



**Karolinska  
Institutet**

Course syllabus for

# **Standardisation within Health Informatics, 5 credits**

Standardisering inom hälsoinformatik, 5 hp

This course syllabus is valid from autumn 2024.

Please note that the course syllabus is available in the following versions:

Spring2019 , Autumn2024

Course code	9HI020
Course name	Standardisation within Health Informatics
Credits	5 credits
Form of Education	Contract education (credits)
Main field of study	Health Informatics
Level	AV - Second cycle
Grading scale	Excellent, Very good, Good, Satisfactory, Sufficient, Fail, Fail
Department	Department of Learning, Informatics, Management and Ethics
Decided by	Education committee LIME
Decision date	2018-10-03
Revised by	Education committee LIME
Last revision	2024-04-25
Course syllabus valid from	Autumn 2024

## **Specific entry requirements**

A Bachelor's degree or a professional degree equivalent to a Swedish Bachelor's degree of at least 180 credits in healthcare, biomedicine, medical technology, computer and systems sciences, informatics or the equivalent. And proficiency in English equivalent to English B/English 6 (with at least the grade Pass) is required.

## **Objectives**

The general aims of the course are to enable students to acquire knowledge and skills to choose, analyse and apply different health informatics standards to store, retrieve, represent and exchange data between different health information systems.

On completion of the course, the students should be able to:

## Knowledge and understanding

- account for the importance of health informatics standards and terminologies for management of patient information,
- account for different ways to use controlled terminology for care documentation,
- account for different ways to use health informatics standards to achieve interoperability between health information systems, and
- explain methods to represent medical knowledge in form of standardised models.

## Skills and ability

- analyse and apply different standards to represent and exchange information between different health information systems,
- chose and apply techniques to model clinical knowledge, and
- evaluate possible fields for standardisation and possible choices of standards.

## Assessment ability and attitudes

- assess the possible impact of health informatics standardisation on the efficiency, effectiveness and quality of care, and
- reflect on the use of health informatics standards in different countries.

## Content

- National and international standardisation organisations and initiatives
- Different levels of interoperability
- Overview over health informatics standards, coding systems, terminologies and ontologies, e.g. HL7 series of standards, OpenEHR, SNOMED CT, Continua
- Models for clinical knowledge representation

## Teaching methods

Lectures, seminars and computer laboratory sessions.

## Examination

Examination is based on group assignments as well as on an individual digital written examination at distance. Group assignments will be graded pass/fail and the individual digital written examination at distance will be graded with A-F. Final grading is done when all mandatory parts of the examination are performed.

### *Compulsory participation*

The course includes mandatory sessions marked in the course schedule. The examiner assesses if and, in that case, how absence from participation in the group activity and compulsory parts can be compensated. Before the student has participated in all compulsory parts or compensated absence in accordance with the examiner's instructions, the student's results for the course will not be registered. Absence from a compulsory part may result in the student having to wait to compensate until the next time the course is given.

### *Limitation of number of occasions to write the exam*

The number of occasions to write the exam is regulated in the contract for executive education. The number of times that the student has participated in one and the same examination is regarded as an

examination session. Submission of a blank examination is regarded as an examination. An examination for which the student registered but not participated in will not be counted as an examination. Delayed submission affects the possibility to receive a higher grade than C.

## Transitional provisions

The course is an executive education and transitional provisions are regulated in the contract.

## Other directives

Course evaluation will be carried out in accordance with the guidelines established by the Committee for Higher Education.

The course language is English.

## Literature and other teaching aids

*Benson, Tim. author.*

**Principles of Health Interoperability [electronic resource] : FHIR, HL7 and SNOMED CT / by Tim Benson, Grahame Grieve**

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ISBN:9783030568832 LIBRIS-ID:s52mmlsmqtzgz5gv

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**Clinical decision support and beyond : progress and opportunities in knowledge-enhanced health and healthcare**

*Greenes, Robert A.; Del Fiol, Guilherme*

Third edition. : Amsterdam : Academic Press, 2023 - 1000 pages

ISBN:9780323912006 LIBRIS-ID:6psl8f3q47nrnclb

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