



**BS/Accelerated MS**  
**Department of Chemistry and Biochemistry**

The BS/Accelerated MS in Chemistry leads to a research-based MS degree following satisfactory completion of 144 credits. It allows academically strong undergraduates with a commitment to research to obtain BS and MS degrees within five academic years plus the summer of the last year. On completion of this program, students will be exceptionally well prepared for entry into a professional school or a PhD program in chemistry or a related discipline. Students are eligible to enter this program and enroll in graduate courses after successfully completing 90 credits, inclusive of prerequisites, toward the BS degree. This flexibility makes it possible for students to complete some of their graduate classes during their junior and senior years. Consult the department for details on the program.

Your BS and MS degrees are not awarded together in the BS/Accelerated MS program at the end of 144 credits. You will apply to graduate with your BS at the end of your BS. You will apply to graduate with your MS at the end of your MS. The BS and MS are awarded at those two times.

Students admitted to the BS/Accelerated MS may use up to 6 earned credits in partial satisfaction of the requirements for the undergraduate degree. Put them on the [Bachelor's/Accelerated Master's Transition Form](http://cbgrad.gmu.edu/bamtransitform.pdf) (<http://cbgrad.gmu.edu/bamtransitform.pdf>). On completion of the undergraduate degree and with satisfactory performance (3.00) in the graduate courses, students are given advanced standing in the master's program and can complete an additional 24 credits to receive the master's degree. All other master's degree requirements must be met.

### **Program Description**

The BS/Accelerated Master's program is designed for talented and motivated students who wish to earn both their Bachelor's and Master's degrees within a 5 year period plus the summer of the last year. Students in this program must complete all of the requirements for both the BS and the MS degrees in Chemistry. Not all students who are accepted into this program manage to complete the requirements for both degrees within the 5 year period, but a significant number do and most of the others finish before the end of six years (a typical time-frame for both degrees).

The primary advantage of this program is that it allows a student to apply a maximum of 6 credits of graduate classes to both their graduate requirements and their undergraduate general elective requirements. After completing the chemistry major requirements and the general education requirements, undergraduates have 12 credits of general electives to complete for the BS. The courses that will be applied to both degrees can only be used to satisfy undergraduate general electives; they cannot be used to substitute for required chemistry courses or chemistry electives at the undergraduate level. A second advantage of the program is that it allows students who will be completing their undergraduate degree in less than four years (possibly because they transferred in credits from high school or took classes during the summer) to begin taking graduate classes during their last year of undergraduate work. These students get an early start on their MS degree and can often finish it in an extra year or 18 months.

Students should apply to the BS/Accelerated MS program during the semester in which they will complete their 90th credit, or in the semester immediately afterward. A hard copy application can be obtained from the graduate coordinator. Because this program requires a high degree of concentration and a steady effort on the part of the student, the minimum GPA at the time of application is 3.00. Once a student has been accepted into the program and received credit for the 90th hour, he/she will be allowed to register for graduate classes.

Students cannot apply to the BS/Accelerated MS program before the semester in which they will complete 90 credit hours. COS will reject the application. Wait until the first week of the semester in which you will complete 90 credits, and give the hard copy application to the graduate coordinator.

At the time a student applies to the BS/Accelerated MS, that student must have taken the following courses: CHEM 313, 314, 315, 318, 321, 331, 336, 463, and (445 or 465). Current enrollment in the last one is permitted. The student's GPA in these 8 courses must also be at least 3.00.

Students in the BS/Accelerated MS program are allowed to register for a maximum of 12 graduate credits before they have finished the requirements for the undergraduate degree.

Once the undergraduate degree requirements are met, the final 18+ credits to complete the graduate degree will need to be completed, ideally in one additional year. These will include 6 credits of CHEM 799 (Master's thesis) which should be taken in the last two terms at 3 credits per term. Continuous registration is required for Chem 799 until the MS degree is awarded. After 6 credits of 799 have been earned, registration for 1 credit of 799 is required in each additional semester.

Three (3) credits of CHEM 790 (graduate seminar) is required. Since the BS/Accelerated MS program is intended to be a 5-year program, it is necessary to sign up for CHEM 790

during the senior year in order to complete three semesters of this course by the end of the 5th year. Patriotweb does not allow undergraduates to sign up for CHEM 790. Students should talk to the graduate coordinator about the current method of circumventing this.

Students are encouraged to talk to faculty about possible research projects as soon as they decide to apply to the BS/MS program. Completion of a Master's level research project is often the slowest step in the MS program, so the sooner a faculty mentor is identified and work on a project has begun, the more likely it is that the program will be finished within 5 years. At a minimum, expect to begin working on a project during the senior year, continue working throughout the following summer, and finish the project during the 5th year. Starting in the lab during the summer between the Junior and Senior years is an even better idea to assure finishing the program within 5 years.

### **Timeline**

#### Junior Year (60-89 credits)

Contact the graduate coordinator about applying to the BS/Accelerated MS program. Fill out the application in the semester you will complete your 90th credit and submit it in hard copy to the graduate coordinator. A minimum GPA of 3.00 is required for acceptance. Begin thinking about a research group to join and make initial contacts with professors. If possible, get started working in the lab.

#### Senior Year (90+ credits)

Register for graduate classes after you have been accepted into the program. Attend graduate seminar (CHEM 790) and formally register for the course if you will not go above the 12 graduate credit limit as an undergraduate. Begin working on your thesis research project, consult with your research advisor to write a thesis proposal, and submit your thesis proposal to the graduate coordinator. Contact the undergraduate coordinator to make sure that the correct classes are applied to both the undergraduate and graduate degree. In consultation with your research advisor, assemble your three person MS thesis committee.

#### Senior Plus year (post-undergraduate degree)

Sign up for CHEM 799 during your final two semesters (3 credits each semester). Finish the laboratory part of your research project. Write your Master's thesis. Schedule a date with the Seminar Coordinator to present your thesis seminar to the Department of Chemistry and Biochemistry. File your intent to graduate and complete the requirements for this process.

### **Apply to the BS/Accelerated MS**

To apply, talk to the graduate coordinator in person. The graduate coordinator will give you a hard copy application which you should return to him/her. This application is not on any web site. After you are accepted into the BS/Accelerated MS, you do not need to apply separately (electronically) to enter the MS program.