

# Engineering Biology, M Sc in Engineering

300 credits

Civilingenjör i teknisk biologi

6CTBI

Valid from:

**Determined by**

**Date determined**

## Entry requirements

.

## Degree in Swedish

Civilingenjör 300 hp och Teknologie master 120 hp

## Curriculum

### Semester 8 (Spring 2017)

*Specialisation: Devices and Materials in Biomedicine*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TFTB34	Biosensor Technology	6	A1X	2	C
TFTB35	Surface Science	6	A1X	1	C
TFTB43	Materials in Medicine (CDIO-Project)	6*	A1X	3	C
TBMI26	Neural Networks and Learning Systems	6	A1X	2	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
TMQU46	Quality Management	6	G2X	4	E
TSRT07	Industrial Control Systems	6	A1X	2	E
<b>Period 2</b>					
TFTB40	Biomedical Materials	6	A1X	1	C
TFTB43	Materials in Medicine (CDIO-Project)	6*	A1X	2	C
TBME08	Biomedical Modeling and Simulation	6	A1X	3	E
TFMT19	Chemical Sensor Systems	6	A1X	4	E
THEN18	English	6*	G1X	4	E

*Specialisation: Industrial Biotechnology and Production*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TFTB32	Design of Biotechnical Process and Production Systems, Project Course	6*	A1X	1	C
TMMT03	Biotechnical Production Systems	6	A1X	3	C
TMQU46	Quality Management	6	G2X	4	C
TBMI26	Neural Networks and Learning Systems	6	A1X	2	E
TFYA85	Alternative Energy Sources and their Applications	6	G2X	4	E
TGTU01	Technology and Ethics	6	G1X	1	E
TSRT07	Industrial Control Systems	6	A1X	2	E
<b>Period 2</b>					
NKED20	Drug Discovery and Pharmaceutical Development	6	A1X	2	C
TFTB32	Design of Biotechnical Process and Production Systems, Project Course	6*	A1X	1	C
TFTB39	Biotechnology Manufacturing	6	A1X	3/4	C

**Semester 9 (Autumn 2017)**

*Specialisation: Devices and Materials in Biomedicine*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TEIO20	Entrepreneurship and New Business Development	6*	G2X	3	C
TFTB33	Microsystems and Nanobiology	6	A1X	1	C
TSRT62	Modelling and Simulation	6	A1X	3	C/E
TDDC76	Programming and Data Structures	8*	G2X	2	E
TEAE01	Industrial Economics, Basic Course	6	G1X	2	E
TFTB46	Advanced Bioinformatics	6	A1X	2	E
TFYA43	Nanotechnology	6	G2X	3	E
TMQU03	Quality Management and Engineering	6	G2X	2	E
<b>Period 2</b>					
TEIO20	Entrepreneurship and New Business Development	6*	G2X	4	C
TFTB38	Imaging and Ubiquitous Biosensing	6	A1X	2	C
TBMT01	Biomedical Signal Processing	6	A1X	1	E
TDDC76	Programming and Data Structures	8*	G2X	2	E
TFKE30	Analytical Chemistry	6	G1X	4	E
TFYA32	Industrial Biotechnology	6	A1X	1	E
TFYA37	Soft Condensed Matter Physics	6	A1X	1	E
TGTU04	Leadership	6	G2X	2	E
TGTU49	History of Technology	6	G1X	3	E
TKMJ24	Environmental Engineering	6	G1X	3	E
TVCB13	Stem Cell Engineering	6	A1X	3	E

*Specialisation: Industrial Biotechnology and Production*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TSRT62	Modelling and Simulation	6	A1X	3	C/E
TBMT36	Biomedical Optics	6	A1X	1	E
TDDC76	Programming and Data Structures	8*	G2X	2	E
TEAE01	Industrial Economics, Basic Course	6	G1X	2	E
TEIO90	Innovation Management	6	A1X	2	E
TFTB46	Advanced Bioinformatics	6	A1X	2	E
TFYA47	Surfaces and Interfaces	6	A1X	2	E
TRTE18	The Biogas Process	6	A1X	1	E
TVMB26	Molecular Virology	6	A1X	1	E
<b>Period 2</b>					
TAOP61	Optimization of Realistic Complex Systems	6	A1X	3	E
TBMT01	Biomedical Signal Processing	6	A1X	1	E
TDDC76	Programming and Data Structures	8*	G2X	2	E
TGTU04	Leadership	6	G2X	2	E
TGTU49	History of Technology	6	G1X	3	E
TKMJ24	Environmental Engineering	6	G1X	3	E
TMQU12	Lean Production	6	A1X	2	E
TVCB13	Stem Cell Engineering	6	A1X	3	E

**Semester 10 (Spring 2018)**

*Specialisation: Devices and Materials in Biomedicine*

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

*Specialisation: Industrial Biotechnology and Production*

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

ECV = Elective / Compulsory /Voluntary

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