Department of Computer and Systems Sciences



Syllabus

for course at advanced level

Parallel and distributed programming Parallell och distribuerad programmering 7.5 Higher Education Credits 7.5 ECTS credits

 Course code:
 IB912C

 Valid from:
 Spring 2023

 Date of approval:
 2010-10-21

 Changed:
 2022-11-25

Department Department of Computer and Systems Sciences

Main field: Computer and Systems Sciences

Specialisation: G2F - First cycle, has at least 60 credits in first-cycle course/s as entry

requirements

Decision

This syllabus was approved by the Head of the Department 2010-10-21. This syllabus was latest updated 2022-11-25.

Prerequisites and special admittance requirements

22,5 credits in programming.

Course structure

Examination code	Name	Higher Education Credits
PDPI	Parallel and Distributed Programming, Assignments	5
PDPT	Parallel and Distributed Programming, written exam	2.5

Course content

The course presents programming language constructs for creating parallel and distributed programs.

You will learn to construct parallel and distributed programs in one or more appropriate languages and explain basic concepts and models within parallel and distributed programming.

Learning outcomes

After completing and passing the course, the student should be able to:

- -construct parallel and distributed programs in appropriate programming languages,
- -explain basic concepts, models, problems and solutions within parallel and distributed programming, using terminology relevant to the subject.

Education

The teaching consists of lectures and supervision.

The teaching is in English.

Forms of examination

a. The course is examined through assignments and a written examination.

The assignments must be completed and submitted by the deadlines listed in the course schedule. A missed or

incomplete assignment can be re-submitted at a scheduled time window. Alternatively, the student will have to follow the schedule of next instance of the course.

- b. The final grading of the course is based on the following grading scale related to the learning outcomes of the course: A = Excellent, B = Very Good, C = Good, D = Satisfactory, E = Sufficient, Fx = Fail, F = Fail.
- c. The grading criteria are communicated to the students at the start of the course.
- d. In order to complete the whole course segment the student must obtain at least grade E (or P with Pass/Fail grades) in all course components/examinations.

If there are multiple examinations with grading A to F, the average of the grades is calculated by converting letters into numbers in the following way: A = 4, B = 3, C = 2, D = 1, E = 0. The average is calculated relatively to the number of credits of the various components/examinations and the number of credits of the course. The final grade of the course is thus a weighted average of the course components/examinations. If the average is in between two grades, 2/3 parts of the higher grade are required in order to round up the average.

- e. In addition the following regulations also apply:
- Students who obtain grade Fx in a written examination task are allowed to complete a supplementary assignment in order to elevate the grade to E.

The examiner informs the concerned students when the results of the written examination are published. The supplementary assignment has to be submitted within a given deadline and can only be utilized to elevate the grade of the actual examination task.

- Students who obtained grade E in an examination task are not allowed to re-write the examination or resubmit the assignment in order to obtain a higher grade.
- Students who have failed the same examination task twice are allowed to have another examiner appointed, unless there are special reasons to the contrary.

Interim

When a course is discontinued, or its contents are substantially altered, the following applies:

- Failed examination tasks are replaced with other similar examination tasks according to a specific plan.
- If no similar examination tasks can be provided, at least three examination opportunities per examination task should be offered during a period of at least three terms from the date of the decision. After this period, no examinations should be carried out on the course.

Limitations

This course may not be included in a degree together with a course, taken in Sweden or elsewhere, of identical or partially similar content.

Required reading

Information about course literature is available on the department's website - www.dsv.su.se - at least two months before the start of the course.