

300 credits Civilingenjör i medicinsk teknik 6CMED Valid from:

Determined by Date determined

Entry requirements

Degree in Swedish Civilingenjör 300 hp och Teknologie master 120 hp



Curriculum

Semester 8 (Spring 2017)

Period 1TAOP07Introduction to Optimization6G1X3ETBMI26Neural Networks and Learning Systems6A1X2ETBMT02Medical Imaging6A1F3ETBMT09Physiological Pressures and Flows6A1X1ETEIO20Entrepreneurship and New Business Development6*G2X4ETFFM40Analytical Methods in Materials Science6*A1X1ETFFA21Physical Metallurgy6A1F3ETFYA21Physical Metallurgy6A1F3ETFYA85Alternative Energy Sources and their Applications6G1X1ETGTU01Technology and Ethics6G1X4ETHFR05Communicative French6*G1X4ETHFR05Spanish6*G1X4ETHSP05Spanish6*G1X4ETSBK07Computer Graphics6*A1X1ETBME08Biomedical Modeling and Simulation6A1X3ETBM126Technology in Intensive Care and Surgery6A1X1ETEIO20Entrepreneurship and New Business Development6*G1X4ETFK652Fundamental Modeling and Simulation6A1X1ETBM126Technology in Intensive Care and Surgery6A1X1ETEIO20	Course code	Course name	Credits	Level	Timetable module	ECV
TBMI26Neural Networks and Learning Systems6A1X2ETBMT02Medical Imaging6A1F3ETBMT09Physiological Pressures and Flows6A1X1ETEIO20Entrepreneurship and New Business Development6*G2X4ETFFM40Analytical Methods in Materials Science6*A1X2ETFFM40Analytical Methods in Materials Science6*A1X2ETFFB34Biosensor Technology6A1F3ETFYA21Physical Metallurgy6A1F3ETFYA55Alternative Energy Sources and their Applications6G1X1ETGTU01Technology and Ethics6G1X4ETHEN18English6*G1X4ETHFN55Spanish6*G1X4ETHY055German6*G1X4ETKMJ15Environmental Management Strategies6G1X3ETBME08Biomedical Modeling and Simulation6A1X1ETBMT26Technology in Intensive Care and Surgery6A1X1ETEIO20Entrepreneurship and New Business Development6*G1X4ETBMT26Technology in Intensive Care and Surgery6A1X1ETEIO20Entrepreneurship and New Business Development6*G1X2ETFFM40	Period 1					
TBMT02Medical Imaging6A1F3ETBMT09Physiological Pressures and Flows6A1X1ETEIO20Entrepreneurship and New Business Development6*G2X4ETFFM40Analytical Methods in Materials Science6*A1X1ETFFM40Analytical Methods in Materials Science6*A1X2ETFFM34Biosensor Technology6A1X2ETFYA21Physical Metallurgy6A1F3ETFYA85Alternative Energy Sources and their Applications6G2X4ETGTU01Technology and Ethics6G1X1ETHEN18English6*G1X4ETHFR05Communicative French6*G1X4ETHY05German6*G1X4ETKMJ15Environmental Management Strategies6G1X3ETSBK07Computer Graphics6*A1X1ETBME08Biomedical Modeling and Simulation6A1X3ETBMT26Technology in Intensive Care and Surgery6A1X1ETEIO20Entrepreneurship and New Business Development6*G1X4ETFFM40Analytical Methods in Materials Science6*A1X1ETEIO20Entrepreneurship and New Business Development6*G1X2ETFFM40<	TAOP07	Introduction to Optimization	6	G1X	3	E
TBMT09Physiological Pressures and Flows6A1X1ETEIO20Entrepreneurship and New Business Development6*G2X4ETFFM40Analytical Methods in Materials Science6*A1X1ETFTB34Biosensor Technology6A1X2ETFYA21Physical Metallurgy6A1F3ETFYA85Alternative Energy Sources and their Applications6G1X1ETGTU01Technology and Ethics6G1X4ETHFR05Communicative French6*G1X4ETHY05German6*G1X4ETKMJ15Environmental Management Strategies6G1X3ETSBR07Computer Vision12*A1X1ETBME08Biomedical Modeling and Simulation6A1X3ETBME08Biomedical Modeling and Simulation6A1X1ETBM204Databases for Bioinformatics6G1X4ETFFM40Analytical Methods in Materials Science6*A1X1ETFFM40Analytical Methods in Materials Science6*A1X1ETBM205Entrepreneurship and New Business Development6G1X2ETFFM40Analytical Methods in Materials Science6*A1X1ETBM205Entrepreneurship and New Business Development6G1X2 <td>TBMI26</td> <td>Neural Networks and Learning Systems</td> <td>6</td> <td>A1X</td> <td>2</td> <td>E</td>	TBMI26	Neural Networks and Learning Systems	6	A1X	2	E
TEIO20Entrepreneurship and New Business Development6*G2X4ETFFM40Analytical Methods in Materials Science6*A1X1ETFFB34Biosensor Technology6A1X2ETFYA21Physical Metallurgy6A1F3ETFYA21Physical Metallurgy6A1F3ETFYA85Alternative Energy Sources and their Applications6G2X4ETGTU01Technology and Ethics6G1X1ETHEN18English6*G1X4ETHFR05Communicative French6*G1X4ETHSP05Spanish6*G1X4ETKMJ15Environmental Management Strategies6G1X3ETSBR07Computer Vision12*A1X1ETBME08Biomedical Modeling and Simulation6A1X3ETBMT26Technology in Intensive Care and Surgery6A1X1ETEIO20Entrepreneurship and New Business Development6*G2X4ETFFM40Analytical Methods in Materials Science6*A1X1ETFFM40Analytical Methods in Materials Science6*A1X4ETFFM40Chemical Sensor Systems6A1X4E	TBMT02	Medical Imaging	6	A1F	3	E
TEIO20Development6°G2X4ETFFM40Analytical Methods in Materials Science6*A1X1ETFTB34Biosensor Technology6A1X2ETFYA21Physical Metallurgy6A1F3ETFYA85Alternative Energy Sources and their Applications6G2X4ETGTU01Technology and Ethics6G1X1ETHEN18English6*G1X4ETHFR05Communicative French6*G1X4ETHTY05German6*G1X4ETKMJ15Environmental Management Strategies6G1X3ETSBB15Computer Vision12*A1X1ETBME08Biomedical Modeling and Simulation6A1X3ETBMT26Technology in Intensive Care and Surgery6A1X1ETEIO20Entrepreneurship and New Business Development6*G1X2ETFFM40Analytical Methods in Materials Science6*A1X1ETFFM40Chemical Sensor Systems6A1X4E	TBMT09	Physiological Pressures and Flows	6	A1X	1	E
TFTB34Biosensor Technology6A1X2ETFYA21Physical Metallurgy6A1F3ETFYA21Physical Metallurgy6A1F3ETFYA21Alternative Energy Sources and their Applications6G2X4ETGTU01Technology and Ethics6G1X1ETHEN18English6*G1X4ETHFR05Communicative French6*G1X4ETHSP05Spanish6*G1X4ETKMJ15Environmental Management Strategies6G1X3ETSBB15Computer Vision12*A1X1ETBME08Biomedical Modeling and Simulation6A1X3ETBMT26Technology in Intensive Care and Surgery6A1X1ETEIO20Entrepreneurship and New Business Development6*G1X4ETFKE52Fundamentals of Chemistry6G1X2ETFKM19Chemical Sensor Systems6A1X4E	TEIO20		6*	G2X	4	E
TFYA21Physical Metallurgy6A1F3ETFYA21Physical Metallurgy6A1F3ETFYA85Alternative Energy Sources and their Applications6G2X4ETGTU01Technology and Ethics6G1X1ETHEN18English6*G1X4ETHFN05Communicative French6*G1X4ETHSP05Spanish6*G1X4ETHTY05German6*G1X4ETKMJ15Environmental Management Strategies6G1X3ETSBB15Computer Vision12*A1X1ETBME08Biomedical Modeling and Simulation6A1X3ETBMT26Technology in Intensive Care and Surgery6A1X1ETEIO20Entrepreneurship and New Business Development6*G1X1ETFKE52Fundamentals of Chemistry6A1X1ETFKE52Fundamentals of Chemistry6A1X4E	TFFM40	Analytical Methods in Materials Science	6*	A1X	1	E
TFYA85Alternative Energy Sources and their Applications6G2X4ETGTU01Technology and Ethics6G1X1ETHEN18English6*G1X4ETHFN05Communicative French6*G1X4ETHSP05Spanish6*G1X4ETHTY05German6*G1X4ETKMJ15Environmental Management Strategies6G1X3ETSBB15Computer Vision12*A1X1ETBME08Biomedical Modeling and Simulation6A1X3ETBM126Technology in Intensive Care and Surgery6A1X1ETEIO20Entrepreneurship and New Business Development6*G1X4ETFKE52Fundamentals of Chemistry6G1X2ETFM19Chemical Sensor Systems6A1X4E	TFTB34	Biosensor Technology	6	A1X	2	E
IPYA8S Applications6G2X4ETGTU01Technology and Ethics6G1X1ETHEN18English6*G1X4ETHFN05Communicative French6*G1X4ETHSP05Spanish6*G1X4ETHTY05German6*G1X4ETKMJ15Environmental Management Strategies6G1X3ETSBB15Computer Vision12*A1X1ETSBK07Computer Graphics6*A1X4EPeriod 2TBME08Biomedical Modeling and Simulation6A1X1ETDDD74Databases for Bioinformatics6G2X4ETEIO20Entrepreneurship and New Business Development6*G1X1ETFK40Analytical Methods in Materials Science6*A1X1ETFKE52Fundamentals of Chemistry6G1X2ETFMT19Chemical Sensor Systems6A1X4E	TFYA21	Physical Metallurgy	6	A1F	3	E
THEN18English6*G1X4ETHFR05Communicative French6*G1X4ETHSP05Spanish6*G1X4ETHTY05German6*G1X4ETKMJ15Environmental Management Strategies6G1X3ETSB815Computer Vision12*A1X1ETSBK07Computer Graphics6*A1X4EPeriod 2TBME08Biomedical Modeling and Simulation6A1X3ETBM26Technology in Intensive Care and Surgery6A1X1ETDDD74Databases for Bioinformatics6G2X4ETEIO20Entrepreneurship and New Business Development6*A1X1ETFK40Analytical Methods in Materials Science6*A1X1ETFK52Fundamentals of Chemistry6G1X2ETFMT19Chemical Sensor Systems6A1X4E	TFYA85		6	G2X	4	E
THFR05Communicative French6*G1X4ETHSP05Spanish6*G1X4ETHTY05German6*G1X4ETKMJ15Environmental Management Strategies6G1X3ETSBB15Computer Vision12*A1X1ETSBK07Computer Graphics6*A1X4EPeriod 2TBME08Biomedical Modeling and Simulation6A1X3ETBMT26Technology in Intensive Care and Surgery6A1X1ETEIO20Entrepreneurship and New Business Development6*G2X4ETFFM40Analytical Methods in Materials Science6*A1X1ETFKE52Fundamentals of Chemistry6G1X2ETFMT19Chemical Sensor Systems6A1X4E	TGTU01	Technology and Ethics	6	G1X	1	E
THSP05Spanish6*G1X4ETHSP05Spanish6*G1X4ETHTY05German6*G1X4ETKMJ15Environmental Management Strategies6G1X3ETSBB15Computer Vision12*A1X1ETSBK07Computer Graphics6*A1X4EPeriod 2Image: Computer Graphics6*A1X3ETBME08Biomedical Modeling and Simulation6A1X3ETBMT26Technology in Intensive Care and Surgery6A1X1ETDDD74Databases for Bioinformatics6G2X4ETEIO20Entrepreneurship and New Business Development6*A1X1ETFFM40Analytical Methods in Materials Science6*A1X1ETFKE52Fundamentals of Chemistry6G1X2ETFMT19Chemical Sensor Systems6A1X4E	THEN18	English	6*	G1X	4	E
THTYO5German6*G1X4ETKMJ15Environmental Management Strategies6G1X3ETSBB15Computer Vision12*A1X1ETSBK07Computer Graphics6*A1X4EPeriod 2TBME08Biomedical Modeling and Simulation6A1X3ETBMT26Technology in Intensive Care and Surgery6A1X1ETDDD74Databases for Bioinformatics6G2X4ETEIO20Entrepreneurship and New Business Development6*A1X1ETFFM40Analytical Methods in Materials Science6*A1X1ETFKE52Fundamentals of Chemistry6G1X2ETFMT19Chemical Sensor Systems6A1X4E	THFR05	Communicative French	6*	G1X	4	E
TKMJ15Environmental Management Strategies6G1X3ETSBB15Computer Vision12*A1X1ETSBK07Computer Graphics6*A1X4EPeriod 2TBME08Biomedical Modeling and Simulation6A1X3ETBMT26Technology in Intensive Care and Surgery6A1X1ETDDD74Databases for Bioinformatics6G2X4ETEIO20Entrepreneurship and New Business Development6*A1X1ETFKM40Analytical Methods in Materials Science6*A1X1ETFKE52Fundamentals of Chemistry6G1X2ETFMT19Chemical Sensor Systems6A1X4E	THSP05	Spanish	6*	G1X	4	E
TSBB15Computer Vision12*A1X1ETSBK07Computer Graphics6*A1X4EPeriod 2TBME08Biomedical Modeling and Simulation6A1X3ETBMT26Technology in Intensive Care and Surgery6A1X1ETDDD74Databases for Bioinformatics6G2X4ETEIO20Entrepreneurship and New Business Development6*G1X1ETFKE52Fundamentals of Chemistry6G1X2ETFMT19Chemical Sensor Systems6A1X4E	THTY05	German	6*	G1X	4	E
TSBK07Computer Graphics6*A1X4EPeriod 2TBME08Biomedical Modeling and Simulation6A1X3ETBMT26Technology in Intensive Care and Surgery6A1X1ETDDD74Databases for Bioinformatics6G2X4ETEIO20Entrepreneurship and New Business Development6*G2X4ETFFM40Analytical Methods in Materials Science6*A1X1ETFKE52Fundamentals of Chemistry6G1X2ETFMT19Chemical Sensor Systems6A1X4E	TKMJ15	Environmental Management Strategies	6	G1X	3	E
Period 2TBME08Biomedical Modeling and Simulation6A1X3ETBMT26Technology in Intensive Care and Surgery6A1X1ETDDD74Databases for Bioinformatics6G2X4ETEIO20Entrepreneurship and New Business Development6*G2X4ETFFM40Analytical Methods in Materials Science6*A1X1ETFKE52Fundamentals of Chemistry6G1X2ETFMT19Chemical Sensor Systems6A1X4E	TSBB15	Computer Vision	12*	A1X	1	E
TBME08Biomedical Modeling and Simulation6A1X3ETBMT26Technology in Intensive Care and Surgery6A1X1ETDDD74Databases for Bioinformatics6G2X4ETEIO20Entrepreneurship and New Business Development6*G2X4ETFFM40Analytical Methods in Materials Science6*A1X1ETFKE52Fundamentals of Chemistry6G1X2ETFMT19Chemical Sensor Systems6A1X4E	TSBK07	Computer Graphics	6*	A1X	4	E
TBMT26Technology in Intensive Care and Surgery6A1X1ETDDD74Databases for Bioinformatics6G2X4ETEIO20Entrepreneurship and New Business Development6*G2X4ETFFM40Analytical Methods in Materials Science6*A1X1ETFKE52Fundamentals of Chemistry6G1X2ETFMT19Chemical Sensor Systems6A1X4E	Period 2					
TDDD74Databases for Bioinformatics6G2X4ETEIO20Entrepreneurship and New Business Development6*G2X4ETFFM40Analytical Methods in Materials Science6*A1X1ETFKE52Fundamentals of Chemistry6G1X2ETFMT19Chemical Sensor Systems6A1X4E	TBME08	Biomedical Modeling and Simulation	6	A1X	3	E
TEIO20Entrepreneurship and New Business Development6*G2X4ETFFM40Analytical Methods in Materials Science6*A1X1ETFKE52Fundamentals of Chemistry6G1X2ETFMT19Chemical Sensor Systems6A1X4E	TBMT26	Technology in Intensive Care and Surgery	6	A1X	1	E
TEIO20Development6"G2X4ETFFM40Analytical Methods in Materials Science6*A1X1ETFKE52Fundamentals of Chemistry6G1X2ETFMT19Chemical Sensor Systems6A1X4E	TDDD74	Databases for Bioinformatics	6	G2X	4	E
TFKE52Fundamentals of Chemistry6G1X2ETFMT19Chemical Sensor Systems6A1X4E	TEIO20		6*	G2X	4	E
TFMT19 Chemical Sensor Systems 6 A1X 4 E	TFFM40	Analytical Methods in Materials Science	6*	A1X	1	E
	TFKE52	Fundamentals of Chemistry	6	G1X	2	E
THEN18 English 6* G1X 4 E	TFMT19	Chemical Sensor Systems	6	A1X	4	E
	THEN18	English	6*	G1X	4	E



Course code	Course name	Credits	Level	Timetable module	ECV
THFR05	Communicative French	6*	G1X	4	E
THSP05	Spanish	6*	G1X	4	E
THTY05	German	6*	G1X	4	E
TSBB15	Computer Vision	12*	A1X	3	E
TSBK02	Image and Audio Coding	6	A1X	4	E
TSBK07	Computer Graphics	6*	A1X	1	E

Specialisation: Biomedical Imaging and Visualization

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TBMT02	Medical Imaging	6	A1F	3	С
TSBK07	Computer Graphics	6*	A1X	4	С
TAOP07	Introduction to Optimization	6	G1X	3	E
TBMI26	Neural Networks and Learning Systems	6	A1X	2	E
TBMT09	Physiological Pressures and Flows	6	A1X	1	E
TSBB15	Computer Vision	12*	A1X	1	E
Period 2					
TSBK07	Computer Graphics	6*	A1X	1	С
TBME08	Biomedical Modeling and Simulation	6	A1X	3	E
TSBB15	Computer Vision	12*	A1X	3	E
TSBK02	Image and Audio Coding	6	A1X	4	E



Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TFFM40	Analytical Methods in Materials Science	6*	A1X	1	С
TFYA21	Physical Metallurgy	6	A1F	3	С
TBMT09	Physiological Pressures and Flows	6	A1X	1	E
TFTB34	Biosensor Technology	6	A1X	2	E
Period 2					
TFFM40	Analytical Methods in Materials Science	6*	A1X	1	С
TFKE52	Fundamentals of Chemistry	6	G1X	2	С
TBME08	Biomedical Modeling and Simulation	6	A1X	3	E
TBMT26	Technology in Intensive Care and Surgery	6	A1X	1	E
TFMT19	Chemical Sensor Systems	6	A1X	4	E

Specialisation: Biomedical Materials

Specialisation: Biomedical Modelling

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TBMT09	Physiological Pressures and Flows	6	A1X	1	С
TAOP07	Introduction to Optimization	6	G1X	3	E
TBMI03	Medical Information Models and Ontologies	6	A1X	4	E
TBMI26	Neural Networks and Learning Systems	6	A1X	2	E
TBMT02	Medical Imaging	6	A1F	3	E
Period 2					
TBME08	Biomedical Modeling and Simulation	6	A1X	3	С
TBMT26	Technology in Intensive Care and Surgery	6	A1X	1	E
TDDD74	Databases for Bioinformatics	6	G2X	4	E



Semester 9 (Autumn 2017)

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TAMS39	Multivariate Statistical Methods	6	A1X	4	E
TBMT14	Biomedical Engineering - Project Course	12*	A1X	4	E
TBMT36	Biomedical Optics	6	A1X	1	E
TFFM08	Experimental Physics	6*	A1X	1	E
TFYA43	Nanotechnology	6	G2X	3	E
TFYA51	Project Course in Physics - Design and Fabrication of Sensor Chip, CDIO	12*	A1X	4	E
TNM067	Scientific Visualization	6	A1X	3	E
TSBB08	Digital Image Processing	6	A1X	4	E
TSBB11	Images and Graphics, Project Course CDIO	12*	A1X	4	E
Period 2					
TBMI02	Medical Image Analysis	6	A1X	1	E
TBMT14	Biomedical Engineering - Project Course	12*	A1X	4	E
TFFM08	Experimental Physics	6*	A1X	1	E
TFYA30	Supramolecular Chemistry	6	A1X	1	E
TFYA37	Soft Condensed Matter Physics	6	A1X	1	E
TFYA51	Project Course in Physics - Design and Fabrication of Sensor Chip, CDIO	12*	A1X	4	E
TGTU04	Leadership	6	G2X	2	E
TNM086	Virtual Reality Techniques	6	A1X	2	E
TSBB11	Images and Graphics, Project Course CDIO	12*	A1X	4	E



Course code	Course name	Credits	Level	Timetable module	ECV
Period 1				mouule	
TSBB11	Images and Graphics, Project Course CDIO	12*	A1X	4	С
TAMS39	Multivariate Statistical Methods	6	A1X	4	E
TBMI19	Medical Information Systems	6*	A1X	2	E
TBMT36	Biomedical Optics	6	A1X	1	E
TNM067	Scientific Visualization	6	A1X	3	E
TSBB08	Digital Image Processing	6	A1X	4	E
Period 2					
TBMI02	Medical Image Analysis	6	A1X	1	С
TSBB11	Images and Graphics, Project Course CDIO	12*	A1X	4	С
TBMI19	Medical Information Systems	6*	A1X	3	E
TNM086	Virtual Reality Techniques	6	A1X	2	E

Specialisation: Biomedical Imaging and Visualization

Specialisation: Biomedical Materials

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TBMT14	Biomedical Engineering - Project Course	12*	A1X	4	C/E
TFYA51	Project Course in Physics - Design and Fabrication of Sensor Chip, CDIO	12*	A1X	4	C/E
TBMT36	Biomedical Optics	6	A1X	1	E
TFYA43	Nanotechnology	6	G2X	3	E
Period 2					
TFYA30	Supramolecular Chemistry	6	A1X	1	С
TBMT14	Biomedical Engineering - Project Course	12*	A1X	4	C/E
TFYA51	Project Course in Physics - Design and Fabrication of Sensor Chip, CDIO	12*	A1X	4	C/E



Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TBMT14	Biomedical Engineering - Project Course	12*	A1X	4	С
TBMT36	Biomedical Optics	6	A1X	1	С
TAMS39	Multivariate Statistical Methods	6	A1X	4	E
TSBB06	Multidimensional Signal Analysis	6*	A1X	2	E
Period 2					
TBMT14	Biomedical Engineering - Project Course	12*	A1X	4	С
TBMI02	Medical Image Analysis	6	A1X	1	E
TSBB06	Multidimensional Signal Analysis	6*	A1X	3	E

Specialisation: Biomedical Modelling

Semester 10 (Spring 2018)

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TQXX33	Degree project - Master's Thesis	30*	A1X	-	С
Period 2					
TQXX33	Degree project - Master's Thesis	30*	A1X	-	С

ECV = Elective / Compulsory /Voluntary *The course is divided into several semesters and/or periods

