Assessment Criteria DT136G Programmering av Distribuerade System/ Programming of Distributed Systems - HT2022

Part I: Seminars (Fail/Pass)

In order to **pass** the seminar part of the course the student has to:

1. regularly participate in the group work exercises
2. demonstrate the ability to speak about the encountered distributed systems related problems in front of the class presenting group work results
3. contribute to the discussion of presented problems and solutions

Part II: Theory (F/E/D/C/B/A)

To pass the final exam with **grade E or D**, the student must score at least 50% (resp. 60% for D) of the correct answers in the exam and thereby demonstrate the ability to:

1. explain the main problems encountered distributed systems and their possible solutions,
2. analyse and decompose a given distributed problem by defining architecture and messages in a distributed system,
3. describe the differences of synchronous/asynchronous communication and algorithms,
4. show a general understanding of algorithms to synchronise and coordinate nodes in a distributed system,
5. show basic understanding of issues with consistency and fault tolerance in distributed systems,
6. identify security issues in distributed systems.

To achieve **grade C or B**, the student must score at least 70% (resp. 80% for B) of the correct answers in the exam. Thereto it will be necessary to demonstrate the following abilities:

7. describe the advantages and disadvantages of architectures and communication models,
8. analyse the behaviour of distributed algorithms,
9. handle different kind of failures in distributed systems.

For the highest of **grade A**, students will have to score at least 90% of the correct answers in the exam. To do so it will be required to demonstrate the ability to:

10. reason about distributed systems architectures and communication models for in different problem contexts,
11. achieve a desired failure semantic in a given communication model,
12. analyse the complexity of distributed algorithms,
13. show broad knowledge and understanding about typical algorithms in distributed systems.