

Quantitative skills developed in EOAS specializations, from the breakout groups at EOAS retreat, 2019.

This summary is likely to be incomplete as it has not been vetted by all EOAS faculty.

These are **actual** where courses are quoted and **assumed** or **aspirational** where "1" is entered.

topic	atsc	ensc	geol eng	geol	geoph	ocgy	how many now
plotting / interpreting graphs	1	1	1	1	1	1	6
Analyze / interpret data	1	1	1	1	1	1	6
Basic Coding (functions, debugging)	CPSC103		APSC160. EOSC213		1	EOSC211. 472. 473*, ATSC409	4
Excel	ATSC201	1		1			3
GIS skills		1	Limited	1			3
presentation data visualization		1		1		EOSC211, 471, 372, 473	3
Working with large data sets		1	Not available	1			3
Basic geostatistics		1	Not available	needed			3
Matlab / R	EOSC211	1					2
Python	ATSC301, ATSC409	1					2
Collecting quantitative field data		1		1			2
Geospatial analysis		1		1			2
Practical numerical methods			EOSC433, MINE303, 403		1		2
Linea Algebra			MATH253		1		2
Stats			STATS251. EOSC213 (monte Carlo)			STATS200. EOSC473* 470? 478?	2
Git and GitHub	ATSC301, ATSC409						1
Linux (command Line)	ATSC301, ATSC409						1
Linear Algebra	STAT2000, Data Science 100						1
Building web-facing portfolio	ATSC 448 (required capstone)						1
Mechanics: solid and fluid			CIVL230, 215, 210				1
ODE parabolic / PDE hypabolic			EOSC213				1
Stress & tensors (engineering geology)			EOSC329, 433				1
Monte Carlo			EOSC433, 434				1
Propagating uncertainties				1			1
Vector calculus					EOSC250		1
Ordinary differential equations					EOSC250		1
Tensor analysis					EOSC354		1
Partial differential equations					EOSC450, 352, 353, 453, 250		1
Inverse problems / parameter estimation					EOSC354		1
Numerical Analysis					EOSC211		1
Conservation Laws					EOSC350		1
Calculus						EOSC372, 470, 471, 473*, ATSC409	1