CS 225 – Data Structures

ZJUI – Spring 2022

Lecture 0: Administrative Matters

Klaus-Dieter Schewe

ZJU–UIUC Institute, Zhejiang University

International Campus, Haining, UIUC Building, B404

email: kd.schewe@intl.zju.edu.cn

Administrative Matters

Course Instructor: **Klaus-Dieter Schewe**, email: kd.schewe@intl.zju.edu.cn

Teaching Assistants:

Li Jingshu
email: jingshu.18@intl.zju.edu.cn

He Shilan
email: shilan.18@intl.zju.edu.cn

Lian Xinyu
email: xinyul.18@intl.zju.edu.cn

Yuan Xinkai
email: xinkai.18@intl.zju.edu.cn

Zhang Linghao
email: linghao.18@intl.zju.edu.cn

Jiang Fengqing
email: fengqing.18@intl.zju.edu.cn

Chen Yize
email: yize.18@intl.zju.edu.cn

Xiong Neng
email: neng.18@intl.zju.edu.cn

Zhou Qinren
email: qinren.18@intl.zju.edu.cn

All course information will be available in Blackboard

Weekly Timetable

Throughout the semester all lectures will be given online

Lectures:

Mon, 16:00-17:00, online via zoom
Wed, 15:00-16:50, online via zoom

The zoom link is available in Blackboard

Group Work:

For labs/presentations/homework you need to form (by **Thursday, Feb. 17**) small groups of 3-4 students

Each group will be assigned to two teaching assistants supervising one lab group

Labs

Labs are held on campus except for international students who cannot be on campus

Labs: Mon, 18:00-19:50 c.t., in four tracks:

Track A (Fengqing Jiang / Shilan He): LTN-A-308 – groups A*i*

Track B (Xinkai Yuan / Li Jingshu): LTN-A-221 – groups B*i*

Track C (Qinren Zhou / Lian Xinyu): LTN-A-222 – groups C*i*

Track D (Neng Xiong / Zhang Linghao): LTN-A-304 – groups D*i*

Track I (Yize Chen): online – groups I*i*

In each lab session a randomly selected group will be asked to explain their homework solution (programming exercise); this is part of the homework assessment

Textbooks

There is no set textbook, but the following textbooks are helpful for most aspects of the course:

- A. Drozdek: *Algorithms and Data Structures in C++*. 4th Edition. Cengage Learning, ISBN: 978-1-133-60842-4, 2013.

- K. Mehlhorn and P. Sanders: *Data Structures and Algorithms*. Springer-Verlag, ISBN: 978-3-642-09682-2 and 978-3-540-77978-0, 2008.

  For this book there exist versions in *Chinese*, German, Japanese and Greek

Free versions of the textbooks are made available via Blackboard

Course Outline

The course will deal with: Abstract Data Types, Sequence Structures, Heaps and Priority Queues, Hashing, Tree Data Structures, Relations and Index Data Structures, Graph Data Structures, and associated algorithms

You find details of the planned schedule in the course syllabus

- Usually, the first hour of each lab is dedicated to the implementation of data structures handled in the lectures
- The second hour is dedicated to exercises to deepen the understanding

The emphasis of he labs is to intensify the lecture material using examples and implementations using **C++**

The last two labs/discussions of the semester (May 16, May 23) are dedicated to presentations: each small group is to give a **final presentation and demonstration** of their implementation (associated with the programming assignments) of approximately 25 minutes duration

Examination Regulations

Assignments: Homework assignments are placed on BB on Fridays and must be handed in one week later. All assignments are group assignments.

Computing Assignments: In addition, there will be two computing assignments

Computing assignments are placed on BB at least three weeks before the scheduled deadlines

Final Score: The final score is based on

homework assignments: 30%
computing assignments: 30% (15% each)
final presentation: 5%
midterm: 10% each (1 midterm exam, open book, computer-based)
final exam: 25% – open book, computer-based exam

Exam Dates: Exam dates will be announced in due course.