				GEOLOGIC TIME		COMPOSITION AND ARCHITECTURE of EARTH			EARTH SURFACE			HUMAN DIMENSIONS										USING DATA		REASONING				COMMUNICATION			QUANTITATIVE			RESEARCH	INTER PERSONAL	INFORMATION	
				Evolution Life	History of Earth	Mineral, Rock, Fossil Identification, core	Structural Geology, Tectonics	Internal Processes that Shape Earth	Landforms Surface Processes	Weather, Climate, Oceans	Biosphere	Environmental, Hazards, Resources	Human Systems, Cultural Historical Economic	Policy Planning	Technical Skills ; e.g. petrography core logging X-sections	Computation, modeling	Analysis, Experiment	Application of principles, physics, chemistry, biology	Field Methods Practices	GIS, Map making, interpretation	Qualitative Methods	Students Collect Data	Students Utilize Existing Data	System Thinking	Temporal Reasoning	Spatial Reasoning	Problem-Solving	Oral Presentation Debate Discussion	Writing	Poster Session, Graphical Data Representation	Geometry Trigonom	Calculus	Statistics	Formulate Hypothesis Design Tests Report Results	Cooperative Collaborative Learning	Primary Literature, Databases; Critical evaluation	Theory, Philosophy and Intellectual History
Year 1																																			
Erth 101	Earth System Science	F, S, Su	Schmitt	3	3	1	2	3	3	3	3	3	3	1	1			1		3	2	1	2	3	2	3	2		3					2			
Erth 201	Honors Earth System	F	Lageson	3	3	1	2	3	3	3	3	3	3	1	1			1		3	2	1	2	3	2	3	2		3	1				2	1		1
Erth 102	Topics in Earth Science	F,S	Mogk	1	1	1	1	1	1	1	1	3	3	2			2		1				3	1	1		1	2	1					2	1	1
GPHY 121	**Human Geography**	**F**	**Haggerty**							**1**	**1**	**1**	**3**	**1**						**1**					**1**			**1**								**1**
GPHY 141	World Regional	F, S, Su	Wyckoff						1	2	1	1	3	3			1		1		1	3	2	3	2	3	1		2	1			1				1
GEO 103	Introduction Enviromental	S	Mogk		1	2	2	2	2	2	2	3	3	2			2			1			2	3	1	2	1	3	2	1				3	2	
GEO 105	Oceanography	F alternate even	Schmitt	2	2		3	2	2	3	3	3	3	3						2				2	2	2			2	2				2		
GEO 111	Dinosaurs	F alternate odd	Varricchio	3	2	1					1							2			2		1	1	3	1	1	1					3	1		
GEO 140	Planetary Geoscience	F alternate odd	Schmitt	1	2	1	3	2	3	2	1	1	1										3	2	2	2			2					2	2		
YEAR 2																																				
Erth 212	Yellowstone Scientific Lab	F	Whitlock	1	2	2	2	2	3	3	3	3	3	2			2	2	2	1	1	2	3	3	2	2	3	3	3	3			1	3	3	2	2
GPHY 284	Intro to GIS Science	F,S	Challender									2	2	1			1		1	3	3		3	1	1	2	2		2	2	2		2				
GEO 208	Earth Materials	F	Mogk		1	3	2	3	2	1	1	2	1		3	1	2	2	1			2		1	3	1	2	1	2	2				2	3	1	2
GEO 211	Earth History and Evolution	S	Feeley	3	3	2	3	2	1	2	2													2	3	2			2						3		
Year 3																																				
Erth 303	Weather and Climate	F	Hendrikx						1	3	1	2	2	1	3		2	3	1		1		3	2	2	2	3		2		2	2	1	3	2	1	
Erth 307	Principles of Geomorpholog	F	Dixon		2	1	2	2	3	2	2	2	1	1		2	2	2	3	3	1	3	3	1	3	3	2	2	2	3	2	1	1	3	3	2	
GPHY 321	Urban Geography	S alternate odd	Liu									2	3	3		2	3	1	1	1	2	1	3	3	2	3	2	1	2	2		3	2	1	1	2	
GPHY 322	Economic Geography	F alternate odd	Liu									2	3	3		2	3	2	1	1	2	1	3	3	3	3	2	1	2	2		3	2	1	1	2	
GPHY 325	Cultural Geography	F alternate odd	Wyckoff										3	2					3	1	3	3		2	2	3	1	1	2						1	2
GPHY 365	Geographical Planning	S	Liu									3	3	3		2	2	1	3	2	2	3	3	3	3	3	2	2	2	3		3	2	2	3	2	
GPHY 384	Advanced GIS Spat Anal.	F, S	Challender						2	1		2	2	1		2	2		1	3	3		3	2	2	3	3		3	3	2		2			2	
GEO 302	Mineralogy and Optical	S	Mogk		1	3	1	3	2		1	1			3	2	3	3	1			3	3	2	1	2	2	2	2	2	2		3	3	2	2
GEO 309	Sedimentation and	S	Gardner	3	3	3	2	3	3	3	3	2			3	2	3	3	3	2	2	3	3	3	3	3	3	2	3	3	3	2	3	3	3	2	
GEO 310	Invertebrate Paleontology	S alternate even	Schmitt	3	3	3				2	3											2		2		2	2		3				2	2		
GEO 312	Dinosaurs Paleontology	F alternate odd	Varricchio	3	2	3					1					1	2	3			1	3	3	2	3	1	2	2	2	2			2	3	2	2	
BIOO 310	Comp Vert Anat	F	Varricchio	3	2	3							1		3							1		2	1	1	1							2		2
GEO 315	Structural Geology	S	Lageson		1	2	3	3	2	1		1			3	3	3	3	3	3	3	3	3	2	3	3	3				3		2	2			
GEO 330	Paleontology Lab	F alternate odd	Varricchio	1		2									3		1	1				2				2	2	2		2				2		2	
Year 4																																				
Erth 450	Snow Dynamics &	S	Hendrikx						3	3	2	3	2	2	3	2	3	3	3	2	2	3	3	3	3	3	3	3	3	3	2	2	2	2	3	3	3	2
Erth 484	Quaternary Environment	F alternate even	Whitlock	2	3	1	1	1	3	3	3	2	2					3	2				3	3	3	3	3	3	3	3	3			3		3	3	3
GPHY 425	Geographic Thought	S	Wyckoff						1	1	1	2	3	2			1		1	1	2	1	3	3	3	3		3	3						2	3
GPHY 431	Historical Geography	S alternate odd	Wyckoff										3	1					3	2	3	3		3	3	3	1	2	2					2	3	2
GPHY 441	Mountain Geography	F alternate odd	Hendrikx				1	2	3	3	2	3	2	2	3	2	3	2	3	2	2	3	3	3	3	3	3	1	3	1	2	2	2	3	3	3	2
GPHY 445	Advanced Regional Geog:	F alternate odd	Haggerty									1	3	2			2		2				3		3			2	1				1		3	3	3
GPHY 446	East Asia in the Global	F alternate even	Liu									2	3	1						1		1	2	3	2	2	1	1	2			1	1		1	3	
GPHY 461	Tourism Planning	F alternate even	Liu									2	3	3		2	2		2	2	2	2	3	3	2	3	3	1	2	2		2	2	1	2	2	
GPHY 484	Applied GIS and Spatial	S	Challender						2	1		3	2	1		2	2		1	3	3		3	3	2	3	3		3	3	2		2	2		2	
GPHY 491	Water and Society	F alternate even	McEvoy						1	1	2	3	3	3				2			2			3			2	1	3					1	3	
GEO 411	Vertebrate Paleontology	S alternate even	Varricchio	3	2	3					2					3	2	3			1	3	3	2	3	2	2	2	2	2			3	3	2	2	
GEO 413	Macroevolution/Fossil	S alternate odd	Varricchio	3	3						2							3					2	2	2		2	3	3					2	2	3	3
GEO 417	Taphonomy: Fossil	F alternate even	Varricchio	3	3	2	1	1	1		1				2		2	3	2	2	1	2	2	2	2	2	2	3	3				2	2	2	3	2
GEO 419	Field Paleontology	Su alternate even	Varricchio	2	2	3	2	1	1		1				3			3	3	3	2	3		3	3	3	3		3	2			2	2	2	2	
GEO 429	Field Geology	Su	Lageson	2	2	3	3	2	3			2			3	2	3		3	3	3	3			3	3	3		2	2	2			3	2		
GEO 433	Global Tectonics	F alternate even	Lageson	3	3	2	3	3	2	2	1	2	1		2	2	2	3			3		1	3	3	3	1				2	1	1			2	2
GEO 440	Volcanology	F alternate even	Feeley			3		2	3	2	2	3	1	1					2			2	2	2	1	1		2	2							
GEO 445	Glacial Geology	S alternate odd	Skidmore	1	1	1	1	1	3	3	1	2	1					2						2	2	2	2	3	2		2	1			1	3	
GEO 448	Sedimentary Petrology	S	Schmitt		2	3	2	1	1	2		3			3							3	3		1	1			3				2	2		
GEO 449	Metamorphic Petrology	F alternate odd	Mogk		2	3	3	3				1			3	2	3	3	1	1		2	3	2	2	2	2	2	2	2	1		1		2	3	2
GEO 450	Igneous Petrology	F	Feeley		2	3	2	3	2						3	3	3	3			3	3	2				2	1	3					3	3	2	
GRAD																																				
Erth 505	Geomicrobiology	S alternate even	Skidmore	3	3	2	2	2	2	2	3						2	3	2					3	3	3	2	3	3	2	1		1		2	3	2
ERTH 551	Snow Science Seminar	F alternate even	Hendrikx						3	3	2	3	2	2	3	3	3	3	3	2	1	3	3	3	3	3	3	3	3	2	3	3	3	3	3	3	2
Erth 582	Quaternary Paleoecology	F alternate even	Whitlock	3	3					3	3		2			2	2	3	2				3	3	3	3	3	3	3	3			3		3	3	3
Erth 583	Topics in Paleoecology	F alternate odd	Whitlock	3						3	3		3					3					3	3	3	3	3	3	3	3			3		3	3	2
Erth 584	Quaternary Environment	F alternate even	Whitlock	2	3	1	1	1	3	3	3	2	2					3	2				3	3	3	3	3	3	3	3			3		3	3	3
GPHY 503	Settlement Geography	F alternate even	Wyckoff									2	3	2							3			2	3	3	1	3	3							2
GPHY 504	GIS Research Fundamentals	F	Challender						2	1		3	2	1		2	2		1	3	3		3	3	2	3	3		3	3	2		2	2		2	
GPHY 520	Land Use Planning	F alternate odd	Liu									2	3	3		2	3		2		2	3	3	3	3	3	3	3	3	2		2	2	2	2	3	
GPHY 545	Advanced Regional Geog:	F alternate odd	Haggerty									1	3	2			2		2				3			3			3	3			1		3	3	3
GPHY 591	Water and Society	F alternate odd	McEvoy						1	1	2	3	3	3				2			2			3			2	1	3					1	3	2
GEO 508	Depositional Systems	S alternate odd	Schmitt	3	3				3	2	3								3			2	2	2	2	3	3		3						3	
GEO 509	Montana Geology	F alternate even	Lageson	3	3	1	3	1	1			1	1								1			2	3	3			3						3	2
GEO 515	Grad Structural		Lageson	2	2	2	3	3	2	1		1			3	3	3	3	2	2	3	3		2	3	3	3	2	3	3	2	2	2	2	3	3	1
GEO 517	Taphonomy Fossil	F alternate even	Varricchio	3	3	2	1	1	1		1				2		2	3	2	2	1	2	2	2	2	2	2	3	3				2	2	2	3	2
GEO 520	Ancient Ocean Systems	S alternate even	Gardner	3	3	2	3	3	3	3	3	2			3		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
GEO 533	Global Tectonics	F alterate even	Lageson	3	3	2	3	3	2	2	1	2	1		2	2	2	3			3		1	3	3	3	1										
GEO 535	Advanced Stratigraphy	S alternate even	Gardner	3	3	3	3	3	3	3	3				3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
GEO 540	Volcanology	F alternate even	Feeley			3		2	3	2	2	3	1	1					2			2	2	2	1	1		2	2							
GEO 548	Sedimentary Petrology	S	Schmitt		2	3	2	1	1	2		3			3						3	3		1	1				3				2	2		
GEO 550	Graduate Igneous	F alternate even	Feeley		2	3	2	3	2						3	3	3	3			3	3	2				2	1	3				3	3	2	
GEO 580	Materials (microbeam)	Alternate	Mogk			3	2	2	2						3	2	3	3				3	3				3		3				2	3	3	3	2
GEO 580	Adv Sed/Clastic	F alternate odd	Gardner	3	3	3	3	3	3	3	3				3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
GEO 6xx	History Geol Thought																																			