International Engineering-BME-German November 2013

| International Engir | <u> 1eering-BME-Ger</u> | man | November 2013 | | | |
|--|-------------------------|-----|----------------------|------------------------|--|--|
| First Semester | FIRST YEAR | | | NOTES | | |
| | ENGR 19500 | 1 | Engr Seminar | | | |
| | ENGR 19600 | 3 | Intro to Engineering | | | |
| | BIOL K101 | 5 | Concepts of Biol I | | | |
| | GER G131* | 4 | First-Year German I | | | |
| | MATH 16500 | 4 | Calculus/AnalGeo I | | | |
| | ENGR 19700 | 2 | Intro Prog. Concepts | | | |
| | Total: | 19 | | | | |
| Second Semester | FIRST YEAR | | | | | |
| | CHEM C105 | 3 | Prin. of Chemistry I | | | |
| | CHEM C125 | 2 | Exp. Chemistry I | Summer option | | |
| | MATH 16600 | 4 | Calc/AnalGeom II | prereq for Math 261 | | |
| | MATH 17100 | 3 | Multidimen. Math | prereq for Math 261 | | |
| | PHYS 15200 | 4 | Mechanics | | | |
| | GER G132* | 4 | First-YearGerman II | | | |
| | ENGR 29700 | 1 | Matlab | Summer option | | |
| | Total: | 21 | | | | |
| Third Semester | SECOND YEA | R | | | | |
| | CHEM C106 | 3 | Prin. Chemistry II | Summer option | | |
| | PHYS 25100 | 5 | Elec, Heat, Optics | | | |
| | MATH 26100 | 4 | Multvar Calculus | | | |
| | BME 24100 | 4 | Biomechanics | | | |
| | GER G203* | 3 | Sec-Year German I | | | |
| | Total: | 19 | | | | |
| Fourth Semester | SECOND YEA | R | | | | |
| 2 002 02 2020202 | MATH 26600 | 3 | Differential Eqns | | | |
| | ENG W131 | 3 | Elem Comp I | Summer option | | |
| | BME 22200 | 4 | Biomeasurements | | | |
| | GER G204* | 3 | Sec-Year German II | | | |
| | BIOL K324 | 3 | Cell Biology | | | |
| | BIOL K325 | 2 | Cell Biology Lab | only offered in Spring | | |
| | Total: | 18 | | | | |
| | | | | | | |
| Fifth Semester | THIRD YEAR | | | | | |
| 2 12 12 12 12 12 12 12 12 12 12 12 12 12 | BME 33100 | 3 | Biosignals & Syst | | | |
| | BME 33400 | 3 | Biomed. Computing | | | |
| | BME 38100 | 3 | Implantable Matls/ | | | |
| | 21.12 00100 | | Biol Response | | | |
| | BME 38300 | 1 | Problems in Implant | | | |
| | | - | Matls/Biol Resp | | | |
| | COMM R110 | 3 | Speech Comm | | | |
| | GER 300-level | 3 | 300-GermanElective | | | |
| | Total: | 16 | | | | |
| | | | | | | |
| | | | | I | | |

| Sixth Semester | THIRD YEAR | | | |
|------------------------|----------------|-----|-------------------------------------|--|
| | BME 32200 | 3 | Prob & Statistics | |
| | BME 35200 | 3 | Tissue Behavior /Prop | |
| | BME 35400 | 1 | Problems in TBP | |
| | Humanities | 3 | Huma Elective | |
| | Social Science | 3 | Soc Sci Elective | |
| | Ger 300-level | 3 | 300-GermanElective | |
| | Total: | 16 | | |
| Seventh Semester | FOURTH YEA | R | | |
| INTERNSHIP/ | BME/Sci/Tech | 2 | Tech Elective | |
| | GER G493 | 6 | Internship Projects | |
| | Total: | 8 | | |
| Eighth Semester | FOURTH YEA | R | | |
| | BME Gateway | | Depth Area elective | |
| | Elective | 3 | | |
| | CHEM C341 | 3 | Organic Chemistry | |
| | CHEM C343 | 2 | Organic Chem Lab | |
| | TCM 36000 | 2 | Comm in Engr | |
| | Humanities | 3 | Huma Elective | |
| | BME 40200 | 1 | BME Seminar | |
| | | | | |
| | BME project | 1 | For tech elective | must be cohesive w/2- credit intern. experience |
| | Total: | 15 | | |
| Ninth Semester | FIFTH YEAR | | | |
| | BME Sci/Tech | 2 | Depth Area elective | |
| | Elective | 3 | D: 11 1D 1 1 | |
| | BME 49100 | 3 | Biomedical Design I | |
| | BME 41100 | 3 | Quant Physiology Biofluid Mechanics | |
| | BME 44200 | 3 | | |
| | GER 400-level | 3 | 400-level German | |
| | Soc Sci/Huma | 3 | SoSci/HumaElective | |
| | Total: | 18 | | |
| Tenth Semester | FIFTH YEAR | | | |
| | BME 49200 | 3 | Biomed Design II | |
| | BME 46100 | 3 | Transport Processes | |
| | Social Science | 3 | Soc Sci Elective | |
| | GER 400-level | 3 | 400-level German | |
| | BME elective | 3 | Depth Area elective | |
| | Total: | 15 | | |
| | | | | |
| | 5-year total: | 165 | pradite waived or cradited based on | |

*Placement Test for students with prior GER knowledge.Up to 14 credits waived or credited based on results.

International Engineering-CmpE-German November 2013

| International Engine | eering-CmpE-German | November 2013 |
|----------------------|--------------------|---------------|
| First Semester | FIRST YEAR | |

| | ENGR 19500 | 1 | Intro to Engr Prof |
|------------------|----------------|-----------|----------------------|
| | ENGR 19600 | 3 | Intro to Engineering |
| | CHEM C105 | 3 | Princ of Chemistry I |
| | MATH 16500 | 4 | Calculus/AnalGeo I |
| | GER G131 * | 4 | First-Year GermanI |
| | MATH 17100 | 3 | Multidimen. Math |
| | Total: | 18 | |
| Second Semester | FIRST YEAR | | |
| | ECE 26100/263 | 00 4 | C Programming |
| | ENG W131 | 3 | Elementary Comp I |
| | MATH 16600 | 4 | Calculus/AnalGeo II |
| | PHYS 15200 | 4 | Mechanics |
| | GER G132* | 4 | First-Year Germ II |
| | Total: | 19 | |
| Third Semester | SECOND YEA | R | |
| | ECE 20100 | 3 | Linear Circuit An I |
| | ECE 20700 | 1 | Elec Measur Tech |
| | MATH 26100 | 4 | Multivar Calculus |
| | PHYS 25100 | 5 | Heat, Elec, Optics |
| | GER G203* | 3 | Sec-Year German I |
| | Total: | 16 | |
| Fourth Semester | SECOND YEA | R | |
| | ECE 20200 | 3 | Linear Circuit An II |
| | ECE 21000 | 1 | Soph. Seminar |
| | ENGR 29700 | 1 | Matlab |
| | CSCI 24000 | 4 | Advanced Prog. |
| | MATH 26600 | 3 | Differential Eqns |
| | GER G204* | 3 | Sec-Year German II |
| | Total: | 15 | |
| Fifth Semester | THIRD YEAR | | |
| | COMM R110 | 3 | Fund Speech Com |
| | ECE 27000 | 4 | Digital Logic Desig |
| | CSCI 34000 | 3 | Discrete Math |
| | ECON E201 | 3 | Microeconomics |
| | GER 300- level | 3 | 300-Ger Elective |
| | Total: | 16 | |
| | | | |
| Sixth Semester | THIRD YEAR | | |
| | CSCI 36200 | 3 | Data Structures |
| | ECE 30100 | 3 | Signals and Systems |
| | ECE 36200 | 4 | Microprocessor Sys |
| | Social Science | 3 | Soc Sci Elective |
| | GER 300- level | 3 | 300-Ger Elective |
| | Total: | 16 | |
| Seventh Semester | FOURTH YEA | <u>IR</u> | |

| INTERNSHIP/ | Tech Elect | 2 | |
|-----------------|----------------|-----|---------------------|
| GERMANY | GER 493 | 6 | Internship Projects |
| | Total: | 8 | 1 3 |
| Eighth Semester | FOURTH YEA | R | |
| | CmpE Elective | 3 | |
| | TCM 36000 | 2 | Comm in Engr |
| | ECE 28200 | 1 | Unix |
| | ECE 30200 | 3 | Probabilistic Meth |
| | Humanities | 3 | Huma Elective |
| | ECE 36500 | 3 | Des. Dig. Comp |
| | | | |
| | Total: | 15 | |
| Ninth Semester | FIFTH YEAR | | |
| | Humanities | 3 | Huma Elective |
| | ECE 48700 | 1 | Senior Design |
| | CmpE Elective | 3 | |
| | Adv. CmpE Req | | |
| | GER 400-level | 3 | 400-Ger Elective |
| | Soc Sci/Huma | 3 | SoSc/Huma Elective |
| | Total: | 16 | |
| Tenth Semester | FIFTH YEAR | | |
| | Adv. CmpE Req | | |
| | Cmp E Elective | 3 | |
| | ECE 40100 | 1 | Ethics |
| | ECE 48800 | 2 | Senior Design |
| | ECE 40800 | 3 | Operating Systems |
| | GER 400-level | 3 | 400-Ger Elective |
| | ECE 49600 | 1 | Cmp. E. Project |
| | Total | 16 | |
| | | | |
| | 5-year total | 155 | |

^{*}Placement Test for students with prior GER knowledge.Up to 14 credits waived or credited based on results.

Revised 11/4/13

International Engineering-EE-German November 2013

| First Semester | FIRST YEAR | | |
|-----------------|---------------|------|----------------------|
| First-Year | ENGR 19500 | 1 | Intro to Engr Prof |
| | ENGR 19600 | 3 | Intro to Engineering |
| | CHEM C105 | 3 | Princ of Chemistry I |
| | MATH 16500 | 4 | Calculus/AnalGeo I |
| | GER G131* | 4 | First-Year German I |
| | MATH 17100 | 3 | Multidimen. Math |
| | Total: | 18 | |
| Second Semester | FIRST YEAR | | |
| | ECE 26100/263 | 00 4 | C Programming |

| | ENG W 131 | 3 | Elementary Comp I |
|------------------------|-----------------|----|----------------------|
| | MATH 16600 | 4 | Calculus/AnalGeo II |
| | PHYS 15200 | 4 | Mechanics |
| | GER G132* | 4 | First-Year GermanII |
| | Total: | 19 | |
| Third Semester | SECOND YEAR | R | |
| | ECE 20100 | 3 | Linear Circuit Ana I |
| | ECE 20700 | 1 | Electr Measurement |
| | MATH 26100 | 4 | Multivar Calculus |
| | PHYS 25100 | 5 | Heat, Elec, Optics |
| | GER G203* | 3 | Sec-Year German I |
| | Total: | 16 | |
| Fourth Semester | SECOND YEAR | R | |
| | ECE 20200 | 3 | Circuit Analysis II |
| | ECE 27000 | 4 | Digital Logic Desig |
| | MATH 26600 | 3 | Differential Eqns. |
| | GER G204* | 3 | Sec-Year German II |
| | ENGR 29700 | 1 | Matlab |
| | ECE 21000 | 1 | Sophomore Seminar |
| | Total: | 15 | |
| Fifth Semester | THIRD YEAR | | |
| | ECE 30100 | 3 | Signals & Systems |
| | ECE 31100 | 3 | Elec & Magn Fields |
| | ECE 36200 | 4 | Microprocessor |
| | ME 29500 | 3 | Mechanics/Heat |
| | GER 300-level | 3 | 300-Ger Elective |
| | Total: | 16 | |
| Sixth Semester | THIRD YEAR | | |
| | ECE 30200 | 3 | Probabilistic Meth |
| | ECE 38200 | 3 | Controls |
| | ECE 25500 | 3 | Elect. Anal. & Des. |
| | COMM R110 | 3 | Fund Speech Comm |
| | GER 300-level | 3 | 300-Ger Elective |
| | ECE 20800 | 1 | Elect. Anal Des Lab |
| | Total: | 16 | |
| Seventh Semester | FOURTH YEA | | |
| INTERNSHIP/ | Tech Elect | 2 | |
| GERMANY | GER 493 | 6 | Internship Projects |
| | Total: | 8 | |
| Eighth Semester | FOURTH YEA | | |
| | TCM 36000 | 2 | Comm in Engineer |
| | Humanities | 3 | Huma Elective |
| | ECE Elective I | 3 | |
| | Social Sci | 3 | Soc Sci Elective |
| | ECE Elective II | 3 | |

| Total: | 14 | |
|------------------|--|--|
| FIFTH YEAR | | |
| ECE elect. III-Γ | V 6 | |
| ECE 44000 | 4 | Comm. Syst. Anal. |
| ECON E201 | 3 | Microeconomics |
| GER 400-level | 3 | 400-elective |
| ECE 48700 | 1 | Senior Design |
| Total: | 17 | |
| FIFTH YEAR | | |
| ECE 48800 | 2 | Senior Design |
| ECE Elec V | 3 | |
| ECE 40100 | 1 | Engr. Ethics/Prof |
| GER 400-level | 3 | 400-elective |
| Humanities | 3 | Huma Elective |
| Soc Sci/Huma | 3 | Elective |
| ECE 49600 | 1 | EE Project |
| Total: | 16 | |
| | | |
| 5-year total | 155 | |
| | FIFTH YEAR ECE elect. III-I' ECE 44000 ECON E201 GER 400-level ECE 48700 Total: FIFTH YEAR ECE 48800 ECE Elec V ECE 40100 GER 400-level Humanities Soc Sci/Huma ECE 49600 Total: | FIFTH YEAR ECE elect. III-IV 6 ECE 44000 4 ECON E201 3 GER 400-level 3 ECE 48700 1 Total: 17 FIFTH YEAR ECE 48800 2 ECE Elec V 3 ECE 40100 1 GER 400-level 3 Humanities 3 Soc Sci/Huma 3 ECE 49600 1 Total: 16 |

^{*}Placement Test for students with prior GER knowledge.Up to 14 credits waived or credited based on results. Revised 11/4/13

International Engineering-ME-German Fall, 2013

| First Semester | FIRST YEAR | | , |
|-----------------|------------|----|----------------------|
| | ENGR 19500 | 1 | Intro to Engr Prof |
| | ENGR 19600 | 3 | Intro to Engineering |
| | CHEM C105 | 3 | Princ of Chemistry I |
| | MATH 16500 | 4 | Calculus/AnalGeo I |
| | GER G131* | 4 | First-Year German I |
| | MATH 17100 | 3 | Multidimen. Math |
| | Total: | 18 | |
| Second Semester | FIRST YEAR | | |
| | ENGR 19700 | 2 | Intro Progr Concept |
| | ENG W131 | 3 | Elementary Comp I |
| | MATH 16600 | 4 | Calculus/AnalGeo II |
| | PHYS 15200 | 4 | Mechanics |
| | GER G132* | 4 | First-Year German II |
| | Total: | 17 | |
| Third Semester | SECOND YEA | R | |
| | ME 27000 | 3 | Basic Mechanics I |
| | MATH 26100 | 4 | Multvar Calculus |
| | PHYS 25100 | 5 | Heat, Elec, Optics |
| | GER G203* | 3 | Sec-Year German I |
| | ENGR 29700 | 1 | Matlab |

| | Total: | 16 | |
|--------------------------------------|---|--|---|
| Fourth Semester | SECOND YEAR | R | |
| | ME 20000 | 3 | Thermodynamics I |
| | ME 27400 | 3 | Basic Mechanics II |
| | ECE 20400 | 4 | Intro to Elect Circuit |
| | MATH 26600 | 3 | Differential Eqns. |
| | GER G204* | 3 | Sec-Year German II |
| | Total: | 16 | |
| Fifth Semester | THIRD YEAR | | |
| | ME 27200 | 3 | Mech of Materials |
| | ME 31000 | 4 | Fluid Mechanics |
| | ME 33000 | 3 | Dynamic Systems |
| | COMM R110 | 3 | Speech Comm. |
| | GER 300-level | 3 | 300-Ger Elective |
| | Total: | 16 | |
| Sixth Semester | THIRD YEAR | | |
| | ME 34400 | 3 | Intro Engr Materials |
| | ME 31400 | 4 | Heat Mass Transfer |
| | Statistics Elect. | 3 | |
| | ME 262 | 3 | Design, Ethics, Entre |
| | GER 300- level | 3 | 300-elective |
| | Total: | 16 | |
| | | | |
| Seventh Semester | FOURTH YEA | R | |
| | | 1/ | |
| INTERNSHIP/ | Tech Elect I | 2 | |
| | Tech Elect I GER 493 | 6 | Internship Projects |
| INTERNSHIP/ GERMANY | Tech Elect I GER 493 Total: | 2 6 8 | Internship Projects |
| INTERNSHIP/ | Tech Elect I GER 493 Total: FOURTH YEA | 2 6 8 R | 1 |
| INTERNSHIP/ GERMANY | Tech Elect I GER 493 Total: FOURTH YEA ME 34000 | 2 6 8 R 3 | Dyn Systems/Meas |
| INTERNSHIP/ GERMANY | Tech Elect I GER 493 Total: FOURTH YEA ME 34000 TCM 36000 | 2 6 8 R 3 2 | Dyn Systems/Meas Comm in Engr |
| INTERNSHIP/ GERMANY | Tech Elect I GER 493 Total: FOURTH YEA ME 34000 TCM 36000 ME 37200 | 2 6 8 R 3 2 3 | Dyn Systems/Meas Comm in Engr Mechanism Design |
| INTERNSHIP/ GERMANY | Tech Elect I GER 493 Total: FOURTH YEA ME 34000 TCM 36000 ME 37200 ME 39700 | 2 6 8 R 3 2 3 1 | Dyn Systems/Meas Comm in Engr |
| INTERNSHIP/ GERMANY | Tech Elect I GER 493 Total: FOURTH YEA ME 34000 TCM 36000 ME 37200 ME 39700 Sci/Tech elect | 2 6 8 R 3 2 3 1 3 | Dyn Systems/Meas Comm in Engr Mechanism Design |
| INTERNSHIP/ GERMANY | Tech Elect I GER 493 Total: FOURTH YEA ME 34000 TCM 36000 ME 37200 ME 39700 Sci/Tech elect Tech elect II | 2 6 8 R 3 2 3 1 3 | Dyn Systems/Meas Comm in Engr Mechanism Design ME Lab |
| INTERNSHIP/ GERMANY | Tech Elect I GER 493 Total: FOURTH YEA ME 34000 TCM 36000 ME 37200 ME 39700 Sci/Tech elect Tech elect II Humanities | 2 6 8 R 3 2 3 1 3 3 | Dyn Systems/Meas Comm in Engr Mechanism Design |
| INTERNSHIP/ GERMANY Eighth Semester | Tech Elect I GER 493 Total: FOURTH YEA ME 34000 TCM 36000 ME 37200 ME 39700 Sci/Tech elect Tech elect II Humanities Total: | 2 6 8 R 3 2 3 1 3 | Dyn Systems/Meas Comm in Engr Mechanism Design ME Lab |
| INTERNSHIP/ GERMANY | Tech Elect I GER 493 Total: FOURTH YEA ME 34000 TCM 36000 ME 37200 ME 39700 Sci/Tech elect Tech elect II Humanities Total: FIFTH YEAR | 2 6 8 R 3 2 3 1 3 3 3 18 | Dyn Systems/Meas Comm in Engr Mechanism Design ME Lab Huma Elective |
| INTERNSHIP/ GERMANY Eighth Semester | Tech Elect I GER 493 Total: FOURTH YEA ME 34000 TCM 36000 ME 37200 ME 39700 Sci/Tech elect Tech elect II Humanities Total: FIFTH YEAR Social Science | 2 6 8 R 3 2 3 1 3 3 18 | Dyn Systems/Meas Comm in Engr Mechanism Design ME Lab Huma Elective Soc Sci Elective |
| INTERNSHIP/ GERMANY Eighth Semester | Tech Elect I GER 493 Total: FOURTH YEA ME 34000 TCM 36000 ME 37200 ME 39700 Sci/Tech elect Tech elect II Humanities Total: FIFTH YEAR Social Science ME 48200 | 2 6 8 R 3 2 3 1 3 3 3 18 | Dyn Systems/Meas Comm in Engr Mechanism Design ME Lab Huma Elective Soc Sci Elective Control Systems |
| INTERNSHIP/ GERMANY Eighth Semester | Tech Elect I GER 493 Total: FOURTH YEA ME 34000 TCM 36000 ME 37200 ME 39700 Sci/Tech elect Tech elect II Humanities Total: FIFTH YEAR Social Science ME 48200 ME 41400 or | 2 6 8 R 3 2 3 1 3 3 18 | Dyn Systems/Meas Comm in Engr Mechanism Design ME Lab Huma Elective Soc Sci Elective Control Systems Thermal Fluid or |
| INTERNSHIP/ GERMANY Eighth Semester | Tech Elect I GER 493 Total: FOURTH YEA ME 34000 TCM 36000 ME 37200 ME 39700 Sci/Tech elect Tech elect II Humanities Total: FIFTH YEAR Social Science ME 48200 ME 41400 or ME 49700 | 2 6 8 R 3 2 3 1 3 3 18 | Dyn Systems/Meas Comm in Engr Mechanism Design ME Lab Huma Elective Soc Sci Elective Control Systems Thermal Fluid or Machine Design |
| INTERNSHIP/ GERMANY Eighth Semester | Tech Elect I GER 493 Total: FOURTH YEA ME 34000 TCM 36000 ME 37200 ME 39700 Sci/Tech elect Tech elect II Humanities Total: FIFTH YEAR Social Science ME 48200 ME 49700 Soc Sci/Huma | 2 6 8 R 3 2 3 1 3 3 18 3 3 3 3 3 3 | Dyn Systems/Meas Comm in Engr Mechanism Design ME Lab Huma Elective Soc Sci Elective Control Systems Thermal Fluid or Machine Design So Sci/Huma Elective |
| INTERNSHIP/ GERMANY Eighth Semester | Tech Elect I GER 493 Total: FOURTH YEA ME 34000 TCM 36000 ME 37200 ME 39700 Sci/Tech elect Tech elect II Humanities Total: FIFTH YEAR Social Science ME 48200 ME 41400 or ME 49700 | 2 6 8 R 3 2 3 1 3 3 18 | Dyn Systems/Meas Comm in Engr Mechanism Design ME Lab Huma Elective Soc Sci Elective Control Systems Thermal Fluid or Machine Design |
| INTERNSHIP/ GERMANY Eighth Semester | Tech Elect I GER 493 Total: FOURTH YEA ME 34000 TCM 36000 ME 37200 ME 39700 Sci/Tech elect Tech elect II Humanities Total: FIFTH YEAR Social Science ME 48200 ME 49700 Soc Sci/Huma | 2 6 8 R 3 2 3 1 3 3 18 3 3 3 3 3 3 | Dyn Systems/Meas Comm in Engr Mechanism Design ME Lab Huma Elective Soc Sci Elective Control Systems Thermal Fluid or Machine Design So Sci/Huma Elective |

| Tenth Semester | FIFTH YEAR | | |
|----------------|----------------|-----|----------------|
| | ME 49100 | 1 | Design Project |
| | Tech Elect III | 3 | |
| | ME 46200 | 3 | Senior Design |
| | ME 40500 | 1 | FE Review |
| | GER 400-level | 3 | 400-elective |
| | Humanities | 3 | Huma Elective |
| | ECON E201 | 3 | Microeconomics |
| | Total | 17 | |
| | | | |
| | 5-year total | 157 | |

^{*}Placement Test for students with prior GER knowledge.Up to 14 credits waived or credited based on results.

Revised 11/4/13