ADVANCED OUTCOMES IN THE MAJOR AREA

DISCIPLINE: CHEMISTRY

Discipline Outcomes	Advanced Level Abilities	
	Primary Focus	**Related Focus**
1. Communicates effectively, using language, concepts, and models of chemistry	Analysis Communication	Aesthetic Engagement
2. Uses the methodology of chemistry to define and solve problems individually and collaboratively	Problem Solving	Social Interaction
3. Uses a wide variety of laboratory techniques with accuracy, precision, safety and an attention to local and global implications of chemical practices	Problem Solving	Developing a Global Perspective
4. Finds, selects and uses appropriate scientific information to support her work	Analysis	
5. Uses values and scientific information to make responsible decisions about the use of chemical materials and knowledge	Developing a Global Perspective Valuing in Decision Making	Effective Citizenship
6. Uses different strategies and models of chemistry to analyze and synthesize chemical data.	Analysis	Communication
7. Critiques the data, strategies, and models of chemistry	Analysis	Valuing in Decision Making
8. Develops a professional identity and applies learning in professional settings	Problem Solving	Communication Social Interaction

Advanced Level Courses Required for the Major (taken collectively this set of courses in various combinations contributes to the achievement of the outcomes of the major):

Required

CH 322/CH322L	Organic Chemistry 2 and Lab
CH 328/328L	Biochemistry and Lab
CH 374	Chemistry Assessment in Effective Citizenship
CH 414	Chemistry Portfolio
CH 441	Physical Chemistry 1
CH 442	Physical Chemistry 2
CH450L	Physical Chemistry Laboratory
CH 337	Instrumental Methods of Analysis
OR	
CH 395	Biochemistry of Micronutrients
CH 383	Internship Seminar
OR	
CH 483	Internship Seminar