td>Introduction</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Processes and Threads</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Scheduling</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Interprocess Communications</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Deadlocks</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Memory Management</td>
<td>Assignment 1 due 14 April 2014</td>
</tr>
<tr>
<td>7</td>
<td>Memory Management</td>
<td>Assignment 2 due 19 May 2014</td>
</tr>
<tr>
<td>8</td>
<td>Input/Output</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>File Systems</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Security</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Case Study 1: Linux</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Case Study 2: Windows Vista and Revision</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SWOT VAC</td>
<td>No formal assessment is undertaken in SWOT VAC</td>
</tr>
</tbody>
</table>

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

## Teaching Approach

**Lecture and tutorials or problem classes**

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

## Assessment Summary

Examination (3 hours): 60%; In-semester assessment: 40%

<table>
<thead>
<tr>
<th>Assessment Task</th>
<th>Value</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment 1</td>
<td>20%</td>
<td>14 April 2014</td>
</tr>
<tr>
<td>Assignment 2</td>
<td>20%</td>
<td>19 May 2014</td>
</tr>
<tr>
<td>Examination 1</td>
<td>60%</td>
<td>To be advised</td>
</tr>
</tbody>
</table>
Assessment Requirements

Assessment Policy

Faculty Policy - Unit Assessment Hurdles

Academic Integrity - Please see resources and tutorials at
http://www.monash.edu/library/skills/resources/tutorials/academic-integrity/

Assessment Tasks

Participation

• Assessment task 1

Title: Assignment 1

Description: Students will be required to perform a number of tasks involving both analytical and practical skills from the syllabus covered in Study Guides 1-4. Detailed solutions will be released after the cut-off date, which is one week after the due date.

Weighting: 20%

Criteria for assessment: Individual assignment submission will be assessed on

♦ The workout details and accuracy for numerical problems;
♦ The quality of explanation and the level of understanding for non-numerical problems;
♦ How well algorithms are written using pseudocodes; and
♦ Understanding the outcome of algorithms on given scenarios.

More detailed criteria will be released on Moodle.

Due date: 14 April 2014

• Assessment task 2

Title: Assignment 2

Description: Students will be required to perform a number of tasks involving both analytical and practical skills from the syllabus covered in Study Guides 5-7. Detailed solutions will be released after the cut-off date, which is one week after the due date.

Weighting: 20%

Criteria for assessment: Individual assignment submission will be assessed on

♦ The workout details and accuracy for numerical problems;
Assessment Requirements

♦ The quality of explanation and the level of understanding for non-numerical problems;
♦ How well algorithms are written using pseudocodes; and
♦ Understanding the outcome of algorithms on given scenarios.

More detailed criteria will be released on Moodle.

Due date:
19 May 2014

Examinations

• Examination 1

  Weighting:
  60%

  Length:
  3 hours

  Type (open/closed book):
  Closed book

  Electronic devices allowed in the exam:
  None

Learning resources

Monash Library Unit Reading List (if applicable to the unit)
http://readinglists.lib.monash.edu/index.html

Faculty of Information Technology Style Guide

Feedback to you

Examination/other end-of-semester assessment feedback may take the form of feedback classes, provision of sample answers or other group feedback after official results have been published. Please check with your lecturer on the feedback provided and take advantage of this prior to requesting individual consultations with staff. If your unit has an examination, you may request to view your examination script booklet, see http://intranet.monash.edu.au/infotech/resources/students/procedures/request-to-view-exam-scripts.html

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

  • Informal feedback on progress in labs/tutes
  • Graded assignments with 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: http://www.monash.edu.au/exams/special-consideration.html
Returning assignments

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

Assignment submission

It is a University requirement (http://www.policy.monash.edu/policy-bank/academic/education/conduct/student-academic-integrity-managing-plagiarism-collusion-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). Please note that it is your responsibility to retain copies of your assessments.

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.

Study resources we will provide for your study are:

- A Unit Book containing 10 Study Guides on Moodle.
- This Unit Guide outlining the administrative information for the unit.
- A unit web page on Moodle where lecture slides, weekly tutorial requirements, assignment specifications, sample solutions and supplementary material will be posted.
- Discussion forums on Moodle.

Prescribed text(s)

Limited copies of prescribed texts are available for you to borrow in the library.


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:

- Student Academic Integrity Policy and Student Academic Integrity: Managing Plagiarism and Collusion Procedures; http://www.policy.monash.edu/policy-bank/academic/education/conduct/student-academic-integrity-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/

Faculty resources and policies

Important student resources including Faculty policies are located at http://intranet.monash.edu.au/infotech/resources/students/

Graduate Attributes Policy

http://www.policy.monash.edu/policy-bank/academic/education/management/monash-graduate-attributes-policy.html

Student Charter


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 Malaysia 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 Malaysia, 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 Malaysia
- 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, Malaysia Campus