

Biomedical Engineering

Study Year 1 (Mandatory Courses)

| Course Code | Credits | Cycle | S.Ex. stud. | Language | Course Name | Footnote | Links | 19/20 | 19/20 | 19/20 | 19/20 |
|------------------------|---------|-------|-------------|----------|---|----------|-----------------------------|-------|-------|-------|-------|
| | | | | | | | | sp1 | sp2 | sp3 | sp4 |
| EITA01 | 12 | G1 | - | S | Introduction to Biomedical Engineering | | KS KE U W T | 1 | 2 | | |
| FAFA65 | 7.5 | G1 | - | S | Thermodynamics, Waves and Optics | | KS KE U W T | 1 | 2 | | |
| EMAA01 | 15 | G1 | - | S | Calculus in One Variable | | KS KE U W T | 1 | 2 | 3 | |
| KOKA20 | 7.5 | G1 | - | S | General and Organic Chemistry | | KS KE U W T | | | 3 | |
| EXTA56 | 5 | G1 | - | S | Clinical Training in Biomedical Engineering | | KS KE U T | | | 3 | 4 |
| EDAA50 | 7.5 | G1 | - | S | Programming, First Course | | KS KE U W T | | | 3 | 4 |
| EMAB20 | 6 | G1 | - | S | Linear Algebra | | KS KE U W T | | | | 4 |

Study Year 2 (Mandatory Courses)

| Course Code | Credits | Cycle | S.Ex. stud. | Language | Course Name | Footnote | Links | 19/20 | 19/20 | 19/20 | 19/20 |
|------------------------|---------|-------|-------------|----------|----------------------------------|----------|-----------------------------|-------|-------|-------|-------|
| | | | | | | | | sp1 | sp2 | sp3 | sp4 |
| EXTA70 | 7.5 | G1 | - | S | Biology of the Cell | | KS KE U W T | 1 | | | |
| EMAB30 | 6 | G1 | - | S | Calculus in Several Variables | | KS KE U W T | 1 | | | |
| FHLA05 | 7.5 | G1 | X | E | Engineering Mechanics | | KS KE U W T | | 2 | | |
| EXTG50 | 7.5 | G2 | - | S | Human Physiology | | KS KE U W T | | 2 | | |
| EEMA01 | 9 | G1 | - | S | Biomedical Design | | KS KE U W T | | 2 | 3 | |
| FAFF45 | 8 | G2 | - | S | Physics for Biomedicine | | KS KE U W T | | | 3 | |
| EITE90 | 7.5 | G2 | - | S | Electromagnetics and Electronics | | KS KE U W T | | | | 4 |

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| | | | | | | | 19/20 sp1 | 19/20 sp2 | 19/20 sp3 | 19/20 sp4 | | |
| EITA50 | 7.5 | G1 | X | S | Signal Processing in Multimedia | | KS | KE | U | W | T | 4 |

Study Year 3 (Mandatory Courses)

| Course Code | Credits | Cycle | S.Ex. stud. | Language | Course Name | Footnote | Links | 19/20 | 19/20 | 19/20 | 19/20 |
|------------------------|---------|-------|-------------|----------|--|----------|-----------------------------|-------|-------|-------|-------|
| | | | | | | | | sp1 | sp2 | sp3 | sp4 |
| EMSF70 | 7.5 | G2 | - | S | Mathematical Statistics | | KS KE U W T | 1 | | | |
| EEMF15 | 7.5 | G2 | - | S | Sensors and Measurements | | KS KE U W T | 1 | | | |
| EXTG05 | 5 | G2 | - | E | Biomaterials - Interaction between Living Tissue and Synthetic Materials | | KS KE U W T | | 2 | | |
| EEMF10 | 5 | G2 | X | E1 | Clinical Chemical Diagnostics | | KS KE U T | | 2 | | |
| FRTF01 | 5 | G2 | X | E | Physiological Models and Computations | | KS KE U W T | | 2 | | |
| ETIF20 | 5 | G2 | - | S | E-health | | KS KE U T | | | 3 | |
| MVKE20 | 5 | G2 | - | S | Transport Phenomena in the Human Body | | KS KE U W T | | | 3 | |

| Course Code | Credits | Cycle | S.Ex. stud. | Language | Course Name | Footnote | Links | | | | |
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| | | | | | | | 19/20 sp1 | 19/20 sp2 | 19/20 sp3 | 19/20 sp4 | |
| EXTG01 | 5 | G2 | - | S | Medical Imaging Systems | | KS KE U T | | | | 4 |

Specialisation bf - Biomedical physics

| Course Code | Credits | Cycle | Mand./ Elect. | | Year | From year | S.Ex. stud. | Language | Course Name | Footnote | Links | | | | |
|------------------------|---------|-------|---------------|--|------|-----------|-------------|----------|---|---|-------|-----|-----|-----|-----|
| | | | | | | | | | | | | sp1 | sp2 | sp3 | sp4 |
| EEMN21 | 7.5 | A | V | | 4 | 4 | X | E1 | Introduction to Microfluidics and Lab-on-a-chip Systems | KS KE U W T | 1 | | | | |
| FAFF01 | 7.5 | G2 | V | | 4 | 3 | X | E | Optics and Optical Design | KS KE U W T | 1 | | | | |
| EXTF90 | 7.5 | G2 | V | | 4 | 4 | X | E | Photon and Neutron Production for Science | KS KE U W T | 1 | | | | |
| BMEF10 | 7.5 | G2 | V | | 4 | 4 | - | S | Transducer Technology | KS KE U W T | 1 | | | | |
| FAFN01 | 7.5 | A | V | | 4 | 3 | X | E | Lasers | KS KE U W T | | 2 | | | |
| FAFN35 | 7.5 | A | V | | 4 | 4 | X | E | Medical Optics | KS KE U W T | | 2 | | | |
| EXTP45 | 7.5 | A | V | | 4 | 4 | - | S | Radiation Therapy Physics | KS KE U T | | | | 3 | |

| Course Code | Credits | Cycle | Mand./ Elect. | | Year | From year | S.Ex. stud. | Language | Course Name | Footnote | Links | | | |
|------------------------|---------|-------|---------------|--|------|-----------|-------------|----------|--|---|-------|-----|-----|-----|
| | | | | | | | | | | | sp1 | sp2 | sp3 | sp4 |
| EEMN15 | 7.5 | A | V | | 4 | 4 | X | E1 | Ultrasound Physics and Technology | KS KE U W T | | | 3 | |
| FFFN20 | 15 | A | V | | 4 | 4 | X | E | Experimental Biophysics | KS KE U W T | | | 3 | 4 |
| KIMN01 | 7.5 | A | V | | 4 | 4 | X | E | Immunotechnology | KS KE U W T | | | | 4 |
| EEMN26 | 7.5 | A | V | | 4 | 4 | X | E1 | Lab-on-a-chip in Biomedical Applications | KS KE U W T | | | | 4 |
| FAFN25 | 7.5 | A | V | | 5 | 4 | X | E | Atomic and Molecular Spectroscopy | KS KE U W T | 1 | | | |
| EXTQ01 | 7.5 | A | V | | 5 | 4 | X | E | Theoretical Biophysics | KS KE U W T | | | 3 | |

Specialisation br - Biomechanics and rehabilitation

| Course Code | Credits | Cycle | Mand./ Elect. | | Year | From year | S.Ex. stud. | Language | Course Name | Footnote | Links | | | | |
|------------------------|---------|-------|---------------|--|------|-----------|-------------|----------|-------------------------------|---|-------|-----|-----|-----|-----|
| | | | | | | | | | | | | sp1 | sp2 | sp3 | sp4 |
| BMEN05 | 7.5 | A | V | | 4 | 4 | X | E | Biomechanics | KS KE U W T | 1 | | | | |
| EMAN20 | 7.5 | A | V | | 4 | 4 | X | E1 | Image Analysis | KS KE U W T | 1 | | | | |
| TNSF05 | 7.5 | G2 | V | | 4 | 4 | - | S | Rehabilitation Engineering | KS KE U W T | 1 | 2 | | | |
| EMAN30 | 7.5 | A | V | | 4 | 4 | X | E1 | Medical Image Analysis | KS KE U W T | | 2 | | | |
| FHLN10 | 7.5 | A | V | | 4 | 4 | X | E | Modern Experimental Mechanics | KS KE U W T | | 2 | | | |
| BMEN10 | 7.5 | A | V | | 4 | 4 | X | E | Tissue Biomechanics | KS KE U W T | | 2 | | | |
| BMEF20 | 7.5 | G2 | V | | 4 | 4 | - | E | Neuroengineering | KS KE U T | | | | 3 | |

| Course Code | Credits | Cycle | Mand./ Elect. | | Year | From year | S.Ex. stud. | Language | Course Name | Footnote | Links | | | | | |
|------------------------|---------|-------|---------------|--|------|-----------|-------------|----------|--|----------|---|-----|-----|-----|-----|---|
| | | | | | | | | | | | | sp1 | sp2 | sp3 | sp4 | |
| MAMF35 | 7.5 | G2 | V | | 4 | 4 | X | E | Human in Extreme Environments | | KS KE U W T | | | | 3 | 4 |
| TNSE10 | 7.5 | G2 | V | | 4 | 4 | X | E1 | Universal Design, Theory and Project | | KS KE U W T | | | | 3 | 4 |
| MAMF30 | 6 | G2 | V | | 4 | 4 | - | S | Ergonomics | | KS KE U W T | | | | | 4 |
| FHLE20 | 7.5 | G2 | V | | 4 | 3 | X | E | Finite Element Method | | KS KE U W T | | | | | 4 |
| FHLN05 | 7.5 | A | V | | 5 | 4 | X | E | Computational Inelasticity | | KS KE U W T | 1 | | | | |
| MAMN25 | 7.5 | A | V | | 5 | 4 | - | S | Interaction Design | | KS KE U W T | 1 | | | | |
| MAMN45 | 7.5 | A | V | | 5 | 4 | - | S | People, Technology, Organization and Risk Management | | KS KE U W T | 1 | | | | |

| Course Code | Credits | Cycle | Mand./ Elect. | Year | From year | S.Ex. stud. | Language | Course Name | Footnote | Links | | | | | |
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| | | | | | | | | | | sp1 | sp2 | sp3 | sp4 | | |
| EHLN01 | 7.5 | A | V | 5 | 4 | X | E | Structural Optimization | | KS | KE | U | W | T | 3 |

Specialisation sbh - Signals, images and e-health

| Course Code | Credits | Cycle | Mand./ Elect. | | Year | From year | S.Ex. stud. | Language | Course Name | Footnote | Links | | | | | |
|------------------------|---------|-------|---------------|--|------|-----------|-------------|----------|--|----------|---|-----|-----|-----|-----|--|
| | | | | | | | | | | | | sp1 | sp2 | sp3 | sp4 | |
| EMAN20 | 7.5 | A | V | | 4 | 4 | X | E1 | Image Analysis | | KS KE U W T | 1 | | | | |
| EITN60 | 7.5 | A | V | | 4 | 4 | X | E | Optimum and Adaptive Signal Processing | | KS KE U W T | 1 | | | | |
| EMSE10 | 7.5 | G2 | V | | 4 | 4 | X | E | Stationary Stochastic Processes | | KS KE U W T | 1 | | | | |
| EDAA01 | 7.5 | G1 | V | | 4 | 2 | - | S | Programming - Second Course | | KS KE U W T | 1 | 2 | | | |
| EXTQ40 | 7.5 | A | V | | 4 | 4 | - | E1 | Introduction to Artificial Neural Networks and Deep Learning | | KS KE U W T | | 2 | | | |
| EMSN45 | 7.5 | A | V | | 4 | 4 | X | E | Mathematical Statistics, Time Series Analysis | | KS KE U W T | | 2 | | | |
| EMAN30 | 7.5 | A | V | | 4 | 4 | X | E1 | Medical Image Analysis | | KS KE U W T | | 2 | | | |

| Course Code | Credits | Cycle | Mand./ Elect. | | Year | From year | S.Ex. stud. | Language | Course Name | Footnote | Links | | | | |
|------------------------|---------|-------|---------------|--|------|-----------|-------------|----------|---|----------|---|-----|-----|-----|-----|
| | | | | | | | | | | | | sp1 | sp2 | sp3 | sp4 |
| ERTF05 | 7.5 | G2 | V | | 4 | 2 | - | S | Automatic Control, Basic Course | | KS KE U W T | | | 3 | |
| EITN65 | 7.5 | A | V | | 4 | 4 | X | E1 | Measurement and Modeling of the Central Nervous System Function | | KS KE U W T | | | 3 | |
| BMEN01 | 7.5 | A | V | | 4 | 4 | X | E1 | Biomedical Signal Processing | | KS KE U W T | | | | 4 |
| EXTP60 | 7.5 | A | V | | 4 | 4 | X | E1 | Microscopy, Bio-Imaging | | KS KE U W T | | | | 4 |
| EDAP10 | 7.5 | A | V | | 5 | 4 | - | S | Concurrent Programming | X | KS KE U W T | 1 | | | |
| ERTN35 | 7.5 | A | V | | 5 | 3 | X | E1 | System Identification | | KS KE U W T | 1 | 2 | | |
| BMEN15 | 7.5 | A | V | | 5 | 4 | X | E | Signal Separation - Independent Components | | KS KE U W T | | 2 | | |

| Course Code | Credits | Cycle | Mand./ Elect. | Year | From year | S.Ex. stud. | Language | Course Name | Footnote | Links | | | | | |
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| | | | | | | | | | | sp1 | sp2 | sp3 | sp4 | | |
| EXTQ20 | 7.5 | A | V | 5 | 4 | - | E1 | Biological Systems | | KS | KE | U | W | T | 3 |

[EDAP10](#) Concurrent Programming: *Replaces* [EDAF55](#)

Elective Courses - BME

| Course Code | Credits | Cycle | Year | From year | S.Ex. stud. | Language | Course Name | Footnote | Links | | | | |
|------------------------|---------|-------|------|-----------|-------------|----------|------------------------------------|---|-------|-----|-----|-----|-----|
| | | | | | | | | | | sp1 | sp2 | sp3 | sp4 |
| EITG05 | 7.5 | G2 | 4 | 4 | X | E | Digital Communications | KS KE U W T | 1 | | | | |
| IYT000 | 15 | G2 | 4 | 3 | - | S | Engineering Training Course | KS KE U W | 1 | | | | |
| MIOA12 | 6 | G1 | 4 | 1 | - | S | Managerial Economics, Basic Course | KS KE U W T | 1 | | | | |
| EMSE15 | 7.5 | G2 | 4 | 4 | X | E | Markov Processes | KS KE U W T | 1 | | | | |
| EMAF01 | 7 | G2 | 4 | 4 | - | E1 | Mathematics - Analytic Functions | KS KE U W T | 1 | | | | |
| EXTN65 | 15 | A | 4 | 4 | - | E | Neurobiology | KS KE U W T | 1 | | | | |
| FMNN01 | 7.5 | A | 4 | 4 | X | E | Numerical Linear Algebra | KS KE U W T | 1 | | | | |

| Course Code | Credits | Cycle | Year | From year | S.Ex. stud. | Language | Course Name | Footnote | Links | | | | |
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| | | | | | | | | | | sp1 | sp2 | sp3 | sp4 |
| MMKN35 | 7.5 | A | 4 | 4 | X | E1 | Product Innovation | | KS KE U W T | 1 | | | |
| ETSN05 | 7.5 | A | 4 | 4 | - | S | Software Development for Large Systems | | KS KE U W T | 1 | | | |
| EIEN45 | 10 | A | 4 | 4 | X | E1 | Applied Mechatronics | | KS KE U W T | 1 | 2 | | |
| EITF65 | 9 | G2 | 4 | 4 | - | S | Design of Digital Circuits - A Systems Approach | | KS KE U W T | 1 | 2 | | |
| EMIN25 | 7.5 | A | 4 | 4 | - | S | Energy Systems Analysis: Energy, Environment and Natural Resources | | KS KE U W T | 1 | 2 | | |
| EMAN70 | 6 | A | 4 | 4 | X | E1 | Matrix Theory | | KS KE U W T | 1 | 2 | | |
| EDAN95 | 7.5 | A | 4 | 4 | X | E | Applied Machine Learning | | KS KE U W T | | 2 | | |

| Course Code | Credits | Cycle | Year | From year | S.Ex. stud. | Language | Course Name | Footnote | Links | | | |
|------------------------|---------|-------|------|-----------|-------------|----------|----------------------------------|---|-------|-----|-----|-----|
| | | | | | | | | | sp1 | sp2 | sp3 | sp4 |
| EXTG55 | 15 | G2 | 4 | 4 | - | S | Biochemistry | KS KE U W T | | 2 | | |
| EEMF05 | 7.5 | G2 | 4 | 4 | X | E1 | Biomedical Measurements | KS KE U W T | | 2 | | |
| EXTA65 | 4.5 | G1 | 4 | 4 | - | S | Cognition | KS KE U W T | | 2 | | |
| EITF45 | 7.5 | G2 | 4 | 4 | - | S | Computer Communication | KS KE U W T | | 2 | | |
| EEMN10 | 7.5 | A | 4 | 4 | X | E1 | Computerised Measurement Systems | KS KE U W T | | 2 | | |
| EDAN10 | 7.5 | A | 4 | 4 | X | E | Configuration Management | KS KE U W T | | 2 | | |
| EMAA25 | 7.5 | G1 | 4 | 4 | X | E1 | Discrete Mathematics | KS KE U W T | | 2 | | |

| Course Code | Credits | Cycle | Language | | | | Course Name | Footnote | Links | | | | |
|------------------------|---------|-------|----------|-----------|-------------|----|--|---|-------|-----|-----|-----|--|
| | | | Year | From year | S.Ex. stud. | | | | sp1 | sp2 | sp3 | sp4 | |
| IYT000 | 15 | G2 | 4 | 3 | - | S | Engineering Training Course | KS KE U W | | | 2 | | |
| MIOA12 | 6 | G1 | 4 | 1 | - | S | Managerial Economics, Basic Course | KS KE U W T | | | 2 | | |
| EMAF05 | 7 | G2 | 4 | 4 | - | E1 | Mathematics - Systems and Transforms | KS KE U W T | | | 2 | | |
| EMEN11 | 7.5 | A | 4 | 4 | X | E | Mechanical Vibrations | KS KE U W T | | | 2 | | |
| FMNN10 | 8 | A | 4 | 4 | X | E1 | Numerical Methods for Differential Equations | KS KE U W T | | | 2 | | |
| EMAN60 | 6 | A | 4 | 4 | X | E1 | Optimization | KS KE U W T | | | 2 | | |
| EMAN40 | 3 | A | 4 | 4 | X | E1 | Project in Applied Mathematics | KS KE U W T | | | 2 | | |

| Course Code | Credits | Cycle | Year | From year | S.Ex. stud. | Language | Course Name | Footnote | Links | sp1 sp2 sp3 sp4 | | | |
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| | | | | | | | | | | | | | |
| ERTN40 | 7.5 | A | 4 | 4 | X | E1 | Project in Automatic Control | | KS KE U W T | | | 2 | |
| EXTN30 | 15 | A | 4 | 4 | - | E | Sensory Biology | | KS KE U W T | | | 2 | |
| EMSN20 | 7.5 | A | 4 | 4 | X | E | Spatial Statistics with Image Analysis | | KS KE U W T | | | 2 | |
| EMSF60 | 7.5 | G2 | 4 | 4 | - | E1 | Statistical Methods for Safety Analysis | | KS KE U W T | | | 2 | |
| EMAF10 | 5 | G2 | 4 | 4 | - | S | Applied Mathematics - Linear systems | | KS KE U W T | | | | 3 |
| EDAP01 | 7.5 | A | 4 | 4 | X | E | Artificial Intelligence | X | KS KE U W T | | | | 3 |
| EITA25 | 7.5 | G1 | 4 | 4 | X | S | Computer Security | | KS KE U W T | | | | 3 |

| Course Code | Credits | Cycle | Year | From year | S.Ex. stud. | Language | Course Name | Footnote | Links | | | |
|------------------------|---------|-------|------|-----------|-------------|----------|--|---|-------|-----|-----|-----|
| | | | | | | | | | sp1 | sp2 | sp3 | sp4 |
| EMAN85 | 6 | A | 4 | 4 | X | E1 | Computer Vision | KS KE U W T | | | | 3 |
| IYT000 | 15 | G2 | 4 | 3 | - | S | Engineering Training Course | KS KE U W | | | | 3 |
| EMAE35 | 6 | G2 | 4 | 4 | X | E1 | Linear and Combinatorial Optimization | KS KE U W T | | | | 3 |
| MIOA01 | 9 | G1 | 4 | 4 | - | S | Managerial Economics, Basic Course | KS KE U W T | | | | 3 |
| EMAE01 | 7 | G2 | 4 | 4 | - | E1 | Mathematics - Analytic Functions | KS KE U W T | | | | 3 |
| EMSN50 | 7.5 | A | 4 | 4 | X | E | Monte Carlo and Empirical Methods for Stochastic Inference | KS KE U W T | | | | 3 |
| EMEN02 | 7.5 | A | 4 | 4 | X | E | Multibody Dynamics | KS KE U W T | | | | 3 |

| Course Code | Credits | Cycle | Year | From year | S.Ex. stud. | Language | Course Name | Footnote | Links | | | | | |
|------------------------|---------|-------|------|-----------|-------------|----------|--|----------|--------------------|--------------------|-------------------|-------------------|-------------------|---|
| | | | | | | | | | sp1 | sp2 | sp3 | sp4 | | |
| ETIA10 | 7.5 | G1 | 4 | 4 | X | E | Patent and Intellectual Property Rights | | KS | KE | U | W | T | 3 |
| EMSF05 | 7.5 | G2 | 4 | 4 | X | E | Probability Theory | | KS | KE | U | W | T | 3 |
| BMEN20 | 7.5 | A | 4 | 4 | X | E1 | Project Course in Signal Processing – from Idea to App | | KS | KE | U | W | T | 3 |
| MAMN35 | 7.5 | A | 4 | 4 | - | S | Risk Analysis Methods for Health and Environment | | KS | KE | U | T | | 3 |
| EXTN85 | 7.5 | A | 4 | 4 | X | E | Scattering Methods | | KS | KE | U | W | T | 3 |
| EMSN35 | 7.5 | A | 4 | 4 | X | E | Stationary and Non-stationary Spectral Analysis | X | KS | KE | U | W | T | 3 |
| EXTG45 | 7.5 | G2 | 4 | 4 | - | S | Technology Supported Communication | | KS | KE | U | W | T | 3 |

| Course Code | Credits | Cycle | Language | | | | Course Name | Footnote | Links | | | | | |
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| | | | Year | From year | S.Ex. stud. | | | | sp1 | sp2 | sp3 | sp4 | | |
| EDAF90 | 7.5 | G2 | 4 | 4 | X | S | Web Programming | KS | KE | U | T | 3 | | |
| EITN85 | 7.5 | A | 4 | 4 | X | E | Wireless Communication Channels | KS | KE | U | W | T | 3 | |
| EDAF50 | 7.5 | G2 | 4 | 3 | X | S | C++ Programming | KS | KE | U | W | T | 3 | 4 |
| EDAF75 | 7.5 | G2 | 4 | 4 | X | S | Database Technology | KS | KE | U | W | T | 3 | 4 |
| EITA05 | 4.5 | G1 | 4 | 1 | - | S | History of Technology | KS | KE | U | W | T | 3 | 4 |
| FRTN15 | 7.5 | A | 4 | 4 | X | E1 | Predictive Control | KS | KE | U | W | T | 3 | 4 |
| FRTN01 | 10 | A | 4 | 4 | X | E | Real-Time Systems | KS | KE | U | W | T | 3 | 4 |

| Course Code | Credits | Cycle | Year | From year | S.Ex. stud. | Language | Course Name | Footnote | Links | | | | | |
|------------------------|---------|-------|------|-----------|-------------|----------|--|----------|--------------------|--------------------|-------------------|-------------------|-------------------|---|
| | | | | | | | | | sp1 | sp2 | sp3 | sp4 | | |
| EXTG55 | 15 | G2 | 4 | 4 | - | S | Biochemistry | | KS | KE | U | W | T | 4 |
| EDAA25 | 3 | G1 | 4 | 4 | X | S | C Programming | | KS | KE | U | W | T | 4 |
| EMFN05 | 7.5 | A | 4 | 4 | X | E1 | Chaos | | KS | KE | U | W | T | 4 |
| MMTF25 | 7.5 | G2 | 4 | 4 | X | E1 | Computer Aided Design/Computer Aided Manufacturing | | KS | KE | U | W | T | 4 |
| FMSF65 | 7.5 | G2 | 4 | 4 | X | E | Design of Experiments | | KS | KE | U | W | T | 4 |
| EMAA25 | 7.5 | G1 | 4 | 4 | X | E1 | Discrete Mathematics | | KS | KE | U | W | T | 4 |
| IYT000 | 15 | G2 | 4 | 3 | - | S | Engineering Training Course | | KS | KE | U | W | | 4 |

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| | | | Year | From year | S.Ex. stud. | | | | sp1 | sp2 | sp3 | sp4 | |
| FHLN25 | 7.5 | A | 4 | 4 | X | E | Fracture Mechanics, Advanced Course | KS | KE | U | W | T | 4 |
| EDAN40 | 7.5 | A | 4 | 3 | X | E | Functional Programming | KS | KE | U | W | T | 4 |
| EMSN30 | 7.5 | A | 4 | 4 | X | E | Linear and Logistic Regression | KS | KE | U | W | T | 4 |
| EMAN45 | 7.5 | A | 4 | 4 | - | E | Machine Learning | KS | KE | U | W | T | 4 |
| MIOF20 | 6 | G2 | 4 | 4 | - | S | Management Organization | KS | KE | U | W | T | 4 |
| EMAF05 | 7 | G2 | 4 | 4 | - | E1 | Mathematics - Systems and Transforms | KS | KE | U | W | T | 4 |
| EEMN01 | 7.5 | A | 4 | 4 | X | E1 | Micro Sensors | KS | KE | U | W | T | 4 |

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| | | | | | | | | | sp1 | sp2 | sp3 | sp4 |
| EMNF10 | 6 | G2 | 4 | 4 | X | E1 | Numerical Analysis | KS KE U W T | | | | 4 |
| EMAN40 | 3 | A | 4 | 4 | X | E1 | Project in Applied Mathematics | KS KE U W T | | | | 4 |
| ETIF10 | 7.5 | G2 | 4 | 4 | X | E1 | Signal Processing - Design and Implementation | KS KE U W T | | | | 4 |
| EITF05 | 4 | G2 | 5 | 4 | - | S | Web Security | KS KE U W T | 1 | | | |
| EITN41 | 7.5 | A | 5 | 4 | - | S | Advanced Web Security | KS KE U W T | | 2 | | |
| EEMN05 | 7.5 | A | 5 | 4 | X | E1 | EMC, Noise and Noise Reduction | KS KE U W T | | 2 | | |
| FHLN20 | 7.5 | A | 5 | 4 | X | E | Finite Element Method for Non-linear Systems | KS KE U W T | | 2 | | |

[EDAP01](#) Artificial Intelligence: *Replaces [EDAF70](#)*

[FMSN35](#) Stationary and Non-stationary Spectral Analysis: *The course is offered every other academic year and will be given in 2019/20, 2021/22.*

Externally Elective Courses - BME

| Course Code | Credits | Cycle | Year | From year | S.Ex. stud. | Language | Course Name | Footnote | Links | sp1 sp2 sp3 sp4 | | | |
|------------------------|---------|-------|------|-----------|-------------|----------|---|----------|---|-----------------|---|---|---|
| | | | | | | | | | | 1 | 2 | 3 | 4 |
| GEMA20 | 7.5 | G1 | 4 | 1 | - | E | English for Engineers | X | KS KE U W T | 1 | 2 | | |
| GEMA25 | 7.5 | G1 | 4 | 1 | - | S | German for Engineers | X | KS KE U W T | 1 | 2 | | |
| GEMA70 | 15 | G1 | 4 | 1 | - | S | Japanese for Engineers | X | KS KE U W T | 1 | 2 | | |
| GEMA65 | 7.5 | G1 | 4 | 1 | - | S | Chinese for Engineers | X | KS KE U W T | | | 3 | 4 |
| GEMA20 | 7.5 | G1 | 4 | 1 | - | E | English for Engineers | X | KS KE U W T | | | 3 | 4 |
| GEMA01 | 7.5 | G1 | 4 | 1 | - | S | French for Engineers: Language, Culture and Society, First Course | X | KS KE U W T | | | 3 | 4 |

[GEMA20](#) English for Engineers: *LTH common courses (courses where the course code begins with GEM) counts as external elective courses in the degree requirements for students admitted autumn 2011 and later.*

[GEMA25](#) German for Engineers: *LTH common courses (courses where the course code begins with GEM) counts as external elective courses in the degree requirements for students admitted autumn 2011 and later.*

[GEMA70](#) Japanese for Engineers: *LTH common courses (courses where the course code begins with GEM) counts as external elective courses in the degree requirements for students admitted autumn 2011 and later.*

[GEMA65](#) Chinese for Engineers: *LTH common courses (courses where the course code begins with GEM) counts as external elective courses in the degree requirements for students admitted autumn 2011 and later.*

[GEMA01](#) French for Engineers: Language, Culture and Society, First Course: *LTH common courses (courses where the course code begins with GEM) counts as external elective courses in the degree requirements for students admitted autumn 2011 and later.*

Bachelor's Projects - BME

The list contains the bachelor's projects that are included in the BME programme.

Links

Course Code Credits

Course Name

| | | | |
|--------|----|---|---|
| EEML05 | 15 | Bachelor Project in Clinical Innovation | KS KE U |
|--------|----|---|---|

Degree Projects - BME

The list contains the degree project courses that are included in the BME programme.

Links

| Course Code | Credits | Course Name | Links |
|-------------|---------|---|---|
| FRTM01 | 30 | Degree Project in Automatic Control | KS KE U W |
| BMEM01 | 30 | Degree Project in Biomedical Engineering | KS KE U W |
| EDAM05 | 30 | Degree Project in Computer Sciences for Engineers | KS KE U W |
| EITM01 | 30 | Degree Project in Electrical and Information Technology | KS KE U W |
| BMEM05 | 30 | Degree Project in Electrical Measurements | KS KE U W |
| MAMM10 | 30 | Degree Project in Ergonomics | KS KE U W |
| MAMM01 | 30 | Degree Project in Interaction Design | KS KE U W |
| FMSM01 | 30 | Degree Project in Mathematical Statistics for Engineers | KS KE U W |
| FMAM05 | 30 | Degree Project in Mathematics for Engineers | KS KE U |
| PHYM01 | 30 | Degree Project in Physics | KS KE U W |
| TNSM01 | 30 | Degree Project in Rehabilitation Engineering | KS KE U W |
| FHLM01 | 30 | Degree Project in Solid Mechanics for Engineers | KS KE U W |