Chemistry MS, Professional Science Emphasis

Admission Requirements

Individuals with at least the equivalent of the B.A. degree in the natural sciences may be admitted to the Graduate School as candidates for the M.S. degree or as precandidates for the Ph.D. degree in chemistry. A student in the M.S. program may request to transfer to the Ph.D. program by petition to the department.

The department admissions committee considers applicants' grade point averages and normally requires above-average performance in all areas of chemistry as well as physics and mathematics, or other evidence of high aptitude for graduate work in chemistry. Applicants' letters of recommendation and academic programs are also considered. In some cases the committee may require successful completion of undergraduate course work at UMSL as a condition of enrollment as a regular student.

Students with bachelor's degrees in fields other than chemistry may be admitted to pursue graduate studies in chemistry, but they must make up background deficiencies, usually by taking undergraduate course work at UMSL.

Financial Support

Teaching assistantships are available to qualified applicants. Research assistantships and fellowships are available for advanced students. Departmental support is not normally available beyond the fifth year in the program. For further information,
contact the Department of Chemistry & Biochemistry Graduate Admissions Committee.

Preliminary Advisement

Students who have been admitted for graduate work in chemistry will be contacted by the Director of Graduate Studies in order to develop a tentative plan of study which takes into consideration the student's background and interests. Entering students are required to demonstrate proficiency at the undergraduate level in four areas of chemistry (biochemistry, organic, inorganic, physical, and analytical).

Proficiency may be demonstrated in one of the following ways:

- Outstanding performance in recent undergraduate course work.
- Satisfactory performance in standardized placement examinations. These examinations are given twice a year, approximately one week before the beginning of the fall and winter semesters.
- Successful completion of assigned course work.

The ultimate choice of whether students may enroll in the M.S. or Ph.D. degree programs resides with the chemistry faculty.

Degree Requirements

This option requires a minimum of 32 hours, of which 16 credit hours must be at or above the 5000 level. Students must take 21 credit hours of chemistry, 9 hours in business, and 2 credits hours of internship or practicum. A maximum of 3 credits of CHEM 6897 may be applied toward the required minimum of number of chemistry credits (21 hours).

The courses presented for the Master's degree (professional science emphasis) may not include any of the following:

CHEM 4212	Instrumental Analysis	3
CHEM 4233	Laboratory in Instrumental Analysis	2
CHEM 4302	Survey of Physical Chemistry with Applications to the Life Sciences	3
CHEM 4343	Physical Chemistry Laboratory II	2
CHEM 4412	Advanced Inorganic Chemistry	3
CHEM 4433	Inorganic Chemistry Laboratory	2
CHEM 4712	Biochemistry	3
CHEM 4733	Biochemistry Laboratory	2
CHEM 6487	Problem Seminar in Inorganic Chemistry	1
CHEM 6687	Problem Seminar in Organic Chemistry	1-3
CHEM 6787	Problem Seminar in Biochemistry	1
CHEM 6812	Introduction to Graduate Study in Chemistry	1
CHEM 6822	Introduction to Graduate Research in Chemistry	1
CHEM 6905	Graduate Research in Chemistry	1-10

Emphasis Area Requirements

Elective Courses in Business (9 credit hours required)

MGMT 3623	Industrial and Organizational Psychology	3
BUS AD 5000	Economics for Managers	3
BUS AD 5100	Managerial Communication	3
MGMT 5600	Managing and Leading in Organizations	3
MKTG 5700	Integrated Marketing Strategies	3
BUS AD 5900	Law, Ethics and Business	3
Required Internship or Practicum (2 credit hours required)		
CHEM 5798 or CHEM 5799		2

There are no distribution requirements for the Masters in Chemistry (Professional Science Emphasis).