

**VILLANOVA UNIVERSITY - MECHANICAL ENGINEERING DEPARTMENT  
UNDERGRADUTE DEGREE AUDIT - MECHATRONICS MINOR**

**Freshman Year (I)**

FALL		credits
113 CHM	1103 Chemistry Lab I	1
113 CHM	1151 Chemistry I	4
124 ACS	1000 Trads in Conversation	3
160 MAT	1500 Calculus I	4
182 THL	1050 Intro to Christian Theology	3
332 EGR	1700 Intro to Engineering	3
		18

**SPRING**

113 CHM	1156 Chemistry II	4
124 ACS	1001 Modernity & Discontent	3
160 MAT	1505 Calculus II	4
177 PHY	2400 Physics I	3
332 EGR	1705 Engineering Computation	3
		17

**Sophomore Year (II)**

FALL		credits
362 ME	2502 Professional Dev. Seminar	1
160 MAT	2500 Calculus III	4
177 PHY	2402 Physics II	3
177 PHY	2403 Physics Lab	1
362 ME	2100 Statics	3
362 ME	2505 Analysis & Design I	4
		16

**SPRING**

362 ME	2900 M.E. Lab I	1
160 MAT	2705 Differential Equations	4
362 ME	3100 Thermodynamics I	3
315 CEE	2103 Mechanics of Solids	3
362 ME	2113 Manufacturing Engineering	3
118 COM	1101 Business & Prof. Comm.	3
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Total Credits 68

**Junior Year (III)**

FALL		credits
362 ME	3150 Intro to Dynamics	3
362 ME	3300 Material Science I	3
362 ME	3402 Solid Mechanics & Design I	3
362 ME	3600 Fluids & Fluid Systems	3
330 ECE	2052 Fund. of Electrical Egr	3
330 ECE	2053 Fund. of Electrical Egr.Lab	1
		16

**SPRING**

362 ME	3950 Heat Transfer I	3
362 ME	3403 Solid Mechanics & Design II	3
362 ME	3802 Vibrations	3
362 ME	3900 M.E. Lab II	1
362 ME	4800 Design Seminar I	1
330 ECE	2054 Fund of Electrical Egr.II	3
	Theology > 2000*	3
		17

**Senior Year (IV)**

FALL		credits
362 ME	4801 Design Seminar II	2
362 ME	4902 M.E. Lab III	1
362 ME	4102 System Dynamics	3
362 ME	4850 Thermal-Fluid Systems Design	3
362 ME	ME/ECE elective^	3
	Ethics Elective**	3
		15

**SPRING**

362 ME	4802 Design Seminar III	1
362 ME	ME/ECE elective^	3
330 ECE	2042 Fund. Computer Egr I	3
330 ECE	2043 Fund. Computer Egr. Lab	1
	Professional Dev. Elective***	3
	Theology > 2000* or Any PHI*	3
	Humanities/Social Science*	3
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Total Credits 65

Revised 11/6/08

\* Course selection available from catalog or advisor

\*\* from EGR 2001, PHI 2121, PHI 2130, PHI 2550, PHI 2180, HON 1380, ETH 2050, ETH 3500, ETH 3650, SBI 1112, SBI 2207

\*\*\* from EGR 2001, ME 4050, ME 4600, CEE 4601, BL 1090, BL 2135, MGT 2206

NOTE: The Ethics Elective\*\* and PD Elective\*\*\* course list and numbers are subject to change

^ one from ME5203, ME 5411, ME5421 & one from ECE 5390, ECE 5450, ECE 5800. These courses may be replaced by approved ME, ECE, or EGR graduate courses