

## **CHEMISTRY - DOCTOR OF PHILOSOPHY**

The Ph.D. program usually requires at least six module lecture courses (each equivalent to one-half of a term course) or the equivalent of three term lecture courses beyond the Bachelor's degree plus CHEM 801 Safety in the Laboratory, CHEM 802 (https://www.queensu.ca/ academic-calendar/search/?P=CHEM%20802) Chemistry Seminar Program, CHEM 803 (https://www.queensu.ca/ academic-calendar/search/?P=CHEM%20803) Principles of Scientific Communication, a candidacy examination, a research seminar, and the completion of a thesis based on independent research. Unless permission is obtained from the supervisor and the coordinator of graduate studies at least two modules (excluding CHEM 801 Safety in the Laboratory, CHEM 802 (https://www.gueensu.ca/academiccalendar/search/?P=CHEM%20802) Chemistry Seminar Program and CHEM 803 (https://www.gueensu.ca/academiccalendar/search/?P=CHEM%20803) Principles of Scientific Communication) must be from among those offered by the Department of Chemistry.

Students registered in a Ph.D. program in Applied Sciences/ Engineering are required to complete eight module lecture courses (or the equivalent of four term lecture courses) beyond the Master's requirements including CHEM 803 (https://www.queensu.ca/academic-calendar/search/? P=CHEM%20803) Principles of Scientific Communication, unless already completed, a candidacy examination, a research seminar, and the completion of a thesis based on independent research. Unless permission is obtained from the supervisor and coordinator of graduate studies at least two modules (excluding CHEM 801, CHEM 802 (https:// www.queensu.ca/academic-calendar/search/?P=CHEM %20802) and CHEM 803 (https://www.queensu.ca/academiccalendar/search/?P=CHEM%20803) ) must be from among those offered by the Department of Chemistry.

Students must pass departmental safety and Workplace Hazardous Materials Information System (WHMIS) training at the earliest possible opportunity.