## Writing Learning Goals for Courses: One Faculty Member's View Mary Lou Bevier

Writing learning goals for my courses gave me the opportunity to reflect on them and to identify areas for revision. Was I really teaching what I set out to teach? Were the outcomes of my courses clearly evident to the students, and were they reflected on formal assessments in the course? Explicitly stating learning goals helped me to revise assessments to be consistent with what we covered and the skills we built in the course, and spurred me to try additional active-learning techniques in the classroom to accomplish the goals.

**How do learning goals benefit students?** Students appreciate courses with a coherent and consistent design. Learning goals help students to focus on important concepts, skills, and attitudes, and more importantly, they clarify an instructor's expectations to the students. For example, previously in EOSC 221 (Introduction to Petrology), I was pestered by students who wanted to know how many minerals in thin section they needed to know for the lab exam, and they complained when they found a mineral on the exam that they had not previously encountered in lab. There was a disconnect between my understanding and their understanding of what it meant when I told them that they needed to be able to identify minerals in thin section. I eliminated this problem by writing an explicit learning goal "Students should be able to: use fundamental petrographic observations to identify minerals and rock textures in thin section" (rather than that they should be able to identify *n* minerals) which clarified expectations and minimized complaints.

What process did I use to write learning goals? I already had a statement of course philosophy and several learning objectives for each of my courses. It was relatively straightforward to rework these into formal learning goals framed as options to the common stem "Students should be able to: .....". First I brainstormed what I thought the course learning goals were, not worrying about format or exact wording. Next I went through my existing course notes and listed several specific learning goals for each lecture. My third step was to group the lecture-level goals into categories. Based on a comparison of these categories to my brainstormed course learning goals, I drafted a set of course learning goals. These goals were distributed to the course working group and an STLF for comments. Based on their comments, I revised the goals and posted them on the course website.

<u>Was writing learning goals worth it?</u> Yes! It made my courses more coherent and made my expectations clear to the students. To further assist student learning, I combined course learning goals with a rubric covering high, moderate, and low competencies for each goal. See this rubric at "<a href="http://www.eos.ubc.ca/courses/eosc221/courseinfo/Course%20Learning%20Goals%20221%20rubric.pdf">http://www.eos.ubc.ca/courses/eosc221/courseinfo/Course%20Learning%20Goals%20221%20rubric.pdf</a>". This rubric assists students in achieving a desired level of learning. – and it assists me in creating and grading suitable assessments. I will not say anything more about creating rubrics here because that is a topic for another article!

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**How do you start?** Click the Resources tab on the CWSEI website <a href="http://www.cwsei.ubc.ca/">http://www.cwsei.ubc.ca/</a> to access information to guide instructors and to find out about upcoming Learning Goals Workshops. Ask one of the EOS Science Teaching and Learning Fellows (STLFs) (Brett Gilley, Francis Jones, or Erin Lane) for a one-on-one meeting. Members of the EOS Teaching Initiatives Committee (TIC) can also be approached for help. If your course is soon to be transformed under the auspices of the EOS-SEI, faculty who teach the course(s) that are prerequisite to your course and faculty who teach courses for which your course is a prerequisite will offer comments on your draft learning goals.

## **Opportunities to learn more:**

Thursday, Oct 2<sup>nd</sup>, 9 am-12 pm; IKBLC 4<sup>th</sup> floor Golden Jubilee Room - 1961 East Mall

Learning Goals Symposium – UBC CWSEI Science Teaching and Learning Fellows (STLFs)

This symposium is part of the UBC Learning Conference. In the first part of the morning Beth Simon (UC San Diego - former Computer Science STLF), Steve Wolfman (Computer Science Instructor), and Jared Taylor (Life Sciences STLF) will report on student and instructor perspectives on the use and value of learning goals in Microbiology and Computer Science courses at UBC, the results of a study they undertook last academic year. In the second part of the morning, join Earth and Ocean Sciences STLFs Francis Jones and Brett Gilley to develop learning goals for your own course. This will include deciding which parts of the course are important to you, targeting relevant learning domains, including and assessing different levels of learning in your goals, and getting feedback from colleagues. Stay for lunch and the afternoon sessions!

Registration for this conference is free; please register at: http://www.tag.ubc.ca/learningconference/

## EOS-SEI: What's happening...

**Classroom observations**: STLF Erin Lane is spearheading classroom observations to gather data and inform instructors what students are actually doing during class. Interested in how many of your students are paying attention during different parts of your class? Interested in what you're doing that's most engaging? Talk to Erin.

**Geological Society of America meeting**: STLF Brett Gilley is headed to GSA to present some preliminary results of pre/post assessments of learning in EOSC 111

**Curriculum discussions:** STLF Francis Jones has been researching approaches to curriculum evaluation both at UBC and elsewhere, to help inform choices of approach in EOS.

**Courses:** We now have many courses in various stages of "optimization", some completely on instructor initiative. For example, Roland Stull is implementing "Just-in-Time-Teaching" in ATSC 201. Ask him about it.