					Online content		dshbrd server	Jupyter hubs							
Work in progress as of Feb 2023		Totals -->		28	10	9	9	10	3	2	3	Existing EOAS dashboards are summarized and can be accessed via links at https://eoas-ubc.github.io/dashboards.html			
												Note - dashboards are not run on Jupyter hubs - they have different server needs, being met within existing EOAS computing capacity. But comments, qns etc are very much welcome.			
Course, link to EOAS pg	Title	enroll. (approx)	Expected Max Enrollment by 2025	computing resources are used	eg, blogs, etc. NOT Canvas	EOAS cpu labs	EOAS or P. Austin	Student laptop option	EOAS custom	CTLT standard	EOAS HUB: 2i2c (https://ubc-eoas.2i2c.cloud/)	CURRENT JUPYTER HUB USERS: Comments, qns & dashboards used	HOPEFUL JUPYTER HUB USERS: You want to tryJupyter Ntbks in your class. E.g., plot & analyze data. But, you don't yet know how to start	CURRENT USERS: Brief comments about your specific needs/capabilities. What must a dedicated EOAS Jupyter hub.	HOPEFUL USERS: Brief comments about what you would like to be able to do in your class. What are you worried about?
EOSC 331	Introduction to Mineral Deposits	29	30	n	n	n	n								
EOSC 475	Marine Microbiology	41	50	N	Y	N									
ATSC 301	Atmospheric Radiation and Remote Sensing	31		y	y		y	Y				managed entirely by P. Austin		1) custom docker container that I can update at least weekly 2) S3 bucket for common image storage	
ATSC 409	Numerical Techniques for Ocean, Atmosphere an	3	30	y	y		y					not sure yet		Undergrads = 3ish, Grads=20, I give total in 2020 column. Jupyter hub would be nice to have for this class. Need python scripts too.	
ENVR 300	Introduction to Research in Environmental Scien	58		y			y					CO2, timeseries & dashboard			
ENVR 420	Ecohydrology of Watersheds and Water Systems	12		y			y					currently using "R" - discuss with Mark Johnson			
EOSC 112	The Fluid Earth: Atmosphere and Ocean	150		y	y		y					global temperature factors app + IPCC climate atlas			
EOSC 116	Mesozoic Earth: Time of the Dinosaurs.	566		y	y		y					climate factors dashboard & eosc116 blog			
EOSC 210	Earth Science for Engineers	182		y								Not sure how or for what.			
EOSC 211	Computer Methods in Earth, Ocean and Atmosp	93		y	y	y		y		y	y	likely will use 2i2c in Sept 2023			
EOSC 212	Topics in the Earth and Planetary Sciences.	53	60	y							y	likely will use 2i2c in Sept 2023		Basic data analysis; Nothing special for a hub	
EOSC 213	Computational Methods in Geological Engineeri	21		y							y	Still use Google co-lab as of 2022W.			
EOSC 310	The Earth and the Solar System	195		y			y					daisy world			
EOSC 323	Structural Geology I	49		y			y					dashboard - Mohr's diagrams			
EOSC 325	Principles of Physical Hydrogeology	43		y			y					3: storativity, unconfined flow, drawdown.			
EOSC 330	Principles of Geomorphology	54		y	y							GIS?			
EOSC 340	Global Climate Change	120		y			y					CMIP6 and ModTran; required resources still being determined.			
EOSC 350	Environmental, Geotechnical, and Exploration G	43	65	y	y	y		y				SimPEG apps & GitHub content (GPG). Likely use 2i2c hub in Sept 2023		Need a custom software environment (e.g. dedicated hub) for the course. Need to be able to make updates during the term to the hub.	
EOSC 353	Seismology	8		y			y					Own code or "canned"?			
EOSC 354	Analysis of Time Series and Inverse Theory for Ea	10		y			y	y				12 assignments / labs all using Python & Jupyter Notebooks. Currently not using hubs - students install Python and Jupyter on their local laptops.			
EOSC 372	Introductory Oceanography: Circulation and Plan	132		y			y					OCGY data viewer. Recently the OCESE group helped create the following: https://dashboard.eoas.ubc.ca/ocgy	I am expecting to build Jupyter practicals into the courses that I teach. Next year I am teaching EOSC 472 in Winter T2, which has around 20 students, who I will get running Jupyter practicals. I am also co-teaching EOSC 372 in the fall, and might incorporate some Jupyter options for my part of the course if it is feasible.		I have previously created numerous practicals in Colab, which has worked fine. I would be keen to transfer to the EOAS jupyter hub moving forward as I have run into issues in a couple of practicals with the amount of computing power available, especially when working with large datasets.
EOSC 410	Geoscientific Data Analysis and Empirical Modell	4		y			y								
EOSC 425	Paleontology	21		y			y					global temperature factors, although Stuart is away this yer			
EOSC 433	Geological Engineering Practice I - Rock Engineer	26		y		y						GIS?			
EOSC 434	Geological Engineering Practice II - Soil Engineer	23		y		y						GIS?			
EOSC 442	Climate Measurement and Analysis	35		y		y				y		Jupyter notebooks used new this year for four computing labs each term (previously run using MatLab). We are currently using open UBC hub. Fall 2022 involved a few "glitches" but the TA in charge managed and the term was completed successfully. Winter 2023 (now) seems to be going well, with a few instances of students' kernels timing out during work, but restart is always successful. These experiences (and a few other comments) are based on feedback obtained from TAs running these labs.			
EOSC 450	Potential Fields in Earth and Planetary Sciences	6		y			y								
EOSC 453	Physics of the Earth and Other Planets	15	20	y			y							ODEs, PDEs, spectral analysis, etc.	
EOSC 471	Waves, Currents and Ocean Mixing	20	30	y		y	y					MatLab "mls" for the labs. Python being produced		Will be moving to python and jupyter.	
EOSC4XX	Climate Modelling	16	30	Y			Y	Y						Need a custom software environment (e.g. dedicated hub) for the course. Need to be able to make updates during the term to the hub. Need to be able to access external web links. Would be nice to have an S3 bucket to store output from model runs for class analysis.	
ATSC 113	Applied Meteorology	1892			y										
ATSC 201	Meteorology of Storms	94			y										
ATSC 303	Methods in Atmospheric Science	16													
ATSC 313	Renewable Energy Meteorology	79			y										
ATSC 404	Dynamic Meteorology	7													
ENVR 200	Introduction to Environmental Science	90													
ENVR 400	Research Project in Environmental Science	28													
ENVR 410	Energy, Environment, and Society	46													
ENVR 430	Ecological Dimensions of Sustainability	56													
ENVR 440	Analytical Methods in Sustainability Science	34													
ENVR 448	Socio-Ecological Systems Research	1													
EOSC 110	The Solid Earth: A Dynamic Planet	150													
EOSC 111	Laboratory Exploration of Planet Earth	262											not sure what computing needs		
EOSC 114	The Catastrophic Earth: Natural Disasters	600													
EOSC 118	Earth's Treasures: Gold and Gems	397													
EOSC 220	Introductory Mineralogy	56													
EOSC 221	Introductory Petrology	54													
EOSC 222	Geological Time and Stratigraphy	35													
EOSC 223	Field Techniques	45													
EOSC 240	Site Investigation	20													
EOSC 250	Fields and Fluxes	8													
EOSC 270	Marine Ecosystems	80													
EOSC 314	The Ocean Environment	51													
EOSC 315	The Ocean Ecosystem	147													
EOSC 320	Sedimentology	30													
EOSC 321	Igneous Petrology	25													
EOSC 322	Metamorphic Petrology	36													
EOSC 326	Earth and Life Through Time	98													
EOSC 328	Field Geology	33													
EOSC 329	Quantitative Groundwater Hydrology	69										not sure yet			Interested in principle, but I do not have any definite plans. If we would use it, it would be for EOSC 329, around 80-90 students. Not sure if that would be practical?
EOSC 332	Tectonic Evolution of North America	22													
EOSC 333	Elemental and Isotopic Geochemistry	21													
EOSC 352	Geophysical Continuum Dynamics	8													
EOSC 373	Introductory Oceanography: Climate and Ecosyst	69													
EOSC 420	Volcanology	11													
EOSC 421	Advanced Sedimentology	4													
EOSC 422	Structural Geology II	10													
EOSC 424	Advanced Mineral Deposits	17					?					dashboard? Mohr's diagrams, although not offered 2022W			
EOSC 426	Fundamentals of Geomicrobiology	34													
EOSC 428	Field Techniques in Groundwater Hydrology	38													
EOSC 429	Groundwater Contamination	65													
EOSC 430	Aqueous Geochemistry	5													

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EOSC 445	Engineering Design Project	26													
EOSC 470	Biological Oceanography	37													
EOSC 472	Chemical Oceanography and Marine Geochemis	19										I am expecting to build Jupyter practicals into the courses that I teach. Next year I am teaching EOSC 472 in Winter T2, which has around 20 students, who I will get running Jupyter practicals. I am also co-teaching EOSC 372 in the fall, and might incorporate some Jupyter options for my part of the course if it is feasible.			I have previously created numerous practicals in Colab, which has worked fine. I would be keen to transfer to the EOAS jupyter hub moving forward as I have run into issues in a couple of practicals with the amount of computing power available, especially when working with large datasets.
EOSC 473	Methods in Oceanography	20													
EOSC 474	Marine Pollution	128													
EOSC 478	Introduction to Fisheries Science	139													

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