

College Fairmount College of Liberal Arts and Sciences

Department/Program (s) Chemistry

Degree (s) Offered BS/BA Chemistry  
MS Chemistry  
PhD Chemistry

Triggers MS for majors (13.4)

#### Brief Description of Each Degree

The Baccalaureate degree programs in the Department of Chemistry are designed to provide students with a solid background in all areas of chemistry, including organic, analytical, inorganic, physical, and biochemistry.

The Masters of Science program in Chemistry is a strong research-based program designed to provide students with advanced instruction in a variety of chemical disciplines, develop students' technical expertise with chemical instrumentation, and further engage them in state-of-the-art original research.

The PhD program in Chemistry is designed to provide students with advanced instruction over a broad range of chemical disciplines as well as depth instruction in a specific area. The expectation is that the student will become an expert in a specific field of study and will develop the skills required to be an independent researcher, including genesis and development of an idea, formulation of a research strategy, collection and analysis of data, drawing appropriate conclusions, and presentation of results.

#### Assessment of Learning Outcomes (for UG and GR)

The UG assessment is based on the measurement of two learning outcomes in chemical principles and application of these principles in the completion of a research project. The MS program has one outcome based entirely on completion of a thesis. The PhD program has three outcomes based on writing a research proposal, passing cumulative examinations, and defending a dissertation. For the UG programs, the results are mixed and it is reported that the students perform at or near the targets. Numbers of students evaluated was not provided, but there does seem to be improvement from AY 09 to AY 10 in three of the areas tested. The research project was not evaluated as plans are underway to do this in the future. Student

Placement of Graduates (types of positions, starting salary)

For UG programs, data are incomplete as to where they actually end up. The Department provides anecdotal information on where graduates may end up. They have more detailed information on the graduates of the MS and PhD program. Again, there are no details of how this information is used for program improvement.

Faculty Resources:

Evidence is provided that indicate faculty are very productive in terms of research, publications, and grant activity (although latter has declined the last two years, but there are some pending grant applications yet to be factored in total amounts). The grant activity can be explained in

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