

Introduction to Computer Science for Engineers

Winter 2022/23

Who we are and how to contact us



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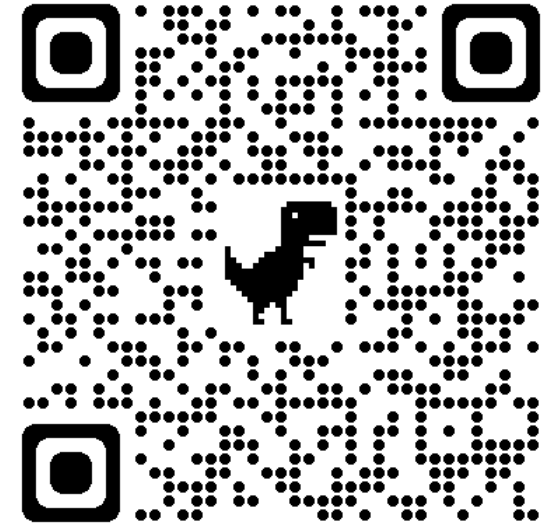
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- Lectures

	Summer	Winter
Bachelor	<ul style="list-style-type: none"><i>Programming Paradigms</i><i>Algorithms and Data Structures (E)</i>	<ul style="list-style-type: none"><i>Introduction to Computer Science (E)</i>
Master	<ul style="list-style-type: none"><i>Introduction to Software Engineering for Engineers</i>	<ul style="list-style-type: none"><i>Introduction to Computer Science for Engineers</i>

- Interactive Voting Tool
„Poll Everywhere“
- You can use your mobile
phone or laptop
 - Either in a browser or
download the app



<https://pollev.com/christianbraune537>

- 6 CP (180h workload) (DE students)
 - 10-12 lectures
 - 10-12 exercises (mandatory!)
- 10 CP (300h workload) (ORBA only!)
 - Same amount of lectures/exercises
- 5 CP (150h workload) (SEM only!)
 - Same amount of lectures/exercises
- Lecture Time
 - Thursday, 8:15 – 10:45
- E-Learning System
 - Lecture and Exercise Registration **solely** via

<https://icse.cs.ovgu.de/>

- Exercises
 - Upon sign up you have to choose an exercise group
 - You can only present your solutions during that time slot
- Tutors: Christian & Thomas
- How do exercises work?
 - Prepare/Solve tasks at home
 - Submit solutions and present during your exercise

- Exercise sheets are published each Monday*
 - Start: Monday 8:00
 - End: Sunday 23:00 (+15 minutes)
- First exercise sheet has already been published and is due this Sunday
 - Exercise 0 – don't worry. It's only to get acquainted with the elearning systems.
- First (real) exercise sheet will be published on Monday, October 17th

* conditions apply

- Your solutions do not have to be perfectly correct but should rather show that you worked on the given task with a constructive and productive approach
- With submitting a solution you also declare that you are able and willing to present and explain your solution in front of your exercise class
- If you fail to present your solution, it will not count as submitted
 - Possible reasons for failing to present a solution are (not limited to) e.g. absence from or being late to an exercise, failure oder unwillingness to present or discuss your solution
- Plagiarism is prohibited!

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- What counts as plagiarism? E.g.:
 - Submitting exactly the same solution as someone else
 - Submitting solutions copied from web resources (e.g. stack overflow, geeksforgeeks, etc.)
 - Taking someone else's solution, renaming some parts of the code, changing its order, etc.
 - ...
- **Basically everything where you did not solve the task yourself or handed in someone else's intellectual property (even if they agreed to that)!**

- Course concluded with a 120min written exam
- To be admitted to the exam you have to
 1. (successfully) submit **at least two thirds** of the exercise tasks
 2. Present **at least twice** during the exercises
- Old exam admissions are still valid,

BUT: This year we start with a different programming language!

- Python Interpreter
 - Download from here: <https://www.python.org/downloads/>
 - We will use version 3.10 on our server, any version 3.10.X should be fine
- A text editor
 - You either have to submit source code or markdown files
 - Both a basically pure text file. Any text editor will suffice
- Want a better text editor for source code and markdown?
 - Use either [Visual Studio Code](#) or [PyCharm](#)
 - Both a free of charge of OvGU students

Elements of Programming	Fundamental Algorithms	Data Structures	Tree Structures	Graph Structures
<i>Variables and Data Types</i>	<i>Searching</i>	<i>OOP</i>	<i>Binary Trees</i>	<i>Graphs</i>
<i>Control Structures</i>	<i>Sorting</i>	<i>Stack / Queue</i>	<i>Binary Search Trees</i>	<i>Traversal</i>
<i>Input/Output</i>		<i>Symbol Tables</i>	<i>Balanced Search Trees</i>	<i>Special Algorithms</i>
<i>Functions</i>				
Applications				

Schedule

week	Lecture	Published Exercise	Exercise Presentation
41	Orga + Elements I	sh.0	
42	Elements II	sh.1	sh.0
43	Algorithms I	sh.2	sh.1
44	Algorithms II	sh.3	sh.2
45	Algorithms III	sh.4	sh.3
46	Data Structures I	sh.5	sh.4
47	Data Structures II	sh.6	sh.5
48	Trees I	sh.7	sh.6
49	Trees II	sh.8	sh.7
50	Graphs I	sh.9	sh.8
2	Graphs II	sh.10	sh.9
3	OOP	sh.11	sh.10
4	Advanced Techniques	sh.12	sh.11
54			sh.12

➔ Schedule subject to change!