

**Tamkang University Department of Chemistry
Ph.D. Program Rules and Regulations**

1. Regulations regarding entrance examinations and degree completion time limits are as prescribed by the Department of Education and the Office of Academic Affairs.
2. Regulations regarding selection of supervising professor and Ph.D. committee
 - a. A supervising professor should be selected only after discussion with at least three professors in this department. After selecting a supervising professor, please bring the agreement form, signed by your supervising professor, to the department office.
 - b. Students must select a supervising professor before the end of their first semester in this program. Each professor may accept an unlimited number of Ph.D. students each year.
 - c. Changing supervising professors during one's time in this program is generally not permitted. If special circumstances arise, a student may change supervising professors only with the written approval of both the old and new supervising professors. This may not be done more than one time.
 - d. Following the selection of a supervising professor, the student's Ph.D. committee, which is responsible for supervision and guidance, should be formed before the student's second semester in the program.
 - e. The Ph.D. committee shall consist of a total of three professors including the student's supervising professor and other professors from this school, with the student's adviser serving as convener.
 - f. After a supervising professor and Ph.D. committee have been selected, the student must provide a research plan to the Ph.D. committee before formally commencing research.
3. Regulations regarding coursework
 - a. Coursework-related requirements are as follows:
 - i. Four semesters of "Seminar" courses, with a written and oral report required during each of the second term of the student's first year and the first term of the student's second year in the program.
 - ii. Three three-credit courses prescribed by the student's supervising professor in accordance with the student's major field of study.
 - iii. Two credits of "Mini Course in Chemistry" lecture series. (Students who have taken this course during their time in the master's program at this school must retake the course during their time in the Ph.D. program.)
 - b. A minimum of 26 credits are required for graduation, not including credits earned for dissertation work.
 - c. Students must discuss research and coursework plans with their supervising professor, and should select classes only after receiving their supervising professor's signed approval.
 - d. Students may take courses in other departments only with the signed approval of their supervising professor.
 - e. After each semester is completed, the student should provide a copy of the semester's grade report to the department's academic assistant.
 - f. This department's Ph.D. program recognizes elective credits for courses offered by this department and other departments as follows:

- i. All master's level courses offered by this department are recognized as elective courses for Ph.D. students.
 - ii. Ph.D.-level courses offered by other departments in this university's College of Science or by comparable departments at other universities are recognized (with the approval of the chairperson of this department, the chairperson of the other department, the professor teaching the course and the student's supervising professor) up to a limit of six credits.
4. Regulations regarding research
 - a. Graduate students' main research work must be carried out on the premises of this school; in the event of violations, the department chair may recommend against allowing the student to defend his or her dissertation.
 - b. Students using glassware, instruments and/or chemical supplies for their research are required to fill out the proper application forms, to obtain the signed approval of their supervising professor and the department chairperson, and to follow all prescribed procedures.
 - c. Students may operate precision instruments after assessment and authorization by the person in charge. When operating instruments, students must follow relevant guidelines and the instructions of the person in charge. Students will be held financially liable for damage resulting from failure to follow relevant guidelines and instructions.
5. Regulations regarding written and oral qualifying exams
 - a. Written qualifying exams
 - i. Written qualifying exams cover five subjects: advanced physical chemistry, advanced organic chemistry, advanced inorganic chemistry, advanced analytic chemistry and advanced biochemistry.
 - ii. Written qualifying exams for all subjects are offered twice per semester, during the second and fourteenth weeks of each semester.
 - iii. For each test the department chairperson shall appoint a faculty member from this school, or from another school if necessary, to provide questions and evaluate answers. Faculty members responsible for the following academic year's exams are announced each August.
 - iv. Each subject exam will include questions covering four major aspects of that subject. The scope to be covered by each exam is set by the curriculum development committee for each respective subject.
 - v. Test performance is evaluated using a point system:
 - Excellent: three points
 - Passing: two points
 - Barely passing: one point
 - Not passing: zero points
 - vi. A maximum of two subject tests may be taken at each sitting, with a maximum test-taking time of four hours.
 - vii. Students must sit for the exam in their major field each time each time it is offered; absence without cause is not permitted.
 - viii. A student is considered to have passed the written qualifying exams upon accumulating eight points, under the following conditions:

- The student must have attained scores of two points or higher on at least two subject tests.
 - The student must have accumulated at least five points in their major area of study.
 - The student is limited to a total of three points from questions provided by their own supervising professor.
- ix. In order to continue in the program, a student must accumulate at least two points within their first year, and must pass the written qualifying exams within three years of entering the program.
 - x. Students from other departments may take qualifying exams offered by this department, but will be evaluated according to the standards of this department, with no special treatment.
 - xi. Continuing education students may be excused from written qualifying examinations with the written permission of their Ph.D. committee.
- b. Oral qualifying exams
 - i. Within one year after receiving written notification of passage of written qualifying exams, the student must propose a directed study plan unrelated to their dissertation and sit for an oral qualifying exam covering the content proposed in that plan.
 - ii. The oral qualifying exam shall be administered by the Ph.D. committee.
 - iii. A student who does not pass the oral qualifying exam on the first attempt may make a second attempt.
 - iv. In order to continue in the program, the student must pass the oral qualifying exam within two years after passing the written qualifying exam, and must pass the oral qualifying exam on the first or second attempt.
 - c. A student who has passed the qualifying exams becomes a Ph.D. candidate.
6. Regulations regarding final oral examination
 - a. Before applying for the final oral examination, a Ph.D. candidate must have at least two papers published in or accepted for publication by journals covered by the Science Citation Index (SCI). The student should be the first author of each of these papers, and submission must be approved by the student's Ph.D. committee.
 - b. A preliminary oral examination convened by the dissertation committee chair (at which a written report must be presented including research results and a written abstract) must be passed by the Ph.D. candidate at least six months prior to the candidate's final oral examination. The dissertation committee shall administer the preliminary exam, and only after it is passed may the candidate apply to take the final oral examination.
 - c. A candidate who has fulfilled the previous two requirements and has completed all coursework required for the Ph.D. degree is eligible to take the final oral examination.
 - d. The dissertation examining committee is composed of five to nine members, of which at least one third must be from outside institutions, all of whom must be recommended by the Ph.D. committee. Committee members shall be invited by this school's chancellor at the recommendation of the department chair and one member shall be appointed the chair of the committee; the student's adviser is not eligible to serve as committee chair. As a

- rule a student is expected to have only one adviser and absolutely no more than two; if a student has two advisers, only one may serve as an examining committee member.
- e. The scope of the dissertation examination is limited to content relevant to the dissertation; in general it is expected to be an oral examination, but when deemed necessary it is permitted to include a written test as well. The dissertation examination is evaluated on a 100-point scale, with 70 points considered a passing score. Scores are given by attending members on a “secret ballot” basis and the score given to the candidate is the average of the scores given by the examination committee members; however, if at least one third of the members give a non-passing score, then the candidate is considered not to have passed the examination regardless of the tabulated score. Scores may not be changed once they are given. Students who have not exceeded the degree completion time limit may apply for retesting during the following semester or the following school year; retesting may be done a maximum of one time.
 - f. Examination committee members must attend the examination personally; sending a representative is not permitted. At least two thirds of committee members should attend the dissertation examination, at least five committee members should be present, and at least one third of the members present must be from outside institutions.
 - g. The examination committee should evaluate the following aspects of the Ph.D. candidate’s dissertation:
 - i. Research methods
 - ii. Sources of information
 - iii. Structure and written expression
 - iv. Insight, originality and/or invention
7. Following approval by the Departmental Affairs Council, these regulations shall take effect from the 2013-14 academic year forward; amendments shall take effect on the same basis.