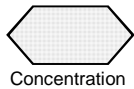
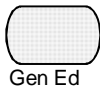
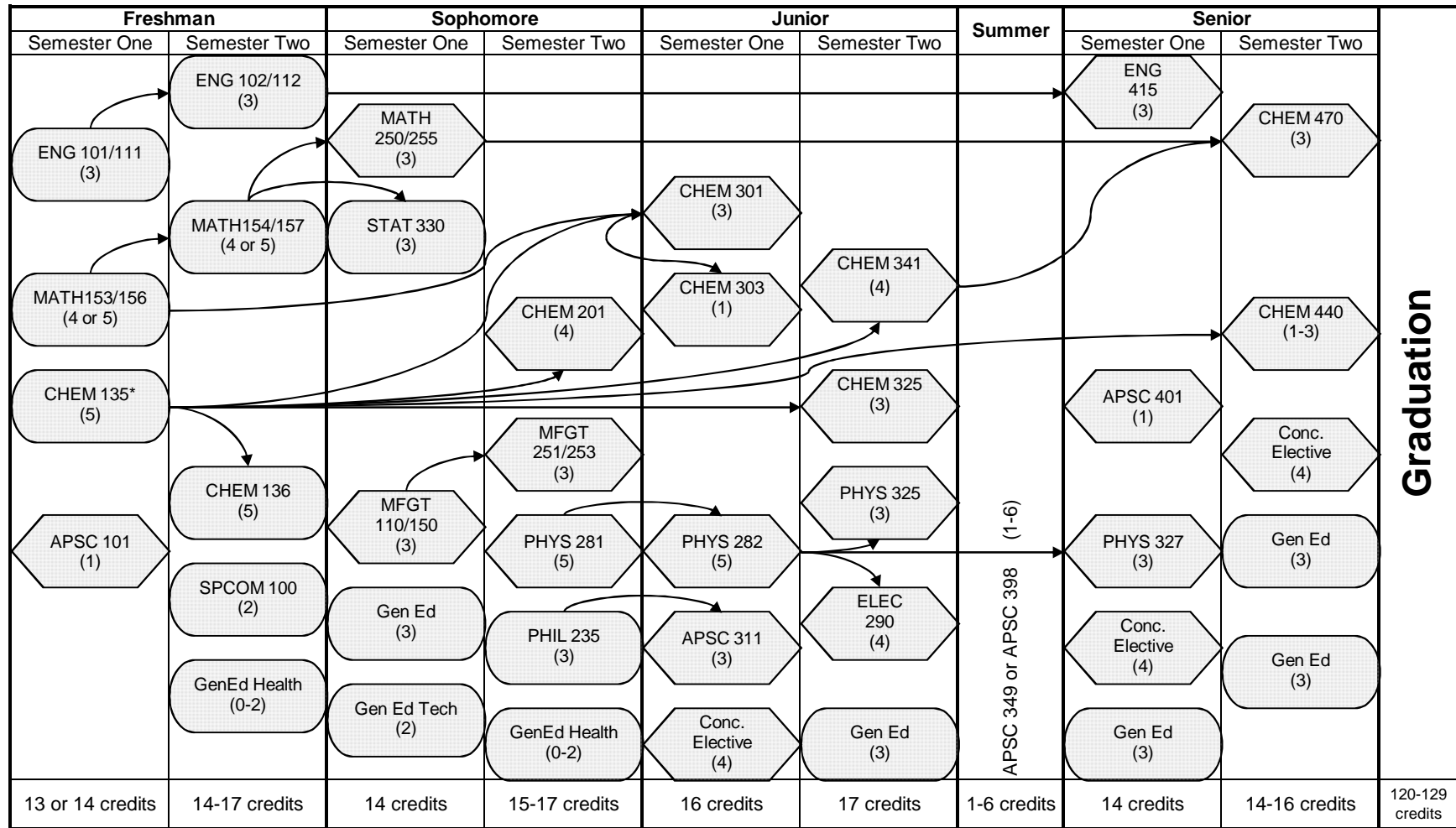


PROGRAM PLAN SHEET:
BACHELOR OF SCIENCE Concentration in Materials Science
 University of Wisconsin-Stout 2008-2009

CONCENTRATION REQUIREMENTS			GENERAL AND OTHER REQUIREMENTS		
I. Materials Science Course Requirements	CR	YR	A. Communication Skills (8 cr.)	CR	YR
APSC-101 Applied Science Professional I	1		ENGL-101 Freshman English Composition, OR ENGL-111 Freshman English Honors I	3	
APSC-311 Issues for Scientific Professionals, P: PHIL-235	3				
APSC-349 Co-op OR APSC-398 Field Experience	1-6		ENGL-102 Freshman English Reading, P: ENGL-101 or ENGL-111 OR ENGL-112 Freshman English Honors II, P: ENGL-101 or ENGL-111.	3	
APSC-401 Applied Science Profession II	1				
ENGL-415 Technical Writing, P: ENGL-102, ENGL-112 or ENGL-113	3		SPCOM-100 Fundamentals of Speech	2	
MATH-250 Differential Equations, P: MATH-157 OR MATH-255 Differential Equations w/Linear Algebra, P: MATH-154 or MATH-157	3		B. Analytical Reasoning (8-10 cr.)		
STAT-330 Probability and Statistics for Engineers and the Sciences	3		MATH-153 Calculus I OR MATH-156 Calculus and Analytical Geometry I Course admission based on Math Placement Level 4	4-5	
PHYS-281 University Physics I	5		MATH-154 Calculus II P: MATH-153 OR MATH-157 Calculus and Analytical Geometry II, P: MATH-156	4-5	
PHYS-282 University Physics II	5				
PHYS-325 Strength of Materials, P: PHYS-231, MATH-153 or MATH-156; or PHYS-241; or PHYS-281	3		C. Health and Physical Education (2 cr.)		
PHYS-327 Solid State Physics, P: PHYS-282 or PHYS-242; and MATH-157 or MATH-154	3		D. Humanities and the Arts (9 cr.)		
ELEC-290 Circuits and Devices, P: MATH-154 and PHYS-282	4		PHIL-235 General Ethics	3	
CHEM-136 College Chemistry II, P: CHEM-135, CHEM-125, or CHEM-135 and MATH-156	5		From the approved list, choose 6 credits from two or more areas.	6	
CHEM-201 Organic Chemistry, P: CHEM-135	4		E. Social and Behavioral Sciences (9 cr.)		
CHEM-301 Physical Chemistry, P: CHEM-115, CHEM-125, or CHEM-135 and MATH-156	3		From the approved list, choose 9 credits from three or more areas.	9	
CHEM-303 Physical Chemistry Laboratory, P: CHEM-115, CHEM-125, or 135 and MATH-156	1		F. Natural Sciences (with lab) (5 cr.)		
CHEM-325 Chemistry of Polymers, P: CHEM-135	3		CHEM-135 College Chemistry I	5	
CHEM-341 Materials Science I, P: CHEM-115, CHEM-125 or CHEM-135	4		G. Technology (2 cr.)		
CHEM-440 Advanced Materials Laboratory, P: CHEM-115, CHEM-125 or CHEM-135	1-3			2	
CHEM-470 Materials Science II, P: CHEM-301, CHEM-115, CHEM-125 or CHEM-135	3		Total General and Other Requirements		
MFGT-110 Materials and Manufacturing Processes OR MFGT-150 Introduction to Engineering Materials	3		43-45		
MFGT-251 Polymer & Composite Processes, P: MFGT-110, MFGT-150 or PKG-220 OR MFGT-253 Casting and Joining Processes, P: MFGT-110 or MFGT-150	3		Elective credits as needed to fulfill 120-credit graduation requirement.		
			TOTAL CREDITS FOR GRADUATION		
			119-125		
II. Materials Science Selectives – Must take 3 of these 4 courses					
BIO-136 College Molecular Cell Biology I	5				
BIO-235 Molecular Cell Biology II	4				
CHEM-331 Quantitative Analysis, P: CHEM-115, CHEM-125 or CHEM-135; and CHEM-136 or CHEM-201	3				
CHEM-335 Instrumental Methods & Analysis, P: CHEM-115, CHEM-125 or CHEM-135; and CHEM-136 or CHEM-201	3				
Total Concentration Requirements			76-80		
			Approved General Education course list can be found here: http://www.uwstout.edu/provost/geescorslist.pdf		
Ethnic and diversity requirements are to be met through appropriate selection of course work leading to the degree. Foreign Language requirements are encouraged for all students in the program. Field Studies and/or Cooperative Education experiences are recommended for all students in the program. P: Prerequisite					

Applied Science - Materials Science Concentration Flow Chart



* CHEM 135 has a prerequisite of MATH 120 or above

Bachelor of Science in Applied Science: Materials Science Concentration

Total Program Credits 120-129

Freshman Year

<i>1st Semester</i>			<i>2nd Semester</i>		
ENG-101/111	Freshman English Composition/Honors I	3	ENG-102/112	Freshman English Reading/Honors II	3
APSC-101	Applied Science Profession I	1	SPCOM-100	Fundamentals of Speech	2
MATH-153/156	Calculus I	4 or 5	MATH-154/157	Calculus II	4 or 5
CHEM-135	College Chemistry I	5	CHEM-136	College Chemistry II	5
	<i>Total</i>	<u>13 to 14</u>		<i>Gen. Ed. Health Elective</i>	<u>0 to 2</u>
				<i>Total</i>	<u>14 to 17</u>

Sophomore Year

<i>1st Semester</i>			<i>2nd Semester</i>		
MFGT-110/150	Materials and Manufacturing Processes or Intro to Engineering Materials	3	MFGT-251/253	Polymer & Composite Processes or Casting and Joining Processes	3
Math-250/255	Differential Equations or Differential Equations w/ Linear Algebra	3	PHIL-235	General Ethics	3
STAT-330	Probability and Statistics	3	CHEM-201	Organic Chemistry I	4
	<i>Humanities/Soc. Science Elec.</i>	3	PHYS-281	University Physics I	5
	<i>Gen. Ed. Technology elective</i>	2		<i>Gen. Ed. Health Elective</i>	<u>0 to 2</u>
	<i>Total</i>	<u>14</u>		<i>Total</i>	<u>15 to 17</u>

Junior Year

<i>1st Semester</i>			<i>2nd Semester</i>		
CHEM-301	Physical Chemistry	3	CHEM- 325	Chemistry of Polymers	3
CHEM-303	Physical Chemistry Lab	1	CHEM-341	Chemistry of Materials I	4
APSC-311	Issues for Science Professionals	3	PHYS-325	Strength of Materials	3
PHYS-282	University Physics II	5	ELEC-290	Circuits and Devices	4
	<i>Concentration Elective</i>	4		<i>Humanities/Soc. Science Elec.</i>	<u>3</u>
	<i>Total</i>	<u>16</u>		<i>Total</i>	<u>17</u>

Summer

APSC 349 or APSC 398 1 to 6

Senior Year

<i>1st Semester</i>			<i>2nd Semester</i>		
PHYS-327	Solid State Physics	3	CHEM-440	Advanced Materials Lab	1 to 3
APSC-401	Applied Science Profession II	1	CHEM-470	Materials Science II	3
ENG-415	Technical Writing	3		<i>Concentration Elective</i>	4
	<i>Concentration Elective</i>	4		<i>Humanities/Soc. Science Elec.</i>	3
	<i>Humanities/Soc. Science Elec.</i>	3		<i>Humanities/Soc. Science Elec.</i>	<u>3</u>
	<i>Total</i>	<u>14</u>		<i>Total</i>	<u>14 to 16</u>