

## Transfer Requirements and Equivalencies into the MSOE AAS-EET to BSEE Transfer Pathway

MSOE: AAS-EET to BSEE Transfer Pathway in the BS in Electrical Engineering program  
Madison: AAS-EET Associate of Applied Science in Electrical Engineering Technology

MSOE Course Numbers and Names	Madison Course Numbers <sup>a</sup>
1. COM 1001 College Writing	10-801-195
2. COM 2001 Writing for STEM Disciplines	10-801-197
3. MTH 1110 Calculus I	20-804-231
4. MTH 1120 Calculus II	20-804-232
5. General Education elective <sup>b</sup> (for PSY 3004; Curiosity CLO)	10-809-199
6. General Education elective <sup>b</sup> (Diversity CLO)	---- none ---- <sup>e</sup>
7. PHY 1110 Physics I Mechanics and Thermodynamics	20-806-223
8. ELE 1000 Introduction to EE	10-605-112 <b>OR</b> 10-605-270
9. ELE 2001 Electric Circuits I	10-605-112 & -114 <b>AND</b> 10-662-105, <b>OR</b> 10-605-270 <b>AND</b> 10-662-121, <b>OR</b> 10-662-121 <b>AND</b> 10-662-221 <sup>d</sup>
10. ELE 3141 Transfer Electronics	10-605-113 <b>AND</b> 10-605-115 <b>AND</b> 10-662-105 <sup>c</sup> <b>OR</b> 10-662-121 <sup>c</sup> , <b>AND</b> 10-662-106 <sup>c</sup>
11. Two options in this requirement: i) ELE 1801 Transfer Digital Logic & Embedded Systems, <b>OR</b> ii) ELE 1801 Transfer Digital Logic & Embedded Systems <b>AND</b> ELE 2801 Bridge Digital Design & Procedural Programming	i) 10-605-118 <b>AND</b> 10-605-119 <b>AND</b> 10-605-173 <b>AND</b> 10-605-176, <b>OR</b> ii) All courses listed above in i) <b>AND</b> 10-662-120
12. ELE 3401 Electric Power and Machines	10-605-143, <b>AND EITHER</b> 10-662-105 <b>OR BOTH</b> 10-662-121 <b>AND</b> 10-662-221
13. Technical Elective <sup>b</sup>	10-605-178
14. Free Elective <sup>b</sup>	20-809-264 <sup>e</sup>

a All courses in each category must be satisfied for transfer credit of the designated MSOE course. All Two-year College EET program course titles are stated on the following page.

b Listed Two-year College course(s) is approved in this elective category. Any other Two-year College course requires approval by MSOE in advance of the student taking the course. Retroactive approval is not guaranteed.

c 10-662-105 or 10-662-121, a prerequisite to 10-662-106, must be taken and successfully passed with a grade of C (not C-) or above in a semester prior to when 10-662-106 is taken in order for 10-662-106 to be eligible for transfer consideration to MSOE.

d 10-662-121 and 10-662-221 collectively also transfer for ELE 2011.

e. 20-809-264, Introduction to Logic and Critical Thinking transfers for PHL 3202 (Think Critically CLO) and satisfies either an EE Free Elective or a Raider Core (Choice CLO) elective.

**Madison College Course Listing**  
**(in effect at Madison in Fall 2025 for transfer to MSOE in Fall 2027)**

<b>First Semester</b>	<b>Class</b>	<b>CR</b>
10-605-108*	Certified IPC Application Specialist (CIS) J-STD-001	1
10-605-113	Analog Circuit Techniques	3
10-605-118	Digital Circuit Techniques	3
10-801-195	Written Communication	3
10-809-199	Psychology of Human Relations	3
10-605-112	AC/DC Electronics 1, <b>OR</b>	3
10-605-270	AC/DC Circuit Techniques and Principles	16
<b>Second Semester</b>	<b>Class</b>	<b>CR</b>
10-605-115	Analog Circuit Principles	3
10-605-119	Digital Circuit Principles	3
10-605-173	Embedded Programming	3
10-662-120	Digital Circuit Design and VHDL	1
20-804-231	Calculus and Analytical Geometry 1	5
10-605-114	AC/DC Electronics 2, <b>OR</b>	3
10-662-121	Circuit Modeling 1	18
<b>Third Semester</b>	<b>Class</b>	<b>CR</b>
10-605-143	Motor and Control Circuits	3
10-605-176	Microcontrollers	3
20-804-232	Calculus and Analytical Geometry 2	5
20-809-264**	Introduction to Logic and Critical Thinking	3
10-662-105	Advanced Circuits (3 cr), <b>OR</b>	3 or 4
10-662-221	Circuit Modeling 2 (4 cr)	17 or 18
<b>Fourth Semester</b>	<b>Class</b>	<b>CR</b>
10-662-117*	Analog Circuit Design	1
10-605-178	Networks, Interfacing and Programming	3
10-662-106	Advanced Electronics	3
10-801-197	Technical Reporting	3
20-806-223	University Physics 1-Calculus-Based	5
		15
	<b>Program Credits</b>	<b>66 or 67</b>

\* This course is required in the Madison College EET program to earn the AAS EET degree but does not count toward transfer requirements into the MSOE AAS-EET to BSEE Transfer Pathway program.

\*\* Transferable into the BS-level of the MSOE AAS-EET to BSEE Transfer Pathway program:  
 20-809-264 Introduction to Logic and Critical Thinking transfers for PHL 3202 (Think Critically CLO) and satisfies either an EE Free Elective or a Raider Core elective (Choice CLO).