

Introduction to Numerical Methods (CM) Syllabus

Course Schedule

Lecture: Thursday, 9:00 - 10:30, V15 S04 C57 (CM Room)

Exercise Session: Thursday, 10:45 - 12:15, V15 S04 C57 (CM Room)

Homepage and Office Hour

The homepage for this course is

http://www.uni-due.de/numerik/fischle_teaching.html

I have an official office hour: Tuesday, 10:00 - 12:00. My office is located in the mathematics department (T03R03D48). If you have questions regarding this course, please send me an e-mail to andreas.fischle@uni-due.de, or visit me in my office (preferably during my office hour).

MATLAB – License and Installation

The programming exercises have to be solved using Matlab. You are eligible for a free student license. Further information can be found here:

http://www.uni-due.de/zim/services/software/matlab_stud.shtml

If you have problems obtaining or installing Matlab (the instructions are in german) just ask your german fellow students.

Matlab provides very good and extensive documentation. You are supposed to learn how to use the provided documentation during the course. The official "Users Guide", examples and demos can be found here:

<http://www.mathworks.com/help/techdoc/>

Homework

Every week on Thursday, a new set of homeworks will be published on the homepage of this course electronically. Depending on the size of the homework

assignment, it will be due the next week or in two weeks (Thursday, 13:00 the latest). The due date will be marked on the homework sheet. Your corrected homework will be returned to you during the following exercise session one week later. We will then discuss the solutions together on the board.

How to hand in your programming exercises

Matlab code is stored in so-called .m-files which you can edit in Matlab. Please, always:

- Use at least one .m-file with a reasonable name for every programming exercise, e.g. `ex1.m`, `ex2.m`.
- **Check** that your .m-files are actually executable in Matlab, i.e., run them.

To actually turn in your programming work, please:

- **Turn in a printout of your program code for correction.**
- Send your code, i.e., your .m-files to `inm.uebung@uni-due.de` (Ideally, combined in a single .zip file).
- Use a subject of the form: Name, Homework XX.

Note: In order to document the correctness of your program it is sometimes helpful to produce a so-called “diary” with the matlab function `diary`.

Sometimes there are theoretical parts to be answered in a programming exercise as well. In this case the answers have to be handed in on a separate sheet of paper together with your answers of the theory part.

Theoretical Exercises

To turn in your worked out theory exercises, please:

- Write every exercise on a separate page.
- Write your name and your student id-number on the first page.
- Write your name on every page.
- (Don't forget the printout of your program code)

I will collect your homework during the exercise session. You can also drop it in a box right beside the Dekanat of the mathematics department (T03R03).

If you worked in collaboration with another student please write the name of this student on your exercise sheet as well.

Final Exam

In order to be admitted to the final exam, you have to pass the credit criteria for this course (cf. the homepage).

The final exam will consist of manual calculations, e.g., applying a few steps of a numerical algorithm by hand and some theoretical questions. If you do your homework well, you should also do well in the exam ;)

You will not have to write a program on paper in the final exam.

We hope that you will enjoy learning some quite useful numerical mathematics and wish you much success!