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CHEMISTRY 87 — INFORMATION FOR SUPERVISORS

The following statement outlines the procedures and provides some guidance for individuals supervising chemistry majors enrolled in Chemistry 87, Undergraduate Investigation in Chemistry.

Students seeking academic credit for Chemistry 87 may arrange, by mutual agreement, to undertake an original individual research project under the supervision of a regular faculty member of the Chemistry Department, a faculty member of another Dartmouth science department, or a PhD (or MD) scientist at another academic or research institution. If the project is to be supervised by a faculty member or scientist outside the Chemistry Department, the Chair, in consultation with other Chemistry faculty, will determine whether the project has a sufficient chemical component to qualify for Chemistry 87 credit. If so, then a member of the Chemistry faculty will be assigned as a liaison with the student and their advisor. The student must obtain formal permission to enroll in the course by filing a copy of the form "Application for Admission to Chemistry 87 and/or The Honors Program" (available in the Chemistry Department office, 102 Burke, or on the Department's web site) with the Chair, who is the course director.

The Chemistry 87 supervisor (or qualified member(s) of the supervisor's research group) will *guide* the student in background reading and preparation for the project, *train* the student to conduct the necessary laboratory or theoretical/computational work, with particular attention to any activities that involve hazardous materials or procedures, *monitor* the student's progress for the duration of the project, and *provide feedback*, which may involve comments on written progress reports, to the student on a regular basis. **The supervisor should meet with the student at the end of each term of Chemistry 87 to discuss the student's progress, at which time an assessment of the work done that term will be provided.**

At the end of the project, which in most cases comes in the senior spring term, the student will prepare a written report (thesis) following a standard scientific format (senior theses from previous years are available in Kresge Library), with the guidance of the supervisor. This report will be provided to the supervisor and one or two Chemistry faculty members (appointed by the course director), who will constitute the student's Chemistry 87 committee. This 2-3 member committee (three members for Honors students, two members otherwise) will conduct an oral examination of the student's work. If the research is done entirely off site and the advisor is not able to participate in this examination, a Chemistry faculty member will be appointed as the titular head of the committee. The grades for all terms of Chemistry 87 will be determined at this time, based on the written report, the oral examination, and the assessment by the supervisor of the overall quality and quantity of the research. Supervisors who are not members of the Chemistry faculty will provide the course director with a written evaluation of the student's Chemistry 87 work to assist in the awarding of honors and recognition to graduating senior chemistry majors.

Many students will elect Chemistry 87 one or more times as part of the Honors Program (see details in the ORC). In these cases the student will be expected to demonstrate a greater degree of independence, insight and related chemistry knowledge in their research, in their thesis and in their oral examination than do students who take Chemistry 87 outside of the Honors Program.

8/07