

Anne Arundel Community College				UMBC Equivalency		
CODE	TITLE	NOTES/RECOMMENDATIONS	Credits	Course	GEP	Credits
ENG 101 or 101A	Academic Writing and Research I		3	Lower Level Elective - ENGL	AH	3
ENG 102	Academic Writing and Research II		3	ENGL 100 - Composition	EN	3
*CHE 111	General Chemistry 1		4	CHEM101 - Principles of Chemistry I	SL	4
CHE 112	General Chemistry 2		4	CHEM102 - Principles of Chemistry II	SL	4
*MAT 191	Calculus and Analytic Geometry I		4	MATH 151 - Calculus and Analytic Geometry I	M	4
*MAT 192	Calculus and Analytic Geometry II		4	MATH 152 - Calculus and Analytic Geometry II	M	4
*MAT 201	Calculus and Analytic Geometry III		4	MATH 251 - Multivariable Calculus		4
*MAT 202 or *MAT 212			4	MATH 221 or MATH 225		4
*PHY 211 + *PHY212 + *PHY213			12	PHYS 121 + PHYS 122 + PHYS 122L	S+S+SL	12
*CTP 150	Computer Science 1	Elective (substitution needed to meet Technology Requirement)	4	CMSC 201 - Computer Science I		4
Arts & Humanities GER		** Foreign Language (if needed, otherwise Communications course)	3		AH/C	3
Wellness Requirement			3		SS	3
Social and Behavioral Sciences GER			3		SS	3
HIS 111, 112, 113, 114, 211, 212 or 214		Social and Behavioral Sciences GER	3		SS	3
Arts & Humanities GER		** Foreign Language (if needed, otherwise Sophomore Literature course)	3		AH/C	3
Total Credits at Anne Arundel Community College:			61	Transferrable credits to UMBC (Maximum 70):		61

\* Course can be used to satisfy UMBC major requirements when completed with a "C" or better.

\*\* **Foreign Language Requirement:** The language requirement consists of completion of a foreign language through the 201 level or demonstrated proficiency at that level. The proficiency requirement is met by previous experience as follows: 1) completion of level 4 or higher of a language in high school, or 2) corresponding AP, IB or CLEP credit, or 3) completion of a language through the 201 level at a regionally accredited college or university.

CODE	TITLE	PRE-REQUISITES		NOTES/RECOMMENDATIONS	GEP	CREDITS
PHYS 224	Vibrations and Waves	PHYS 122 or PHYS 122H with a grade of 'C' or better.		Fall Year 3		3
MATH 221 or 225		MATH 142 or MATH 152 with a grade of 'C' or better.		Fall Year 3		3
PHYS 321	Intermediate Mechanics	MATH 221, MATH 225, and PHYS 224 with a grade of 'C' or better.		Spring Year 3		3
PHYS 324	Modern Physics	PHYS 224 with a grade of 'C' or better.		Spring Year 3		3
PHYS 320L	Electronics for Scientists	PHYS 122L and (PHYS 122 or PHYS 122H) with a grade of 'C' or better.		Spring Year 3		4
PHYS 303	Thermal and Statistical Physics	MATH 251 and PHYS 324 with a grade of 'C' or better.		Fall Year 4		3
PHYS 424	Introduction to Quantum Mechanics	MATH 225, PHYS 321, and PHYS 324 with a grade of 'C' or better.		Fall Year 4		3
PHYS 330L	Optics Laboratory	ENGL 100, PHYS 122L, and PHYS 224 with a grade of 'C' or better.		Fall Year 4	WI	3
PHYS 3xx or 4xx	Physics elective (Upper Level)			Fall Year 4		3
PHYS 220	Introduction to Computational Physics	MATH 152, PHYS 122, and (CMSC 104 or CMSC 201) with a grade of 'C' or better.		Spring Year 4		3
PHYS 407	Electromagnetic Theory	MATH 225 and PHYS 224 with a grade of 'C' or better.		Spring Year 4		3
PHYS 431L	Modern Physics Laboratory	PHYS 324 and PHYS 330L with a grade of 'C' or better.		Spring Year 4		3
PHYS 3xx or 4xx	Physics elective (Upper Level)			Spring Year 4		3
	Upper Level Elective					3
	Upper Level Elective					3
	Upper Level Elective					3
	Upper Level Elective					3
	Upper Level Elective					3
	Arts and Humanities or Culture GEP Requirement				AH/C	3
	** Foreign Language (if needed)				201L	4
Total credits at UMBC:						62
Total credits toward UMBC degree (minimum 120 credits):						120