

MA1506 Mathematics II

2010/2011 Semester 2

Instructions for Lab Component/Assignment

The lab component for the module will consist of three self-study sessions and one assignment which will count towards 5% of your final grade.

Aim:

Students are expected to learn basic skills in one of the following scientific computation software: **MATLAB** or **scilab**, and make use of the software to graph and solve mathematical problems involving differential equations and linear algebra.

Deadline for submission of Lab Assignment:

- 1 pm Tuesday 22nd March 2011

Lab Sessions:

- There will be three lab worksheets altogether
- Students are to download the worksheets from IVLE Workbin
- Students are expected to work on the worksheets during their free time
- **MATLAB** is installed in S17-#03-03. Students may access these two labs during office hours for their practice
- **scilab** will be available for download from the Workbin
- The lab exercises are meant to complement the lectures. For maximum learning students are recommended to work on the worksheets according to the following schedule.

Schedule:

Week 3	Worksheet 1
Week 5	Worksheet 2
Weeks 6 - 9	Weekly Clinic sessions
Term Break	Worksheet 3
22 nd Feb 2011	Assignment worksheet available
22 nd Mar 2011	Deadline for assignment submission

1506 Lab Clinics:

- Graduate tutors will hold clinic sessions to help students in case they have difficulties in the lab.
- These are walk-in sessions, no appointments are necessary
- Check this link for latest update: <http://ww1.math.nus.edu.sg/clinic-lab.htm>
- Timings: Weeks 6, 7, 8 and 9 (Exclude term break)
 - Mondays 1100 - 1200
 - Tuesdays 1300 - 1400
 - Wednesday 1500 - 1600
 - Thursday 1600 - 1700
 - Friday 1000 - 1100
- Venue of clinic session: S17 #03-03

FAQ:

- Why are there no formal lessons on how to use the software?

It is critical for undergraduates to be able to learn new skills on their own in order to adapt well to the working world. Past experience has shown that the skills/knowledge required for the lab component can be acquired through self learning from the worksheets and assignments. Introduction videos will be provided to initiate the self-learning process and clinic sessions will be provided for students who need more help.

- Why are there two softwares **MATLAB** and **scilab**?

MATLAB is a licensed software and students need to use the terminals in the lab in order to utilise the software, whereas **scilab** is freeware and students can download it into their own computer or notebook.

- Should I choose to use **MATLAB** or **scilab**?

You can choose either, but we advise you to use **scilab** since you can access it at your convenience from your own computer/notebook.

- Why are there two sets of worksheets?

There are some differences in the commands for **MATLAB** and **scilab**, otherwise, the worksheets and the exercises inside are identical. You only need to work on one set.

- Would there be a difference in grades for students choosing to use **MATLAB** compared to students who use **scilab**?

No.

- Can I use any other software other than **MATLAB** and **scilab**?

No. The lab worksheets and assignment are based on these two software.

- Can I use other versions of **MATLAB** or **scilab**?

Try to use **MATLAB** v6.5 or **scilab** 4.1.2. Worksheets, assignments and solutions were created using these two versions. Different versions may give different results.

- **scilab 4.1.2** is not the latest version, is it compatible with vista/windows 7/Linux/OS X/Tiger/Leopard/HelloKitty?

I have tested scilab 4.1.2 on XP and vista and it seemed to work fine. If you are unable to get scilab to work on your own computer, please use the terminals in our lab S17-#03-03.

- I am reading/have passed IT1005, can I be exempted from the lab assignment?

No, the aim is to teach you to use the software to solve mathematical problems. What is covered in our sessions may or may not overlap with what is taught in IT1005.

- Do students who have read/passed IT1005 have an unfair advantage in the lab assignment?

No. They might have an advantage since they already know some of the commands but it does not mean they will perform better in the assignment. Likewise, students from polytechnics would have an advantage in MA1506 since they have already learnt Laplace transform. Students from some JCs would have advantage since they have learnt differential equations. Similarly, students with a higher IQ also have an advantage, as do students who simply spend more time studying.

- Where can I get help for the worksheet and/or assignment?

You may discuss with your classmates or attend one of the clinic sessions.

- How do I submit the assignment?

Instructions will be given in the assignment worksheet.

- Can I submit the assignment early?

Yes. The name of your designated grader will be made known to you and you can arrange to submit the assignment any time before the deadline.

- Can I submit my assignment to my lecturer or tutor?

No. You should only submit it to your designated grader.

- Must the assignment be typed?

We definitely prefer typed assignments, but handwritten assignments are reluctantly accepted. But in either case you must use the software to produce the required printouts.

- Must I submit coloured printouts?

Black and white printouts are perfectly acceptable as long as you label your graphs accurately.

- Can I submit the assignment in softcopy?

No. Since we allow handwritten assignments, we accept only hardcopies for ease of handling.

- [... I was sick, my computer broke down, I left my assignment at home, I have tests and assignments of other modules ...], can I submit the assignment later?

No. You were given one month to submit the work, assignments received after the deadline will not be graded. Your case will be considered only if you had LOA or MC that spans the whole of 22nd Feb to 22nd Mar 2011.

Any other queries pertaining to the labs should be addressed to:
Dr Toh Pee Choon
mattpc@nus.edu.sg