

NEW COURSE

Department: ORIGINS INSTITUTE
Course Name: **ORIGINS 3B03**
ORIGIN OF THE ELEMENTS
To be offered first in 2007-08
Date: November 2004

Calendar copy description:

ORIGINS 3B03: ORIGIN OF THE ELEMENTS

The nuclear physics, chemistry, and astrophysics that are required to understand the formation of elements and how they are distributed in our universe.

Three hours; one term.

Prerequisites: registration in Level III in the Origins Research Specialization or by permission of instructor.

Not offered in 2005-2006.

Expected enrolment:

50

Enrolment limited? If so, why?

Yes, to ensure that an environment that is conducive to developing skills in independent scientific research and self-directed, problem-based, and inquiry-based learning is provided to students.

Other department(s) consulted.

Biochemistry, Biology, Chemistry, Geography and Geology, Mathematics and Statistics, Physics and Astronomy, Psychology, Associate Dean of Science, Dean of Science, Provost, President

Is this course cross listed? If so indicate course(s).

Resource implications.

A \$7500 teaching buyout has been secured for this course.

Detailed course content and reasons for introduction of course.

This course will provide an opportunity for to explore how elements are formed and where they are distributed in our universe. To consider possible solutions to this problem, a researcher must adopt a multidisciplinary approach, involving nuclear physics, chemistry, and astrophysics. The course material will provide students who are enrolled in the Origins Research Specialization with the tools from these disciplines, which will prepare them for advanced studies in elements-based research, perhaps culminating in a senior thesis therein. This learning will suit well students who graduate from the specialization with the skills and perspective necessary for conducting research at TRIUMF in Vancouver.