

Media Technology and Engineering, M Sc in Engineering

300 credits

Civilingenjör i medieteknik

6CMEN

Valid from: 2016 Spring semester

Determined by

Board of Studies for Computer Science
and Media Technology

Date determined

2016-01-19

Entry requirements

Degree in Swedish

Civilingenjör 300 hp och Teknologie master 120 hp

Curriculum

Semester 2 (Spring 2017)

| Course code | Course name | Credits | Level | Timetable module | ECV |
|-----------------|---|---------|-------|------------------|-----|
| Period 1 | | | | | |
| TNA003 | Calculus I | 6 | G1X | 2 | C |
| TNA005 | Applied Mathematics in Science and Technology | 6* | G1X | 4 | C |
| TND002 | Object-Oriented Programming | 6 | G1X | 1 | C |
| Period 2 | | | | | |
| TNA004 | Calculus II | 6 | G1X | 2 | C |
| TNA005 | Applied Mathematics in Science and Technology | 6* | G1X | 4 | C |
| TNM046 | Computer Graphics | 6 | G1X | 1 | C |

Semester 3 (Autumn 2017)

| Course code | Course name | Credits | Level | Timetable module | ECV |
|-----------------|-----------------------------------|---------|-------|------------------|-----|
| Period 1 | | | | | |
| TNA006 | Calculus III | 6 | G1X | 3 | C |
| TNE043 | Mechanics and Wave Physics | 6 | G2X | 1 | C |
| TNM040 | Communication and User Interfaces | 6* | G1X | 2 | C |
| Period 2 | | | | | |
| TNA007 | Vector Analysis | 6 | G2X | 4 | C |
| TNG033 | Programming in C++ | 6 | G2X | 3 | C |
| TNM040 | Communication and User Interfaces | 6* | G1X | 2 | C |

Semester 4 (Spring 2018)

| Course code | Course name | Credits | Level | Timetable module | ECV |
|-----------------|--------------------------|---------|-------|------------------|-----|
| Period 1 | | | | | |
| TNG032 | Applied Transform Theory | 6 | G2X | 4 | C |
| TNM059 | Graphic Arts | 6 | G1X | 3 | C |
| TNM061 | 3-D Computer Graphics | 6* | G2X | 1 | C |
| Period 2 | | | | | |
| TNG006 | Statistics | 6 | G2X | 1 | C |
| TNG015 | Signals and Systems | 6 | G2X | 3 | C |
| TNM061 | 3-D Computer Graphics | 6* | G2X | 4 | C |
| TPT06 | Industrial Placement | 6 | G1X | - | E |

Semester 5 (Autumn 2018)

| Course code | Course name | Credits | Level | Timetable module | ECV |
|-----------------|--|---------|-------|------------------|-----|
| Period 1 | | | | | |
| TFYA65 | Physics of Sound | 6 | G2X | 1 | C |
| TNG028 | Automatic Control | 6 | G2X | 2 | C |
| TNM093 | Practical Data Visualization and Virtual Reality | 6* | G2X | 3 | C |
| Period 2 | | | | | |
| TNG022 | Modelling and Simulation | 6 | G2X | 1 | C |
| TNM087 | Image Processing and Analysis | 6 | G2X | 2 | C |
| TNM093 | Practical Data Visualization and Virtual Reality | 6* | G2X | 3 | C |

Semester 6 (Spring 2019)

| Course code | Course name | Credits | Level | Timetable module | ECV |
|-----------------|-------------------------------------|---------|-------|------------------|-----|
| Period 1 | | | | | |
| TNM085 | Modelling Project | 6 | G2X | 1 | C |
| TNM094 | Media Technology - Bachelor Project | 18* | G2X | - | C |
| Period 2 | | | | | |
| TND004 | Data Structures | 6 | G2X | 3 | C |
| TNM094 | Media Technology - Bachelor Project | 18* | G2X | - | C |

Semester 7 (Autumn 2019)

| Course code | Course name | Credits | Level | Timetable module | ECV |
|-----------------|---|---------|-------|------------------|-----|
| Period 1 | | | | | |
| TDDE45 | Software Design and Construction | 6 | A1X | 4 | E |
| TEIO87 | Project Management | 6* | G2X | 1 | E |
| TGTU01 | Technology and Ethics | 6 | G1X | 4 | E |
| THEN09 | Advanced English | 6* | G2X | 4 | E |
| TNCG15 | Advanced Global Illumination and Rendering | 6 | A1X | 4 | E |
| TNM031 | Network Programming and Security | 6 | A1X | 3 | E |
| TNM067 | Scientific Visualization | 6 | A1X | 3 | E |
| TNM103 | Sound Technology | 6 | A1X | 2 | E |
| TNM108 | Machine Learning for Social Media | 6* | A1X | 3 | E |
| Period 2 | | | | | |
| TDDC73 | Interaction Programming | 6 | G2X | 1 | E |
| TEAE11 | Intellectual Property Rights | 6 | G1X | 2 | E |
| TEIO87 | Project Management | 6* | G2X | 1 | E |
| THEN09 | Advanced English | 6* | G2X | 4 | E |
| TNA009 | Computational Methods for Science and Engineering | 6 | G2X | 2 | E |
| TNM034 | Advanced Image Processing | 6 | A1X | 3 | E |
| TNM069 | Graphics Design and Communication | 6 | A1X | 1 | E |
| TNM084 | Procedural Methods for Images | 6 | A1X | 4 | E |
| TNM086 | Virtual Reality Techniques | 6 | A1X | 2 | E |
| TNM108 | Machine Learning for Social Media | 6* | A1X | 3 | E |
| TSBB09 | Image Sensors | 6 | A1X | 4 | E |

Semester 8 (Spring 2020)

| Course code | Course name | Credits | Level | Timetable module | ECV |
|-----------------|---|---------|-------|------------------|-----|
| Period 1 | | | | | |
| TEIE53 | Industrial Economics | 6 | G1X | 1 | E |
| TNKA10 | Rethoric in Speech, Texts and Images | 6* | G1F | 1 | E |
| TNM048 | Information Visualisation | 6 | A1X | 3 | E |
| TNM097 | Image Reproduction and Image Quality | 6 | A1X | 2 | E |
| TNM100 | Structural Methods for User Experience (UX) | 6* | A1X | 1 | E |
| TSBK35 | Audio and Image Compression | 6 | A1X | 4 | E |
| Period 2 | | | | | |
| TDDD27 | Advanced Web Programming | 6 | A1X | 3 | E |
| TNKA10 | Rethoric in Speech, Texts and Images | 6* | G1F | 1 | E |
| TNM079 | Modelling and Animation | 6 | A1X | 2 | E |
| TNM096 | Artificial Intelligence - Principles and Techniques | 6 | G2X | 1 | E |
| TNM098 | Advanced Visual Data Analysis | 6 | A1X | 4 | E |
| TNM100 | Structural Methods for User Experience (UX) | 6* | A1X | 3 | E |

Semester 9 (Autumn 2020)

| Course code | Course name | Credits | Level | Timetable module | ECV |
|-----------------|---|---------|-------|------------------|-----|
| Period 1 | | | | | |
| TDDE45 | Software Design and Construction | 6 | A1X | 4 | E |
| TNCG15 | Advanced Global Illumination and Rendering | 6 | A1X | 4 | E |
| TNM031 | Network Programming and Security | 6 | A1X | 3 | E |
| TNM067 | Scientific Visualization | 6 | A1X | 3 | E |
| TNM089 | Imaging Technology | 6 | A1X | 1 | E |
| TNM091 | Media Production for Immersive Environments | 6* | A1X | 1 | E |
| TNM095 | Artificial Intelligence for Interactive Media | 6 | A1X | 2 | E |
| TNM103 | Sound Technology | 6 | A1N | 2 | E |
| TSBK03 | Advanced Game Programming | 6* | A1X | 1 | E |
| Period 2 | | | | | |
| TNM107 | Scientific Method | 6 | A1X | 3 | C |
| TDDC73 | Interaction Programming | 6 | G2X | 1 | E |
| TDDD56 | Multicore and GPU Programming | 6 | A1X | 2 | E |
| TNCG13 | SFX - Tricks of the Trade | 6 | A1X | 4 | E |
| TNM084 | Procedural Methods for Images | 6 | A1X | 4 | E |
| TNM086 | Virtual Reality Techniques | 6 | A1X | 2 | E |
| TNM091 | Media Production for Immersive Environments | 6* | A1X | 1 | E |
| TSBK03 | Advanced Game Programming | 6* | A1X | - | E |

Semester 10 (Spring 2021)

| 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