

UBC Geophysics requirements Mapped onto EGBC SelfCheck list

See also: <https://www.eoas.ubc.ca/~quest/index.html>

work in progress - July 2023

Derived from EGBC's Self Check list. [UBC calendar, geophysics](#)

See course list is on the calendar tab

Course scheduling NOT considered here.

Req'd for UBC Geoph	electives: year & # req'd at UBC		
Counts: -->	yr1 e (1)	yr2 e (2)	yr3/4 e (11)
	1	11	26

Blue bold = required, or required as "one of", by UBC's Geophysics degree

Yellow italics = suggested elective for professional registration, (or perhaps become required)

Group: 1A – Compulsory Foundation Science – 11-GEOCOM- Foundation Science (3 Required)

FS-A1	Calculus, 1	Math 100/etc.	
FS-A2	Physics, 1	Phys 106/etc.	
FS-A3	Chemistry, 1	Chem 121	

COMMENTS

Group: 1B – Additional Foundation Science – 11-GEOCOM- Electives (6 Required, NO MORE THAN TWO COURSES IN ANY ONE SUBJECT)

COM-B1	Mathematics	Math 101/e	Math 200
COM-B2	Chemistry	Chem 123	
COM-B3	Physics	Phys 108+109	
COM-B4	Biology	??	
COM-B5	Computer Prgmg		EOSC 211
COM-B6	Statistics	DSCI 100	

CHEM 205 or PHYS 203

Biology for "scientific breadth". If used as "the" 1st yr elective, one other of Group 1B can be applied elsewhere
 OR - EOSC 110 can be 1st yr elective and replace EOSC212 which is **NOT** prereq for anything.
 Or...; see note geoph calendar, yr 1.
[Why this?](#) Replace with eosc220 mineralogy so other geol can be taken.

Group: 2A – Compulsory Geoscience – 11-GEOCOM- Compulsory (4 Required)

COM-A1	Mineral / Petrol		<i>EOSC 220</i>
			<i>EOSC 221</i>
COM-A2	Seds / Strat		<i>EOSC 222</i>
COM-A3	Geol Structures		<i>EOSC 323</i>
COM-A4	Field Techniques		<i>EOSC 223</i>

requires 220
 EOSC 1xx, 210 or GEOB 103 is recommended only
 requires 221, 223, 222
 requires 221

Group: 2B – Foundation Geophysics – 11-GP – Compulsory (5 of 6 Required)

FGP-A1	Digital Sig. Proc.			EOSC 354
FGP-A2	Global Geophysics			EOSC 453
FGP-A3	Seismology			EOSC 353
FGP-A4	Expl'n Geophysics			EOSC 350 or 454
FGP-A5	Rad/GravMag			EOSC 450
FGP-A6	DC / EM methods			EOSC 454

Not required? Only "or one of ... ". This must change - no other applied geoph in the entire program.

CURRENTLY NOT VISIBLE ON THE GEOPH DEGREE DESCRIPTION, CALENDAR

Group: 2C – Other Geophysics – 11-GP – Electives (9 from at least 4 groups)

1.Communication	GP-C1	Thesis			EOSC 449
	GP-C2	Technical Writing	one in yr1	one in yr2	
2.Earth & Planetary Geoscience	GP-C3	Geo/paleo Mag			
	GP-C4	Global Tectonics	<i>EOSC 110</i>		
	GP-C5	Global Geophysics		EOSC 212	
3.Fundamental Math / physics	GP-C6	Complex Analysis			
	GP-C7	Diff. Eqns		Math 215	
	GP-C8	Electr & Mag			
	GP-C9	Mechanics			
	GP-C10	Thermodynamics			
	GP-C11	Vibrations, Waves, optics			
4.Field Techniques	GP-C12	Field Techniques			EOSC 429
5.Regional Geology	GP-C13	Geology of Canada			
	GP-C14	Geol of North Am.			EOSC 332
	GP-C15	Geochemistry			EOSC 333

honors students only
[See Faculty of Science communications requirement \(link\)](#)

1st yr elective, recommended
 EOSC 212 is not a perfect fit here - is a bit of an "orphan" course from EGBC point of view.

requires 329. Could replace e223 at COM-A4

requires 323
 requires 221

6.Geology	GP-C16	Igneous Petrology			EOSC 321
	GP-C17	Metamorphic Petrology			EOSC 322
	GP-C18	Sedimentary Petrology			EOSC 320
	GP-C19	Structural Geology			EOSC 422
	GP-C20	Tectonics			
7.Modern Physics	GP-C21	Modern Physics			
8.Geophysical Methods & Interpretation	GP-C22	Analytical Methods			EOSC 410
	GP-C23	Marine Geophysics			
	GP-C24	DC / EM methods			EOSC 454?
	GP-C25	Gravity & Magnetism			
	GP-C26	Seismology			
	GP-C27	Radiometrics			
	GP-C28	Rock Properties/physics			
9.Near Surface Geoscience	GP-C29	Seismic Interpretation			
	GP-C30	Environ. Geoph			
	GP-C31	Geomorphology			EOSC 330
	GP-C32	GIS			GEOS 270
10.Resource Geoscience	GP-C33	Glacial/Quat'y geol			
	GP-C34	Remote Sensing			ATSC 301
	GP-C35	Fluid in Porous media			
	GP-C36	Hydrogeology/ Hydrology			EOSC 329
	GP-C37	Mineral Deposits			EOSC 331
	GP-C38	Petroleum Geology			EOSC 432
11.Applied Math / physics	GP-C39	Reservoir Engineering			
	GP-C40	Well Log Analysis			
	GP-C41	Calculus			EOSC250 or Math 317?
	GP-C42	Instrumentation			
	GP-C43	Condensed Matter Phys			
	GP-C44	Continuum Mech			EOSC 352
	GP-C45	Dig. Sig. Proc.			
	GP-C46	EM Theory			
	GP-C47	Electronics			
	GP-C48	Fluid Dynamics			
	GP-C49	Fluid Flow Porous Media			
	GP-C50	Geostatistics			
	GP-C51	Integ'l Transforms			
	GP-C52	Linear Algebra			Math 221
	GP-C53	Math'l Physics			
	GP-C54	Num. Methods & Computing			ATSC 409 or EO SC 410
GP-C55	Optics				
GP-C56	PDEs			Math 316 ATSC 404	
GP-C57	Signal Analysis			EO SC 410?	
GP-C58	Vector & Tensor Analysis			EOSC250 or Math 317?	

requires 221
requires 221
requires 221, 222
requires 323

FEW EOAS COURSES IN THIS SECTION BECAUSE THEY ARE 'USED' ABOVE

reintroduced for the 2023-2024 teaching session.

requires 110

re'q as "one of three".
requires 221
requires 320

Why 317? It's after 250 & there's no place in table for TWO div/grad/curl courses
Replace 317 with a EO SC 221 or EO SC 222.

Questionable?