



**Karolinska  
Institutet**

Course syllabus for

# **Computerized tomography, 30 credits**

Datortomografi, 30 hp

This course syllabus is valid from autumn 2023.

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

Autumn2010 , Autumn2011 , Autumn2014 , Spring2015 , Autumn2023 , Autumn2024

Course code	2QA141
Course name	Computerized tomography
Credits	30 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Radiography
Level	Second cycle, has only first-cycle course/s as entry requirements
Grading scale	Pass, Fail
Department	Department of Clinical Science, Intervention and Technology
Decided by	Styrelsen för utbildning
Decision date	2010-02-19
Revised by	Education committee CLINTEC
Last revision	2023-03-13
Course syllabus valid from	Autumn 2023

## **Specific entry requirements**

A minimum of 120 credits including a Degree of Bachelor of Science in Diagnostic Radiology Nursing. And proficiency in Swedish and English equivalent to Swedish B/Swedish 3 and English A/English 6.

## **Objectives**

## **Content**

The course is divided in three parts.

### **Technology and physical principles, 10.5 hp**

Grading scale: GU

### **Pathology and research methodology, 12.0 hp**

Grading scale: GU

## Literature review, 7.5 hp

Grading scale: GU

## Teaching methods

The course includes lectures, laboratory sessions and demonstrations and independent written examination tasks.

The course also contains field studies (in part 1 and 2) that be planned in consultation with responsible teacher. Laboratory sessions, demonstrations and field studies are compulsory parts. In consultation with the examiner of the course, the student can receive complementary assignment in case of absence from compulsory parts.

## Examination

Part 1 is examined through independent written examination and participation in workshops.

Part 2 is examined through independent written examination, the exam is in two parts, one in the fall semester and one in the spring semester. Both exams must be passed to be approved for the course. Study assignments and VIL must also be completed in order to be approved for the course.

Part 3 is examined through written compilation and oral presentation.

For a Pass grade in the course is required participation in workshops, VIL, study assignments, seminars and individual assignment and passed independent written examination.

A student who has failed in the regular examination, is entitled to participate in five more examinations. If the student has failed six examinations/tests, no more examination is offered. 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 regarded as an examination.

## Transitional provisions

Examination will be provided during a period of two years after a close-down of the course.

Examination may take place under a previous reading list during a period of one year after the date of the renewal of the reading list.

## Other directives

Course evaluation will be carried out in accordance with the guidelines established by the Board of Education at Karolinska Institutet.

Language of instruction: Swedish.

## Literature and other teaching aids

### Technology and physical principles

*Seeram, Euclid*

**Computed tomography : physical principles, patient care, clinical applications, and quality control.**

Fifth ed. : St. Louis, Miss. : 2022 - 536 pages

ISBN:0323790631 LIBRIS-ID:m3tth797k5zk5fsx

[Library search](#)

*Kalender, Willi A.*

**Computed tomography : fundamentals, system technology, image quality, applications**

3. ed. : Erlangen : Publicis Corp. Publ., cop. 2011 - 372 s.

ISBN:9783895783173 LIBRIS-ID:12272982

[Library search](#)

**Pathology and research methodology**

**Differential diagnosis in computed tomography**

*Burgener, Francis A.; Meyers, Steven P.; Herzog, Christopher; Zaunbauer, Wolfgang*

2nd Edition. : Stuttgart : Thieme, [2012], ©2012. - xiv, 854 pages

ISBN:9783131025425 (hardback) LIBRIS-ID:16623340

[Library search](#)

*Webb, W. Richard; Brant, William E.; Major, Nancy M.*

**Fundamentals of body CT**

Fifth edition. : Amsterdam : Elsevier, 2019 - 426 pages

ISBN:9780323608329 LIBRIS-ID:3d3p68cp1ps5cz07

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**Literature review**

*Forsberg, Christina; Wengström, Yvonne*

**Att göra systematiska litteraturstudier : värdering, analys och presentation av omvårdnadsforskning**

4. rev. utg. : Stockholm : Natur & kultur, 2016 - 216 s.

ISBN:9789127146549 LIBRIS-ID:18897539

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