

CHEM-8641. Bio- and Sustainable Materials

Learning Outcomes

Last Updated: May 24, 2019

PDC190513-5.15

<p>Learning Outcomes</p> <p>At the end of the course, the successful student will know and be able to:</p>	<p>Characteristics of a University of Windsor Graduate</p> <p>The University of Windsor graduate will have the ability to demonstrate:</p>
<p>Design new materials with defined properties, and determine the structural features required to provide the desired properties.</p> <hr/> <p>Use carbohydrate, peptide, and bioconjugate chemistry to make new biodegradable and sustainable materials.</p>	<p>A. the acquisition, application and integration of knowledge</p>
<p>Analyze relevant literature and write scientific articles at a level sufficient for publication in the primary literature.</p> <p style="text-align: right;">(Also applies to C, D.)</p> <hr/> <p>Properly distill a subject to the core principles and determine the breadth and potential depth of a subject.</p>	<p>B. research skills, including the ability to define problems and access, retrieve and evaluate information (information literacy)</p>
<p>Solve mechanistic problems and develop new functional materials.</p>	<p>C. critical thinking and problem-solving skills</p>
	<p>D. literacy and numeracy skills</p>
	<p>E. responsible behaviour to self, others and society</p>
<p>Present and discuss material at a level commensurate with a professional conference presentation on a specific topic relating to sustainable or degradable materials science.</p>	<p>F. interpersonal and communications skills</p>
	<p>G. teamwork, and personal and group leadership skills</p>
<p>Design new functional biomaterials by effectively manipulating the interplay between fundamental and emergent properties and functionality.</p>	<p>H. creativity and aesthetic appreciation</p>
<p>Solve problems in biology, medicine and materials using sustainable biomaterials to improve environmental outcomes for next generation technologies.</p>	<p>I. the ability and desire for continuous learning</p>