

ELECTRICAL ENGINEERING

Four-Semester Transfer Sequence for UMCP

UNIVERSITY of MARYLAND				MONTGOMERY COLLEGE			
<i>Semester 1</i>							
CHEM 135	Gen Chemistry for Engineers	3		CHEM 135	Chemistry for Engineers (or CHEM 132 Prin. of Chemistry II)	4	
ENEE 101	Intro to Elec. & Comp. Eng.*	3		ENGL 102	Critical Reading, Writing & Research	3	
MATH 140	Calculus I	4		ENES 100	Intro. to Engineering Design	3	
ENEE 140	Intro. to Prog. Concepts	2		ENEE 140	Intro. to Prog. Concepts for Engineers	2	
ENGL 101	Intro to Writing	3		MATH 181	Calculus I	4	
Total Credits		15		Total Credits		16	
<i>Semester 2</i>							
ENEE 150	Intermediate Prog. Concepts	3		ENEE 150	Intermediate Prog. Concepts for Eng.	3	
ENES 100	Intro. to Engineering Design	3		ENEE 244	Digital Logic Design	3	
MATH 141	Calculus II	4		MATH 182	Calculus II	4	
PHYS 161	Physics I	3		PHYS 161	Physics I	3	
	Gen. Ed. Requirements**	3			General Education Distribution Course**	3	
Total Credits		16		Total Credits		16	
<i>Semester 3</i>							
ENEE 244	Digital Logic Design Tech.	3		ENEE 222	Elements of Discrete Signal Analysis	4	
ENEE 222	Discrete Signal Analysis	4		MATH 280	Multivariable Calculus	4	
MATH 241	Calculus III	4		PHYS 262	Physics II	4	
PHYS 260/1	Physics II/Lab	4			General Education Distribution Course**	3	
	Gen. Ed. Requirements**	3			Gen. Ed. Humanities COMM 108 recommended**	3	
Total Credits		18		Total Credits		18	
<i>Semester 4</i>							
ENEE 245	Digital Circuits and Systems	2		ENEE 207	Electric Circuits	4	
ENEE 205	Electric Circuits	4		ENEE 245	Digital Circuits and Systems Lab	2	
MATH 246	Differential Equations	3		MATH 282	Differential Equations	3	
PHYS 270/1	Physics III/Lab	4		PHYS 263	General Physics III	4	
	Gen. Ed. Requirements**	3			General Education Distribution Course**	3	
Total Credits		16		Total Credits		16	
GRAND TOTAL		65		GRAND TOTAL[#]		66	

[UMCP BS Electrical Engineering Curriculum](#)

[MC AS Electrical Engineering Curriculum](#)

Students completing these courses will have four general education courses to transfer.

* MC does not have a course equivalent to UMCP ENEE 101 Intro to Elec. & Comp. Eng.

** Follow this link for information about the 4-year programs [General Education](#) requirements at UMCP.

ELECTRICAL ENGINEERING

Suggested Five-Semester Transfer Sequence for UMCP

Semester 1

CHEM 131	Principles of Chemistry I ¹	4
ENGL 101	Intro. to College Writing	3
ENES 100	Intro. to Engineering Design	3
MATH 165	Precalculus	4
Total Credits		14

Semester 1 Curriculum Prerequisites*

CHEM 099	Introductory Chemistry ²	0
MATH 050	Foundations of Algebra ³	0
MATH 098	Intro to Trigonometry ³	0

Semester 2

CHEM 132	Principles of Chemistry II ¹	4
ENGL 102	Crit. Read., Writing & Research	3
MATH 181	Calculus I	4
General Education Distribution Course		3
Total Credits		14

Courses Usually Offered During Summer Terms*

CHEM 131	Principles of Chemistry I	4
CHEM 132	Principles of Chemistry II	4
ENEE 140	Intro to Prog Concepts for Eng	2
ENEE 244	Digital Logic Design	3
ENGL 102	Crit. Read., Writing & Research	3
ENES 100	Introduction to Engineering Design	3
MATH 165	Precalculus	4
MATH 181	Calculus I	4
MATH 182	Calculus II	4
MATH 280	Multivariable Calculus	4
MATH 282	Differential Equations	3
PHYS 161	Physics I	3

Semester 3

MATH 182	Calculus II	4
PHYS 161	Physics I	3
ENEE 140	Intro to Prog Concepts for Eng	2
General Education Distribution Course		3
Gen. Ed. Human. COMM 108 recommended**		3
Total Credits		15

Semester 4

ENEE 150	Interm Prog Concepts for Eng	3
MATH 280	Multivariable Calculus	4
PHYS 262	Physics II	4
ENEE 244	Digital Logic Design	3
General Education Distribution Course		3
Total Credits		17

Semester 5

ENEE 207	Electric Circuits	4
ENEE 222	Elem. of Disc. Sig. Analysis	4
ENEE 245	Dig. Circuits & Systems Lab	2
MATH 282	Differential Equations	3
PHYS 263	Physics III	4
Total Credits		17

Advising Notes

¹CHEM 131/132 may be more appropriate than CHEM 135 for students who are taking MATH 050/MATH098.

²CHEM 099 or a passing score on the Chemistry placement exam is required for CHEM 131 or CHEM 135.

³MATH 050 and MATH 098 or equivalents are prerequisites for MATH 165.

Students taking the AELW/AELR course sequence should meet with an engineering advisor to determine appropriate math, physics, and engineering course enrollments.

GRAND TOTAL

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*Students may meet prerequisites for first-semester curriculum courses by either successfully completing appropriate coursework in high school or achieving qualifying scores on SAT, AP, IB, or Accuplacer assessments. Students needing to complete prerequisites to first-semester curriculum may consider taking summer term courses.

**Note: ENGL 101 and MATH 165 do not transfer as part of the BS engineering degree requirements at UMCP.