

Name _____
MSU ID# _____

Advisor _____

**SNOW SCIENCE OPTION
CURRICULUM CHECKING SHEET
(2008-2010 Catalog)**

Rubric	#	Core Course Title	PREREQUISITES	SEM.	CREDITS TAKEN	GRADE
FRESHMAN YEAR						
GPHY	111	CS Intro to Physical Geography			4	
GPHY	141	D Geogr of World Regions			3	
M	171	Q Calculus I	M 151 or MATH PLACEMENT IN PAST 12 MONTHS		4	
M	172	Q Calculus II	M 171		4	
University core or elective					15	
Snow Geography concentration consider Biology 101N						
TOTAL					30	
SOPHOMORE YEAR						
CHMY	141	College Chemistry I	ONE YEAR OF HS CHEMISTRY		4	
CHMY	143	College Chemistry II	CHMY 141 or CHMY 151		4	
PHYS	211	College Physics I	HIGHSCHOOL TRIGONOMETRY or M 160		4	
PHYS	212	College Physics II	PHYS 205 or PHYS 211		4	
ERTH	303	Weather and Climate	GPHY 111		3	Fall
Courses from Core and Snow Geography Emphasis or Snow Mechanics Emphasis					11	
TOTAL					30	
JUNIOR YEAR						
ERTH	307	Principles of Geomorphology	GEO 101; GPHY 111		4	Fall
Courses from Core and Snow Geography Emphasis or Snow Mechanics Emphasis					26	
TOTAL					30	
SENIOR YEAR						
ERTH	450	R Snow Dynamic and Accumulation	JR or SR STANDING ALBILITY TO SKI AT INTERMEDIATE LEVEL IN ALPINE TERRAIN; PHYS 205 or PHYS 211; GPHY 111		3	Spr
GPHY	441	Mountain Geography	SR STANDING; GPHY 111 or BIOL 101		4	Fall
GEO	445	Glacial Geology	ERTH 307		3	Spr
Courses from Core and Snow Geography Emphasis or Snow Mechanics Emphasis					20	
TOTAL					30	
GRAND TOTAL					120	

Select one of the following two emphases:

Rubric	#	Core Course Title	PREREQUISITES	SEM.	CREDITS TAKEN	GRADE
Snow Geography						
BIOL	101	IN Biology of Organisms			3	
GPHY	121	D Human Geography			3	
GPHY	284	Intro to GIS Science and Cartography			3	
STAT	332+	Statistics for Scientists & Engineers	M 182		3	
♦ Students with a grade of less than a B in Calculus might consider the following two classes rather than Stat 332						
STAT	216	Intro to Statistics	C- or better in any 100 level or above M course, or M Placement test w/in past 12 months			
STAT	217	Intermediate Statistical Concepts	STAT 216			
GPHY	365	Geographical Planning	GPHY 141; GPHY 121		3	
GPHY	384	Advanced GIS & Spatial Analysis	GPHY 284		3	
GPHY	411	Biogeography	GPHY 121 or BIOL 101		3	
GPHY	484	Applied GIS & Spatial Analysis	GPHY 284; GPHY 384		3	
GPHY	461	Tourism Planning	GPHY 284; GPHY 365		3	
ERTH	432	R Surface Water Resources	GPHY 111; STAT 216 or 332; PHYS 201 or 205		3	
OR						
LRES	444	Watershed Hydrology	GPHY 111; LRES 110; LRES 201		3	
STAT	446	Sampling	STAT 332 or STAT 417		3	
Additional 2 credits of upper division credits needed to graduate						
TOTAL					33	

[See reverse side for other emphases]

Rubric	#	Core Course Title	PREREQUISITES	SEM. CREDITS TAKEN	GRADE
SNOW MECHANICS					
I&ME	350	Applied Engineering Data Analysis	CHBE 213; ME 251	2	
M	273	Q Multivariable Calculus	M 172	4	
M	274	Intro to Differential Equation	M 172	4	
EM	251	Statics and Particle Dynamics	PHYS 211; COREQUISITE - M 273	3	
EM	252	Rigid Body Mechanics	EM 251	3	
EM	253	Mechanics of Materials	EM 251	3	
EM	335	Mechanics of Fluids	EM 252; EM 253	3	
EM	435	Fluid Dynamics	EM 335	3	
CE	312	Structures I	EM 253	3	
CE	320	Geotechnical Engineering	EM 253	3	
CE	331	Engineering Hydrology	I&ME 350	3	
CE	332	Engineering Hydraulics	EM 335	2	

Additional 5 credits of upper division credits needed to graduate

TOTAL

35

NOTE: The snow mechanics program is within two courses (CE 350 - Transportation Engineering and CE 308 - Construction Practice) of qualifying for admission to the MSU Civil Engineering graduate program. Other university's requirements may differ. The prerequisites for the two additional courses are respectively: CE 201 - Surveying for Transportation Engineering and BUS 201 - Managerial Communication and ME 116 - Engineering Design Graphics for CE 350 - Construction Practice.

NOTE: A minimum of 120 credits is required for graduation; 42 of these credits must be in courses numbered 300 or above.

NOTE: Normal text shows courses offered every year, **BOLD courses are planned to be offered in the first year of the cycle (e.g., 2008-9)** and *ITALICIZED courses are planned to be offered in the second year (e.g., 2009-10)*. All offerings are dependent upon available staffing.