

BS/MS Roadmap – Spring 2020

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Last modified June 12th, 2020

Graduate Degrees in the Department of Chemistry

The Chemistry department offers three different graduate programs, each intended to serve a different type of student. Although these degrees all include the letters “MS” and all require 30 credits of graduate coursework including 15 6600-level credits focused in chemistry, each carries a unique set of privileges and expectations, and students should not expect to freely switch between them after starting one program. In particular, BS/MS students will be asked to reapply to the graduate school if they wish to move to either standalone MS program.

The **Thesis MS** is a two-year research-centered degree. While it requires significant coursework, this program emphasizes year-round laboratory research, including one summer, and culminates in the writing of an original thesis. At the close of the program, each student presents and defends their thesis. Thesis MS students are fully eligible to receive research or teaching assistantships to help compensate them for the program’s substantial time commitments.

The **Non-Thesis MS** is a two-year coursework-centered degree. This track requires a significantly larger number of traditional courses, and only 4 credits of research (and no thesis credits) may be counted towards its requirements. The program concludes with written and oral exams on selected coursework subjects. While Non-Thesis MS students may choose to take on teaching assignments on a course-by-course basis, they are less likely than Thesis MS students to receive full-time teaching assistantships.

The **BS/MS** is an accelerated three-year program enabling undergraduate students to earn MS degrees in one additional year beyond the undergraduate degree by pursuing full-time summer research for two summers and beginning MS coursework before completing their undergraduate degrees. This program is intended for ambitious students seeking to deepen their engagement with chemistry as undergraduates, and to quickly burnish their credentials for applying to jobs or competitive PhD programs. The program concludes with the composition and defense of a research paper similar to a thesis. BS/MS students are fully eligible, like Thesis MS students, to receive research and teaching assistantships during all three years of the program.

Funding

A limited number of teaching assistantships, which award a full tuition waiver and stipend to students fulfilling three teaching assignments each semester, are awarded for the following year each April. To apply for consideration, a student should submit a brief personal statement, their transcript, and letters of reference ideally from current teaching and research supervisors. Research assistantships may also be available by arrangement with individual faculty.

Department-funded MS students must obtain permission from the GPC to maintain a non-university job during the first semester in the program. Thereafter, permission must be obtained from a student’s research committee. Additional employment by the University also requires permission from the Dean of the Graduate School.

Introduction to the BS/MS Candidate Road Map

The purpose of the road map is to clarify procedural steps for successful completion of your BS/MS degree in chemistry. The road map also describes departmental expectations of your performance and your obligations in the BS/MS program. It is your responsibility to ensure that you are meeting all deadlines as you progress through the program. A checklist of deadlines is provided in this booklet on page 13.

Please note that this is an advisory document that is meant to assist your planning, rather than to define official university policy. For the authoritative version of all official policy definitions please see the ISU Graduate and Undergraduate Catalogs.

Road Map Overview

The following is a brief overview of the recommended road map. Over years one and two of the BS/MS program you should be finishing 120 undergraduate credits including all general education requirements and course work needed to satisfy a Chemistry BS degree. See page 5 for a detailed description of the required courses.

Year One:

Fall - Choose your research advisor and form your research committee.

Spring - By April 1st, write and submit the research overview, apply for renewal of funding, and apply for admission to the Graduate School. If GRE and/or TOEFL scores are required by graduate school guidelines, arrange to take the exam(s) so that the Graduate School receives your scores by August 1st before the upcoming Fall term.

Summer - Begin research project, and enroll in CHEM 4485 for 6 credits.

Year Two:

Fall - Complete the advanced chemistry course offered at the 6600 level, enroll in CHEM 4485 for 1 credit, continue research project, and write a preliminary introduction to the research paper (due November 1). You may apply for Spring graduation with your BS degree if you have completed the requirements (see catalog for deadlines).

Spring - Complete the advanced chemistry course offered at the 6600 level, enroll in CHEM 4485 for 1 credit, continue research project, write a preliminary experimental section to the research paper (due April 1). Apply for renewal of funding by April 1st.

Summer - Enroll in CHEM 6635 for 6 credits and continue research project.

Year Three:

Fall - Complete the advanced chemistry course offered at the 6600 level, enroll in CHEM 6635 for 2 credits, present a literature seminar in CHEM 6601, write the introduction and experimental sections of the research paper (due November 1), submit the Final Program of Study for evaluation by the Graduate School, and apply for graduation with the BS and MS degrees at the appropriate offices.

Spring - Complete the advanced chemistry course offered at the 6600 level, enroll in CHEM 6635 for 2 credits, write research paper (suggested due date of April 1), [schedule an oral examination with the Graduate School](#), present your research in CHEM 6601, and defend the research paper.

Performance Expectations

You are required to maintain *good standing* in the BS/MS program. This is accomplished by meeting Departmental expectations and fulfilling Graduate School and BS/MS requirements as outlined below and in the Graduate Catalog.

If you are a BS/MS student funded by the department, you must pick up a check for tuition and fees at registration. This includes fall, spring, and summer sessions. This check must then be signed and turned in at registration. **Failure to do so will result in late fees payable by you.** In order to receive your bimonthly payment of your stipend, you must go to the personnel office in the Administration Building and fill out a few forms. This should be done as soon as possible after you arrive on campus for the start of the fall semester, and can be coordinated with Suzzie Morris (morrus2@isu.edu) in the Chemistry office.

Funded BS/MS students are given various teaching assignments. For example, you may be assigned to instruct an introductory laboratory section, assist an instructor in a lab class, or help grade assignments and exams. You will typically be expected to hold one or more office hours in the Chemistry Study Room. You are expected to meet the obligations of your assigned duties at all times, including:

- Make a reasonable effort to accommodate scheduling needs, and be present, punctual, and prepared at all meetings scheduled by your teaching supervisor.
- Complete grading on the schedule set by your supervisor.
- Deliver laboratory curriculum according to the standards set by your supervisor, prioritizing student safety and learning.
- Be professional and respectful in all interactions with students.

Funded BS/MS students may also be employed by the university and receive compensation additional to the BS/MS stipend, but this employment may only occur with permission of the Dean of the Graduate School. The Graduate Catalog should be consulted for further information on this matter. In addition, funded BS/MS students must obtain permission from the Chemistry Graduate Programs Committee in order to maintain a non-university job during the first semester in the program. Thereafter, permission must be obtained from your research committee.

You are expected to attend all seminars sponsored by the Chemistry Department whether or not you are enrolled in the seminar course. Chemistry seminars are generally held on Friday afternoons at 1:00. Naturally, if you have course or teaching assignment conflicts, you are excused.

As one of the requirements for the BS/MS program, you will write a paper describing your research under the supervision of your faculty advisor. The research paper replaces the written examination required by the Graduate School, and should therefore be substantive. To ensure that this is case, you are assigned to write various sections of the paper throughout the course of the program, with each section subject to approval by your research committee. These assignments may be waived or changed at the discretion of your research advisor.

Continuation in the program requires that you maintain a minimum **overall** GPA of 3.0 from the date of entrance and make satisfactory progress toward your research paper. Failure to meet departmental expectations could result in your dismissal from the BS/MS program, depending on the determination of the Chemistry Department Chair upon recommendation from the Chemistry Graduate Programs Committee. It is important for you to realize that your BS/MS *funding* can be renewed for up to a maximum of three years, but will be re-evaluated each spring based on not only your coursework and research progress, but also your contributions to the department's teaching mission.

To remain eligible and enable your consideration for continued funding, please submit to the Chemistry Department by April 1 each year a letter requesting funding, a current transcript, a list of your current courses (with expected grades), a letter from your research supervisor, and a letter from your teaching supervisor. If you worked with multiple teaching supervisors, please obtain a letter from the one who is most familiar with your work as a laboratory TA.

If you are an unfunded BS/MS student and would like to be considered for funding from the Chemistry Department, please submit to the Chemistry Department by April 1 each year a letter requesting funding, a current transcript, a list of your current courses (with expected grades), and, if appropriate, letters from your research and/or teaching supervisors.

If you choose to withdraw from the program for any reason, you should notify the department in writing and indicate the undergraduate degree toward which you intend to continue. If you wish to apply your BS/MS progress towards a stand-alone MS degree (thesis or non-thesis) you must reapply to that program following the steps described in the graduate catalog. It is important to recognize that the BS/MS degree is not the same as a BS degree plus an MS degree, but is a separate degree program with unique opportunities and expectations, and its graduate requirements cannot necessarily be freely exchanged with those of other programs.

Detailed Description of the BS/MS Program

Year One of the BS/MS Program

During the fall semester you must select your research committee, which will be composed of three members drawn from ISU's graduate faculty and will monitor your progress and administer your exam at the end of the program. The chair of your committee will advise your research and bear primary responsibility for approving your program of study. You are required to meet with all available graduate faculty in the department before making this selection, as it is an important one; your progress toward graduation will typically be set back if you change research advisors after the first year. Another committee member must be from the Chemistry Department, preferably in a discipline (analytical, biochemical, inorganic, organic, or physical) different from your area of research concentration. The third committee member, who will serve as the Graduate Faculty Representative (GFR) must be from a different department. (While it is preferable to select the GFR as you begin your research, they will not have formal obligations until you complete the program and may be selected at that time.) The GFR may be involved in your research as a collaborator, but it is important that at least one member of your committee be sufficiently independent and disinterested in your research that you trust them to mediate any conflicts that

arise with your advisor(s). Ultimately, the Chemistry Department Chair must approve your committee selection.

As early as possible, you should design a program of study specifying when you will take the course work required for completion of the BS/MS degree. You must take all of the required courses for a BS degree in chemistry except independent problems CHEM 4481 and CHEM 4482. In addition, CHEM 4407 is required and MATH 2230 and MATH 3360 are recommended. You are also required to take at least two of the advanced chemistry courses (CHEM 6609, CHEM 6630, CHEM 6655, and CHEM 6671). These courses are taken during your second and third years of the program, and are offered in alternating years, so you should complete pre-requisites as promptly as possible to ensure that you can take them when they are available. Be sure to have all your general education courses completed by the end of your senior year. Additionally, you should have completed 120 credits of undergraduate course work. If you have not achieved these goals, you may not be approved for Classified graduate status at the completion of your senior year. You are required by the graduate school to complete 30 credits at the graduate level, 15 of which must be at the 6600 level. Because the Chemistry Department requires 9 credits of specific 6600 level advanced chemistry courses, 3 additional coursework credits at this level, 10 credits of CHEM 6635 Masters Research, and 2 credits of CHEM 6601 Seminar, you need an additional 6 credits of graduate level (5500 or 6600 level) course work. These should include two traditional courses, as opposed to research credits, and may be in Chemistry or elsewhere.

During the spring semester, you are required to write a research overview that describes your research project. Your overview should include an introduction, significance of the research, description of the experimental work, and the equipment and/or materials required. The research overview should be approved by your research committee by April 1st of the spring semester.

By April 1 you must also apply to the Graduate School for acceptance as a graduate student (classified status with performance requirements). As part of this process, you may need to submit GRE and/or TOEFL scores to the Graduate School by August 1st before your second year in the program. As of Spring 2020 domestic students with GPAs above 3.0 are exempt from exam requirements, but please see the Graduate School admission policies for the most recent guidelines and make sure you take that if necessary you take the exams early enough for your scores to be reported by August 1st. Note that you are not permitted to register for any 500 and 600 level courses until you have been accepted for admission to the Graduate School.

By April 1st you should also apply for renewal of your funding by submitting to the Chemistry Department a brief personal statement, grades, and letters of reference from your research and teaching supervisors.

During the summer, you are expected to vigorously commence your research project. That means you should be spending at least 10 weeks of the summer doing research on a daily basis. You will enroll in 6 credits of senior research (CHEM 4485) with your research advisor as the instructor for the course.

Year Two of the BS/MS Program

You continue with research during your second year and enroll for 1 credit of CHEM 4485 in the fall and spring semesters with your research advisor as the instructor. Your research advisor and committee may require some form of progress reports periodically during the year. For example, this may come as written or oral monthly progress reports to your committee or perhaps an intermittent oral presentation at weekly research group meetings. You most likely must enroll in the advanced chemistry courses offered at the 6600 level in each of the fall and spring semesters. Note that you will be able to skip a maximum of two such courses, and even then only with your advisor's approval.

During the fall semester, after your summer of research, you will write a preliminary introduction to your research paper. The preliminary introduction must be approved by your research committee by November 1 of the fall semester.

In December you may apply for Spring graduation with your BS degree if you have completed the requirements (see catalog for deadlines).

In the spring semester, you are to write a preliminary experimental section to your research paper. The preliminary experimental section must be approved by your research committee by April 1 of the spring semester. The preliminary introduction and experimental section are most likely going to be revisions and updates of the research overview you wrote in the spring semester of year one of the program. That is, the research overview should have contained a brief introduction and experimental section and the preliminary introduction and experimental section you write in year two should contain additional information and details you have acquired since the research overview was written. If your research project has taken a new direction, then the preliminary introduction and experimental section describe the new direction.

As in the first year, you should apply for renewed funding by April 1st.

During the summer you are to continue with your research project by working on a daily basis for at least 10 weeks. You will enroll in CHEM 6635 for 6 credits.

Year Three of the BS/MS Program

You will complete your research project during your third and final year of the BS/MS program. You will enroll in CHEM 6635 for 2 credits during the fall and spring semesters. This will bring you up to the required 10 credits of CHEM 6635. In the fall semester, you are to write the introduction and experimental sections to your research paper. These sections must be approved by your research committee by November 1 of the fall semester. The introduction and experimental section will most likely be revisions and updates of the preliminary introduction and experimental section submitted in the fall and spring semester of year two, respectively. That is, comments made at the times of submission can now be incorporated into the introduction and experimental section. Additionally, information accumulated since the preliminary writings can be included. If the research project has changed direction, then your introduction and experimental section may not be related to the original overview, preliminary introduction, and preliminary experimental

section. In this case, you write the introduction and experimental section for the new research project.

Again, you most likely must enroll in the advanced chemistry courses offered at the 6600 level in each of the fall and spring semesters.

The first seminar you present in CHEM 6601 cannot be on a topic directly involved with your research paper. Instead, the seminar should be on a research topic from the literature that you find interesting. Only during your second credit of CHEM 6601 in the spring semester can you present information pertaining to your research paper.

You will submit your Final Program of Study to the Graduate School for evaluation in the fall semester, the semester before your final semester. The Graduate School examines your Final Program of Study and you will be informed of any deficiencies that you then need to rectify in the spring semester. Note that you cannot notify the Graduate School of your oral examination date until your Final Program of Study has been approved by the Graduate School.

During the semester before your final semester, you need to apply for graduation with the BS degree. Applications are available in the Office of Registration and Records. At this time, you may apply for graduation with the MS degree at the Graduate School. If you do not apply for graduation with the MS degree at this time, you must then apply within the first two weeks of the semester you plan to graduate. If you do not complete all the requirements for the BS/MS program by the end of the semester you planned to graduate, you will have to reapply for graduation.

During your final semester, you defend the final written form of your research paper before your committee. It is suggested that you follow the thesis order as described in the "Instructions for Preparing Theses, Dissertations, DA Papers, and Professional Projects" booklet available at the Graduate School when preparing your research paper. Because your MS degree is formally without a thesis, you are required to have a written examination as noted in the Graduate Catalog. Your research paper will serve as the written examination. Thus, it is mandatory that your research paper be substantive and of high quality. At a minimum, you are required to have your research paper in final form to your examination committee two weeks before the scheduled defense of your research paper. It is suggested that you use April 1 as the deadline date. If your research paper is found not to be substantive by your examination committee, you will not be allowed to proceed with the oral examination (defense) of your research paper. Your oral examination must be conducted at least three weeks prior to the date of graduation. Prior to your oral exam, your committee must have signed the approval of research paper form. The oral examination begins with a seminar open to the general public and the usual question/answer period follows. At that point, the general public is dismissed and your examination committee questions you on your research paper and related items. If you fail your oral examination, a second exam may be scheduled by your committee if a majority of the committee decides that it is warranted. A second oral exam may not be scheduled earlier than four weeks after the first oral exam unless permission is granted from the Chemistry Graduate Programs Committee. The GFR will help the committee ascertain whether or not your research paper is substantive and will report any discrepancies, including the oral exam, to the Graduate School after the oral defense of your research paper. In addition, the Graduate School needs to be informed of your oral examination date at least two weeks before the examination

occurs in order for the Graduate School to prepare the examination packet for the GFR. This is accomplished by returning the notification form contained in this booklet to the Graduate School. You can also send a copy of this form to your committee members to remind them. Please note that you cannot notify the Graduate School of your oral examination date until your Final Program of Study has been approved by the Graduate School. You can see that it is imperative that you work closely with your advisor for [successful scheduling of your written and oral examinations](#).

Before you depart with your BS/MS degree, you must submit a copy of your research paper in final form to the Chemistry Department for our records. This copy need not be bound, as the Chemistry Department will pay to have it bound. You must also clean up your work area, properly dispose of all waste, and complete the Checkout Approval form.

Courses Required for Admission to the BS/MS Program

You are expected to have completed the following courses before beginning the BS/MS program. If you are missing any of them, you should discuss this with the chemistry department chair or your research advisor as soon as possible.

CHEM 1111,1112	General Chemistry I and II	9 cr
CHEM 3301,3302	Organic Chemistry I and II	6 cr
CHEM 3303,3304	Organic Chemistry Laboratory I and II	2 cr
MATH 1170	Calculus I	4 cr
MATH 1175	Calculus II	4 cr
PHYS 2211,2212	Engineering Physics I and II	8 cr
PHYS 2213,2214	Engineering Physics I and II Laboratory	2 cr

Recommended Preliminary Coursework for the BS/MS Program

The following courses are important prerequisites, and ISU students are encouraged to complete them as sophomores before applying to enter the BS/MS program. They should be taken as soon as possible if not yet complete upon entering the program.

CHEM 2211,2213	Inorganic Chemistry I and Lab	4 cr
CHEM 2232,2234	Quantitative Analysis and Lab	4 cr

Schedule for Coursework while in the BS/MS Program

You must take all of the required courses for a BS degree in chemistry except independent problems CHEM 4481 and CHEM 4482. In addition, CHEM 4407 is required and MATH 2230 and MATH 3360 are recommended. You are also required to take at least two of the four advanced chemistry courses (CHEM 6609, CHEM 6630, CHEM 6655, and CHEM 6671), and encouraged to take all four. Note that 6609, 6655, 6630, and 6671 are offered in alternating academic years and you will take whichever is offered each semester of your second and third years in the program. Also note that CHEM 3365 & 3366 may be taken in your junior or senior year depending on course load.

First year (Junior year)

Fall/Spring

CHEM 3331*	Instrumental Analysis	2 cr
CHEM 3334*	Instrumental Analysis Laboratory	2 cr
CHEM 3351,4451*	Physical Chemistry I & Lab	4 cr
CHEM 3352,4452*	Physical Chemistry II & Lab	4 cr
MATH 2240	Linear Algebra	2 cr
MATH 3360	Differential Equations	3 cr
Electives		11 cr
		TOTAL: 26 cr

**Must be completed by the end of the junior year.*

Summer

CHEM 4485	Senior Research	6 cr
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Second Year (Senior year)**Fall/Spring**

BIOL 4432	Biochemistry	3 cr
CHEM 3365	Synthetic Methods	2 cr
CHEM 3366	Synthetic Methods Lab	2 cr
CHEM 4407	Inorganic Chemistry II	2 cr
CHEM 4485	Senior Research	2 cr
CHEM 4491	Seminar	1 cr
CHEM 6630	Advanced Analytical Chemistry*	3 cr
CHEM 6655	Advanced Physical Chemistry*	3 cr
Electives		10 cr
		TOTAL: 28 cr

Summer

CHEM 6635	Master's Research	6 cr
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Third Year (Graduate standing)**Fall/Spring**

CHEM 6671	Advanced Organic Chemistry*	3 cr
CHEM 6609	Advanced Inorganic Chemistry*	3 cr
CHEM 6601	Seminar	2 cr
CHEM 6635	Master's Research	4 cr
Electives		13 cr
		TOTAL: 25 cr

* One 6600-level chemistry course may be replaced with another 6600 level course in chemistry or an allied discipline.

First Semester Duties

Following are duties that you must complete in your first semester of the BS/MS program. Dates are associated with each of these duties.

1. Complete the Faculty Research Discussion Form. The purpose of this form is to acquaint you with the Chemistry faculty. They will discuss their research interests with you, so allow at least 30 minutes to spend with each faculty member. Return this form to the Graduate Programs Committee by **November 1**.
2. You must come to an agreement with one of the faculty who will then act as your advisor for the remainder of the program. You will do your research with this faculty member.
3. Your advisor and you must form a committee consisting of two other members. One of the members must be from the Chemistry Department in another discipline (analytical, inorganic, organic, or physical). The other member must be from another department and will act as your GFR. After you have formed your research committee, please return the BS/MS Research Committee Form to the Graduate Programs Committee by **December 1**. Because the Chair of the Chemistry Department must approve your committee selection, please have him sign last.
4. Plan to submit to the Chemistry Department by **April 1** a letter requesting funding, a current transcript, a list of your current courses (with expected grades), a letter from your research supervisor, and a letter from your teaching supervisor. If you worked with multiple teaching supervisors, please obtain a letter from the one who is most familiar with your work as a laboratory TA. If you are an unfunded BS/MS student and would like to be considered for funding from the Chemistry Department, please submit to the Chemistry Department by **April 1** a letter requesting funding, a current transcript, a list of your current courses (with expected grades), and, if appropriate, letters from your research and/or teaching supervisors.

Checklist

YEAR 1

ITEM	DATE DUE	DATE COMPLETED
Faculty Research Discussion Form	November 1	
BS/MS Research Committee Form	December 1	
Approval of Research Overview Form	April 1	
Apply to the Chemistry Dept. for Funding	April 1	
Apply for admission to Graduate School with Classified Status (with Performance Requirements), and arrange to take GRE	April 1	

YEAR 2

ITEM	DATE DUE	DATE COMPLETED
Report GRE / TOEFL Scores to Graduate School (if necessary)	August 1	
Approval of Preliminary Introduction Form	November 1	
Approval of Preliminary Experimental Section Form	April 1	
Apply to the Chemistry Dept. for Funding	April 1	

YEAR 3

ITEM	DATE DUE	DATE COMPLETED
Approval of Introduction and Experimental Section Form	November 1	
Final Program of Study Form	By end of Fall semester.	
Apply for graduation with BS degree	Check with Registration	
Apply for graduation with MS degree	Within first two weeks of Spring semester.	
Approval of Research Paper Form	At least two weeks before oral exam date.	
Schedule Oral Examination (https://isu.co1.qualtrics.com/jfe/form/SV_3R6Vw16M4Rb1MAR)	At least two weeks before oral exam date.	
Oral Examination	At least three weeks before graduation date.	
Submit a copy of the Research Paper in final form to Chemistry Department Administrative Assistant.	Upon graduation.	
Checkout Approval Form	Upon graduation.	

Forms To Be Completed During the BS/MS Program Follow

**FACULTY RESEARCH DISCUSSION FORM FOR
SELECTION OF RESEARCH ADVISOR AND COMMITTEE MEMBER**

BS/MS CANDIDATE _____

<u>NAME</u>	<u>ROOM/PHONE</u>	<u>SIGNATURE OF FACULTY MEMBER</u>
Dr. Karl De Jesus	355/2673	_____
Dr. Caryn Evilia	356/4006	_____
Dr. Lisa Goss	340/2542	_____
Dr. Andrew Holland	352/4278	_____
Dr. Courtney Jenkins	347/3737	_____
Dr. John Kalivas	253/2726	_____
Dr. Joshua Pak	360/2612	_____
Dr. René Rodriguez	343/2613	_____
Dr. Jeff Rosentreter	150/4281	_____
Dr. Kavita Sharma	361/2668	_____

Submit to the GPC by Nov 1, Year 1.

BS/MS RESEARCH COMMITTEE FORM

BS/MS Candidate _____
Name Signature Date

Major Research
Advisor _____
Name _____
Signature Date

Chemistry Faculty
Member _____
Name _____
Signature Date

Additional
Committee
Member _____
Name _____
Department _____
Signature Date

Department Chair _____
Name _____
Signature Date

Approved
 Disapproved

Submit to the GPC by December 1, Year 1.

APPROVAL OF RESEARCH PAPER OVERVIEW

The undersigned, which compose the BS/MS candidate's research committee, find the submitted research overview to be satisfactory.

BS/MS Candidate _____
Name

Major Research
Advisor _____
Name

Signature _____ Date

Chemistry Faculty
Member _____
Name

Signature _____ Date

Additional
Committee
Member _____
Name

Signature _____ Date

Comments _____

Submit to your research advisor by April 1, Year 1.

APPROVAL OF RESEARCH PAPER PRELIMINARY INTRODUCTION

The undersigned, which compose the BS/MS candidate's research committee, find the submitted preliminary introduction to be satisfactory.

BS/MS Candidate _____
Name

Major Research
Advisor _____
Name

Signature

Date

Chemistry Faculty
Member _____
Name

Signature

Date

Additional
Committee
Member _____
Name

Signature

Date

Comments _____

Submit to your research advisor by November 1, Year 2.

APPROVAL OF RESEARCH PAPER PRELIMINARY EXPERIMENTAL

The undersigned, which compose the BS/MS candidate's research committee, find the submitted preliminary experimental section to be satisfactory.

BS/MS Candidate _____
Name

Major Research
Advisor _____
Name

Signature Date

Chemistry Faculty
Member _____
Name

Signature Date

Additional
Committee
Member _____
Name

Signature Date

Comments _____

Submit to your research advisor by April 1, Year 2.

**APPROVAL OF RESEARCH PAPER INTRODUCTION
AND EXPERIMENTAL SECTION**

The undersigned, which compose the BS/MS candidate's research committee, find the submitted introduction and experimental section to be satisfactory.

BS/MS Candidate _____
Name

Major Research
Advisor _____
Name

Signature Date

Chemistry Faculty
Member _____
Name

Signature Date

Additional
Committee
Member _____
Name

Signature Date

Comments _____

Submit to your research advisor by Nov 1, Year 3.

**Graduate Program of Study
Idaho State University**

Date submitted _____

Student Name _____

Student Number _____

Department _____

Degree Sought _____

Major Advisor _____

Other Committee Members _____

List below the courses that you wish to apply to your degree. All transfer courses must be converted to semester credits.

Dept.	Course No.	Title	Credits	Year	Institution

Student's signature

Date

_____ non-thesis option

_____ thesis option

Major Advisor's signature

Date

Chairperson's signature

Date

Summary

5500 level credits _____

6500 level credits _____

Graduate Dean's signature

Date

total credits _____

Submit to the Graduate School by December 1, Year 3.

PRELIMINARY APPROVAL OF RESEARCH PAPER

The undersigned, which compose the BS/MS candidate's research committee, find the submitted research paper to be of a substantive nature and the oral examination may proceed.

BS/MS Candidate _____
Name

Title of Research Paper _____

Major Research
Advisor _____
Name

Signature

Date

Chemistry Faculty
Member _____
Name

Signature

Date

GFR _____
Name

Signature

Date

Submit to your research advisor at least 2 weeks before your presentation and oral exam.

CHECKOUT APPROVAL

The undersigned, which comprise the BS/MS candidate, research advisor, and the Laboratory Materials Supervisor, find the BS/MS candidate's research work area to be satisfactorily clean. The undersigned also agree that all chemicals and other items of a hazardous nature resulting from the BS/MS candidate's research have been disposed of properly.

BS/MS Candidate

Name

Signature

Date

Major Research
Advisor

Name

Signature

Date

Laboratory
Materials
Supervisor

Name

Signature

Date

Submit to the Chemistry department administrative assistant before leaving the department.