

Microsymposium

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Holistic Integration of Crystallography in Undergraduate Chemistry

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One of the criteria for the evaluation of undergraduate instructors by their students is often “Did the instructor stimulate my interest in the subject matter of the course?” Instillation of passion in science for undergraduates can start with passionate instructors. It was with this reasoning, and the impetus of the International Year of Crystallography, that I undertook the holistic redesign of a required third year Honours course on Chemical Literature and Scientific Communication at Wilfrid Laurier University, in Waterloo, ON, Canada. The course outcomes were based on recommendations for information literacy [1], and included the analysis of complex ethical problems, understanding the organization of the library, and the demonstration of critical thinking by evaluation of information from literature, and with help from university librarians and learning services, the broad exploration of crystallography was integrated throughout. The students were then tasked to share their new skills in communication, and knowledge of crystallography, in a public poster conference, attended by 400 first year science undergraduates. This talk will highlight the impact of peer-share crystallographic education, as well as other integral activities in first year introductory and senior inorganic chemistry courses.

[1] Information Competencies for Chemistry Undergraduates: the elements of information literacy. Special Libraries Association, Chemistry Division and American Chemical Society, Division of Chemical Information. 2nd ed. May 2011. [<http://chemistry.sla.org/wp->

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