

**1. ROBERT MORRIS UNIVERSITY CORE--41 Credits**

*CHEM1210	Chemistry I	3	CHEM101	HIST_____	History Elective	3	HIST_____
*CHEM1215	Chemistry I Lab	1	CHEM101	HUMA1010	Humanities: Art and Music	3	ELIT_____
COSK1220	Reading and Writing Strategies	3	WRIT101	INFS1020	Intro to Decision Support Systems	3	CIST100
COSK1221	Argument and Research	3	_____	*MATH2070	Calculus w/Analytic Geometry I	4	MATH160
COSK2220	Public Speaking and Persuasion	3	COMM201	PSYC1010	General Psychology	3	PSYC101
COSK2230	Professional Communications	3	_____	SOC1010	Principles of Sociology or	3	SOC101
ECON1010	Survey of Economics	3	_____	SOCI2320	Contemporary Amer Social Prob	or	SOCI210
ELIT_____	Literature Elective	3	LITR_____				

**2. MATH AND SCIENCE --25 Credits**

*ENGR2080	Engineering Statistics	3	_____	*PHYS1210	Physics I	3	PHYS101
*MATH2170	Calculus with Analytic Geometry II	4	MATH161	*PHYS1215	Physics I Lab	1	PHYS101
*MATH3090	Calculus with Analytic Geometry III	4	_____	PHYS2210	Physics II	3	PHYS102
MATH3400	Linear Algebra with Applications	3	_____	PHYS2215	Physics II Lab	1	PHYS102
MATH3420	Differential Equations	3	_____				

**3. BUSINESS -9 Credits**

ACCT1020	Fundamentals of Accounting	3	_____	MGMT3100	Management Theory and Practice	3	_____
MARK3100	Principles of Marketing	3	_____				

**4. BASIC ENGINEERING—12 Credits from the following:**

ENGR1610	Statics and Strength of Materials	3	_____	ENGR2180	Engineering Materials	3	_____
ENGR2140	Circuits and Electromagnetics	3	_____	ENGR3110	Thermodynamics and Energetics	3	_____
ENGR2160	Engineering Graphics	3	_____				

**5. MAJOR --33 Credits**

*ENGR1010	Introduction to Engineering	3	_____	ENGR3700	Manufacturing Planning and Control	3	_____
ENGR3200	Value Design	3	_____	ENGR4400	Device Control	3	_____
ENGR3600	Production Engineering	3	_____	ENGR4650	Simulation	3	_____
ENGR3650	Product and Tool Design	3	_____	*ENGR4900	Engineering Practice	3	_____
ENGR3680	Introduction to Quality Engineering	3	_____	*ENGR4950	Integrated Engineering Design	3	_____
				INFS3184	C++ Programming	3	_____

**6. APPROVED ELECTIVES--6 Credits Minimum**

**Choose from: ENGR3250 Automated Identification Systems, ENGR4010/ENGR4015 Analysis/Design Manufacturing Engineering Systems and Lab, ENGR4030 Project Engineering, ENGR4200 Safety and Methods Engineering, ENGR4700 Robotics and Automation, and/or ENGR4801 Rapid Prototype/Reverse Engineering.**

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**Up to 44 credits apply to this degree program**

**SEMESTER BY SEMESTER BREAKDOWN OF COURSE EQUIVALENTS**

<b>CCBC COURSES</b>		<b>RMU EQUIVALENT</b>	
<b>CRSE NO</b>	<b>COURSE TITLE</b>	<b>CRSE NO</b>	<b>COURSE TITLE</b>
<b>First Semester</b>			
CHEM101	General Chemistry I	CHEM1210	Chemistry I and Lab (CHEM1215)
CIST100	Intro to Information Technology	INFS1020	Intro to Decision Support Systems
MATH130	College Algebra or MAT115 Statistics	MATH1010	College Mathematics (Not Applicable)
WRIT101	English Composition I	COSK1220	Reading/Writing Strategies
PSYC101	General Psych ( <b>Social Science Elective</b> )	PSYC1010	General Psychology
<b>Second Semester</b>			
COMM201	Public Speaking	COSK2220	Public Speaking
CHEM102	General Chemistry II	CHEM2210	Chemistry II (Not Applicable)
WRIT102	English Composition II	ELIT____	Literature Elective for HUMA1010
MATH155	Pre-Calculus	MATH1020	Pre-Calculus (Not Applicable)
<b>Third Semester</b>			
MATH160	Calculus I	MATH2070	Analytical Calculus with Geometry I
PHYS101	College Physics I	PHYS1210	Physics I and Lab (PHYS1215)
CIST160	Visual Basic I	INFS2120	Visual Basic I (Not Applicable)
SOCI101	Principles of Sociology or SOCI210 Contemp Amer Soc Problems ( <b>Liberal Arts Elective</b> )	SOCI1010	Principles of Sociology or SOCI2320 Contemp Amer Soc Problems
<b>Fourth Semester</b>			
MATH161	Calculus II	MATH2170	Analytical Calculus with Geometry II
PHYS102	College Physics II	PHYS2210	Physics II and Lab (PHYS2215)
PHYS201	Statics		Not Applicable
HIST____	History/Political Sci Elec ( <b>Liberal Arts Elective</b> )	HIST____	History/Political Science Elective
LITR____	Literature Elective ( <b>Liberal Arts Elec</b> )	ELIT____	Literature Elective