

CIVIL ENGINEERING

Four-Semester Transfer Sequence for UMCP

UNIVERSITY of MARYLAND			MONTGOMERY COLLEGE		
<i>Semester 1</i>					
ENCE 100	Intro to Civil Eng*	1	CHEM 135	Gen Chem for Eng (or CHEM 132)	4
ENES 102	Mechanics I (Statics)	3	ENGL 102	Critical Reading, Writing & Research	3
CHEM 135	Gen Chemistry for Engineers	3	ENES 100	Intro. to Engineering Design	3
MATH 140	Calculus I	4	MATH 181	Calculus I	<u>4</u>
ENGL 101	Intro to Writing	<u>3</u>			
Total Credits		14	Total Credits		14
<i>Semester 2</i>					
ENES 100	Intro. to Engineering Design	3	ENES 102	Statics	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
	Gen. Ed. Requirements**	<u>3</u>	Gen. Ed. Humanities COMM 108 recommended**		<u>3</u>
Total Credits		16	Total Credits		16
<i>Semester 3</i>					
ENCE 200	Civil Eng. Computation*	3	ENES 220	Mechanics of Materials	3
ENES 220	Mechanics II	3	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
	Science Requirement****	<u>3</u>	ENCE 200	Civil Eng. Comp. - MTAP	3
Total Credits		17	Total Credits		17
<i>Semester 4</i>					
ENCE 201	Eng. Info. Processing*****	3	ENES 221	Dynamics (or ENES 120)***	3
ENCE 215	Engineering for Sustainability*	3	ENES 240	Scientific & Eng. Computation*****	3
ENCE 305	Fundamentals of Eng. Fluids *	3	MATH 282	Differential Equations	3
MATH 246	Differential Equations	3	PHYS 263	Physics III**** (or Sci Requirement)	4
	Gen. Ed. Requirements**	<u>3</u>	General Education Distribution Course**		<u>3</u>
Total Credits		15	Total Credits		16
GRAND TOTAL		62	GRAND TOTAL		63

[Civil Engineering \(Environmental/Water Res. Track\)](#)

[Civil Engineering \(Geotechnical/Structures Track\)](#)

[Civil Engineering \(Transportation Track\)](#)

[MC AS Civil Engineering Curriculum](#)

* ENCE 100, 200, 215, 305 for which MC has no equivalents, must be completed after transfer or through [MTAP](#).

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

*** ENES221 is only required for Geotechnical/Structures Track at UMCP. Students pursuing Environmental/Water Resources Track should take BIOL 120 for UMCP. Transportation Track may opt to take BIOL105, BIOL151, or GEOL101 to fulfill non-major science requirement.

**** BIOL105/106, BIOL151, or GEOL101 Science Requirement at UMCP instead of PHYS 263. PHYS 263 may be required at other schools including Georgia Tech.

***** ENES240 is equivalent to ENCE201 at UMCP as indicated in [ARTSYS](#).

[Maryland Transfer Advantage Program \(MTAP\)](#): Students planning transfer to UMCP should enroll in MTAP as soon as possible. Benefits include access to advising transfer advising at UMCP and tuition discounts on courses taken through MTAP at UMCP.

CIVIL 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	<u>4</u>
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., Writ. & Research	3
MATH 181	Calculus I	4
General Education Distribution Course		<u>3</u>
Total Credits		14

Courses Usually Offered During Summer Terms*

CHEM 131	Principles of Chemistry I	4
CHEM 132	Principles of Chemistry II	4
ENGL 102	Critical Reading, Writing & Research	3
ENES 100	Introduction to Engineering Design	3
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
ENES 102	Statics	3
General Education Distribution Course		<u>3</u>
Total Credits		13

Semester 4

ENES 220	Mechanics of Materials	3
MATH 280	Multivariable Calculus	4
PHYS 262	Physics II	4
ENCE 200	Civil Eng. Comp. - MTAP	3
General Education Distribution Course		<u>3</u>
Total Credits		17

Semester 5

ENES 221	Dynamics (or ENES 120)	3
ENES 240	Scientific & Eng. Computation	3
MATH 282	Differential Equations	3
PHYS 263	Physics III (or Science Req.)	4
General Education Distribution Course		<u>3</u>
Total Credits		16

Advising Notes

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

²CH 099 or a passing score on the Chemistry placement exam is required for CHEM 131 or CHEM135.

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

Students taking the American English Language Writing (ELAW)/American English Language Reading (ELAR) course sequence should meet with an engineering advisor to determine appropriate math, physics, and engineering course enrollments.

GRAND TOTAL

77**

*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.

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