



Office of the Chair and Graduate Chair

DPES 2010-29 Experiential Learning

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DPES Faculty

The Dean's Office is drafting a planning document on experiential learning at UTSC. It begins with the following:

Experiential learning is one of the priorities identified in the 2008 University of Toronto Scarborough (UTSC) Strategic Plan: "UTSC will be a leader in experiential learning by offering curricular, co-curricular and extra-curricular opportunities for students."

Student Affairs has examined this issue and now the academic units are following suit. George Arhonditsis, the Associate Chair Undergraduate, and I have begun this process and wish to include all DPES faculty in this discussion.

At first I was somewhat resistant to embarking on this topic. In the Sciences, and especially our department, "experiential learning" is the pedagogical norm. Our labs, tutorials, field trips and courses are steeped in this tradition. However, I feel there is value in this exercise as I think will become apparent in the two-fold process. The first step is a reflective pedagogical scan of our activities to clearly identify what we currently do that fits within this label. This focus has the benefit of allowing us to promote ourselves in this vain with very specific examples. In the second step we can use this foundation to consider how to enhance our experiential learning offerings both in quality and quantity. In the broader picture, this may enable the campus to attract more funding for our programs.

So what is "experiential learning"? There is some spirited debate as to what this term means. For our purposes, we will use this from the Dean's draft report:

There is no single, universally accepted, definition of the concept of experiential learning. Instead, opinions about what experiential learning means are diverse and occasionally contradictory. Even among our own colleagues, there is variation in the definition of experiential learning.

The idea of experiential learning was popularized by educational theorist, David Kolb, whose influences include the educational reformer, John Dewey. Kolb defines experiential learning as “the process whereby knowledge is created through the transformation of experience.” (Kolb, *The Process of Experiential Learning*, 1984). According to Kolb’s theory, for a person to gain knowledge from their ‘experience’ they must:

- i. be actively engaged in the experience;
- ii. be able to reflect on the experience;
- iii. use analytical skills to draw the ‘general’ from the ‘specifics’ of their experience; and
- iv. have decision-making and problem-solving skills to apply their newly gained knowledge to new situations.

The *Experiential Learning Report* (2009) defined experiential learning as: “learning experiences that take place outside of the traditional classroom setting, with the idea that one learns by doing. Experiential learning differs from more traditional volunteer roles, however, by their academic focus. These experiences are intentionally and purposefully designed to enhance academic learning that occurs inside the classroom.” Other simpler definitions of experiential learning are “learning by doing” or “learning based on experience”.

The “Experiential Learning Report (2009)” was the report produced by Student Affairs.

Examples are often more meaningful than definitions. Although somewhat lengthy, I reproduce here examples of curricular, co-curricular and extra-curricular experiential learning:

A) Curricular - experiential education that is directly related to the content of a student's program of study, or is done as part of a particular course:

- case study - an empirical inquiry that investigates a phenomenon within its real-life context
- charrette - any collaborative session in which a group of designers drafts a solution to a design problem, and then presents the solution to a group or critics
- computer simulation - software used in experimental testing or to imitate or represent a potential or real situation
- laboratory - research, design, measurement and experiments conducted under controlled conditions
- production/exhibition - a large-scale endeavour highlighting creative expression that relates to a student's discipline
- thesis - a scholarly work produced under faculty supervision appropriate to the discipline
- capstone course - a project-oriented, academic course usually provided to the student near the end of their degree; students are expected to utilize the knowledge and skills gained throughout the course of their academic career to enhance the project
- co-op - links an academic program with progressive discipline-related work experience; students obtain valuable and paid work experience in steps throughout their program that directly relates their classroom learning to relevant employer needs and practices
- field course - students apply theory learned in classroom courses within authentic workplace settings; field courses clearly link theory and practice
- internship - students who have completed a number of years of their academic program

gain discipline-related work experience for 12 to 16 months before returning to complete their degree

- placement/clinic - students gain discipline-related work experience as a small component of their program, often one day a week, over a semester
- research project - research undertaken by a student as a research assistant to faculty member
- service learning - students engage in volunteer service within the community as a integrated aspect of a course; the service is linked to both community identified needs and to course objectives

B) Co-curricular - experiential learning or education where “experience” enhances the student’s academic skills, provides an opportunity for students to interact with a faculty member or expert practitioner, and involves guided critical reflection, *but is not* a mandated part of a course or program of study:

- student competition - students, usually as part of local or national teams, are introduced to real world situations; competitions allow students to apply the theories and information they have learned in the classroom to real organizations
- student conference - an opportunity for students to showcase their knowledge and skills, and interact with people and organizations within their discipline
- tutoring and peer support - tutors assist students who need help understanding course content/assignments or preparing for tests and examinations; peer supporters are trained student volunteers who focus on students who require assistance with their transition to university
- workshop - an educational gathering or seminar emphasizing interaction and exchange of information; usually emphasizes problem-solving and/or hands-on training, and requires the active involvement of the participants
- work-study – in Ontario, a government program that helps students at provincially-assisted universities to meet their educational costs by working part-time in jobs that are relevant to and augment their studies

C) Extra-curricular - any campus club activities or volunteer experiences students have that are not connected with faculty in a discipline context:

- campus club activities
- voluntary activity - students may combine their academic studies with related volunteer activities; credit may be granted as a component of a course

As a placeholder, George and I completed a survey from the Dean’s Office. We recognize the deficiencies of our answers as not likely capturing the broad offerings that can be placed within the experiential learning label and we pre-emptively offer our apologies for areas missed. We are asking for your input to more accurately reflect current activities.

Below is our current (draft) answer to the questions about current offerings:

1. What forms of experiential learning does your department/unit currently offer?

Laboratories

Tutorials

Co-op programs: Biochemistry, Biological Chemistry, Chemistry, Environmental Science

Group laboratory exercises

Research-based courses, e.g., EESD09H3, EESD10H3, CHMD90, CHMD91, CHMD92, PSCD10, ASTC01

Joint Programs in Environmental Science and Technology with Centennial College

Science Engagement

Field Courses, e.g., EESD07H3, EESC16H3, EESC33

Field trips – EESA06, EESB15

CTEP

Extensive Research opportunities including the recently established Center titled "Teaching and Research in the Analytical, Chemical and Environmental Sciences" -TRACES

In addition we are looking forward to where we go with this. One obvious step is to promote this aspect of our programs on our Webpage and in other communications with current and prospective students. Another way, and one the Dean's Office is encouraging, is how to build on this to increase the quality and quantity of opportunities. Please let us know your thoughts.

We do have some time to work on this and I will be flagging this issue for future departmental meetings.