

Mainframe Systems 2 PG – 007863

Unit Outline 2009 Semester 2

Faculty of Information Sciences and Engineering

University of Canberra

*Australian Government Higher Education (CRICOS)
Registered Provider number: #00212K*

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This Unit Outline must be read in conjunction with:

- a) *Studying at the University of Canberra: A Guide to Policies and Procedures*, which sets out University-wide policies and procedures, including information on matters such as plagiarism, grade descriptors, moderation, feedback and deferred exams, and is available at <http://www.canberra.edu.au/student-services>
- b) *Guide to Student Services at the University of Canberra*, and is available at <http://www.canberra.edu.au/student-services>
- c) Any additional information specified in section 6f.

1: General Information

- 1a **Unit title:** Mainframe Systems 2 G
- 1b **Unit number:** 7863
- 1c **Semester and year offered:** Semester 2, 2009
- 1d **Credit point value:** 3 credit points
- 1e **Unit level:** G
- 1f **Name of Unit Convener and contact details (including telephone and email):**
Convener: Dr Kim Le, Ph: 6201-2425, email: Kim.Le@canberra.edu.au
- 1g **Name of Unit Moderator and contact details (including telephone and email)**
Paul Edmondson phone (0411) 671 682, e mail: Paul.Edmondson@canberra.edu.au
- 1h **Administrative contact details (including name, location, telephone and email)**
The Faculty Administrative Officers at 11B14, Ph: 6201-2153/6201-2417, email: ise@canberra.edu.au.

2: Academic Content

2a Unit description and learning outcomes

In this unit you will consider the management and optimisation of IT infrastructure in a corporate mainframe environment. This includes theoretical and practical aspects of systems administration, configuration management, system security and IT change management

Upon successful completion of this unit you will be able to describe and evaluate factors affecting resource requirements, and systems performance in a corporate IT

mainframe environment. You will be able to use and demonstrate the tools to analyse and manage the situation and propose configuration management procedures. You will have an overall ability to select, discuss and evaluate the available and appropriate tools of analysis including additional tools relevant to security management and project management. You will be able to give management presentations on these matters.

- 2b Prerequisites and/or co-requisites**
Prerequisite: Mainframe Systems 1G (7860)

3: Delivery of Unit and Timetable

- 3a Delivery mode**
This subject is delivered on campus with weekly lectures and tutorials/labs, as per UC timetable for the semester. The lectures are of theoretical nature, and the tutorials/labs, in addition to supplement the lectures, are more practical.

- 3b Schedule of topics/lectures/tutorials/practicals/field classes by week**

Week	Activity
	Note: this is a proposed schedule with informative value only
1	Introduction: ISPF review, Basic Rexx
2	z/OS System Logging and Logging management
3	z/OS Performance management and RMF (Resource Measurement Facility) monitor
4	RMF Exercises
5	Test 1, Material covered in weeks 1-3
6	RMF Exercises
7	z/OS Security (Assignment 1 Due)
8	<i>Class free period</i>
9	<i>Class free period</i>
10	z/OS Security Administration
11	z/OS Project Management.
12	z/OS Configuration Management. Test 2 Material covered in weeks 1-10.
13	Management Presentation
14	z/OS Change Management (Assignment 2 Due).
15	Summary

4: Unit Resources

- 4a Lists of required texts/readings**
<http://www.lbdsoftware.com/>
 Reading%20and%20Writing%20Data%20using%20REXX%20EXECIO.pdf
<http://www.kilowattsoftware.com/tutorial/rexx/>
<http://www.kyla.co.uk/other/rexx1.htm>

<http://www.rexxinfo.org/>
<http://publibfp.boulder.ibm.com/cgi-bin/bookmgr/BOOKS/ikj2a303/CCONTENTS>.
<http://www.ibm.com/developerworks/wikis/display/zosperfinstr/Controlling+SMF+Record+Production>
<http://www-03.ibm.com/servers/eserver/zseries/zos/rmf/product/>

No text book, however there is additional reference material held at the library and/or additional URLs which may be added to the list throughout the semester.

4b Materials and equipment

Computers: Building 11 labs, together with the mainframe 3270 emulator will be used for the unit. Possessing private personal computers and the relevant software will help, but is not essential.

4c Unit website

<http://learnonline.canberra.edu.au/course/view.php?id=3074> Access to the unit website is not a requirement.

5: Assessment

5a Assessment overview

Assessment Item (including exams held in the exam period)	Due Date of Assignments	Weighting (total to equal 100%)
Assignment 1: RMF analysis	Thursday Lab session, Week 7	25
Assignment 2: Analysis tool selection	Thursday Lab session, Week 14	25
Test 1: Material covered in weeks 1-3, closed book; permitted materials: 4 sides of A4 sized handwritten notes	Week 5 Lecture session	10
Test 2: Material covered in weeks 1-10, closed book; permitted materials: 4 sides of A4 sized handwritten notes	Week 12 Lecture session	10
Final Exam: 2 hours, closed book; permitted materials: 4 sides of A4 sized handwritten notes	University exam time	30

5b Details of each assessment item

The first assignment covers RMF usage and the second assignment covers evaluating analysis tools. The tests covers material presented in earlier lecturers and laboratory exercises, for test 1, weeks 1-3 and for test 2 weeks 1-10.

Late assignment submission will attract penalties. The penalty will be 3% per day including weekend days up to 100% of the maximal mark for the assignment.

At the lecturers discretion, the deadline for assignments may be extended. However, the assignments will be given well ahead of time and students are expected to allow for normal IT events such as instability in the IT environment when planning their time. Students who have extenuating circumstances such as sickness or family issues will be given special consideration.

5c **Special assessment requirements**

For final assessment in the subject, the result will be one of the following grades: HD, DI, CR, P, or Fail. The total mark is calculated by the following formula:

$$\begin{array}{rcl} \text{Total mark} = & \text{Assignment 1 mark} + & \text{(Maximum 25)} \\ & \text{Assignment 2 mark} + & \text{(Maximum 25)} \\ & \text{Test 1 mark} + & \text{(Maximum 10)} \\ & \text{Test 2 mark} + & \text{(Maximum 10)} \\ & \text{Examination mark} & \text{(Maximum 30)} \end{array}$$

The maximum possible marks for each assessment item is given above. When added the marks will yield a result out of a maximum total mark of 100.

The grade for the subject is then determined according to the following algorithm:

Total mark \geq 85 and examination mark exceeds 24	HD
Total mark is 65 to 75 and examination mark exceeds 20	DI
Total mark is 50 to 65 and examination mark exceeds 18	CR
Total mark is 50 or greater and examination mark exceeds 12	P
The rest	FAIL (NX, NS, NC or NN)

Note that the assessment items are assigned marks and not percentages. The assessment is conducted exclusively in terms of marks.

5d **Supplementary assessment**

Not available for this unit

5e **Text-matching software**

Not in use; however, the lecturer reserves the right to ask a student to attend extra oral defence to his/her assignment. Should it happen, the mark for the assignment will be based on the oral performance.

6: Student Responsibility

6a **Workload**

The amount of time you will need to spend on study in this Unit will depend on a number of factors including your prior knowledge, learning skill level and learning style. Nevertheless, in planning your time commitments you should note that for a 3cp Unit the total notional workload over the fifteen week semester is assumed to be 150 hours or an average of 10 hours per week. These hours include time spent in classes.

The total workload for Units of different credit point value should vary proportionally. For example, for a 6cp Unit the total notional workload over a fifteen week semester is assumed to be 300 hours or an average of 20 hours per week.

6b Special needs

Students who need assistance in undertaking the unit because of disability or other circumstances should inform their Unit Convener or the Disabilities Office as soon as possible so the necessary arrangements can be made.

6c Attendance requirements

There will be no roll calls for lectures; however, students are encouraged to make every attempt to attend all scheduled teaching activities. Failing to do so may result in poor understanding and failure of the unit.

6d Required IT skills

Specialist IT skills are required such as the ability to log into the mainframe and use the ISPF edit program and write JCL are required. All these skills are expected to be at the levels required at the completion of Mainframe Systems 1G.

General IT skills such as the ability to use and search the internet for reference material is required.

6e Costs

Web access, and consumables.

6f Additional information

Reference material will be obtained by over the internet. URLs will be provided and students are expected to refer to the URLs using out of lecture time. Assignments will be prepared using the REXX language for which sufficient information is provided on the internet. The lecturer may augment the internet information with printed material from time to time.

7: Student Feedback

All students enrolled in this Unit will have an opportunity to provide anonymous feedback on the Unit at the end of the Semester via the Unit Satisfaction Survey which will be presented to you on OSIS. Your lecturer or tutor may also invite you to provide feedback on their teaching through an anonymous in-class questionnaire administered through the University's Teaching and Learning Centre (TLC).

8: Authority of this Unit Outline
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Any change to the information contained in Section 2 (Academic content), Section 3 (Delivery of Unit and timetable) and Section 5 (Assessment) of this document, will only be made by the Unit Convener if the written agreement of staff and a majority of students has been obtained; and if written advice of the change is then forwarded to each student enrolled in the Unit at their registered term address. Any individual student who believes him/herself to be disadvantaged by a change is encouraged to discuss the matter with the Unit Convener.