

Programming Essentials

Subject area: Computer Science/ICT

University: CTU
Level: BA1, BA2
Teaching mode: hybrid: some students participate online, other students attend real-life
Instructor(s): Tomáš Jeníček

Short description

The course focuses on understanding and mastering basic design principles of algorithms. It develops data abstraction coupled with the essential programming patterns. The emphasis is on creating readable and reusable programs.

Full description

<https://fel.cvut.cz/en/education/bk/predmety/43/55/p4355706.html>

<https://cw.fel.cvut.cz/wiki/courses/be5b33prg/start>

Learning outcomes

Understanding and active usage of basic data structures and collections (lists, dictionaries, sets); confidence in using program control structures (conditions, loops); working with file system; basics of object-oriented programming.

General information

Contact hours per week: 2 hours synchronous lectures + 2 hours synchronous seminars

Total workload: 150 (in student hours for the whole course)

ECTS credits: 6

Language: English

Course start date: 19 September 2022

Course end date: 15 January 2023

Add. info about start date: Start course date refers to start of the semester at CTU. Schedules will be available 1-2 weeks before semester starts. Lectures are taken place from 19.9.2022 until 15.1.2023. Examination period from 16.1.2023 until 19.2.2023.

Weekly teaching day/time:

Time zone: CET (Denmark, Germany, France, Netherlands, Switzerland, Czech Republic)

Further information: Lecture recordings will be available

Prerequisites: none

Activities and methods: Lectures, Self-study, Exercises, Tutorial sessions

Presence on campus:

Final examination

Form: Written and oral exam, assignment

Date:

Location/format:

Re-sit possibility:

Transcript available: end of semester

Add. info/requirements:

Registration

To register for this course, follow the registration requirements of your **home university** as specified here: www.euroteq.eu/courses-registration.

Administration

Number of places: 10

Minimum participants: The course will be opened in any case

Internal course code: BE5B33PRG

Contact: jenicto2@fel.cvut.cz

This course is part of the EuroTeQ Engineering University joint course catalogue 2022/2023. This is a collaborative activity of the partner universities DTU, L'X, TU/e, TalTech, CTU, TUM as well as Technion. Students from these universities can participate in the offered courses. It is the responsibility of the student to check if you fulfil the requirements to participate in a specific course. Students are also advised to check with their home institution how to get recognition of the ECTS credits gained in courses of the EuroTeQ course catalogue. For further information about EuroTeQ Engineering University, visit www.euroteq.eu or get in touch with the above-mentioned point of contact.