EOAS Learning Tasks: What are students given and what do they actually DO?

Many thanks for agreeing to provide this information. Results will be used as part of the QuEST project to inform upcoming recommendations for rejuvenating multiple specializations that will modernize inter-disciplinary education across the Earth sciences. Individual responses will be kept confidential, and survey results used only in aggregate.

Please consider only one course for each instance of the survey.

This is shorter than it looks! It should take roughly 10 minutes to answer these questions.

1. Course code (eg EOSC123)

2. Your name (since EOAS courses sometimes have more than one instructor).

For all the following, we do understand that pedagogic choices depend on: class size, student seniority and availability of additional support such as teaching assistants. However, we can get those details elsewhere.

3. How often do students work on the following types of tasks? For each item, please choose the option that most closely reflects what students will experience in this course.

	never	once each term	2-3 times each term	4-7 times each term	more than 7 times each term
Practice problem sets (math, physics, computing, geology, and so on).	0	0	0	0	0
Choose and apply advanced math (Calc II or above or numerical methods) to solve a given problem (i.e. not just to "practice" specific mathematical techniques).	0	0	0	0	0
Multi-step project(s) with 2 or more steps that are handed in (eg. 4 steps might be proposal, outline, draft, final version).	0	0	0	0	0
Project(s) with just one completed deliverable such as a report, presentation or other equivalent product.	0	0	0	0	0
Adapt existing computing code to solve a given problem.	0	0	0	0	0
Design and write their own computing code to solve a given problem.	0	0	0	0	0
Written lab reports, essays, or equivalent.	0	0	0	0	0
Use maps (including GIS) to understand concepts or solve problems.	0	0	0	0	0
Oral delivery of posters or other presentations.	0	0	0	0	0
Assigned readings such as textbook, journal articles, etc. that are to be completed BEFORE coverage in class. (These are "pre- readings")	0	0	0	0	0
Assigned readings that are not "pre- readings".	0	0	0	0	0
Formal, cumulative final exam.	0	0	0	0	0
Tests or exams of > 30 minutes other than a final exam.	0	0	0	0	0
Quizzes of < 10-15 minutes each.	0	0	0	0	0
In-class worksheet tasks with same-day or next-day follow-up in class.	0	0	0	0	0
Work in groups during classes or labs.	0	0	0	0	0
Work in groups outside of classes or labs.	0	0	0	0	0

4.a. What course information is provided explicitly to students? Please select one of the four options for each item.

	not provided	publicly visible (eg. website, github, etc.)	provided privately (eg on Canvas, paper, etc.)	not sure
List or schedule of topics to be "covered".	0	0	0	0
List of discipline-specific competencies (skills, capabilities,) that students should achieve; i.e. what students should be able to do.	0	0	0	0
Specific list of "general" competencies such as critical thinking, problem solving, library skills, etc.	0	0	0	0
Affective goals; i.e. those aimed at developing or changing students' attitudes, beliefs, or behaviors (eg. professional behaviors, interest, motivation, relevance, self-awareness of competencies, how to master the material, etc.)	0	0	0	0
Explanation at start of term about learning activities and experiences that students will encounter (eg. active classes, assignments, readings, etc.	0	0	0	0
Information about expectations, anticipated workloads, and the like.	0	0	0	0
Other (please specify)	0	0	0	0

4.b. If you selected other, please specify

5.a. What supporting materials are provided to students at any time during the course? Select all that apply

- Online discussion boards with little or no contribution from you or TAs.
- Online discussion boards with significant contribution from you or TAs.
- Solutions to homework assignments.
- Worked examples (text, hand-written, code, or other format)
- Practice or previous year's exams
- Animations or video clips
- Simulations (eg. dashboards or "apps") of concepts, phenomena or data sets.
- Copies of lecture notes or presentations (partial/skeletal or complete)

Other notes or supporting materials written by you or others such as a blog or wiki site, GitHub repository, explanatory materials of your own, etc.

- Articles from related academic or professional literature (including case histories)
- Examples of exemplary student work (eg. essays, labs, projects or assignments).
- Grading rubrics for assignments or projects
- Other (please specify)

5.b. If you selected other, please specify

6.a. What other pedagogic practices do students experience in this course? Select all that apply.

Assessment or self-test given at beginning of course for you and/or students to assess their background or prerequisite knowledge.

Learning materials that are not officially part of the course but are provided to help students "catch up" on their own if their background is insufficient.

Use of a feedback survey sometime during the first 2 mths of term that you act upon to address student's concerns

Use of an end-of-term feedback survey other than standard UBC surveys that you act upon to improve the course in subsequent terms.

□ One or more opportunities for students to engage with researchers, professionals or others who are not part of the course's teaching team, even if only briefly.

One or more opportunities for students to self-evaluate or reflect upon their learning

One or more opportunities for students to evaluate their peers (eg, effectiveness in group work, assessment of peers' projects or posters, etc.)

□ One or more opportunities for students to have some control over their learning, such as choice of topics for course, paper, or project, choice of assessment methods, etc.

Field work or community experiences of any kind (e.g. once during a class, complete field course, or anything in between).

Other pedagogical practices of note - (please specify)

6.b. If you selected other, please specify

7.a. In your course or across the Department - *and assuming that implementation was practical* - which five (5) of these tactics do you think would be MOST effective at helping EOAS undergraduate students develop into professionals? Please select your top five choices only.

- \Box Increased exposure to aspects of your discipline related to economics, safety, regulations, etc.
- $\hfill\square$ More emphasis on communication & writing
- □ Increased use of real contexts for problems & projects.
- Increased focus on skills: field, lab, map, observation, etc.
- Increased focus on fundamentals: physics, math, data science, chemistry, etc
- Actively foster reflective, metacognitive & peer evaluation activities
- □ Increased opportunities for students to work with teams and/or peers
- Emulate professional tasks in assignments (eg, proposals, consulting, etc.)
- Increased use of guest contributors in courses or student events
- Increased focus on critical, scientific, & precise thinking
- Actively foster more social & professional networking opportunities.
- Other (please specify below)

7.b. If you selected other as one of your top 5, please specify here.

8. Have you any further comments we should know about learning tasks your students experience - or about this survey? Please comment here, or leave blank if you prefer.

Thanks very much for taking the time to provide these insights!

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