

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)

| Course code | Course name | Credits | Level | Timetable module | ECV |
|-----------------|---|---------|-------|------------------|-----|
| Period 1 | | | | | |
| TAOP07 | Introduction to Optimization | 6 | G1X | 3 | E |
| TBMI26 | Neural Networks and Learning Systems | 6 | A1X | 2 | E |
| TBMT02 | Medical Imaging | 6 | A1F | 3 | E |
| TBMT09 | Physiological Pressures and Flows | 6 | A1X | 1 | E |
| TEIO20 | Entrepreneurship and New Business Development | 6* | G2X | 4 | E |
| TFFM40 | Analytical Methods in Materials Science | 6* | A1X | 1 | E |
| TFTB34 | Biosensor Technology | 6 | A1X | 2 | E |
| TFYA21 | Physical Metallurgy | 6 | A1F | 3 | E |
| TFYA85 | Alternative Energy Sources and their Applications | 6 | G2X | 4 | E |
| TGTU01 | Technology and Ethics | 6 | G1X | 1 | E |
| THEN18 | English | 6* | G1X | 4 | E |
| THFR05 | Communicative French | 6* | G1X | 4 | E |
| THSP05 | Spanish | 6* | G1X | 4 | E |
| THTY05 | German | 6* | G1X | 4 | E |
| TKMJ15 | Environmental Management Strategies | 6 | G1X | 3 | E |
| TSBB15 | Computer Vision | 12* | A1X | 1 | E |
| TSBK07 | Computer Graphics | 6* | A1X | 4 | E |
| Period 2 | | | | | |
| TBME08 | Biomedical Modeling and Simulation | 6 | A1X | 3 | E |
| TBMT26 | Technology in Intensive Care and Surgery | 6 | A1X | 1 | E |
| TDDD74 | Databases for Bioinformatics | 6 | G2X | 4 | E |
| TEIO20 | Entrepreneurship and New Business Development | 6* | G2X | 4 | E |
| TFFM40 | Analytical Methods in Materials Science | 6* | A1X | 1 | E |
| TFKE52 | Fundamentals of Chemistry | 6 | G1X | 2 | 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 | C |
| TSBK07 | Computer Graphics | 6* | A1X | 4 | C |
| 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 | C |
| 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 |

Specialisation: Biomedical Materials

| Course code | Course name | Credits | Level | Timetable module | ECV |
|-----------------|--|---------|-------|------------------|-----|
| Period 1 | | | | | |
| TFFM40 | Analytical Methods in Materials Science | 6* | A1X | 1 | C |
| TFYA21 | Physical Metallurgy | 6 | A1F | 3 | C |
| 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 | C |
| TFKE52 | Fundamentals of Chemistry | 6 | G1X | 2 | C |
| 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 Modelling

| Course code | Course name | Credits | Level | Timetable module | ECV |
|-----------------|---|---------|-------|------------------|-----|
| Period 1 | | | | | |
| TBMT09 | Physiological Pressures and Flows | 6 | A1X | 1 | C |
| TAOP07 | Introduction to Optimization | 6 | G1X | 3 | E |
| TBMT03 | Medical Information Models and Ontologies | 6 | A1X | 4 | E |
| TBMT26 | 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 | C |
| 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 |

Specialisation: Biomedical Imaging and Visualization

| Course code | Course name | Credits | Level | Timetable module | ECV |
|-----------------|--|---------|-------|------------------|-----|
| Period 1 | | | | | |
| TSBB11 | Images and Graphics, Project Course CDIO | 12* | A1X | 4 | C |
| 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 | C |
| TSBB11 | Images and Graphics, Project Course CDIO | 12* | A1X | 4 | C |
| TBMI19 | Medical Information Systems | 6* | A1X | 3 | E |
| TNM086 | Virtual Reality Techniques | 6 | A1X | 2 | E |

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 | C |
| 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 |

Specialisation: Biomedical Modelling

| Course code | Course name | Credits | Level | Timetable module | ECV |
|-----------------|---|---------|-------|------------------|-----|
| Period 1 | | | | | |
| TBMT14 | Biomedical Engineering - Project Course | 12* | A1X | 4 | C |
| TBMT36 | Biomedical Optics | 6 | A1X | 1 | C |
| 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 | C |
| TBMT02 | Medical Image Analysis | 6 | A1X | 1 | E |
| TSBB06 | Multidimensional Signal Analysis | 6* | A1X | 3 | E |

Semester 10 (Spring 2018)

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

ECV = Elective / Compulsory / Voluntary

*The course is divided into several semesters and/or periods