Programming Paradigms

Subject area: Computer Science/ICT

University:	CTU
Level:	BA all years
Teaching mode:	Materials are online – asynchronous with optional consultations within specific office hours.
Instructor(s):	Ing. Petr Máj, Bc. Jan Sliacky

Short description

The course deals with basic paradigms of high-level programming languages, including their basic execution models, benefits, and limitations of particular approaches. Functional programming paradigm and its basic principles are explained in details. Logic programming is introduced as another way of declarative programming. The principles are demonstrated on lambda calculus and on Lisp (Racket) and Prolog programming languages.

Full description

https://bk.fit.cvut.cz/cz/predmety/00/00/00/00/00/00/06/70/65/p6706506.html

Learning outcomes

Students learn basic programming paradigms as ways of describing algorithms, understand their benefits and drawbacks and will gain experience in when to apply them across programming languages.

General information

Contact hours per week:	1 lecture + 1 seminar
Total workload:	125 (in student hours for the whole course)
ECTS credits:	5
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:	
Prerequisites:	Basic knowledge of imperative programming.
Activities and methods:	Lectures, Seminars
Presence on campus:	

Final examination

Form:	written and oral exam
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:	-
Minimum participants:	-
Internal course code:	BIE-PPA
Contact:	majpetr@fit.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.