CHEMISTRY

GRADUATE STUDENT

HANDBOOK

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TABLE OF CONTENTS

CHECKLIST OF STEPS TO COMPLETE A MASTER OF SCIENCE IN CHEMISTRY

___ 1. Admitted to graduate program.

___ 2. Meet with graduate committee chair
   _____ a. Review transcripts for deficiencies
   _____ b. Choose plan of study
      1) Thesis plan
      2) Non-thesis/Internship plan
   _____ c. Review program requirements

___ 3. Choose thesis or internship committee chair

___ 4. Complete any undergraduate deficiencies

___ 5. File a *Graduate Degree Plan* (after 9 hrs and before completing 15 hrs of graduate courses)

___ 6. Choose thesis or non-thesis plan committee *(*no later than the first week of the second month of the semester the defense is planned*)*

___ 7. Complete core, elective, and other required graduate courses

___ 8. Apply for graduation eight (8) weeks prior to end of semester in which you plan to graduate

___ 9. Have a thesis or internship project approved by your committee

___ 10. Schedule date and time for Comprehensive Written Exit Examinations at the beginning the semester in which the student registers for CHEM 591 or CHEM 601

___ 11. Schedule a date, time and place to take the Comprehensive Written Exit Examinations

___ 12. Take, complete and pass the Comprehensive Written Exit Examinations

___ 13. Submit thesis draft to the mentor/committee chair for editing.

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___ 14. Receive permission from the mentor/committee chair to submit the thesis to the other members of the thesis committee.

___ 15. After approval by the mentor/committee chair, submit a rough draft of thesis/internship report to the committee.

___ 16. Make all recommended corrections to thesis/internship report and obtain signatures of committee members (on signature page of thesis) that the thesis is acceptable in its current form.

___ 17. Submit a photocopy of signed thesis signature page to the department office as verification of committee approval and schedule thesis defense date/time. Post mentor approved thesis abstract/seminar notice outside the department office.

___ 18. Present seminar on thesis or internship, and pass oral examination on thesis project and general background knowledge in chemistry.

___ 19. Complete Departmental Clearance forms.

___ 20. Complete graduate chemistry exit survey

___ 21. All course revalidations, final grades, verification of thesis on-line submission and acceptance from the School of Graduate Studies, departmental academic clearance forms, and official transcripts for transfer work must be completed and in the School of Graduate Studies by the last day of the student's final semester (minimum 3.0 GPA and not more than six semester hours of C or lower required for graduation).

INFORMATION AND PROCEDURES FOR A MASTER OF SCIENCE IN CHEMISTRY

Admission Requirements - see WIU Graduate Catalog online at:
http://www.wiu.edu/graduate_studies/catalog/chemistry.php

Undergraduate Deficiencies

All chemistry graduate students must fulfill chemistry and other science and mathematics requirements for a Bachelor of Science degree in chemistry (see WIU Undergraduate Catalog for details). Chemistry graduate students (**except students in the IBMP "Bridge" program**) will be required to pass a competency exam in each sub-division of chemistry (analytical, biochemistry, inorganic, organic, and physical) or be required to successfully complete an undergraduate deficiency course in the delinquent sub-discipline of chemistry.

All chemistry students must have their Deficiency Course Plan approved by their thesis/internship committee chair and submit the document to the Department of Chemistry. Chemistry graduate students must officially register for all recommended undergraduate deficiency courses. Undergraduate courses taken as deficiency must be completed with a grade of C or better, deficiency courses cannot be taken as pass/fail.

Students in the Chemistry or Forensic Chemistry IBMP "Bridge" program who have not completed undergraduate coursework with a grade of "B" or better in each sub-discipline of chemistry (analytical, biochemistry, inorganic, organic, and physical) as part of their B.S. degree will be required to either pass a competency exam in the deficient area or complete an undergraduate deficiency course in that sub-discipline of chemistry.

If a student fails the organic chemistry entrance exam that student will be required to complete either CHEM 435 or CHEM 330 as a deficiency course. The student must pass that course with a C or better.

If a student fails the physical chemistry entrance exam that student will be required to complete the physical chemistry deficiency course CHEM 370 or CHEM 374. The student must pass the course with a C or better.

If a student fails the physical chemistry entrance exam that student will be required to complete the physical chemistry deficiency course, either CHEM 479, or CHEM 370, or CHEM 374. The student must pass the course with a C or better.

If a student fails the biochemistry entrance exam that student will be required to complete CHEM 421(G), 422(G), 425(G), or CHEM 429. If the student takes CHEM 421(G), 422(G), or 425(G) the course will count for graduate credit. The student must pass the course with a C or better. If a student passes the biochemistry entrance exam that student must complete CHEM 521 or a graduate committee approved course which substitutes for biochemistry.

If a student fails the analytical entrance exam that student will be required to complete either CHEM 449, or CHEM 442(G), or CHEM 452(G) with a grade of C or better. If the student takes CHEM 442 it will count as a deficiency course but will not count for

graduate credit. If the student completes CHEM 442G or CHEM 452G that course will count for graduate credit. However, if a student passes the analytical chemistry entrance exam that student should complete either CHEM 541, CHEM 542, or CHEM 551, or a graduate committee approved course which substitutes for analytical chemistry.

If a student fails both the biochemistry entrance exam and the analytical chemistry entrance exam then the student can select either CHEM 421G, or CHEM 442G/CHEM 452G to complete for graduate credit. If the student selects CHEM 421G as their graduate course then the analytical course must be taken as an undergraduate level deficiency course. If the student selects CHEM 442G or CHEM 452G as their graduate course then CHEM 421 must be taken as an undergraduate level deficiency course. The deficiency course must be passed with a C or better.

If a student fails the inorganic chemistry entrance exam the student must complete either CHEM 409 or CHEM 401(G) with a grade of C or better. If the student takes CHEM 409 it will count as a deficiency course but will not count for graduate credit. If the student takes CHEM 401G that course will count for graduate credit. The student must pass the course with a C or better. If the student passes the inorganic chemistry entrance exam the student must complete CHEM 507 or a graduate committee approved course which substitutes for inorganic chemistry.

Graduate Core Courses (*see Departmental Graduate Policies p. 24).*

Regular chemistry graduate students (not in the integrated BS/MS program) are required to successfully complete graduate coursework as Directed Electives that shall consist of a minimum of four 500 level courses and one 400(G) level course to comprise 15 semester hours.

Students in the BS/MS Integrated Program are exempt from the requirement of four 500 level courses as part of the Directed Electives, as they may count up to 9 semester hours of 400B coursework toward the M.S. Chemistry degree.

All students are required to complete CHEM 492(G), Safety Practices in Chemical Research, prior to initiation of any research activities. It is highly recommended to enroll in this course during the student's first semester of enrollment.

The 15 semester hours of Directed Electives for all students must be comprised of coursework from all five basic disciplines of chemistry (analytical, biochemistry, inorganic, organic, and physical)*.

It may be the case that the classes offered do not rigorously fit into the five basic disciplines of chemistry. However, these courses may meet certain basic discipline requirements. See the graduate program director to determine which courses meet which required areas.

**An exception may be made by the graduate committee if the appropriate courses are not offered on the Chemistry Schedule at least once every two years.*

Note: Students who wish to teach in a community college in Illinois after completion of the M.S. degree should complete 18 semester hours of Directed Electives.

Graduate Program Director

The Graduate Program Director serves as Chair of the Chemistry graduate committee. The Graduate Program Director provides information on the graduate program to the student. The departmental graduate committee chair provides orientation for new graduate students, reviews transcripts for deficiencies, keeps graduate student records, and serves as the advisor until a thesis or internship advisor is selected. It is the responsibility of the graduate student to ensure he/she will graduate on time. The Comprehensive Written Exiting Exams are organized and administered by the Graduate Program Director once a month during regular academic year.

Advisor (Thesis or Non-Thesis/Internship)

The thesis or internship advisor is not assigned but mutually agreed on by student and a Chemistry graduate faculty member. The thesis/internship advisor advises on and approves content of the degree plan, directs student's thesis research, or serves as the internship coordinator. The thesis/internship advisor is responsible for directing the student in the final format of thesis or internship report. The thesis/internship advisor helps the student select members of the thesis or internship graduate committee, and serves as chair of the thesis/internship oral examination committee.

Degree Plan

See the degree requirements in the WIU Graduate Catalog for the year that course work was initiated. The degree plan must be filed after 9 semester hours and before completing 15 semester hours of graduate courses. The student should obtain an instruction sheet for completing the degree plan from the Graduate Program Director. The degree plan will be prepared by the student with assistance from the secretary as needed.

All students working toward a degree in chemistry (B.S. or M.S) must be continually enrolled as a student (minimum of 1 semester hour) to utilize Western Illinois University Libraries and Department of Chemistry laboratories and facilities during the academic year. Summer sessions are excluded from the continuous enrollment requirement.

Please print and bring the degree plan form when meeting with the graduate advisor. The form may be obtained online on the website of the School of Graduate Studies at: http://www.wiu.edu/graduate_studies/current_students/forms/dp.pdf

Thesis or Non-Thesis (Internship) Plan Graduate Committee

See Department Thesis and Internship Policies (p. 24). The graduate thesis or internship committee will consist of a minimum of a Chemistry faculty advisor and a minimum of two other Chemistry department graduate faculty members. The Chemistry Thesis Advisor must be a full-time tenure/tenure-track faculty member in the Department of Chemistry and serve as a full member of the WIU Graduate Faculty. A graduate faculty member from another WIU Department (approved by the Graduate Program Director and the thesis advisor) may serve on the committee in addition to the three (plus)

Chemistry graduate faculty members. The thesis committee will serve as the Final Oral Examination Committee. To improve diversity of research feedback it is recommended that graduate students with the same thesis mentor not duplicate their thesis committees.

Students following the "Thesis plan" should have an initial meeting with their committee to discuss their proposed research. Meetings should be held at least once a semester with the thesis committee to keep the members informed on the progress of the research. Students following the "Non-thesis/Internship" plan must also keep their committee informed of their progress.

If a student's research interest changes, or a thesis advisor (or a committee member) is no longer able to work with a student, then a new thesis advisor (or committee member) may be selected. The change must be discussed with the prior advisor/committee member and the Chemistry Graduate Program Director, and the change must then be approved by the Graduate Program Director and the Department Chair, as well as the School of Graduate Studies. The new advisor/committee member must agree to serve on the student's committee before formal changes are made.

Non-Thesis/Internship Project Proposal

An internship project proposal (Internship form) is to be completed by non-thesis plan students only. The proposal should serve as a summary of a planned internship project, and requires approval by the graduate committee and internship advisor.

The internship proposal should be submitted with the *Graduate Degree Plan*.

Thesis Topic

The topic will be selected and research conducted in consultation with the advisor.

Non-Thesis/Internship Project

The internship project may be an off-campus laboratory project with the topic selected and internship conducted in consultation with the Chemistry internship advisor and graduate committee. A written project or internship report is submitted to the Chemistry internship advisor and committee for approval.

Comprehensive Written Exiting Examinations

For partial fulfillment of the requirements for a Master of Science in Chemistry each graduate student will be expected to successfully pass the Comprehensive Written Exiting Examinations during the semester in which the student registers for either CHEM 591 (Internship Report), or CHEM 601 (Thesis). The examinations will be developed, administered, and graded by the Department of Chemistry Graduate Committee and faculty. The Comprehensive Written Exiting Exams are organized and administered by the Graduate Program Director once a month during regular academic year. The Comprehensive Written Exiting Examinations will be composed of two components.

The first examination of the Comprehensive Written Exiting Examinations is in the general sub-discipline area of thesis work (analytical, biochemistry, environmental, forensic, inorganic, organic, physical, or other). The second portion of examinations of the Comprehensive Written Exiting Examinations covers the course work taken by the

student. The second portion will consist of a series of examinations comprehensively covering the course work taken by the students.

Successful completion of the first examination of the Comprehensive Written Exiting Examinations will require a minimum score of 70%. A score of less than 70% is failing.

Successful completion of the second portion of examinations of the Comprehensive Written Exiting Examinations requires a minimum score of 50% on each individual course examination. A score of less than 50% on any of the individual course examinations is failing. Additionally, the average score of the series of individual course examinations of a student must average 70%. Average scores of all course work examinations below 70% are failing.

Successful completion of the Comprehensive Written Exiting Examinations will require passing both the first examination of the Comprehensive Written Exiting Examinations and the second portion of examinations of the Comprehensive Written Exiting Examinations. Not meeting the conditions to pass the first examination of the Comprehensive Written Exiting Examination means that the student has failed the first examination. Failure of the first examination requires that a similarly constructed exam covering this portion of the Comprehensive Written Exiting Examinations be repeated until a passing score is achieved. Not meeting the conditions to pass the second portion of examinations of the Comprehensive Written Exiting Examinations means that the student has failed the second portion of the examinations. If a student fails the second portion of the examination, the student may retake all the individual exams or only the individual exam they wish to retake.

The Comprehensive Written Exiting Examinations must be taken at least one month before the scheduled thesis/internship report defense and oral examination.

If the student does not successfully pass the Comprehensive Written Exiting Examinations within two weeks of the scheduled thesis/internship defense, the defense date must be rescheduled to allow a minimum of two weeks before the thesis/internship defense.

Steps for Thesis Approval

The graduate student must work with his/her research advisor to produce a thesis manuscript acceptable to the thesis advisor.

Model Graduate Thesis Schedule

Writing a thesis is more time consuming than a typical graduate student expects. It is essential to work closely with your research advisor to review an outline for each section.

Model Timeline for Writing a Thesis

Thesis Section	Average Writing time
Introduction	4 weeks
Results and Methods	4 weeks
Experimental section	2 weeks
Tables, figures, refs etc.	4 weeks
Total	15 weeks

Please note that the times listed are periods that the student spends dedicated to writing approximately six or more hours per day. Some students will require more time, and a few students will require less.

Corrections and Thesis Approval Process

Research mentors generally require a period of three months or more to review a thesis before it can be submitted to the remaining committee members. Committee members require two to three weeks for review of thesis. Requests for urgent examinations are therefore difficult, and assume that revisions are not necessary. It is not reasonable to expect the mentor and committee members to take less than three to four months to review and approve the thesis. Also, additional time for review by the research mentor will be required when multiple students in the research group are submitting thesis drafts during the same period.

Model Timeline for Thesis Approval†

for May Defense	for August** Defense	for December Defense	Required Submissions	
by Dec. 12	by April 15	By Aug. 1	Submit outline of “introduction” section to your research mentor	
by Jan. 16	by May 10	By Aug. 22	Submit draft 1 of “introduction” to your thesis mentor	
by Jan 25	By May 20	By Aug. 31	Submit draft 2 of “introduction” and outline of “results and discussions” section to your thesis mentor	
By Feb. 6	by May 30	by Sept. 9	Submit draft 3 of “introduction” to your thesis mentor	Submit draft 1 of “results and discussion” section to your research mentor
by Feb. 13	by June 13	by Sept. 19	Submit draft 4 of “introduction” to your thesis mentor	Submit draft 2 of “results and discussion” section to your research mentor (includes all corrections on structures, tables, etc.)
by Feb. 20	by June 20	by Sept. 26	Submit draft 5 of “introduction” and outline of “experimental” section to your thesis mentor	Submit draft 3 of “results and discussion” section to your research mentor
By Feb. 28	by June 29	by Oct. 4	Submit draft 1 of “experimental” section to your research mentor	Submit draft 1 of “appendices” (including spectra, chromatograms,

				analysis data, etc.)
by March 8	by July 2	by Oct. 10	Submit draft 2 of experimental section to research mentor	Submit draft 2 of appendices (including spectra, chromatograms, analysis data, etc.)
by March 12	by July 12	by Oct. 15	Submit draft 1 of complete thesis (including preliminary pages and appendices) to your research mentor	
by March 22	by June 22	by Oct. 25	Submit draft 2 of complete thesis to your research mentor	
By April 4	by July 5	by Nov. 7	Submit draft of complete thesis to your committee members (must have approval of research mentor prior to submitting to committee members)	
by April 20	by July 13	by Nov. 23	Submit final corrections on thesis to your committee members	
by April 29	by July 29	by Dec. 1	Gather signatures of approval of thesis your committee members	
by April 29	by July 29	by Dec. 1	Bring signature page and schedule classroom for defense	
by May 5	by Aug. 5	by Dec. 8	Defense and oral presentation	

† Timeline assumes that the student makes all recommended changes required by the research mentor.

** Check to be sure committee members will be available to review the thesis during the summer months.

The thesis manuscript must be deemed "acceptable in its current state" by the thesis advisor and by the thesis committee members before the defense can be scheduled.

Final Defense and Seminar on Thesis Project

The seminar/defense on the thesis topic can be scheduled only after the thesis committee has officially approved the thesis by signing the thesis signature page. The seminar on the thesis will be presented when sufficient research has been completed to produce presentable results and the thesis is complete and accepted in its current form. The student should schedule a date for the thesis seminar/defense with the thesis advisor and graduate committee. The thesis seminar/defense must be scheduled a minimum of one week prior to the thesis seminar/defense date. The thesis seminar/defense must be scheduled during a weekday (between 8:00 – 4:30) and not during a University holiday. The student must schedule the thesis seminar at a time when all members of the thesis committee can attend. The student must schedule with the Department of Chemistry office. Announcements should be distributed to all faculty and graduate students at least five (5) working days before the seminar.

Final Defense and Seminar on Internship Experience and Report

The seminar of the internship report will be presented when sufficient work has been completed to produce presentable results. The student should schedule a date for the

internship report seminar with the internship advisor and graduate committee. The seminar should be scheduled only after the internship report has been approved by the graduate committee and internship advisor. A copy of internship report approval must be submitted to the department office at the time the seminar is scheduled. The internship report seminar should take place during a weekday (between 8:00 – 4:30) and not during a University holiday. The student must schedule the internship report seminar at a time when all members of the graduate internship committee can attend. Announcements should be distributed to all faculty and graduate students at least five (5) working days before the seminar.

Thesis Review by Student's Committee

See Departmental Thesis and Internship Policies (p.24). The student must present a draft of the mentor approved thesis to all committee members, receive feedback, and make all committee corrections prior to scheduling the thesis defense. **Please be reminded that the thesis will be reviewed by anti-plagiarism software upon electronic submission to the School of Graduate Studies**. The thesis advisor and committee check the final copy for both content and format before approving it. To schedule the thesis defense the student must bring a photocopy of the completed thesis signature page to the department office and then schedule a classroom for the thesis defense. The student must then post mentor approved abstract/seminar notice with the defense date/time/place outside the department office at least five days prior to the defense date. The thesis must be submitted online to the School of Graduate Studies (see Thesis Guide).

Internship Report Review by Student's Committee

See Departmental Thesis and Internship Policies (p.24). The student must present a draft of the mentor approved internship report to all committee members, receive feedback, and make all committee corrections prior to scheduling the internship report seminar/defense. **Please be reminded that the internship report will be reviewed by anti-plagiarism software upon electronic submission to the School of Graduate Studies.** The advisor and committee check the final copy for both content and format before approving it. To schedule the internship report seminar/defense the student must bring a photocopy of the completed approval page to the department office and then schedule a classroom for the internship report defense. The student must then post mentor approved abstract/seminar notice with the defense date/time/place outside the department office at least five days prior to the defense date.

Thesis Plan - Oral Examination Procedures

The Thesis Advisor serves as the Chair of the Examination Committee. The other voting members are the members of the student's Thesis Committee. Other faculty members, students, and visitors may attend the seminar and ask questions. The first part of the examination will consist of questions about the seminar from people in the general audience. The second part of the examination will consist of questions posed only by the committee members on the student's specific thesis, as well as, questions to test the student's general knowledge of chemistry (see *Final Examination Report Form*). It is strongly recommended that the student allow sufficient time prior to the examination for preparation to assure an acceptable level of performance.

To have an acceptable thesis and pass the final oral examination, the majority of the Final Oral Examination Committee must agree that the student's performance was

satisfactory; **the advisor must be part of the approving majority**. If the committee decides the student's performance is satisfactory, the advisor and the committee members will sign each copy of the thesis and complete and sign the Thesis approval Page.

If the committee decides the student's performance is unsatisfactory, the examining committee may require another examination(s) which may be oral, written, or both and must be completed within one (1) year of the original exam.

Thesis Plan - After the Oral Examination

The thesis advisor and student will complete the Departmental Clearance Form. The thesis advisor, in conjunction with the student, will make sure the student has completed and turned in all laboratory notebooks, labeled all samples, and cleaned the research space utilized. The advisor will complete any Change of Grade Forms required. A grade for CHEM 601, Thesis, will not be issued until the student has successfully completed the oral defense. The CHEM 600: Graduate Research and CHEM 601: Thesis courses are graded on S/U basis. The advisor will then give the copies of the thesis Title Page, Abstract Title Page, additional copy of Abstract, and the completed Departmental Clearance Form to the Department Graduate Committee and departmental secretary. The departmental secretary will place these documents in the student's file. See WIU graduate requirements at http://www.wiu.edu/graduate_studies/thesis_and_dissertation/ and Chemistry Department Thesis policy in the Appendix.

To graduate in a specific semester the deadline for submission of a student's thesis to Library Archives (ETD submission: www.etdadmin.com/wnill (ProQuest server) is the last day of classes (before finals week of a specific semester). Graduate students who submit their final draft of their thesis after the last day of classes will have their degrees awarded in the following semester. For the latest fees, go to www.etdadmin.com/wnill. Submission fee includes one bound copy for the WIU library. If the thesis or dissertation is to be copyrighted, an additional fee is required.

Non-Thesis/Internship Plan - Oral Examination Procedure

The internship committee chair serves as the Chair of the Final Oral Examination Committee; the other voting members are the members of the student's Internship Committee from the Department of Chemistry. Other faculty members, students, and visitors may attend the seminar and ask questions. The first part of the examination will consist of questions about the seminar from people in the general audience. The second part of the examination will consist of questions posed only by the student's Chemistry Internship committee on the student's specific report, as well as, questions to test the student's general knowledge of chemistry (see *Final Examination Report Form*). It is strongly recommended that the student allow sufficient time prior to the examination for preparation to assure an acceptable level of performance.

To have an acceptable internship report and pass the final oral examination, the majority of the Committee must agree that the student's performance was satisfactory**; the internship advisor must be part of the approving majority**. If the student's performance is considered satisfactory by the committee, the advisor and the committee members will complete and sign the Internship Report Form. If the student's performance is considered unsatisfactory by the committee, the examining the

committee may require other examination(s) which may be oral, written, or both and must be completed within one (1) year after the original exam.

Non-Thesis/Internship Plan - After the Oral Examination

The advisor and student will complete the upper portion and sign the *Departmental Clearance Form.* The advisor will complete any *Change of Grade Forms* required. A grade for CHEM 591 will not be issued until the student has successfully completed the oral defense. The CHEM 590: Graduate Internship and CHEM 591: Internship Report courses are graded on S/U basis. The advisor will then give one copy of the internship report, and the *Departmental Clearance Form* signed by the advisor to the Graduate Committee Chair and the departmental secretary. The departmental secretary will place these documents in the students file.

INTEGRATED BACCALAUREATE AND MASTER'S DEGREE IN CHEMISTRY

Summary

The Integrated Baccalaureate and Master's degree program (IBMP) in Chemistry provides an opportunity for outstanding undergraduate Chemistry/Biochemistry/Forensic Chemistry majors to complete both the BS in Chemistry and MS degree program in Chemistry in five years. In addition to earning both degrees a year early, the integrated programs may include additional opportunities to participate in a variety of experiential educational activities such as a master's project or thesis.

Admission Requirements

- Applicant should apply to the School of Graduate Studies for admission to an integrated degree program in Chemistry.
- Applicant must have a cumulative GPA of 3.25 or higher and a major GPA of 3.25 or higher.
- Applicant should request three letters of recommendation from faculty.
- Applicant should submit a statement of purpose and career goals.
- Official transcripts will be obtained from Sherman Hall by Graduate Office staff.

Degree Requirements

The program offers interested and serious students two plans: 1) Thesis plan emphasizing research and 2) Applied Chemistry (Internship) plan. The course work of a given plan will be determined through careful advising of directed electives. All students will complete the necessary coursework to have a strong understanding in all the fundamental areas of chemistry. Both plans will require the minimum 120 credit hours of the regular BS in Chemistry program.

The Thesis plan will include significant portions of research work carried out by the students under the guidance of chemistry faculty mentors. This work will culminate in the completion of a master's thesis in the last semester of the program. The thesis should demonstrate the student's mastery of the basic areas of chemistry as well as the completion of a significant research project. The Applied Chemistry plan will require an internship whereby the student will spend a minimum of one semester at a cooperating industrial or government laboratory.

Students will be required to complete 120 semester hours (sh) for the bachelor's degree. Nine of these hours may be taken as "bridge" courses which will also count toward the 32 semester hours required for the master's degree. Courses taken for "bridge" credit will require students to complete extra projects and demonstrate a higher level of understanding of class materials. A student must be a senior and accepted into the integrated program before "bridge" courses may be taken.

Integrated Degree Course Requirements

Students must complete a minimum of 120 semester hours of credits to meet bachelor's degree requirements for either the WIU B.S. Forensic Chemistry degree program, or the WIU B.S. Chemistry program.

Students in the Chemistry or Forensic Chemistry IBMP "Bridge" program who have not completed undergraduate coursework **with a grade of "B" or better in each sub-discipline of chemistry (analytical, biochemistry, inorganic, organic, and physical**) as part of their B.S. degree will be required to either pass a competency exam in the deficient area or complete an undergraduate deficiency course in that sub-discipline of chemistry.

IBMP B.S. Forensic Chemistry Requirements

Students completing the Bachelor of Science in Forensic Chemistry must complete I, II, III, and IV. Students must complete a minimum of 120 semester hours of credits including:

I. University General Education and College of Arts and Sciences Curriculum Requirements: 55 s.h.

II. Core Courses: 25 s.h.
*CHEM 201: Gen Chem I, *CHEM 202: Gen Chem II, CHEM 241: Chemical Calculations, CHEM 251: Intro Foren. Chem., CHEM 331: Org. Chem. I, CHEM 332: Org. Chem II, CHEM 341: Analy. Tech.

III. Directed Electives:
CHEM 351: Appl. Foren Chem. CHEM 370: Elem. Phy. Chem. or CHEM 374: Phys Chem-Thermo & Kin., CHEM 485: Intern or CHEM 490: Research, CHEM 416: Chem. Lit., CHEM 421: Biochem., CHEM 442: Analy. Chem., CHEM 452: Foren. Toxic., CHEM 492: Safety Prac., †CHEM 455: Forensic Serology and DNA Analysis, 29 s.h.

IV. Other Requirements: 32-35 s.h.
   a. Math Requirements (8 s.h.)
      *MATH 133, *MATH 134, STAT 171
   b. Physics Requirement (8-10 s.h.)
      *PHYS 211 and PHYS 212, or PHYS 124 and PHYS 125
   c. Law Enforcement Requirement (6 s.h.)
      LEJA 101, and LEJA 255 or LEJA 303
   d. Biology Requirement (8-10 s.h.)
      Either *BOT 200 or *ZOOL 200
   e. Choose one of the following (3-4 s.h.):
      ANTH 405, BIOL 330, *GEOL 110, MICR 200, or CS 305

*University General Education course. 16 s.h. may count toward Natural Science/Mathematics requirement.

IBMP B.S. Chemistry Requirements

The WIU B.S. Chemistry must include university general education requirements, core courses (CHEM 201, 202, 241, 331, 332, 341), and one of the options as listed below:

B.S. Chemistry Options of Study (select A, B, C or D).

A. Chemistry

Special Courses: CHEM 374, 375, 401, 416, 442, and 492	18 sh
Departmental Electives	3 sh
Open Electives: any minor	16-20 sh
Other:	
MATH 133, 134, 231	12 sh
PHYS 211, 213, or 124, 125	8-10 sh
CS 211 and 212 or higher	3 sh

B. Biochemistry

Special Courses: CHEM 370 or 374; 416, 421, 422, 425	18 sh
Departmental Electives	4 sh
Biology Minor	17 sh
MATH 133, 134	8 sh
PHYS 211, 213, or 124, 125	8 -10 sh
CS 211 and 212 or higher	3 sh

C. Pharmacy

Special courses: CHEM 263, 264, 370, 416, 421, 422, 452, 492…24 sh
Minor (Microbiology, Neuroscience, or Zoology).....7-21 sh
MATH 133, STAT 171 or 276……7 sh
PHYS 124, 125 ……..10 sh
ZOOL 230, 231……..8 sh

D. Science/Chemistry – Teacher Certification

Special Courses: CHEM 342, 370 or 374; 401, 482	……..15 sh
BIOL 101, 481	7 sh
GEOL 110	4 sh
PHYS 211, 213	8 sh
BIOL/GEOL 181, PHYS/GEOG 182	8 sh
Directed Electives:	
Departmental Electives	3 sh
Other:	
MATH 133, 134	8 sh
EDUC 239, 339, 439, 469	3 sh
EIS 201, 301, 302, 303 (2 sh), 304 (1 sh), 401	13 sh
ENG 366	2 sh
SPED 210 and 390	4 sh
STCH 480	12 sh

Students in either Integrated B.S.-M.S. program must complete 32 semester hours of graduate credits in one of the following plans:

Thesis Plan

CHEM 580 seminar	2 sh
†CHEM 600* research	12 sh
†CHEM 601 Thesis	3 sh

Directed electives (includes up to 9 sh bridge courses)	15 sh
Total program	32 sh

*CHEM 492 or CHEM 492G is pre/co-requisite for CHEM 600

Applied Chemistry Plan

CHEM 580 seminar	2 sh
†CHEM 590 Internship	10 sh
†CHEM 591 Internship Report	2 sh
Electives in cognate area	3 sh
Directed electives (includes up to 9 sh bridge courses)	15 sh
Total program	32 sh

†Note: CHEM 600, 601, 590, and 591 are graded S/U and so will not impact your final graduate grade point average.

Up to 9 sh of the following undergraduate/bridge/graduate courses can be counted toward the 32 credit hour requirements: CHEM 401G (4) Inorganic Chemistry ; one of these biochemistry courses: CHEM 421G (4) or CHEM 422G (4); CHEM 442G (4) Instrumental Analysis; CHEM 452G (4) Forensic Toxicology; CHEM 416G (1) Chemical Literature; or CHEM 492(G) Safety Practices in Chemical Research.

All students working toward a degree in chemistry (B.S. or M.S) must be continually enrolled as a student (minimum of 1 sh) to utilize Western Illinois University and Department of Chemistry laboratories and facilities during the academic year.

For admissions process and general program information, contact School of Graduate Studies, Western Illinois University, 1 University Circle, Macomb, IL 61455, (309) 298-1806, Grad-Office@wiu.edu http://www.wiu.edu/graduate_studies/

For specific program questions, contact Dr. Rose McConnell, Chair, Department of Chemistry, Western Illinois University, 1 University Circle, Macomb, IL 61455, (309) 298-1538, chemistry@wiu.edu, www.wiu.edu/chemistry.

FACILITIES AVAILABLE IN THE DEPARTMENT OF CHEMISTRY

Chemistry Resource Center

Currens 315 will serve as a Chemistry Resource Center (CRC). The CRC will provide students with a place to study, to utilize study guides and materials, as well as serve as a Chemistry Tutoring Center. Additionally, space will be allocated for TAs to hold office hours and meet with their students.

Graduate Student Keys

The department may authorize keys for entry to the building, research and teaching labs. All keys must be returned before a student leaves campus. All keys must be returned to the office of Public Safety to graduate and have your transcripts cleared.

Keys should never be loaned or borrowed, even by other graduate students.

Use of keys to Western Illinois University buildings and facilities is a privilege. Abuse of key privileges is cause for revocation.

Graduate Student E-mail

Both regular mail and e-mail are used for communication among faculty and graduate students. To facilitate your progress toward your Master of Science degree, it is important to regularly check and respond to both regular mail and WIU e-mail.

Mailboxes for regular mail for Teaching Assistants and Teaching Support Assistants are located in the Chemistry Resource Center (Currens Hall 315). Faculty and other students will communicate with graduate students using these mailboxes. Western Illinois University assigns each student an e-mail address. Graduate students should learn how to use their WIU e-mail accounts within one (1) week of arrival. Graduate students should check their assigned WIU email throughout the day, and reply to correspondence.

Chemical Safety

It is the responsibility of all graduate students to understand and practice laboratory safety rules, including proper use of safety glasses, gloves, and other protective measures while working in the research lab. All graduate students are required to read, sign, and turn in to the Chemistry office a Chemistry Safety Agreement form for Research Personnel. The graduate student should look up the Material Safety Data Sheets for all chemicals used in the research lab. Material Safety Data Sheets (MSDS) information about all chemicals utilized in the laboratory can be found at the following web site: http://hazard.com/msds/

Laboratory Safety

All Department of Chemistry graduate students are required to complete CHEM 492 or 492G as a pre-requisite or co-requisite for CHEM 600 (research).

Departmental Equipment

The facilities and equipment in the department are available for use by graduate students. A faculty or staff member serves as coordinator for equipment that is available for general use. Any graduate student wishing to use general departmental equipment must first contact the equipment coordinator, receive training, and gain permission to

utilize the instrument. The instrument coordinator must be sure that the student has proper training prior to using equipment.

All persons who utilize departmental facilities will keep the equipment areas clean. Members of the chemistry faculty are responsible for making sure the students they supervise clean up equipment areas they utilize.

Some of the facilities and equipment available include the classrooms/audio-visual equipment, poster printer; NMR, GC-MS, HPLCs, GC, AA, IRs, UV-Vis spectrometers, fluorimeter, computer lab, darkroom, and cold room.

The Chemistry Office Manager (Room 214) can provide you with the names of the coordinators of the various facilities and equipment. You must consult with the appropriate coordinator and gain permission before using any of the equipment or facilities. Additional equipment may be found in individual faculty member's research and teaching laboratories. This equipment may only be used if the faculty member in charge of the equipment or facility grants permission.

The Teaching Assistant/Teaching Support Assistant Selection Process

Teaching Assistants and Teaching Support Assistants (TA/TSA) in the Department of Chemistry are chosen by a TA/TSA selection committee.

Student applications are evaluated based on the following criteria:

1. Letter of Application
2. Letter(s) of Recommendation
3. Chemistry Background
4. Grade Point Average (GPA)
5. Communication Skills
6. Professionalism
7. Past Service to the Department

Teaching Assistants and Teaching Support Assistants are professional positions in the Department of Chemistry. Professionalism requires showing a commitment to professional responsibilities. Teaching Assistants and Teaching Support Assistants, like all employees of the Chemistry Department, are expected to work together, respect one another, and carry out their duties to the highest level of integrity, quality and accountability. TAs/TSAs should always serve as a positive role model for all undergraduate students and other graduate students in their conduct and performance.

Requirements for Receiving an Assistantship

Any graduate students receiving any assistantships must be fully admitted as a graduate student without probationary status. TA/TSA must be full time students (at least six semester hours if holding a TA position or nine semester hours if holding a TSA position) and meet minimum GPA requirements. Courses must be graduate courses or courses which are designated as undergraduate deficiencies. Graduate students receiving federal financial aid will not receive aid if they have completed more than nine hours of CHEM 600, thesis research, and/or more than nine hours beyond minimum course requirements as listed in the graduate catalog. A minimum GPA of 3.00 in graduate coursework is required to receive an assistantship.

http://www.wiu.edu/graduate_studies/prospective_students/gainfo.php

PLEASE NOTE: The number of TA/TSA positions available from the Department of Chemistry is limited. Meeting or exceeding the minimum qualifications for an assistantship does not guarantee that a student will receive an assistantship.

Departmental Teaching Assistants (TA) and Teaching Support Assistants (TSA):

Departmental TA duties may include: teaching chemistry laboratories as instructor; lecture assistant (graders) for faculty; preparing solutions and setting up labs for exercises; tutoring undergraduate students in the Chemistry Resource Center; or any combination of these activities.

Departmental TSA provide assistance/support to an academic course instructor. Duties of a TSA involve: assisting faculty instructors in laboratory or classroom exercises, preparing the laboratory; preparing instructional materials; tutoring; grading; facilitating review sessions; or any combination of these activities.

Departmental GAs provide assistance/support to the Department of Chemistry in a non-instructional capacity. Duties of a GA involve: clerical/receptionist duties, including typing, filing, photocopying, answering the telephone, greeting visitors, and other office support duties; or stockroom assistance, such as cleaning glassware, assisting with inventory, maintaining records.

All departmental TAs/TSAs are required to take part in all TA/TSA training workshops each fall and spring semester. Students attending the TA/TSA workshop may receive course credit for CHEM 575 (one semester hour) or CHEM 576 (one semester hour).

TAs/TSAs are selected by a chemistry faculty committee and Department Chair. Most departmental assistantships are 2/3 TA/TSA which require thirteen (13) hours of work per week for the department. The 2/3 TA/TSA provides a waiver of tuition and a monthly stipend. A limited number of full TA positions are available on a competitive basis. The full TA position requires twenty (20) hours per week of work for the department, and provides a tuition waiver and a larger monthly stipend.

Responsibilities and Conduct of Teaching Assistants and Teaching Support Assistants (TA/TSA)

Teaching Assistant and Teaching Support Assistant positions are a very important component of the Department of Chemistry at Western Illinois University. Frequently, the TA/TSA is the first direct contact an undergraduate student has with chemistry faculty. Holding a TA/TSA position is an honor for the graduate student provided by the Department of Chemistry.

The TA/TSA is held to a higher degree of conduct than other students in the Department of Chemistry. A TA/TSA should be completely honest in their research findings and course work. Dishonesty in either research or course work is a serious infraction that will probably cost the TA/TSA his/her assistantship.

A TA/TSA should be a role model for other students in the department and so be punctual to all meetings and classes. Failure to be punctual in a class interrupts the class, breaks the flow of discussions, and misdirects attentions of other students.

Habitual lateness by a TA/TSA is counterproductive and could cost the TA/TSA his/her assistantship.

A TA/TSA should always be at least ten minutes early to any teaching assignment. A TA should never be late for any teaching assignment under any condition. If circumstances mandate that a TA may not meet a teaching commitment, then the TA should immediately contact their supervisor, a faculty member, or another TA to ensure that the class meets as scheduled.

Graduate Research Assistants (RA)

Research assistants work on faculty research projects. Duties and work responsibilities are arranged with faculty members who have grants support for the positions. Most research assistantships are 2/3 RA which require thirteen (13) hours per week for the research mentor. Selection of research graduate assistants is based on requirements of individual faculty members.

MENTORING ACTIVITIES FOR GRADUATE STUDENTS

Coursework Advising

New graduate students are advised in coursework by a faculty graduate advisor (Graduate Program Director). Chemistry graduate student meetings are held at the beginning of each semester to better inform students of departmental graduate policies.

Mentoring Students in Research Activities

If the student has selected a research director at the beginning of the first semester, the student may be asked to register for 2-3 credits of CHEM 600: Research. The student should also register for CHEM 492 or CHEM 492G: Safety Practices in Chemistry Laboratory Research. Students conduct research with faculty mentors. During the first semester students become familiar with the lab settings; learn how to prepare reagents; and learn to find appropriate papers and articles. Unless the graduate student has had research experience as an undergraduate or previous graduate training, he/she is not allowed to be completely independent in the first semester. Research activities are designed to be a one-on-one teaching to train new students doing research. Good lab practices regarding notebook keeping are emphasized.

Started from the second semester, the graduate students generally have more freedom. Depending on their learning ability and lab skills, they are allowed to be independent to carry out their experiments. Discussions are held by the faculty mentor to show graduate students how to design experiments, how to do the trouble shooting, and watch them perform experiments. The difference between the first semester and the second semester is that in the first semester, students are often watched as doing individual experiments. In the second semester, students are generally allowed to help design the experiments and carry them out independently.

Starting from the third semester, students must be independently carrying out their experiments and regularly discussing their results with the faculty mentor. Trained students are directed to write their own abstracts for conference papers and to prepare their own posters and presentation materials. Students are required to attend scientific meetings (regional or national meeting) when possible.

Any issues, problems, situations or conditions not addressed in the Graduate Student Handbook are subject to the decisions of the Department of Chemistry Graduate Committee in collaboration with the Chair of the Department of Chemistry.

APPENDIX

Department of Chemistry
I. GRADUATE POLICIES

1. All deficiency courses must be completed with a letter grade of C or better.

2. Chemistry graduate students (not in the BS-MS Integrate Program or “Bridge” Program) must file a deficiency course plan in their first semester in the graduate program.

3. Chemistry graduate students must file a degree plan, after they have completed nine semester hours of graduate credit and before they have completed fifteen semester hours of graduate credit (preferably during second semester).

4. A Thesis/Internship Advisor must be selected by the beginning of the second semester, the name of whom should be provided in writing to Chemistry Department Graduate Committee and to the Department of Chemistry main office. An approved Chemistry Thesis Advisor must be a full time Unit A member of the Chemistry faculty and a full member of the WIU Graduate Faculty.

5. Change in the thesis/internship advisor, may be made only with the approval of the Chemistry Department Graduate Committee and Department Chair.

6. Each graduate student in the M.S. Chemistry program must work with his/her Thesis/Internship Advisor to establish a Thesis/Internship Committee. The Thesis/Internship Committee must consist of a minimum of 3 members of the Chemistry Graduate faculty.

7. Graduate coursework for regular Chemistry graduate students shall consist of a minimum of four 500 level Chemistry courses and one 400(G) level Chemistry course to comprise 15 semester hours of Directed Electives.

8. Graduate students in the BS-MS Integrate Program or “Bridge” Program are exempt from policy 6 (above). Approved bridge credit courses may be used to meet part of the 15 semester hours of Directed Electives.

9. The 15 semester hours of Directed Electives must be comprised of coursework from five disciplines of chemistry (analytical, biochemistry, inorganic, organic, and physical). An exception may be made by the graduate committee if the appropriate courses are not offered on the Chemistry Schedule at least once every two years.

10. A 400 level course taken without a “G” on the course number will not count for graduate credit, and will not affect the graduate grade point average. A 400G level class requires more work than a 400 level class without a “G”.

11. If a student wishes to drop the “G” from a 400 level course it must be done during the first two weeks of class! Once the “G” is dropped from a course the “G” will not be restored!

12. Comprehensive examinations are partial requirements for a Master of Science in chemistry degree. All students must pass both written comprehensive examinations

during the student's last semester, and an oral examination at the time of the student's thesis/internship defense.

Department of Chemistry
II. THESIS AND INTERNSHIPS POLICIES

A. Thesis Committee

1. For each thesis planned to be defended during a given semester, a thesis committee of not less than three members of the Chemistry graduate faculty should be formed.

2. The faculty mentoring a thesis should submit the date when the thesis will be defended and a wish list of members to serve on the thesis committee. The Department Graduate Committee (DGC) may accept, reject or modify the proposed list in accordance with the committee selection criteria, but this process should be carried out in close interaction with the faculty mentor. The members of the final approved graduate thesis committee should be contacted either by the faculty mentor or the DGC, and written commitment to participate in the committee should be obtained. **To maximize the diversity of critique and feedback on research a research mentor should avoid duplication of identical faculty thesis committees for multiple current students in his/her research group**.

3. The DGC should submit the list of approved thesis committee members, along with the names of the faculty mentor and student to the Chemistry Department Chairperson not later than the first week of the second month of the semester during which the defense will take place. A record of these documents will be kept by the department.

4. Criteria to form the thesis committee:
   a. The thesis committee should chaired by the thesis advisor who is a full time tenure/tenure-track member of the Chemistry faculty and also serves as a full member in the WIU Graduate Faculty.

   b. At least three members of the thesis committee (including the chair) should be Chemistry graduate faculty. Exceptions to this rule should be considered by the DGC only in very unusual situations. Additional thesis committee members from other WIU Departments may be included if they have expertise related to the thesis project. Under no circumstances shall a thesis committee be formed by external members only. Maximum diversity in thesis committees is recommended.

   c. All the committee members must have a doctoral degree in chemistry or another discipline closely related to chemistry and/or to the particular topic of the given thesis.

   d. When considering possible external committee members, priority should be given in the following order to those i) currently working or with extensive experience within institutions of higher education with MS and/or PhD programs or in national laboratories, ii) currently working or with extensive experience in an industry related to the area of the thesis work, iii) other institutions of higher education.

B. Thesis Defense

1. The thesis committee chair must approve the draft thesis before the draft thesis is submitted to the other committee members. (See page 8 for thesis approval process and expected time line.)

2. The thesis must be approved by all committee members (as the final version) before the thesis defense may be scheduled. A copy of the completed (signed) thesis signature page must be presented to the department before a classroom can be scheduled for a thesis defense date/time.

3. The defense date must be scheduled a minimum of one week prior and the seminar announcement/abstract posted to allow timely announcement of the activity to the rest of the faculty and students. The defense should be held during a regular school day of the fall, spring, or summer sessions. The thesis defense shall not be scheduled on weekends, holidays, or during a university holiday.

4. Announcements for all thesis defenses will be posted as soon as a thesis date and room has been scheduled to encourage their participation in these important academic activities.

The student must submit the thesis online to the School of Graduate Studies as a single file. See http://www.wiu.edu/graduate_studies/thesis_and_dissertation/ for submission information. The School of Graduate Studies reviews the document for compliance with policy and format. One of the following emails will be sent to the student regarding the status: 1) Accepted as complete, 2) Revisions requested, or 3) Rejected. The student must revise the electronic document until it has been approved. Upon final approval of thesis or dissertation, student may order copies from an outside vendor (see Bound Copies section).

1. To graduate (i.e. have an M.S. degree awarded) in a specific semester, the student must have the electronically submitted thesis accepted by the School of Graduate Studies by the last day of regular classes (i.e. before the week of final examinations) of the specific semester.

C. Internships

1. Students in the M.S. Chemistry program with the internship track should obtain written approval from the DGC of the list of institutions/industries they are considering for the internship segment of their M.S. in Chemistry.

2. M.S. Chemistry internships will be accepted only if they take place in one of the institutions/industries approved by the DGC for that purpose.

3. The student must have a Chemistry internship committee chair who has agreed to serve as internship advisor/supervisor. The internship committee chair should be a full member of the Department of Chemistry Graduate Faculty.

4. Once an internship is concluded, and the internship report has been approved by the committee, the student should contact the internship committee chair and the DGC, and agree on a presentation/oral examination date. The presentation/oral examination should be held during a regular school day of the fall, spring, or summer sessions. The presentation/oral examination shall not be scheduled on weekends, holidays, or during inter-session periods.

5. The internship committee chair and DGC should form a three-member internship committee to evaluate the presentation and written report provided by the student. The internship committee will be subjected to the same selection criteria as the thesis defense committee.

6. The report should be made available by the student to the internship committee at least two weeks before the presentation.

7. The internship committee selected by the DGC will evaluate the report and presentation and will conclude whether the internship was satisfactory or unsatisfactory within three days of the presentation date.

Criteria for Internship Institutions:

1) Higher education institutions with MS or PhD program in chemistry
2) National and International Labs or Research Institutions
3) R&D labs in the private industry
4) Accredited High schools and Community Colleges (for students concurrently seeking Illinois certification in teaching chemistry).

D. Thesis and Internship Report Format

The thesis or internship report shall follow a journal format. The journal format used will be stated at the bottom of the title page (example: “This thesis follows the format of the Journal of Organic Chemistry”). A journal (preferable ACS) shall serve as a guide for table headings, schemes and figure headings, format for references, etc. Once selected the thesis must strictly adhere to the format used by the specific journal for all figure captions, table headings, scheme formats, and reference formats.

A thesis/internship report shall be composed of three main parts: preliminaries, text, and references. Preliminaries are paged with small Roman numerals. Text and references are paged with Arabic numerals. Preliminaries include:

- Title Page of Abstract - not numbered
- Abstract - not numbered
- Approval Page - not numbered
- Title Page of Thesis - not numbered (assumed to be "i")
- Acknowledgments – page ii
- Table of Contents (including appendices) with page references - paging follows consecutively in small Roman numerals
- List of Tables with page references - paging follows consecutively in small Roman numerals
- List of Figures with page references - paging follows consecutively in small Roman numerals

Text

- **Introduction**: (start with page 1). The introduction should include background information (20 – 25 pages) with appropriate citations. All statements of fact, not discovered for the first time in your research, must be appropriately cited. The practice of citing a reference used in another paper or "back citing" is not permitted in any section of the thesis or internship report.
- **Results and Discussion**: The results and discussion section shall include specific aims, discussions of the work completed, and the implications of the results. All figures, schemes, and tables must be mentioned in the text and included in the order they are mentioned. (use consecutive Arabic page numbers) Figure, scheme, and table captions shall precisely the format of the journal listed on the title page.
- **Summary, Conclusions, and Suggested Future Work**: All important results and trends observed, etc. should be summarized, and conclusions drawn. Suggestions of future work on the research topic should be proposed.
- **Experimental/Materials and Methods**: The experimental section shall describe all reaction conditions for experiments conducted, in a format your thesis/internship advisor deems acceptable. The supplier and purity for all starting materials should be listed (exp: Sigma). All synthesized compounds and major intermediates shall have physical data provided after the IUPAC name (i.e. m.p. or b.p., R_f or R_t, NMR data, mass spectral data or combustion analysis).

Reference Section

- Literature cited must be in the same format as the journal selected as a guide (continue with Arabic pagination).
- Appendices (continue with Arabic pagination)

See WIU graduate program thesis requirements at
http://www.wiu.edu/graduate_studies/thesis_and_dissertation/index.php

Type/Font

Type style should be Times New Roman, Arial, or a typeface that approximates it, and 12 point type. A thesis must be written in electronic format utilizing MicroSoft Word processing program.

Margins

Leave a 1.5 inch (3.81 cm) margin on the left side and a 1 inch (2.54 cm) margin on the right side, the top, and the bottom. Text, figures, schemes, tables, references, etc. may not exceed these margins at any point.

Numbering of Pages

Number each page, except the abstract pages and the title page. Preliminary pages are numbered with small Roman numerals and centered at the bottom of each page. In the text and reference topics sections, place the number at the bottom of the page, 1 inch (2.54) from the bottom edge and centered on the page.

Deficiency Course Plan

Student name_____ Student ID number_____

Anticipated graduation date_____

ACS entry exam	**(Pass/Fail)**	**Deficiency course (name/number)**
Analytical chemistry	_____	_____
Biochemistry	_____	_____
Inorganic chemistry	_____	_____
Organic chemistry	_____	_____
Physical chemistry	_____	_____

Departmental Approval

Student	_____	_____
	Signature	Date
Thesis advisor	_____	_____
	Signature	Date

Submit to the Department of Chemistry by email to the office manager or by hard copy to the department office in 214 Currens Hall.

Department of Chemistry
WRITTEN COMPREHENSIVE EXAMINATIONS REPORT

Student's Name_____ **Date of Examination**_____

Thesis plan: _____ **Non-thesis plan: _____**

The student's Final Written Examinations Committee administers the written examination according to the procedures established by the Department of Chemistry (see Graduate Handbook pg 6). The written comprehensive examination should be scheduled during the semester that the student is enrolled in either CHEM 591 or CHEM 601.

Student's Performance on Final Written Examination* *PASS* *FAIL*

Attempt: 1st 2nd 3rd 4th other:_____ ***Overall Percentage Grade***_____

Part I. Performance on sub-discipline (Research) area of thesis/internship area:
Sub-discipline/Research Area/Mentor exam_____ *Percentage Grade*_____

Part II. Performance on other coursework taken by student:
*Percentage Grade*_____

Course _____ Grade _____
Course _____ Grade _____
Course _____ Grade _____
Course _____ Grade _____
Course _____ Grade _____

Report by Final Written Examination Committee
As indicated by the above results, the student whose name appears above has satisfactorily completed the Final Written Examination in all areas.

_____ _____
Graduate Program Director Date

_____ _____
Graduate Committee Member Date

_____ _____
Graduate Committee Member Date

_____ _____
Graduate Committee Member Date

Received by Department of Chemistry
Chair:_____ Date:_____

* Comments may be written on the back of the form

Department of Chemistry
FINAL ORAL EXAMINATION REPORT FORM

Student's Name_____ Date of Examination_____

Thesis plan: _____ Non-thesis plan: _____

The student's Final Oral Examination Committee administers the oral examination according to the procedures established by the School of Graduate Studies (see Graduate Catalog) and the department's Graduate Committee (see Graduate Handbook). The student must pass, meet, or exceed expectations in all areas listed below for a satisfactory completion of the Final Oral Examination.

Student's Performance on Final Oral Examination* ***PASS*** ***FAIL***

I. Defense of Thesis or Internship Project: _____ _____

EXCEEDS PROGRAM EXPECTATIONS	***MEETS PROGRAM EXPECTATIONS***	***RETEST REQUIRED***
_____	_____	_____

II. General knowledge in Chemistry

EXCEEDS PROGRAM EXPECTATIONS	***MEETS PROGRAM EXPECTATIONS***	***RETEST REQUIRED***
_____	_____	_____

Report by Final Oral Examination Committee
As indicated by the above results, the student whose name appears above has Satisfactorily completed the Final Oral Examination in all areas.

_____ _____
Committee Chair (Advisor) Date

_____ _____
Committee Member Date

_____ _____
Committee Member Date

_____ _____
Committee Member Date

Received by Graduate Committee

Chair:_____ Date:_____

* Comments may be written on the back of the form

Department of Chemistry
DEPARTMENTAL CLEARANCE FORM

Student's Name

Thesis Plan _____ **Non-Thesis Plan** _____

Thesis/Internship Committee names: _____ *(Chair)*

_____ *(Member)*

_____ *(Member)*

_____ *(Member)*

Advisor's Initials

Thesis Defense Completed: _____ *(Date)* _____

Oral Examination Completed: _____ *(Date)* _____

Final Corrections Made: _____ *(Date)* _____

Grade Changes Made Showing All Courses Completed: _____ *(Date)* _____

Research Space Cleaned: _____ *(Date)* _____

Lab Notebooks Turned In as Complete: _____ *(Date)* _____

Appropriate Initials

Departmental Books Returned: _____ *(Date)* _____

Departmental Keys Returned: _____ *(Date)* _____

Library Books Returned: _____ *(Date)* _____

Thesis uploaded to ProQuest (www.etdadmin.com/wnill)**:** _____ *(Date)* _____

Clearance Complete: _____ _____

Department Chair *Date*

Department of Chemistry

Graduate Chemistry Exit Survey

1. What initially lead you to APPLY to the M.S. Chemistry program at WIU?

2. What are some of the STRENGTHS of the M.S. Chemistry Program in general?

3. What are some of the WEAKNESSES of the M.S. Chemistry Program in general?

4. What suggestions would you make to IMPROVE the department's M.S. Chemistry program?

5. Would you recommend WIU's M.S. Chemistry program to students interested in chemistry? Why or why not?

6. What are your plans for the future?

7. Please rate your overall satisfaction with the M. S. Chemistry program. (1= dissatisfied, 5 = very satisfied)

1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0