DESCRIPTION OF M.S. DEGREE REQUIREMENTS

The M.S. degree is not a requirement for entrance into our Ph.D. programs in Chemistry and Biochemistry. Our graduate programs emphasize the Ph.D. degree, and only in rare cases will M.S. students be accepted. Financial assistance is not generally available to the M.S. student. The Master of Sciences (M.S.) degrees are conferred in both Chemistry and Biochemistry, both with and without thesis. This document describes the admission, course, and degree requirements for the M.S. degrees in Chemistry and Biochemistry.

I. INFORMATION FOR CHEMISTRY & BIOCHEMISTRY STUDENTS

A. ADMISSION REQUIREMENTS

Admission to graduate study at the University of Maryland normally requires a minimum of a Bachelor of Science (B.S.), Bachelor of Arts (B.A.), or equivalent degree with a minimum of 30 semester or 40 quarter hours of chemistry, an overall grade point average greater than 3.0 (on a scale where the average grade is 2.0), and 3 letters of reference indicating a potential for independent, creative scientific research. The study program in Chemistry should have included at least 1 year of physical chemistry, 1 year of organic chemistry and 1 semester of inorganic chemistry, as well as laboratory courses in organic chemistry, physical chemistry and analytical chemistry. The study program in Biochemistry should have included at least 1 year of Organic Chemistry, 1 year of Biochemistry, 1 semester of Physical Chemistry, as well as laboratory courses in Organic Chemistry, Biochemistry, and Analytical Chemistry. These requirements represent minimum standards and the competition for available space may limit admissions to persons with credentials above these levels.

The general Graduate Record Examination Scores (GRE - Verbal, Quantitative, Analytical) are required of all applicants; the Advanced Subject examination (Chemistry, Biochemistry, Physics, or Biology) is recommended but not required. Applicants from non-English speaking countries must also present the results of the Test of English as a Foreign Language (TOEFL) and the Test of Spoken English (TSE).

B. FIRST YEAR ADVISING

Initial advising of graduate students takes place during orientation immediately prior to the first semester at Maryland. Each incoming graduate student meets with an advising committee composed of a cross-section of faculty with expertise spanning the subdisciplines of Chemistry and Biochemistry. The committee assists the student in their initial course selection so as to advance their knowledge and best prepare a student for their subsequent area of research specialization.

C. TEACHING REQUIREMENTS

The opportunity to serve as a Teaching Assistant is generally not offered to students in pursuit of a terminal M.S. degree. Special exceptions can be made at the request of M.S. students pursuing a thesis-option degree. Foreign students will be required to pass an English assessment examination prior to appointment as a Teaching Assistant.
D. OFF-CAMPUS RESEARCH

Because of the proximity of UMCP to many national laboratories, a number of students may have the opportunity to perform part of their research at one of these labs. A description of the proposed research and administrative arrangements must be prepared and submitted to the Associate Chair for prior approval.

E. REQUIREMENTS FOR THE M.S. DEGREE - THESIS OPTION

All M.S. Chemistry and Biochemistry degrees must include a minimum of:

- 24 credits of graduate coursework by the end of the fourth semester. A 3.0 GPA or better is required. This program must include 12 credits of coursework at the 600 level or higher

  For the Biochemistry M.S., the Biochemistry Core courses (BCHM 671, 673, 674, and 675) must be included in the coursework. Two credits may be in Seminar (BCHM 898A).

  For the Chemistry M.S., 12 credits must be represented by the Chemistry Core courses listed in the Description of Ph.D. Program and Degree Requirements. Two credits may be in Seminar (CHEM 898A).

- 6 credits of research CHEM799 or BCHM799
- Completion of a thesis based on the student's research
- A final oral examination by the student's advisory committee

F. REQUIREMENTS FOR THE NON-THESIS M.S. DEGREE

- 30 credits of graduate coursework. A 3.0 GPA or better is required. This program must include at least 20 credits of coursework at the 600 level or higher.

  A minimum of 18 of these credit hours must be in Chemistry and Biochemistry, of which at least 14 must be at or above the 600 level.

  For the Biochemistry M.S., the Biochemistry Core courses (BCHM 671, 673, 674, and 675) must be included in the coursework. Two credits may be in Seminar (BCHM 898A). A minimum of 6 credit hours (of the total 30) must be in BCHM 699.

  For the Chemistry M.S., 12 credits must be represented by the Chemistry Core courses listed in the Description of Ph.D. Program and Degree Requirements. Two credits may be Seminar (CHEM 898A-F). A minimum of 6 credit hours (of the total 30) must be in CHEM 699.

Note: The requisite 12-credits of 600-level core courses must be completed by the end of the 4th semester in Graduate School with a minimum grade of B in each course.

- A scholarly paper must be submitted and approved by three faculty members. This paper must be at least 20 double-spaced pages in length and must be original (i.e. it cannot have been prepared to satisfy the requirements for any course that the candidate has taken).