

Undergraduate Program Curriculum Map for CHEMISTRY

Revised: February, 2015

Program-wide Student Learning Outcomes	Prerequisite Courses									Core Courses														Elective Courses					Lab & Field Courses															
	ENGL 1100 ^{1,2} (or ENGL 1110)	BIOL 1110	COMPTBD	MATH 1130 ³	PHYS 1100 ⁴	MATH 1230 ³	MATH 2110	MATH 2120	CMNS 2290	PHYS 1200 ⁴	CHEM 1500	CHEM 1510 (or CHEM 1520)	CHEM 2100	CHEM 2120	CHEM 2160	CHEM 2220	CHEM 2250	CHEM 3060	CHEM 3070	CHEM 3100	CHEM 3140	CHEM 3220	CHEM 3230	CHEM 3310	CHEM 3320	CHEM 3730	CHEM 4070 ⁵	Non-Science Electives ⁶	Non-Science Electives ⁶	Non-Science Electives ⁶	CHEM 3010 ⁷	CHEM 4410 ⁸	CHEM 3080	CHEM 3120	CHEM 3240	CHEM 3330	CHEM 4400							
Depth & Breadth of Knowledge <i>Demonstrate the concepts, principles, and theories of the core of the program.</i>	I	I	I	I	I	R	R	I	R	R	I	I	I	I	R	I	I	R	I	R	R	I	I	R	I	C	A	I	I	I	I	C	R	R	R	R	C							
Application of Knowledge <i>Apply the concepts, knowledge and techniques of the program in the classroom, laboratory and/or the field.</i>	I		I			R	R	I	R	R				I	R	I	I	R	I	C	R	A	I	I	R	A	I	C	A					I	C	R	C	C	C	C				
Communication and Literacy <i>Use the concepts and terminology of the program to communicate effectively, both verbally and in writing.</i>	I		I						R																		C	A	I	I	I													
Experiential Learning <i>Practice the skills, knowledge, and attitudes common to the program in experiential learning settings.</i>		I			I				R				I	I		I	I	R	I	R		I	I	R	I	C						C	R	C	C	C	C	C						
Critical and Creative Thinking <i>Analyze the key elements of the program as tools to investigate problems.</i>	I		I	I			R		I																				I	I	I													
Professional, Entrepreneurial and Ethical Behaviour <i>Describe the ethical issues common in the field represented by the program.</i>																																					R	R	R	R	R			
Intercultural Understanding <i>Examine the program's intercultural issues, both in the university and the external community.</i>																													I		I													
Research Skills and Capacity <i>Devise a research plan, then conduct the research plan and document the results.</i>	I	I		I	I	I	R		I	R	I	I	I		R	I	I	R	A	I	C	A		R	I	C	A	I	R	A			I	R	C	A	C	A	C	A	C	C	C	C
<p>1 Students with a grade of B or better in ENGL 1100 (or 1110) may proceed to either of the required CMNS 2290 or 2300 in their second year; students with less than a B grade in their first year English course are required to take another 3 credits of first year English (1110 or 1210) before their second year English requirement.</p> <p>2 or two of ENGL 1100, 1110, 1120, 1140 and 1210</p>										<p>3 or MATH 1140/1240 or 1150/1250</p> <p>4 or PHYS 1150/1250</p> <p>5 or one of CHEM 4090, 4220, 4320, or 4600</p>										<p>6 Electives must include 9-12 credits in at least two disciplines outside of Science (not English). The 24 remaining credits chosen from any discipline; at least 12 credits in courses 3000 and higher.</p>										<p>7 or one of CHEM 3010, 3020, or 4480</p> <p>8 or one of CHEM Advanced Labs 4410, 4420, or 4430</p>														

I = Introduce: key concepts and skills introductory level of understanding **R = Reinforce:** student increasingly proficient; leaning reinforced and practiced with feedback **C = Competence:** student demonstrates learning at a level of competence ready for graduation **A = Assessment Points**