Faculty of Arts and Social Sciences
Information Systems

# Syllabus

## Rules-as-Code applications

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| **Course Code:** | ISAD20 |
| **Course Title:** | Rules-as-Code applications |
| | *Rules-as-Code-applikationer* |
| **Credits:** | 7.5 |
| **Degree Level:** | Master's level |
| **Progressive Specialisation:** | Second cycle, has only first-cycle course/s as entry requirements (A1N) |

**Major Field of Study:**
IKA (Information Systems)

**Course Approval**
The syllabus was approved by the Faculty of Arts and Social Sciences 2025-09-05, and is valid from the Spring semester 2026 at Karlstad University.

**Prerequisites**
A degree of Bachelor, 180 ECTS credits, in one of the main fields of study Information Systems, Computer Science, Business Administration, or Working Life Science, or a degree project of at least 15 ECTS credits at the G2E level in one of these fields, and upper secondary level English 6 or English level 2, or equivalent

**Learning Outcomes**
Upon completion of the course, students should be able to:
1. give an account of the concept Rules-as-Code (RaC),
2. demonstrate basic knowledge of legal problems and challenges that may arise when authorities use RaC transformers,
3. describe the development, use, and evaluation of an RaC environment,
4. identify, analyse, solve, and document common design problems in the development of RaC, and

5. apply a development methodology specifically designed for developing e-services based on RaC results.

**Content**
The course treats the ambition in public administration to automate the handling of routine matters. There is a special focus on discussing the risk that the codification of rules that is done when decision-making processes are automated will result in a subtle reinterpretation of the rules. Rules-as-Code means that rules are expressed in forms that are readable for machines and humans alike. The course covers how rules are written in machine-readable form so that the reinterpretation to programming code for computers will not entail reinterpretation of the intentions behind the rules.

A large part of the course comprises practical exercises in which different problems related to the coding of rules are presented, analysed, and handled. An important component is discussions with guest lecturers and legal practitioners about automated decision-making and the specific solution offered by Rules-as-Code. This technology is being tested by authorities around the world, and guest lecturers from Swedish authorities contribute examples and workshops in the course.

Instruction is in the form of lectures, workshops, laboratory sessions, and presentation seminars.

**Reading List**
See separate document.

**Examination**
Learning outcomes are assessed based on laboratory work presented both in writing and orally in groups, and on an individual oral presentation. Submissions for assessment must clearly indicate individual contributions.

If students have a decision from Karlstad University entitling them to Targeted Study Support due to a documented disability, the examiner has the right to give such students an adapted examination or to examine them in a different manner.

**Grades**
One of the grades Distinction (VG), Pass (G), or Fail (U) is awarded in the examination of the course.

**Quality Assurance**
Follow-up relating to learning conditions and goal-fulfilment takes place both during and upon completion of the course in order to ensure continuous improvement. Course evaluation is partly based on student views and experiences obtained in accordance with current regulations and partly on other data and documentation. Students will be informed of the result of the evaluation and of any measures to be taken.

**Course Certificate**
A course certificate will be provided upon request.

**Additional information**
The local regulations for studies at the Bachelor and Master levels at Karlstad University stipulate the obligations and rights of students and staff.