

**Electrical Engineering Track V16.0A (German Study-abroad Program,
Originating at MSOE)**

Year One at MSOE

Fall

Course Name	credits	Term Taken	Grade	Gen Ed
EE 1000 - Introduction to Electrical Engineering	4 credits			
MA 136 - Calculus for Engineers I	4 credits			
CH 200 - Chemistry I	4 credits			
GS 1001 - Freshman Studies I	4 credits			

Total: 14 lecture hours - 4 lab hours - 16 credits

Winter

Course Name	credits	Term Taken	Grade	Gen Ed
EE 1910 - Introduction to Embedded Systems Programming	4 credits			
CE 1901 - Digital Logic 1	4 credits			
MA 137 - Calculus for Engineers II	4 credits			
GS 1002 - Freshman Studies II	4 credits			

Total: 14 lecture hours - 4 lab hours - 16 credits

Spring

Course Name	credits	Term Taken	Grade	Gen Ed
EE 2050 - Linear Circuits - Steady State I	4 credits			
CE 1911 - Digital Logic 2	4 credits			
MA 231 - Calculus for Engineers III	4 credits			
GS 1003 - Freshman Studies III	4 credits			

Total: 14 lecture hours - 4 lab hours - 16 credits

Year Two at MSOE

Fall

Course Name	credits	Term Taken	Grade	Gen Ed
EE 2060 - Linear Circuits - Steady State II	4 credits			
EE 2920 - Embedded Systems	4 credits			

MA 235 - Differential Equations for Engineers	4 credits			
PH 2011 - Physics I - Mechanics	4 credits			
Total: 13 lecture hours - 6 lab hours - 16 credits				
Winter				
Course Name	credits	Term Taken	Grade	Gen Ed
EE 2070 - Linear Circuits - Transients	3 credits			
EE 2931 - Systems Interfacing	4 credits			
MA 232 - Calculus for Engineers IV	3 credits			
PH 2021 - Physics II - ElectroMagnetism	4 credits			
GE 300 - Career and Professional Guidance	1 credits			
Total: 14 lecture hours - 4 lab hours - 15 credits				
Spring				
Course Name	credits	Term Taken	Grade	Gen Ed
EE 3051B - Dynamic Systems	4 credits			
EE 3102 - Analog Electronics I	4 credits			
PH 2031 - Waves, Optics, Thermodynamics, and Quantum Physics	4 credits			
MA 262 - Probability and Statistics	3 credits			
MA 383 - Linear Algebra	3 credits			
Total: 16 lecture hours - 4 lab hours - 18 credits				
Year Three at FHL				
Fall Semester				
Total: 25 lecture hours - 5 lab hours - 4 credits				
Spring Semester				
Total: 21 lecture hours - 8 lab hours - 6 credits				
Year Four at MSOE				
Fall				
Course Name	credits	Term Taken	Grade	Gen Ed
EE 407 - Senior Design Project I	3 credits			
EE 3921 - Digital System Design	4 credits			
ME 354 - Thermodynamics and Heat Transfer	3 credits			
PH 3600 - Physics of Semiconductor Materials and Devices	4 credits			
Total: 11 lecture hours - 7 lab hours - 14 credits				
Winter				
Course Name	credits	Term Taken	Grade	Gen Ed
EE 408 - Senior Design Project II	3 credits			
EE 3204 - Electric and Magnetic Fields	4 credits			
EE 3221 - Digital Signal Processing	4 credits			
HU 432 - Ethics for Professional Managers and Engineers	3 credits			
• Elective (Math or Science) ¹ 3 credits				
Total: 15 lecture hours - 5 lab hours - 17 credits				
Spring				
Course Name	credits	Term Taken	Grade	Gen Ed
EE 409 - Senior Design Project III	3 credits			
EE 3401 - Electromechanical Energy Conversion	4 credits			
EE 2510 - Introduction to Object-Oriented Programming	3 credits			
IE 423 - Engineering Economy	3 credits			

- MS 2220 - Foundations of Business Economics² **3 credits**

Total: 13 lecture hours - 7 lab hours - 16 credits

Notes:

¹ The 3 credits of elective subjects in the V16.0A of the Electrical Engineering program must be taken as follows:

- 3 credits of program-approved math or science elective

² MS 221, Microeconomics can be used as a substitute for MS 2220.

Transfer students will be required to complete OR 307S Transfer Orientation Seminar.

Accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

Electrical Engineering Track V16.0B (German Study-abroad Program, Originating at FHL)

Year Three at FHL

Fall Semester

Total: 20 lecture hours - 6 lab hours - 0 credits

Spring Semester

Total: 19 lecture hours - 7 lab hours - 6 credits

Year Four at MSOE

Fall

Course Name	credits	Term Taken	Grade	Gen Ed
EE 3921 - Digital System Design	4 credits			
MS 483 - Database Management Systems	3 credits			
MS 354 - Principles of Accounting	3 credits			
GE 611 - Numerical Methods	3 credits			

Total: 12 lecture hours - 2 lab hours - 13 credits

Winter

Course Name	credits	Term Taken	Grade	Gen Ed
EE 3221 - Digital Signal Processing	4 credits			
EE 3204 - Electric and Magnetic Fields	4 credits			
GE 300 - Career and Professional Guidance	1 credits			
• Elective (HU) ¹ 3 credits				
• Elective (HU) ¹ 3 credits				

Total: 15 lecture hours - 2 lab hours - 15 credits

Spring

Course Name	credits	Term Taken	Grade	Gen Ed
EE 3401 - Electromechanical Energy Conversion	4 credits			
EE 423 - Applications of Digital Signal Processing	3 credits			
EE 444 - Power Electronics	3 credits			
HU 432 - Ethics for Professional Managers and Engineers	3 credits			
GS 1003 - Freshman Studies III	4 credits			

Total: 15 lecture hours - 4 lab hours - 17 credits

Summer

Course Name	credits	Term Taken	Grade	Gen Ed
EE 499G - Independent Study - German Students	12 credits			

Total: 0 lecture hours - 0 lab hours - 12 credits

Notes:

¹ The 6 credits of elective subjects in the V16.oB of the Electrical Engineering program must be taken as follows:

- 6 credits of approved humanities (HU)

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Electrical Engineering Track V16.oC (AAS-EET to BSEE, Full Time)**Year One****Fall Quarter**

Course Name	credits	Term Taken	Grade	Gen Ed
MA 3502 - Engineering Mathematics II	4 credits			
EE 3001B - Signals and Circuits I	4 credits			
EE 3900B - Design of Logic Systems	4 credits			
MA 3501 - Engineering Mathematics I	4 credits			
OR 307S - Transfer Orientation Seminar	0 credits			

Total: 15 lecture hours - 4 lab hours - 16 credits

Winter Quarter

Course Name	credits	Term Taken	Grade	Gen Ed
EE 3002B - Signals and Circuits II	4 credits			
• CH 200B - Chemistry I ¹ 4 credits				
EE 3910B - Embedded Systems	4 credits			
GE 300 - Career and Professional Guidance	1 credits			
MA 383 - Linear Algebra	3 credits			

Total: 16 lecture hours - 4 lab hours - 16 credits

Spring Quarter

Course Name	credits	Term Taken	Grade	Gen Ed
EE 3112 - Analog Electronics II	4 credits			
MA 262 - Probability and Statistics	3 credits			
• EE 3051B - Dynamic Systems ³ 4 credits				
PH 2021 - Physics II - ElectroMagnetism	4 credits			
IE 423 - Engineering Economy	3 credits			

Total: 16 lecture hours - 4 lab hours - 18 credits

Year 2**Fall Quarter**

Course Name	credits	Term Taken	Grade	Gen Ed
EE 407 - Senior Design Project I	3 credits			
EE 3720 - Control Systems	4 credits			
EE 2510 - Introduction to Object-Oriented Programming	3 credits			
EE 3032 - Signals and Systems	4 credits			
PH 2031 - Waves, Optics, Thermodynamics, and Quantum Physics	4 credits			

Total: 14 lecture hours - 9 lab hours - 18 credits

Winter Quarter

Course Name	credits	Term Taken	Grade	Gen Ed
EE 408 - Senior Design Project II	3 credits			
EE 3204 - Electric and Magnetic Fields	4 credits			
EE 3221 - Digital Signal Processing	4 credits			
EE 4022 - Principles of Communications	4 credits			
• Elective (Technical) ² 3 credits				

Total: 15 lecture hours - 7 lab hours - 18 credits

Spring Quarter

Course Name	credits	Term Taken	Grade	Gen Ed
EE 409 - Senior Design Project III	3 credits			
EE 3214 - Electromagnetic Waves	4 credits			
ME 354 - Thermodynamics and Heat Transfer	3 credits			
PH 3600 - Physics of Semiconductor Materials and Devices	4 credits			
Elective (Technical) ² 3 credits				

Total: 14 lecture hours - 7 lab hours - 17 credits

Other Required Courses

Course Name	credits	Term Taken	Grade	Gen Ed
HU 432 - Ethics for Professional Managers and Engineers	3 credits			
<ul style="list-style-type: none">• Elective (HU)² 3 credits• Elective (HU)² 3 credits• Elective (Math or Science)² 3 credits				
GS 1003 - Freshman Studies III	4 credits			

Total: 16 lecture hours - 0 lab hours - 16 credits

Notes:

¹ Students with high school chemistry may enroll in CH 200.

² The 15 credits of elective subjects in the V16.0C of the Electrical Engineering program must be taken as follows:

- 6 credits of humanities (HU).
- 6 credits of approved EE program technical electives.
- 3 credits of program-approved math or science elective.
- Additional electrical engineering program technical electives may be required if certain courses specified by MSOE are not fulfilled at the AAS-EET Institution.

³ Students with PH 2011 or equivalent may enroll in EE 3050.

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