

**NON-OFFICIAL
READ-ONLY VERSION**

**Subject Examination Regulations (FPO-M)
for the subject**

Computer Science

in the Master's program

**at the
University of Siegen**

This document is an inofficial and partial translation of the Examination Regulations published in German as „Amtliche Mitteilung Nr. 20/2022“.

Only the original German document is legally binding!

Article 1

Scope

- (1) These subject examination regulations, together with the Framework Examination Regulations (RPO-M) for the Master's program at the University of Siegen dated February 28, 2019 (Official Notice 5/2019) in the respectively applicable version, regulate the study program in Computer Science (INF).
- (2) Computer Science can be studied as a 1-subject program or as a partial course of study in the teaching profession.
- (3) Article 2 contains regulations for the study of the subject Computer Science as a 1-subject course of study Computer Science. Article 4 contains regulations for the study of the subject Computer Science as a partial course of study Computer Science in the teaching profession.

Article 2

Regulations for the 1-subject program Computer Science

§ 1

Study model

- (1) The Master's degree in Computer Science is studied as a 1-subject program.
- (2) The program is studied in one of the four specializations Embedded Systems, Visual Computing, Complex and Intelligent Software Systems and Medical Informatics. The choice of specialization is made upon enrollment in the program.

§ 2

Aims of the study

- (1) The consecutive Master's program in Computer Science is research-oriented. It provides in-depth knowledge of the scientific principles and methods of the field of computer science. The study program deepens core topics of computer science and imparts the ability to (further) develop methods and procedures for solving problems in the field of computer science and to apply them appropriately. A further goal is to impart key qualifications such as communication and teamwork skills, presentation and moderation skills.
- (2) The Master's degree program in Computer Science is a scientific degree program. The orientation of the subject content and the advanced courses for the acquisition of key qualifications are aimed in particular at qualifying students for scientific work in research and development and for the responsible assumption of management positions in software and hardware development projects. The professional field of graduates of the Master's program in Computer Science includes all types of work fields that deal with the research of fundamental issues or the development, operation and maintenance of complex information processing systems. This includes the areas of software engineering, information systems, embedded systems, visual computing, knowledge based systems, communication and security as well as algorithms and programming in a wide variety of application fields.

§ 3

Master's degree

Upon successful completion of the program, the university awards the degree "Master of Science" (M.Sc.).

§ 4

Special access requirements

- (1) Supplementary to § 4 RPO-M, the prerequisite for admission to the Master's program in Computer Science is, in addition to proof of a first university degree qualifying for a profession in the Bachelor's

program in Computer Science or Dual Studies in Computer Science at the University of Siegen or a comparable Bachelor's program, proof of the following competencies for the respective specialization:

1. Embedded Systems: Theory and practice in the areas of electrical engineering fundamentals, digital technology, computer architectures and real-time systems amounting to at least 18 LP.
 2. Visual Computing: theory and practice in computer graphics and image processing totaling at least 18 LP.
 3. Complex and Intelligent Software Systems: theory and practice in software engineering, programming, and machine learning totaling at least 18 LP.
 4. Medical Informatics: Fundamentals of medicine as well as fundamentals of medical informatics and the health care system totaling at least 24 LP.
- (2) The comparable Bachelor's degree program must have provided competencies in the following areas to the minimum extent indicated:

Area	Minimum Extent
Mathematical Foundations	20 LP
Fundamentals of Computer Science and Programming	30 LP
Theoretical Computer Science	10 LP
Practical Computer Science / Computer Systems	20 LP
Computer Engineering	15 LP
Project Work (including Bachelor's Thesis)	10 LP

- (3) If the required minimum scope according to paragraph 1 or paragraph 2 is not achieved, admission is only possible under corresponding obligations according to § 4 paragraph 4 RPO-M and/or only for certain specializations.
- (4) A prerequisite for admission to the Computer Science program is also proof of English language proficiency at the B2 level according to the Common European Framework of Reference for Languages (CEFR) or at the level of a TOEFL iBT of at least 88 or an IELTS 6.5.
- (5) Applicants who have not acquired their entrance requirements at a German-speaking institution must also provide evidence of German language skills at the level of the DSH examination. If no German language skills are proven, only the specializations "Embedded Systems" and "Visual Computing" can be studied and only English-language courses can be taken.
- (6) Enrollment is to be denied if the applicant has definitively failed an examination required by these examination regulations in a degree program with a significant content-related proximity to this degree program.

§ 5

Stays abroad and internships

- (1) Stays abroad and internships are not mandatory.
- (2) Voluntary stays abroad are only recommended from the 2nd semester onwards. In order to be credited as a "module abroad" within the framework of the elective "specialization modules", a learning agreement must be concluded before the stay abroad, which ensures the creditability of the achievements abroad in advance.

§ 6

Examination Board

- (1) For the tasks specified in § 8 RPO-M and in this article, the Faculty IV - Faculty of Science and Technology forms a Subject Examination Board for Computer Science for the 1-subject Bachelor's degree program in Computer Science, the 1-subject Dual Bachelor's degree program in Computer Science and the 1-subject Master's degree program in Computer Science. The examination board can delegate tasks to the examination office for computer science.

- (2) The Subject Examination Board consists of
 1. five members from the group of university professors,
 2. one member from the group of academic staff and
 3. two members from the group of students.
- (3) The term of office of the members from the group of university teachers and the member from the group of academic staff is three years. The term of office of the members from the group of students is one year.
- (4) In the event that a member is prevented from attending, at least one alternate shall be elected from each of the groups referred to in paragraph 2, whose term of office shall be governed by paragraph 3.

§ 7

Examiners and assessors

- (1) The examination authority is based on § 9 RPO-M.
- (2) Only those who hold a diploma or Master's degree in Computer Science or a comparable degree may be assessors in oral examinations.

§ 8

Scope and structure of the study program

- (1) For successful completion of the master's program, 120 credit points must be earned in the consecutive Master's program in Computer Science.
- (2) The standard period of study is 4 semesters. The study is only possible in full-time.
- (3) The study program consists of a compulsory area (30 credit points, modules 4INFMA001 to 4INFMA003), the compulsory elective area "Core Modules" (24 credit points, cf. paragraph 10 in conjunction with Appendix 3), a compulsory elective area "Specialization Modules" (36 credit points, cf. paragraphs 6 to 9 in conjunction with Appendix 3) and the Master's thesis in Computer Science (30 credit points, 4INFMA004).
- (4) Upon enrollment, the student selects one of the following specializations:
 1. Embedded Systems
 2. Visual Computing
 3. Complex and Intelligent Software Systems
 4. Medical Informatics
- (5) The choice of the specialization can be changed once by a written application to the chairperson of the examination board. The application can only be approved if the requirements according to § 4 paragraph 1 are fulfilled for the new specialization. If necessary, new or different obligations may be imposed. Already passed study or examination achievements of the previous specialization are taken over, provided that the corresponding modules can be selected in the new specialization. The change of the specialization only becomes effective at the beginning of the following semester with the enrollment in the new specialization. Enrollment in the new specialization must be applied for at the Student Services Department after approval by the Examination Board.
- (6) In the specialization "**Embedded Systems**", four modules with a total of 24 LP must be selected from the module catalog "Embedded Systems" and two additional modules with a total of 12 LP must be studied from the module catalogs "Embedded Systems", "Visual Computing", "Complex and Intelligent Software Systems" and "Medical Informatics".
- (7) In the specialization "**Visual Computing**" four modules with a total of 24 LP have to be chosen from the module catalog "Visual Computing" and two further modules with a total of 12 LP have to be studied from the module catalogs "Embedded Systems", "Visual Computing", "Complex and Intelligent Software Systems" and "Medical Informatics".
- (8) In the specialization "**Complex and Intelligent Software Systems**", four modules with a total of 24 LP must be selected from the module catalog "Complex and Intelligent Software Systems" and two

additional modules with a total of 12 LP must be studied from the module catalogs "Embedded Systems", "Visual Computing", "Complex and Intelligent Software Systems" and "Medical Informatics".

- (9) In the specialization **"Medical Informatics"**, the module 5DBHSBA02 "Funktion Mensch II" from the module catalog "Medical Informatics" with 9 LP is mandatory to study in the elective area "Specialization Modules". A further 27 LP must be studied in total, at least 15 LP from the module catalog "Medical Informatics" and the remaining LP from the module catalogs "Embedded Systems", "Visual Computing", "Complex and Intelligent Software Systems" and "Medical Informatics".
- (10) In the compulsory elective area **"Core Modules"**, four modules of 6 LP with a total of 24 credit points from the corresponding catalog in Appendix 3 must be studied. In the specialization "Visual Computing", the module 4INFMA021 "Modeling and Animation" from the compulsory elective area "Core Modules" must be studied.
- (11) A module that has already been completed in the previous Bachelor's degree program cannot be selected as a compulsory elective module. If the module in question is a module that is compulsory according to paragraph 9 or paragraph 10, another module from the same catalog must be chosen as a substitute.
- (12) The choice of a compulsory elective module is made by registering for the corresponding study or examination achievement. The choice of a compulsory elective module can no longer be cancelled once the first examination attempt has begun. Paragraph 5 and § 10 paragraph 4 remain unaffected.
- (13) Module Overview:

No.	Module	SL ¹	PL ²	LP ³	P/ WP ⁴	Module description in
4INFMA001	Scientific Working	1	1	9	P	Attachment 5
4INFMA002	Cutting Edge Research	2	0	6	P	Attachment 5
4INFMA003	Project Work	1	1	15	P	Attachment 5
4INFMA004	Master Thesis in Computer Science	0	1	30	P	Attachment 5
	Elective Area Core Modules 4 modules à 6 LP	0-4	4	24	WP	Attachment 3
	Elective Area Specialization Modules (Module Catalogs "Embedded Systems", "Visual Computing", "Complex and Intelligent Software Systems" and "Medical Informatics")	0-6	0-6	36	WP	Attachment 3

¹ SL = Study achievements („Studienleistungen“)

² PL = Examination achievements („Prüfungsleistung“)

³ LP = Credit points („Leistungspunkte“)

⁴ P = Compulsory module („Pflichtmodul“) / WP = Elective module („Wahlpflichtmodul“)

The recommended semester is shown in the study plan (Appendix 1).

- (14) Possible teaching forms are: Lecture, exercises, lecture and exercises, seminar, laboratory and project work. The specific teaching form can be found in the module description.
- (15) The courses are held in German or English. The teaching language is specified in the module description. If the language of instruction is not uniquely specified, the lecturers will announce the language of instruction no later than two weeks after the start of the respective course.
- (16) The examination board appoints a mentor for each specialization from § 8 paragraph 4, who advises the students of this specialization in their personal study planning. At least once a year, each student shall discuss with the mentor the course of studies so far and any problems that may have arisen, and prepare a plan for the coming academic year. The mentor advises on the modules that can be reasonably combined in compulsory elective areas, taking into account the student's individual prior knowledge and focal points of interest.

§ 9

Study and examination achievements

(1) In addition to § 10 Paragraph 1 and § 11 Paragraph 6 RPO-M, the following forms are provided for study and examination achievements:

1. Study achievements

a) Seminar presentation (15-20 minutes) with term paper (5 - 15 pages).

The following interrelated achievements must be provided:

- i. Giving a talk on a given topic in German or English.
- ii. Preparation of a written paper on the contents of the lecture in German or English. The paper has to be handed in to the instructor before the talk.
- iii. Participation in the other talks of the seminar and active participation in the discussion on the lecture topics.

The lecture topics and the lecture dates, as well as the deadline and the form of the paper will be announced by the instructors no later than two weeks after the start of the respective course. The duration of the talk and the extent of the term paper are specified in the respective module description.

b) Successful completion of exercise or project assignments (1 - 12 assignments, total time required 10 - 135 hours).

In doing so, given exercises or project tasks must be worked on as homework and the solutions must be presented to the instructor in due time. The solution can be presented in written or electronic form and/or by a short oral presentation (5 - 15 minutes). The exact form of the submission and/or presentation will be determined by the instructor and announced at the beginning of the course. The number, type and scope of the tasks can be found in the respective module description.

c) Active and regular participation.

The course must be attended on a certain number of compulsory dates. The number of compulsory dates is shown in the module manual. Active participation is demonstrated by the production/acceptance of software or files, experimental setups, experimental protocols, reports or short presentations.

- i. Software or files: creation of computer programs or other files, possibly with the help of appropriate software tools.
- ii. Experimental setups: Set-up and execution of an experiment (usually hardware set-up, with configuration if necessary).
- iii. Experimental protocols: written documentation of an experiment with regard to preparation, procedure and result.
- iv. Report: factual reproduction, representation, communication of an event or fact in oral form.
- v. Short presentation: elaborated essay on a specific topic.

The type and scope of the respective partial performances are determined by the instructor and announced at the beginning of the course.

d) Project reports (total length 60 - 120 minutes).

Regular oral short reports on the progress of a project. The frequency and scope of the reports are determined by the instructor and announced at the beginning of the course.

e) Term paper (20 pages)

Preparation of a written paper in German or English on a topic or question of the respective course.

f) Practical test (10-20 minutes)

Practical diagnostics for a selected clinical picture. Type and extent of the respective partial performances will be announced by the lecturer before the course.

- g) Lecture (20 - 30 minutes)
- h) Group presentation (10 - 20 minutes)
- i) Participation in the internship
- j) Laboratory practical (20 - 40 minutes)

All experiments of the laboratory practical must be completed. In addition, written laboratory internship reports (5 - 15 pages per experiment) must be prepared and submitted to the instructor. The results are presented in a colloquium or final discussion (15 - 30 min. per experiment).

2. Examination achievements

- a) Project Work (450 hours).

Carrying out a project on a given topic with written project presentation and documentation as well as oral project presentation, as the case may be also as group work. The permissible group size as well as the duration and scope of the project presentation and documentation result from the respective module description.

- b) Seminar presentation (60-90 minutes).

Giving a lecture on a given topic in German or English. The lecture topics and the lecture dates are announced by the instructors no later than two weeks after the start of the respective course. The duration of the lecture results from the respective module description.

- c) Seminar presentation (30 minutes) with term paper (5,000 words).

Giving a lecture on a given topic and preparing a written paper on the contents of the lecture in German or English. The paper has to be handed in to the instructor before the presentation.

The lecture topics and the lecture dates, as well as the deadline and the form of the paper will be announced by the instructors no later than two weeks after the start of the respective course. The duration of the lecture and the extent of the term paper result from the respective module description.

- d) Term paper (final report) (20 pages).

Preparation of a written paper in German or English on a topic or question of the respective course.

- (2) Study and examination achievements can only be taken by students who are enrolled in a Master's degree program. Students who have already completed at least 150 LP in the Bachelor's degree program and have already registered the Bachelor's thesis may, upon application, complete course and examination credits amounting to a maximum of 30 LP. The application must be submitted to the Examination Committee via the Examination Office for Computer Science. Sentence 1 does not apply to modules that can be studied in accordance with the regulations in an FPO-B for the completion of a Bachelor's degree program.

- (3) Prerequisite for admission to the examination achievement in the modules

- Modeling and Animation (4INFMA021)
- Computer Architectures II (4INFMA023)
- Development of Embedded Systems using FPGAs (4INFMA100)
- Storage Technologies (4INFMA102)
- GPU Programming (4INFMA201)
- Deep Learning (4INFMA204).
- Convex Optimization for Computer Vision (4INFMA206)
- Numerical Methods for Visual Computing (4INFMA207)
- Advanced Programming in C++ (4INFMA307)
- Computational Imaging (4ETMA250)

is the successful completion of coursework in these modules.

- (4) In deviation from § 11 Paragraph 4 RPO-M, withdrawal from examination dates that have not been organized and announced via the campus management system or the examination board, but have been agreed individually with the examiner, can be made via the examination office at the latest 7 days before the start of the examination or the agreed submission date.

§ 10

Repetition of examination achievements

- (1) Dates for repeating failed examinations are offered in the following semester.
- (2) In the case of examination achievements in the form of written examinations, the last possible examination attempt is usually in the form of an oral examination; at the request of the student, repetition in written form is also possible, provided that the examination is offered in written form.
- (3) For modules imported from other subject examination regulations, deviations from paragraphs 1- 2 may occur.
- (4) If a compulsory elective module is definitively not passed, another module can be chosen twice as a substitute, provided that the conditions from § 8 paragraph 6 to 11 are met. If this is not or no longer possible, the choice of specialization must be changed according to § 8 paragraph 5.

§ 10a

Free trial

A maximum of 3 examinations which have not yet been repeated in accordance with § 12 Paragraph 5 RPO-M and which have been taken within the standard period of study can, on application, be evaluated as a free attempt and repeated. Sentence 1 does not apply to imported modules whose subject examination regulations do not contain a free attempt regulation and the Master's thesis. If a better grade is achieved in the repetition than in the previous attempt, the previous attempt shall be deemed not to have been taken and shall be replaced by the repetition as an examination attempt. If the same or a lower grade is achieved on the retake, the grade from the previous attempt will stand. An oral examination must be repeated within six months, all other examinations at the next possible date, otherwise the right to the free attempt is forfeited. A second free attempt for the same examination achievement is excluded. An examination that has been declared failed due to irregular behavior, in particular attempted cheating, cannot be counted as a free attempt.

§ 11

Master's thesis

- (1) The Master's thesis accounts for 30 credit points of the Master's program.
- (2) The application for admission to the Master's thesis must be submitted in writing to the Examination Board via the responsible examination office. Admission to the Master's thesis is governed by § 13 RPO-M.
- (3) Admission to the Master's thesis can only be granted if the candidate has acquired at least 60 credit points and there is no module that still has to be completed and has just one examination attempt left.
- (4) Students have the opportunity to suggest the reviewers and the topic of the Master's thesis.
- (5) The processing time is 26 weeks. The length of the Master's thesis should not exceed 120 pages. The topic of the Master's thesis can only be returned once within the first 4 weeks.
- (6) The Master's thesis can also be admitted in the form of a group work by two students if the contribution to be assessed by the individual is clearly distinguishable and assessable on the basis of the specification of sections, page numbers or other objective criteria that allow a clear delimitation and this contribution fulfills the requirements according to § 14 paragraph 1 RPO-M. The length of the thesis increases accordingly in this case.
- (7) The Master's thesis must be submitted in duplicate in printed, bound form and additionally in electronically searchable form to the Examination Board via the Computer Science Examination Office. If, in addition to the written work, further components created as part of the Master's thesis (e.g. program code, models, technical drawings) are also to be assessed, these must also be submitted in

suitable electronic form.

- (8) When handing in the Master's thesis, the candidate must assure in writing that he or she has written his or her thesis - in the case of a group thesis, his or her correspondingly marked part of the thesis - independently and has not used any sources and aids other than those indicated and has marked citations.
- (9) The Master's thesis is defended in a colloquium (approx. 20-minute presentation followed by a 10 to 20-minute discussion). The result of the colloquium is 25% of the grade of the Master's thesis.

§ 12

Evaluation, formation of grades

The evaluation and the formation of grades is done according to § 21 RPO-M.

§ 13

Application and transitional provisions

- (1) These subject examination regulations apply to all students enrolled in this Master's program at the University of Siegen for the first time as of the winter semester 2021/2022.
- (2) The examination regulations for the Master's program in Computer Science of the Faculty of Science and Technology of the University of Siegen dated April 9, 2013 (Official Notice 27/2013), last amended by the Sixth Regulation for the Amendment of the Examination Regulations for the Master's program in Computer Science of the Faculty of Science and Technology of the University of Siegen dated March 28, 2019 (Official Notice 10/2019), will expire on September 30, 2023. Students who were enrolled in the Master's program in Computer Science prior to the winter semester 2021/2022 can still complete their studies according to these examination regulations until that date.
- (3) Students who were already enrolled in the Master's program in Computer Science prior to the winter semester 2021/2022 have the option, upon application, to complete their studies according to the provisions of the Framework Examination Regulations (RPO-M) for the Master's program at the University of Siegen dated February 28, 2019 (Official Notice 5/2019) and these Subject Examination Regulations. The application is to be addressed to the respective responsible Examination Board and cannot be revoked.

Attachments**Curriculum****Annex 1 to Article 2: Study plan according to study model in the 1-subject study program****Start of study in winter semester**

Semester	LP	Module	SL	PL	LP	SWS
1.	30	4INFMA002 "Cutting Edge Research".	2	0	6	2
		By choice "Core Modules I - III"	0-3	3	18	
		By choice "Specialization Module"	0-1	0-1	6	
2.	30	4INFMA001 "Scientific Working"	1	1	9	3
		4INFMA003 "Project Work" (Part 1)	1	0	9	0
		By choice "Core Module IV"	0-1	1	6	
		By choice "Specialization Module"	0-1	0-1	6	
3.	30	4INFMA003 "Project Work" (part 2)	0	1	6	0
		By choice "Specialization Modules"	0-4	0-4	24	
4.	30	4INFMA004 "Master Thesis in Computer Science"	0	1	30	0

Start of study in summer semester

Semester	LP	Module	SL	PL	LP	SWS
1.	30	By choice "Core modules I - III"	0-3	3	18	
		By choice "Specialization Modules"	0-2	0-2	12	
2.	30	4INFMA002 "Cutting Edge Research"	2	0	6	2
		By choice "Core Module IV"	0-1	1	6	
		4INFMA003 "Project Work" (Part 1)	1	0	6	0
		By choice "Specialization Modules"	0-2	0-2	12	
3.	30	4INFMA001 "Scientific Working"	1	1	9	3
		4INFMA003 "Project Work" (part 2)	0	1	9	0
		By choice "Specialization Modules"	0-2	0-2	12	
4.	30	4INFMA004 "Master Thesis in Computer Science"	0	1	30	0

Elective Modules

Annex 3: List of elective modules according to Article 2 § 8 paragraphs 6 to 10

No.	Module	SL	PL	LP	Reference to module description
Elective Area "Core Modules"					
4INFMA020	Softwaretechnik II (in German)	0	1	6	Attachment 5
4INFMA021	Modeling and Animation	1	1	6	Attachment 5
4INFBA022	Embedded Systems	1	1	6	FPO-B Computer science
4INFMA023	Computer Architectures II	1	1	6	Attachment 5
4INFMA024	Parallel Processing	1	1	6	Attachment 5
4INFMA025	Rechnernetze II (in German)	0	1	6	Attachment 5
4INFMA026	Advanced Logic	0	1	6	Attachment 5
4INFMA028	Algorithmics I	1	1	6	Attachment 5
4INFMA029	Datenbanksysteme II (in German)	0	1	6	Attachment 5
Elective Area "Specialization Modules"					
Module Catalog "Embedded Systems"					
4INFMA100	Development of Embedded System using FPGAs	1	1	6	Attachment 5
4INFMA101	Ubiquitous Systems Lab	0	1	6	Attachment 5
4INFMA102	Storage Technologies	1	1	6	Attachment 5
4INFMA103	StartUp Entrepreneurship	0	1	6	Attachment 5
5DMTBA19	Telematics - Multimedia	0	1	6	FPO-B DBHS
5DBHSBA10	Telematics - Technologies and Applications	0	1	6	FPO-B DBHS
4ETMA256	Communications and Information Security II	1	1	6	Attachment 7*
4ETMA200	Signals and Systems I	0	1	6	Attachment 7*
4ETMA160	Reliability of technical systems	0	1	6	Attachment 7*
4ETMA159	Aufbau- und Verbindungstechnik (in German)	0	1	6	Attachment 7*
4ETMA303	Digital IC Design	1	1	6	Attachment 7*
4ETMA355	Microsystem Fabrication & Test	0	1	6	Attachment 7*
4MBMAEX006	Operations Research	0	1	6	Appendix 8 of FPO-B Computer Science
4ETMA105	Prozessautomation (in German)	1	1	6	Attachment 7*
4ETMA151	Industrielle Kommunikation (in German)	1	1	6	Attachment 7*
4INFMA197	Foreign module Embedded Systems I			6	Attachment 5
4INFMA198	Foreign module Embedded Systems II			6	Attachment 5
4INFMA199	Foreign module Embedded Systems III			6	Attachment 5
Module Catalog "Visual Computing"					
4INFMA200	Rendering	1	1	6	Attachment 5
4INFMA201	GPU Programming	1	1	6	Attachment 5
4INFMA202	Scientific Visualization	1	1	6	Attachment 5
4INFMA203	Statistical Learning Theory	0	1	6	Attachment 5
4INFMA204	Deep Learning	1	1	6	Attachment 5
4INFMA205	Recent Advances in Machine Learning	1	0	6	Attachment 5
4INFMA206	Convex Optimization for Computer Vision	1	1	6	Attachment 5
4INFMA207	Numerical Methods for Visual Computing	1	1	6	Attachment 5
4INFMA208	Machine Vision	0	1	6	Attachment 5
4INFBA033	Computer Graphics Lab	1	0	6	FPO-B Computer science
4INFMA210	Virtual Reality	1	1	6	Attachment 5
4INFMA211	Higher Level Computer Vision	0	1	6	Attachment 5
4INFMA212	Unsupervised Learning	0	1	6	Attachment 5
4ETMA250	Computational Imaging	1	1	6	Attachment 7*
4ETMA257	Introduction to Compressive Sensing	0	1	6	Attachment 7*
4INFMA297	Foreign module Visual Computing I			6	Attachment 5
4INFMA298	Foreign Module Visual Computing II			6	Attachment 5
4INFMA299	Foreign Module Visual Computing III			6	Attachment 5

Module Catalog "Complex and Intelligent Software Systems"					
4INFMA300	Algorithmik II (in German)	1	1	6	Attachment 5
4INFMA301	Model Checking (in German)	0	1	6	Attachment 5
4INFBA302	Complexity Theory I	1	1	6	FPO-B Computer science
4INFMA304	Complexity Theory II	1	1	6	Attachment 5
4INFMA305	Ubiquitous Computing	0	1	6	Attachment 5
4INFMA307	Advanced Programming in C++	1	1	6	Attachment 5
4INFMA308	Theoretische Informatik (in German)	0	1	6	Attachment 5
4INFMA310	Recent Advances in Operating Systems and Distributed Systems	1	1	6	Attachment 5
4INFMA312	Recommender Systems	1	1	6	Attachment 5
4INFMA313	Quantum Complexity Theory	1	1	6	Attachment 5
4INFMA397	Foreign Module Complex and Intelligent Software Systems I			6	Attachment 5
4INFMA398	Foreign Module Complex and Intelligent Software Systems II			6	Attachment 5
4INFMA399	Foreign Module Complex and Intelligent Software Systems III			6	Attachment 5
Module Catalog "Medical Informatics"					
5DBHSBA02	Funktion Mensch II (in German)	1	1	9	FPO-B DBHS
5DBHSBAEX02	Praktikum Klinik (in German)	0	1	3	Attachment 7*
5BMTBA18	Immunologie (in German)	1	1	6	FPO-B DBHS
2PSYBA08	Allgemeine Psychologie II (in German)	2	1	9	FPO-B Psychology
5DMTBA04	Medizintechnik (in German)	1	1	6	FPO-B DBHS
5DMTMA02	Medizintechnik Vertiefung (in German)	1	1	9	Attachment 7*
5DMTBA09	Sicherheit in medizinischen Anwendungen (in German)	0	1	9	FPO-B DBHS
5DBHSBA15	Data Science in der Medizin (in German)	0	1	6	FPO-B DBHS
3HCIMA001	Humans & Technology	0	1	9	FPO-M HCI
4INFMA497	Foreign module Medical Informatics I			6	Attachment 5
4INFMA498	Foreign Module Medical Informatics II			6	Attachment 5
4INFMA499	Foreign Module Medical Informatics III			6	Attachment 5