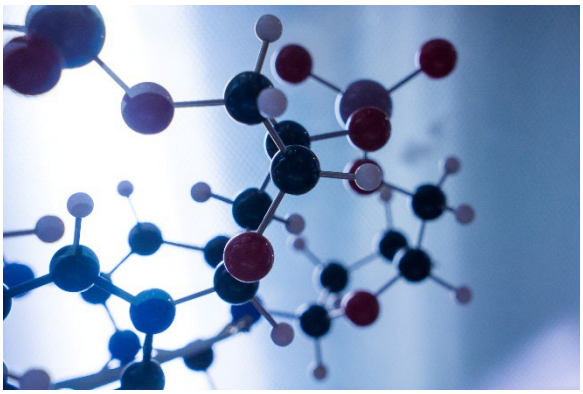
ALBANY COLLEGE OF PHARMACY
AND HEALTH SCIENCES

Graduate Student Handbook



Updated January 2026

Table of Contents

Introduction

The Albany College of Pharmacy and Health Sciences (ACPHS) facilitates graduate education by promoting standards of academic excellence, supporting academic and extra-curricular activities of graduate students, and by fostering intellectual and professional growth among all students and faculty engaged in graduate education at the College. The College supports and coordinates all graduate program offerings through collaboration among program directors, academic departments, the graduate faculty and the dean. The Admissions office works closely with these groups and individuals to coordinate recruitment and admissions for all graduate programs and dual-degree programs with a graduate component. The graduate faculty and faculty committees (Curriculum Committee, Academic Standards Committee), in collaboration with program directors and department chairs, are responsible for the review and revision of existing graduate programs; development and implementation of new graduate programs, concentrations, and courses; and coordination of graduate course offerings, assessment, accreditation reviews, state approvals and allocation of resources to support graduate programs. These groups are also responsible for the review and implementation of academic standards for all graduate programs, including monitoring of graduate student progress. The Office of Research and Sponsored Programs coordinates graduate research assistantships and oversees thesis progress, selection of the thesis committee, and fulfillment of graduation requirements for thesis-bearing graduate programs.

ACPHS offers the following Master of Science and Dual Bachelor of Science/Master of Science degree programs:

Master of Science Programs

- Master of Science in Biotechnology (MSBT), in-person and hybrid tracks
- Master of Science in Biomedical Sciences (MBS), in-person and online tracks
- Master of Science in Clinical Laboratory Sciences (MCL)
- Master of Science in Cytotechnology and Molecular Cytology (MCM), in-person and hybrid tracks
- Master of Science in Health Data Science
- Master of Science in Molecular Biosciences (MMB)
- Master of Science in Pharmaceutical Sciences (MPS)

Dual Bachelor /Master of Science Programs

- Bachelor/Master of Science in Biomedical Technology/Clinical Laboratory Sciences
- Bachelor/Master of Science in Biomedical Technology/Cytotechnology (BMBC)
- Bachelor/Master of Science in Microbiology/Molecular Biosciences (BMMMB)
- Bachelor/Master of Science in Pharmaceutical Sciences (BMP)

Graduate Program Descriptions

*(**Note:** see Appendix A for curricula/sample course schedule)*

Master of Science in Biotechnology

The Master of Science in Biotechnology is a 33 credit, one-year program designed to meet the expanding workforce needs in biotechnology and biomanufacturing. It is offered both in-person and in hybrid mode. The program's main aim is to prepare the next generation of life science professionals to operate effectively in the biotechnology industrial setting. Biomanufacturing is an emerging dynamic sector that is experiencing rapid change in manufacturing technology. The curriculum is designed to align with current and emerging technologies adopted by the biopharmaceutical manufacturing industry through collaboration with and regular feedback from industry experts. Courses in this program focus on single use, continuous bioprocessing, cell and gene therapy, and real-time analytics. Students enrolled in the program can engage in real-world applications associated with operation of a simulated current Good Manufacturing Practice (cGMP) environment and broader topics like quality control and business management.

The coursework and resources developed to support this graduate program are also offered to students in the Microbiology, Molecular Biosciences, and Pharmaceutical Sciences degree programs as well as serving as the foundation for future workforce development and training needs of those already employed in the Bioprocessing and Biomanufacturing sector.

The MS in Biotechnology program offers both full-time and part-time options. See curricular grids on Pages 21 and 22 respectively.

Master of Science in Biomedical Sciences (MBS)

The Master of Science in Biomedical Sciences is a 37 credit, one-year program offered both in-person and online. This academic enhancement program (POSTBAC) provides students with the opportunity to strengthen their academic record through graduate coursework while pursuing entrance into allopathic medical, osteopathic medical, dental, optometry, and podiatry schools. The program integrates scientific graduate courses that emphasize infectious disease with non-science graduate courses that are focused on training students to become well-rounded physician/ healthcare practitioners. The program's goals are to develop competencies in (1) medically relevant sciences through required science courses, and (2) intrapersonal and (3) interpersonal skills through humanities-based courses. These competencies align with the competencies Medical Schools seek in their applicants. Three main highlights of the program include 1) a core foundation in premedical graduate courses in an environment that focuses on health and healthcare; 2) specialization in the clinically relevant area of infectious disease and 3) a focus on courses to develop the interpersonal knowledge and skills that modern health professionals need to provide team-based, patient-centered care.

Master of Science in Clinical Laboratory Sciences (MCL)

The Master of Science in Clinical Laboratory Sciences program is a 65 credit, two-year program designed to educate and train students in clinical laboratory disciplines, including molecular diagnostics, laboratory management and the application of research techniques for evidence-based decision making in the provision of laboratory services. This licensure program trains students in molecular diagnostics techniques and in laboratory evaluation of new disease entities. The core didactic courses taken in the first-year focus on the clinical disciplines within the clinical laboratory (e.g. hematology, clinical chemistry, clinical microbiology, immunohematology etc.). The courses combine the theory of disease diagnosis and laboratory diagnostic techniques with hands-on practice in manual and automated procedures. Additional core courses in statistics, proposal writing, and literature evaluation are also a major component of the curriculum. The second year of the program emphasizes practical training in clinical laboratories of hospitals and clinics in the Capital Region. The program culminates in a capstone project, designed as a collaborative effort between the student and project advisor. The capstone project is focused on the science and management of the clinical laboratory and the scientific and regulatory requirements of diagnostic laboratory medicine. This program enables graduates to take the national Board of Certification examination as a Clinical Laboratory Technologist (MLS) administered by the American Society of Clinical Pathology (ASCP) as well as the opportunity for an additional national certification in Molecular Biology (MB). Graduates are trained as generalists and are qualified by national certification and New York State licensure to work in several areas of a clinical laboratory, including hematology, microbiology, immunohematology, chemistry, immunology and molecular diagnostics. Clinical laboratory technologists work closely with clinical pathologists, physicians and other healthcare providers to provide accurate and timely information to assist in the treatment of patients for the best possible outcomes. Graduates are also prepared for careers in forensic, quality control, and research laboratory settings. The ACPHS program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS).

Master of Science in Cytotechnology and Molecular Cytology (MCM)

The Master of Science degree in Cytotechnology and Molecular Cytology is a 58 credit, 16-month program that includes didactic and laboratory coursework, coupled with clinical experiences to prepare students for certification in the profession of cytotechnology and molecular cytology. The program provides students with a foundation in biomedical and clinical sciences for the preparation and screening of specimens for cell- and molecular-based disease diagnosis. Cytotechnology training prepares students to be highly qualified diagnostic team members. Working with cytopathology professionals, students develop skills in the detection of changes in cellular preparations from all body sites for the early diagnosis of cancer, precancerous changes and infections. Molecular Cytology expands the student's understanding of pathology at the genomic and proteomic levels, by providing the fundamental knowledge of molecular genetics and the various diagnostic techniques used in the laboratory for diagnosis, to ultimately assist oncologists in personalizing the treatment for cancer patients based on the unique genetic profile. By combining both of these disciplines, the MS program in Cytotechnology and Molecular Cytology provide graduates with the ability to move to the forefront of cell-based diagnostics. It also integrates and reinforces the understanding of many facets of pathology including cancer at the tissue, cellular and molecular levels. Graduates from this program are well-prepared for entry-level careers in diagnostic laboratories and biomedical research, as well as further graduate studies. The curriculum meets the requirements for NYS licensure by the Office of the Professions of the NYSED and successful completion of the Board of Registry Examination administered by the American Society for Clinical Pathology (ASCP) for national certification as a cytotechnologist.

Students certified in Cytotechnology (CT) may also qualify for certification in Molecular Biology (MB). The program curriculum culminates in a capstone project designed to further the student's diagnostic expertise. The ACPHS Cytotechnology Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP).

Master of Science in Health Data Science

The MS in Health Data Science is a 33-credit, one-year degree program intended for students interested in obtaining hands-on industry experience. Coursework lays the foundation for how data analytic skills can be used in a variety of health care settings, such as hospitals, public health agencies, third-party payers, managed-care settings, and policymaking bodies, to improve the quality of health, health care and business outcomes. The program includes the option of a capstone project or an internship in a corporate setting. Depending on a student's interests, internship sites could include health quality monitoring organizations, public health agencies (state or county), pharmaceutical companies, insurance companies and hospitals. The program focuses on the language and concepts of public health research and statistical methods.

Master of Science in Molecular Biosciences (MMB)

The MS in Molecular Biosciences is a 32-credit, two-year degree program designed to train scientists in the basic mechanisms of human health and disease. The program is interdisciplinary, bringing together basic, applied, and clinical scientists from several disciplines to provide students with individualized, cutting-edge biomedical research training and foundational didactic coursework, offering both a thesis and a capstone track. Program requirements for both tracks include coursework in the core biomedical disciplines, laboratory research techniques, ethical conduct of science, and a graduate seminar course. For the thesis track, a major requirement is the completion of original research and the presentation, defense and publication of a thesis describing that research. Students work closely with graduate research faculty to develop and complete an original research project and may select from a broad range of disciplines including molecular genetics, cell biology, biochemistry, pathophysiology, microbiology, immunology, and infectious diseases. Students following the capstone track work closely with a mentor/preceptor to study a clinical or basic research problem through laboratory, experiential or literature exploration. Capstone students must prepare a report on their selected topic and present their project findings. Both tracks of the program emphasize the understanding and importance of biomedical research and are designed to assist students in fulfilling their scientific potential and personal career goals.

Master of Science in Pharmaceutical Sciences (MPS)

The MS in Pharmaceutical Sciences is a 33-credit, two-year degree program designed to educate students in the scientific disciplines required for the discovery, development and evaluation of new drugs and other pharmaceutical products. The program is interdisciplinary, bringing together scientists from the disciplines of pharmacology, physiology, pharmaceutics, toxicology and medicinal chemistry, offering both a thesis and a capstone track. Students in both tracks take foundational didactic courses in pharmaceutical sciences, statistical methods, ethics and journal club. Students enrolled in the thesis option work side-by-side with research graduate faculty in areas such as drug discovery and development, molecular modeling, chemical synthesis, in vitro and in vivo studies of drug mechanisms and pharmacological actions, pharmacogenomics, mechanisms of cancer and other disease states, pharmacokinetic analysis and the transport and absorption of nano pharmaceuticals. A major requirement of the thesis-track is the completion of

original research and the presentation, defense and publication of a thesis describing that research. This path is ideal for those interested in working as research scientists or pursuing PhD or MD degrees. The capstone track allows students to explore, in-depth, a topic of their choosing related to the pharmaceutical sciences with a faculty mentor. Students on this track are required to prepare a final report on their selected topic.

Dual Degree Bachelors and Master's Programs

Bachelor/Master of Science in Biotechnology/Clinical Laboratory Sciences

The dual BS/MS Biomedical Technology-Clinical Laboratory Sciences degree allows students to pursue two degrees simultaneously, thereby receiving both the BS and MS degrees in five years. The program integrates the biological sciences with clinical laboratory disciplines, including molecular diagnostics, laboratory management, and protocols used in the delivery of laboratory services. This program enables graduates to take the national Board of Certification examination as a Clinical Laboratory Technologist (MLS) administered by the American Society of Clinical Pathology (ASCP) and national certification in Molecular Biology (MB). Graduates are trained as generalists and are qualified by national certification and New York State licensure to work in several areas of a clinical laboratory, including hematology, microbiology, immunohematology, chemistry, immunology, and molecular diagnostics. The National Accrediting Agency accredits the program for Clinical Laboratory Sciences (NAACLS). See descriptions of the MS in Clinical Laboratory Sciences for more information about the program.

Bachelor/Master of Science in Biotechnology/Cytotechnology (BMBC)

The dual BS/MS Biomedical Technology-Cytotechnology degree allows students to pursue two degrees simultaneously, thereby receiving both the BS and MS degrees in five years. The program integrates the biological sciences with clinical cytotechnology and molecular cytology, allowing students to seamlessly transition into careers as medical laboratory professionals and/or scientific researchers. The curriculum meets the requirements for licensure by the Office of the Professions of the NYSED or completion of the Board of Registry Examination administered by the American Society of Clinical Pathology (ASCP). Students certified in Cytotechnology (CT) may also qualify for certification in Molecular Biology (MB). The program curriculum culminates in a capstone project designed to further the student's diagnostic expertise. See descriptions of the MS in Cytotechnology/Molecular Cytology for more information about the program.

Bachelor/Master of Science in Microbiology/Molecular Biosciences

This dual BS/MS degree program allows ACPHS students to simultaneously complete two-degree programs in five years. This dual degree program allows students enrolled in the Bachelor of Science program in Microbiology the opportunity to transition into either track of the MS in Molecular Biosciences program during the fourth year of their BS curriculum, thus reducing the total number of courses needed and the total time required for completion of the combined degrees. As with other dual degree programs at ACPHS, both the BS and the MS degrees will be awarded upon completion of the MS degree. The BS courses in the program are designed to provide students with a strong didactic foundation in the biomedical sciences, with emphasis on microbiology and infectious diseases, and couples this foundation with early exposure to biomedical research. This allows the students to progress into advanced courses and research experiences on an accelerated timeline. This dual degree program gives graduates a competitive advantage in applying to PhD programs, professional schools of medicine and dentistry, and positions in biotechnology and pharmaceutical companies. See descriptions of the MS in Molecular Biosciences for more information about the program.

Bachelor/Master of Science in Pharmaceutical Sciences (BMPS)

The combined BS/MS in Pharmaceutical Sciences integrates two existing degree programs, allowing students to complete both degrees within five years. This dual degree program allows students enrolled in the Bachelor of Science program in Pharmaceutical Sciences the opportunity to transition into either track of the MS in Pharmaceutical Sciences program during the fourth year of their BS curriculum, thus reducing the total number of courses needed and the total time required for completion of the combined degrees. As with other dual degree programs at ACPHS, both the BS and the MS degrees will be awarded upon completion of the MS degree. This dual degree fulfills general undergraduate education requirements and prepares students to progress into advanced courses and research experiences on an accelerated timeline. Graduates of the program have opportunities to conduct research in local and regional colleges and universities, in-state research and analytical laboratories, and in the biotechnology and pharmaceutical research and development sectors. Graduates are also ideally positioned to continue graduate education toward a PhD degree or to pursue professional degrees in medicine, dentistry, and related fields. See descriptions of the MS in Pharmaceutical Sciences for more information about the program.

Graduate Admissions

College-wide admissions standards apply to all graduate programs offered at ACPHS. Specific graduate programs may impose additional admissions criteria if they meet the minimum institutional standards described below. Admissions decisions are based on the applicant's previous academic performance, rigor of previous academic programs, applicable standardized test scores, recommendations, career and volunteer experience, personal statement, and commitment to pursuing graduate education.

The Graduate Faculty and the College Admissions Committee are responsible for developing college-wide admissions standards for all graduate programs, including dual degree programs. All applications to all graduate programs, including dual degree program applications from internal or external candidates and transfer students are submitted directly to the Admissions office. Offers of admission to all graduate programs, including dual degree programs, are made through the Admissions office.

Applications for admission to graduate programs are reviewed by Program Admissions Committees that are staffed by graduate faculty affiliated with the graduate program and the graduate program director. The Admissions office coordinates review and committee recommendations of applications for admission.

See Admissions requirements on next page.

Admission Requirements

Applicants seeking admission to all graduate programs at the College must meet the following requirements. Some graduate programs may impose additional admissions criteria.

Master of Science Programs

- An earned BS, BA, or PharmD degree from an accredited academic institution. The earned degree must be in a discipline relevant to the graduate program, and all required prerequisite coursework must be completed prior to admission.
- A minimum grade point average (GPA) of 3.0 on a 4.0 scale from the earned degree program. Official transcripts for all graduate and undergraduate courses must be submitted. International applicants must submit an official World Education Services (WES) or Education Credential Evaluators (ECE) course-by-course evaluation of their academic transcript(s).
- Graduate Record Examination (GRE):
  - Official GRE results are only required for the MS Clinical Laboratory Sciences, and MS Cytotechnology and Molecular Cytology programs if the applicant's GPA is below 3.0.
  - Official GRE or MCAT results are required for the MS Biomedical Sciences program
  - GRE results are not required for the MS Biotechnology, MS Molecular Biosciences, and MS Pharmaceutical Sciences programs
- A personal statement (up to 1,000 words) indicating professional areas of interest and goals, and reasons for applying to the specific graduate program at ACPHS *(Note: not required for internal students.)*
- A current resume including educational and work experience, skills relevant to the selected graduate program, publications, presentations or other scholarly professional works
- A minimum of two (2) letters of recommendation from professional sources affiliated with disciplines relevant to the graduate program. Recommenders should know the applicant well and be familiar with applicant's academic or professional experience and performance. *(Note: not required for internal students.)*
- For international applicants: Demonstrated English-language proficiency through Duolingo, TOEFL, or IELTS exams. Official results should be less than two-years old and minimum scores of 110 (Duolingo), 84 (TOEFL), and 7 (IELTS) are required for admission consideration
- All candidates must complete an interview prior to admission

Admissions Requirements Continued

Dual Bachelor of Science/Master of Science Programs

- Internal ACPHS students or external transfer students may apply for admission to dual degree BS/MS programs. Applicants must complete at least four academic semesters of college-level coursework to be eligible to apply. An earned degree is not required, however, all pre-requisite coursework required for the year of entry must be completed before admission.
- A minimum grade point average (GPA) of 3.0 on a 4.0 scale in all completed coursework and official transcripts for all graduate and undergraduate courses must be submitted. International applicants must submit an official World Education Services (WES) or Education Credential Evaluators (ECE) course-by-course evaluation of their academic transcript/s.
- In general, the GRE is not required for admission to dual degree programs at ACPHS. However, a student being considered for admission to a dual degree program who does not meet the required GPA for progression (3.0 out of 4.0) into the master's component of the program, may be asked to take the GRE as a condition of admission or continued enrollment in the dual degree program.
- A personal statement (up to 1,000 words) indicating professional areas of interest and goals and reasons for applying to the specific graduate program at ACPHS. *(Note: not required for internal students.)*
- A current resume including educational and work experience, skills relevant to the selected graduate program, publications, presentations, or other scholarly professional works.
- A minimum of two (2) letters of recommendation from professional sources affiliated with disciplines relevant to the graduate program, who know the applicant well and are familiar with the applicant's academic or professional experience and performance must be submitted. *(Note: not required for internal students.)*
- For international applicants: Demonstrated English-language proficiency through Duolingo, TOEFL, or IELTS exams. Official results should be less than two years old and minimum scores of 110 (Duolingo), 84 (TOEFL), and 7 (IELTS) are required for admission consideration.
- All candidates must complete an interview before admission.

Admission Procedures

All applications from external students for admission to all graduate programs, including applications from prospective students from outside the institution (entry-level, transfer, and affiliate institutions), and internal students applying to dual degree programs (BS/MS) or MS programs must be submitted via Slate for external students. Internal students must submit a change of program BS/MS declaration form to the Registrar with approval from the program director and the department chair. The following process is followed for receipt and review of graduate admissions applications.

- Completed applications are forwarded to the appropriate program director
- Program directors review and make a recommendation on an application and applicants are informed of the admissions decision through the accepted student portal in Slate or through printed correspondence.
- Upon receipt of a letter of admission, applicants typically have up to 14 days to accept or decline the offer of admission. Applicants must submit a deposit to secure enrollment in the program.
- Upon receipt of the student's deposit, the student will be registered for the graduate program.
- International students admitted to a graduate program are required to document that they have sufficient funds available in US currency to support their educational expenses for the duration of their studies at ACPHS. Financial requirements to enroll in ACPHS degree programs are provided with a letter of acceptance. Financial evidence that shows the student or their sponsor has sufficient funds to cover tuition, fees, studying and living expenses during the period of intended study must be provided to ACPHS for the I-20 form to be processed and issued to the student by the principal-designated school official (PDSO). Tax documents, original bank books and/or bank statements may be used to demonstrate financial requirements have been met. These documents must be dated less than 90 days before submission to ACPHS.

Internal Transfer Between Graduate Programs

Graduate students currently enrolled in a graduate program at ACPHS may apply for transfer to another graduate program at the College. Students must complete a change of program form (available from the Registrar). The form must be submitted to the Program Director with a cover letter from the student explaining the reasons for the transfer request and with the student's official transcripts. The form must be submitted to and signed by the student's current program director in addition to the program director from the program the student is requesting to change to. The signed form should then be submitted to the Registrar's office.

Students transferring from one graduate program to another must fulfill all degree requirements for the new program regardless of their status in the previous program to be eligible for graduation from the new program.

Residency Requirements

Residency

Full-time graduate students must be enrolled at ACPHS for a minimum of two consecutive semesters to qualify for a graduate degree. Part-time graduate students must be enrolled at ACPHS for a minimum of 21 credit hours to qualify for a graduate degree.

Full-time and Part-time Status

Full-time status is defined as nine or more credit hours of graduate coursework or thesis or being registered for the remaining course or thesis work in the final semester of the degree. Part-time students are those enrolled in fewer than nine credits of didactic coursework with no thesis credits. International students must be registered for and maintain full-time status for each semester (except the summer terms) throughout their study. International students must obtain written permission from the principal designated school official (PDSO) to fall below the designated requirements for full-time status.

Leave of Absence

Graduate students may request a leave of absence by submitting a written request to their faculty advisor and program director. The request should state the reason(s) for the leave, the duration of the leave requested and a specific anticipated date of return to the program. The program director decides on the request and informs the student, the Registrar, and the student's faculty and academic advisors of the decision on the leave of absence request. A leave of absence is typically limited to one year.

Financial Assistance for Graduate Students

Graduate Tuition Scholarships

Tuition scholarships for full-time graduate students entering a graduate program at ACPHS are available for qualified applicants. Prospective students applying to a graduate program at ACPHS are considered for a tuition scholarship as part of the application review process. Admitted students are informed about tuition scholarships as part of their admission offer.

Other

Research graduate faculty who receive extramural funding to support their research may have funds available to support graduate students. Graduate students should consult their thesis advisor to determine if such other funding is available through extramural research grants.

General Graduate Degree Requirements

*(**Note:** see Appendix A for specific MS degree requirements)*

Minimum Credit Requirements

An MS degree typically requires 12-24 months or more for completion. The minimum requirements include 1) at least one year of full-time graduate study, 2) 30 credit hours of course work, and 3) a capstone project or scholarly research (thesis), although individual graduate programs may have higher minimum requirements. See the Appendix for specific academic credit requirements for each program.

Thesis and Capstone Master of Science Degrees

ACPHS offers thesis and capstone track Master of Science degrees. A culminating experience or special project is required by the New York State Education Department (NYSED) for all Master's degree programs. The culminating experience is a formal thesis for our thesis-bearing programs or a special project (capstone project) that is intended to affirm that the student has mastered their field of study.

- **Thesis option**
  Students enrolled in thesis-bearing Master of Science programs at ACPHS complete required didactic coursework and a minimum of 6 credit hours of original scholarly (thesis) research, present and defend the thesis work and publish the thesis. The requirement for a culminating experience is met by presentation, defense and publication of the thesis. See the appendix for details on thesis requirements.

- **Capstone option**
  Students enrolled in capstone Master of Science programs at ACPHS complete required didactic course work, required clinical or experiential training and a final capstone project. Capstone students study a clinical or basic research problem through laboratory, experiential or literature exploration. Capstone students must prepare a report on their selected topic and present their project findings.

Course Requirements

Graduate students are required to complete all required and elective coursework for their degree program. Course requirements for each program can be found in the appendix and in the ACPHS college catalog. All graduate students enrolled in thesis programs must successfully complete *all required and elective coursework* before they are eligible to present and defend their thesis. While not explicitly stated in the curriculum, graduate students enrolled in thesis programs are expected to engage in thesis research during the summer months.

- **Programs of Study**
  The program of study is a listing of required and elective courses that are necessary to fulfill the didactic portion of the degree program, the dates of completion of the coursework or anticipated dates of completion, as well as the grade earned for each course. All graduate students must complete a program of study form and submit the completed form to the program director at the end of each academic semester. The program of study form for each MS program is available from the program director.

- **Course Registration**
  New incoming graduate students are pre-registered for a standard course schedule specific to their degree program during their first semester of enrollment. In subsequent semesters, students, in consultation with their faculty/thesis advisor and/or program director select courses in their program of study from a list of course offerings for the upcoming semester. Course offerings for an upcoming semester are typically made available to students through the Registrar's office approximately two months prior to the start of the semester. Graduate students must complete course registration on-line through the Registrar's office. Registration is typically completed in the preceding March/April for fall semester course enrollment, in November for spring semester enrollment and in March for summer session course enrollment.

Transfer Credits

Up to nine credit hours of graduate level coursework may be transferred to ACPHS from other accredited academic institutions, subject to the approval of the program director. To be considered for transfer credit, courses must be at the graduate level and have been taken in the past seven years. Only courses where applicants have earned grades of B (83; B- is not accepted) or higher are considered for transfer credit. Courses graded on a pass/fail basis will not be accepted for transfer credit. A request for awarding transfer credit along with official transcripts of the coursework must be submitted to the PD, at least one month prior to the start of the graduate program at ACPHS for consideration of transfer credit. The request will be reviewed by the program director and faculty with expertise in the course area, and the program director will make the final decision and inform the student, and the Registrar's office of approval or denial of the graduate transfer credit.

Graduate Course Listings and Course Offerings

Both required and elective graduate courses must be approved by the graduate faculty and the College Curriculum Committee (CCC) before they can be offered. Each program has procedures in place for review and approval of course proposals by graduate faculty. Approved graduate courses are listed in the College catalog. Each graduate course has a three-letter designation indicating the general course discipline (i.e., PSC is Pharmaceutical Sciences) followed by a three-digit number and the letter G to indicate the level of the course. Graduate courses are numbered as 600 or higher. Graduate credit is only awarded for courses numbered as 600 level or higher. Some courses are dual numbered and are offered at both the undergraduate and graduate level, with different requirements appropriate for each degree level. Graduate students are not eligible to receive graduate credit for undergraduate courses (400 or lower). All graduate courses listed in the College catalog are not offered every academic semester or summer session. The Registrar's office publishes graduate courses that will be offered in the upcoming semester on its website.

Graduate Academic Standards

All graduate students are required to meet institutional academic standards for graduate education. Individual graduate programs may impose additional or more stringent academic standards. Graduate student progress is reviewed by the program director to determine students' academic status at the end of each academic semester. The Registrar identifies students in good academic standing and those in danger of probationary status or dismissal and refers these students to the College Academic Standards Committee for recommendations regarding academic standing. A student may not graduate while on probationary status. See the College catalog for details on the process for administration of academic standards.

GPA and Grade Requirements

To be in good academic standing, graduate students must have a cumulative GPA of 3.0 or higher and be free of any academic probationary status. Graduate students must also demonstrate satisfactory progress in thesis research, capstone or clinical practicum as documented by recommendations from the thesis/academic advisor and the grades of related thesis courses to be considered in good academic standing. All courses, whether accepted toward graduation credit or not, are recorded on a student's transcript and count in GPA calculations.

- *Required Courses:* Students must earn a grade of B or better in all required graduate courses. If less than a B is earned, the course must be remediated.
- *Elective Courses:* Students are permitted only one grade in the range of B- to C- in elective courses. If less than a C- is earned, the student must remediate the elective course or take a different elective.

Thesis and Capstone Progress

All students enrolled in thesis graduate programs must make satisfactory progress on their thesis research. A recommendation for probation due to unsatisfactory progress in thesis research may be initiated by the Program director or the student's thesis advisor if it is determined that student's performance is unsatisfactory regardless of the student's grade-point average. Recommendations for probation due to unsatisfactory progress in thesis research are made in writing by the Thesis advisor or Program director and provided to the College Academic Standards Committee for recommendation on academic status. See the College catalog for details on the process for administration of academic standards.

Academic Probation

A graduate student will be placed on academic probation for any of the following reasons:

- semester GPA falls below 3.0
- receives a grade in a required course below B
- receives more than one grade of B- to C- in any elective course
- unsatisfactory progress towards completion of the degree

A recommendation for academic probation due to unsatisfactory progress in thesis research or capstone project may be initiated by the student's advisor or program director if a student's performance is deemed to be unsatisfactory irrespective of a student's grade point average. Recommendations for probation are made to the program director, who forwards the recommendation, with supporting documentation, to the Registrar for review by the College Academic Standards Committee. The College Academic Standards Committee makes a recommendation on academic status. See the College catalog for details on the process for administration of academic standards.

Students placed on academic probation remain on probation for at least one academic semester or summer session. While on academic probation a student is ineligible for student organization office, participation in intercollegiate athletics, and service on college committees. In some cases, other financial aid may be jeopardized. A student may not graduate while on academic probation.

Removal from Probation

A student placed on academic probation due to a cumulative GPA below 3.0 or course grade below B must restore their semester GPA to 3.0 or above within one semester and the cumulative GPA to 3.0 within two semesters for full-time students, or 12 credit hours for part-time students, to be removed from probation. Students placed on probation due to one or more course grades below a C must remediate the course(s) prior to being removed from probation. Students placed on academic probation due to unsatisfactory thesis or capstone progress may be restored to good academic standing. Recommendations for removal from probation are made to the program director, who then forwards the recommendation with supporting documentation to the Registrar for review by the College Academic Standards Committee. Such notification must be received within two regular academic semesters. A student who is not restored to good academic standing by the end of the specified time or credit hour requirement may be dismissed from the program. The College Academic Standards Committee makes a recommendation on academic status. See the College Catalog for details on the process for administration of academic standards.

Dismissal
A graduate student may be dismissed from a graduate program for any of the following reasons:

- Failure to correct deficiencies of academic probation in a timely manner (see "*Removal from Academic Probation*")
- Two independent instances of being placed on academic probation
- Two failures of the thesis defense or for students enrolled in a non-thesis option, two failures of the capstone project
- Receiving a grade of F in any required graduate course or grades below B in two or more required courses

Failure to meet programmatic requirements in the timeframe designation for program completion. Full-time graduate students must complete all graduate program degree requirements in three years or less. Part-time graduate students must complete all MS degree requirements in seven years or less.

Students dismissed from a graduate program will be informed by the dean and the decision will be communicated to the student's advisor, the program director, VP of Student Affairs and the Registrar's office. See the College catalog for details on the process for administration of academic standards.

Appeal of Dismissal
Students are permitted to appeal academic decisions (except academic probation).

Graduation and Degree Completion

Time Duration to Complete the Degree
All requirements for a Master of Science degree must be completed within three calendar years, for full-time students, or seven years, for part-time students. Students who fail to complete requirements for a graduate degree within the specified period will be dismissed from the program. A student may petition for a time extension. The petition must include a plan for completion of the degree and letters of support from the faculty academic/thesis advisor and program director and must be approved by the dean.

Expiration of Graduate Courses
Graduate courses, either taken at ACPHS or for transfer credit from another academic institution, are valid for no more than seven years. Students must repeat courses completed over seven years before finishing the requirements for a degree.

Graduation Requirements
Candidates for the Master of Science degree must satisfy all the academic requirements of the program. Program directors verify that graduate students have completed all degree requirements for capstone MS programs. The Office of Research and Sponsored Programs (ORSP) is responsible for verifying that graduate students enrolled in thesis programs have completed all degree requirements, including successful presentation, defense, and publication of the thesis. Graduate students must complete all required paperwork for the graduation application by the designated deadlines (see the academic calendar). Approval for conferral of the degree is made by a majority vote of the faculty on the recommendation of the dean. All degree requirements must be completed for students to receive their diploma.

Diplomas are awarded three times during the calendar year in May, August and December. Commencement ceremonies are held once per year in May. Graduate students must complete *all degree* requirements to be eligible to receive their diploma. In addition, graduate students must submit a completed and signed Application for Graduation by the required deadlines (see the academic calendar) to graduate and receive their diplomas by the designated dates. Students enrolled in thesis-track programs must have a *scheduled thesis defense date* at the time of application for graduation. See the Appendix for specific thesis requirements and guidelines.

Graduate Honors
ACPHS does not award academic Latin honors for master's students. This is because the basic requirement for good academic standing for a master's student is a 3.0 GPA. If we were to award academic honors at that level, most of our graduate students would be on the list diminishing the value of the awards.

Appendix A: Graduate Program Curricula

MS, Biotechnology (MBT), 33 credits
Example - Full-time course schedule (nine or more credits per semester)

Semesters	Credits
1st Semester (Fall) Lab-intensive courses: ○ BIO 655 Biopharmaceutical Microbiology (3 credits, in-person) ○ BIO 631 Mammalian Cell Culture (3 credits, in-person) Non-lab- based courses ○ MAT 610 Statistical Inference and Modeling (3 credits, in-person) ○ PSC 610 Technical Writing for Biopharmaceutical Industry (2 credits, online) ○ ETH 610 Ethics in Research (1 credits, online) ○ Elective (3 credits)	15 credits
2nd Semester (Spring) Lab-intensive courses: ○ BIO 648 Microbial Fermentation (3 credits, in-person) ○ PSC 620 Downstream Processing of Biopharmaceuticals (3 credits, in-person) Non-lab- based courses ○ PSC 625 Clinical Biochemistry (3 credits, online) ○ PSC 646 Regulatory Science (3 credits, online) ○ Elective (3 credits)	15 credits
3rd Semester (Summer) ○ BIO 675: Biopharmaceutical Capstone (3 credits) - Experiential Learning	3 credits
Examples of Electives ○ BIO 625 Advanced Molecular Biology ○ BIO 690 Viral Pathogenesis ○ PSC 624 Industrial Pharmaceutical & Biopharmaceutical Entrepreneurship ○ BIO 630 Advanced Cell Biology ○ PSC 757 Quantitative Drug Design ○ BIO 635 Cell Death and Disease	
Total credits hours	33 Credits

MS in Biotechnology
Example - Part-time course schedule (< nine credits/semester)

Semesters	Credits
1st Semester (Fall) Choose one or more of the Lab-intensive in-person courses o BIO 655 Biopharmaceutical Microbiology (3 credits) o BIO 631 Mammalian Cell Culture (3 credits) Choose one or more o PSC 610 Technical Writing for Biopharmaceutical Industry (2 credits, online) o MAT 610 Statistical Inference and Modeling (3 credits, in-person) o ETH 610 Ethics in Research (1 credits, online) o Elective (3 credits)	*varies*
2nd Semester (Spring) Choose one or more of the Lab-intensive in-person courses: o BIO 648 Microbial Fermentation (3 credits) o PSC 620 Downstream Processing of Biopharmaceuticals (3 credits) Choose one or more o PSC 625 Clinical Biochemistry (3 credits, online) o PSC 646 Regulatory Science (3 credits, online) o Elective (3 credits)	*varies*
3rd Semester (Fall) Choose one of the remaining Lab-intensive in-person courses o BIO 655 Biopharmaceutical Microbiology (3 credits) o BIO 631 Mammalian Cell Culture (3 credits) Choose one or more (= not completed in 1st Semester) o PSC 610 Technical Writing for Biopharmaceutical Industry (2 credits, online) o MAT 610 Statistical Inference and Modeling (3 credits, online) o ETH 610 Ethics in Research (1 credits, online) o Elective (3 credits)	*varies*
4th Semester (Spring) Choose one of the Lab-intensive in-person courses (= not completed in 1st Semester) o BIO 648 Microbial Fermentation (3 credits) o PSC 620 Downstream Processing of Biopharmaceuticals (3 credits) Choose one or more (= not completed in 1st Semester) o PSC 625 Clinical Biochemistry (3 credits, online) o PSC 646 Regulatory Science (3 credits, online) o Elective (3 credits)	*varies*
4th Semester (Spring) or 5th Semester (Summer) o BIO 675: Biopharmaceutical Capstone (3 credits) - Experiential Learning	3 credits
Examples of Electives o BIO 625 Advanced Molecular Biology o BIO 690 Viral Pathogenesis o PSC 624 Industrial Pharmaceutical & Biopharmaceutical Entrepreneurship o BIO 630 Advanced Cell Biology o PSC 757 Quantitative Drug Design o BIO 635 Cell Death and Disease	
Total credits hours	33 Credits

MS, Biomedical Sciences (MBS), 37 Credits

Year 1: Fall		Credits
BIO 625	Advanced Molecular Biology	3
MAT 610	Statistical Inference and Modeling	3
BIO 610	Immunology	3
BIO 660	Journal Club	1
HIS 530	History of Public Health and Medicine in the United States	3
	Bioselective I*	3
PPP 670	Prep for Health Professions I	1
Total Term Credits		**17**

Year 1: Spring		Credits
BIO 630	Advanced Cell Biology	3
HOI645	Epidemiology	3
BIO 660	Journal Club	1
PSC 625	Clinical Biochemistry	3
ETH 510	Healthcare and Human Values	3
	Bioselective II*	3
PPP 680	Prep for Health Professions II	1
Total Term Credits		**17**

Summer Session		Credits
BIO 665	Capstone	3
Total Term Credits		**3**

*Bioselective Courses- Students must select two courses from the following courses:

- BIO615 Public Health Microbiology
- BIO663 Mycology and Parasitology
- BIO676 Graduate Microbiology
- BIO690 Viral Pathogenesis
- CLS612 Clinical Microbiology I
- CLS622 Clinical Microbiology II

MS, Clinical Laboratory Sciences (MCL), 65 Credits

Year 1					
Fall Semester		**Credits**	**Spring Semester**		**Credits**
CLS610	Clinical Microbiology I	4	CLS620	Clinical Microbiology II	4
CLS630	Clinical Immunology	3	CLS640	Clinical Chemistry	4
CLS650	Clinical Hematology	4	CLS655	Urinalysis and Body Fluids	2
PSC672	Experimental Design & Data Analysis	2	CLS660	Immunohematology	4
			ETH610	Ethics in Research	1
	Total	**13**			**15**

Year 2					
Fall Semester		**Credits**	**Spring Semester**		**Credits**
BHS730	Principles of Clinical Laboratory Management	3	BHS 740	Genetics and Molecular Basis of Disease	3
BHS745	Molecular Diagnostics	4	BHS790	CLS Capstone	3
CLS770	Clinical Practicum I	9	CLS760	Clinical Correlations	3
			CLS780	Clinical Practicum II	9
	Total	**16**		**Total**	**18**

TOTAL CREDITS = 62

MS, Cytotechnology/Molecular Cytology (MCM), 58 Credits

YEAR 1 FALL				YEAR 1 SPRING		
Code	**Course Name**	**Credits**		**Code**	**Course Name**	**Credits**
CYT 610	Cytopathology of the Female Genital Tract	4		CYT 630	Exfoliative Non-Gynecologic Cytopathology II	2
CYT 620	Exfoliative Non-Gynecologic Cytopathology I	2		CYT 650	Cytopreparatory Techniques II	1
CYT 640	Cytopreparatory Techniques I	1		CYT 660	Fine Needle Aspiration Cytology I	3
BHS 610	Cellular Pathophysiology and Histology I	3		BHS 620	Cellular Pathophysiology and Histology II	3
BHS 745	Molecular Diagnostics with Lab	4		BHS730	Advanced Good Laboratory Practices/Lab Management	3
PSC 672	Experimental Design and Data Analysis	2		BHS 740	Genetics and Molecular Basis of Disease	3
				BHS 765	Grand Rounds in Pathology	1
				BIO 650	Research Design	2
				ETH 610	Ethics in Research	1
Total Credits		16		**Total Credits**		19
SUMMER SESSION 1				**SUMMER SESSION 2**		
CYT 670	Fine Needle Aspiration Cytology II	3		CYT 770	Clinical Practicum I	3
BHS 750	Flow Cytometry	3		BHS 760	Advanced Topics in Biotechnology-Fine Needle Aspiration Portfolio	3
BHS 755	In Situ Hybridization-Principles, Protocols and Applications	2				
Total Credits		8		**Total Credits**		6

YEAR 2 FALL		
Code	**Course Name**	**Credits**
CYT 780	Clinical Practicum II	6
BHS 790	Capstone Project	3
Total Credits		9

Master of Sciences in Health Data Sciences

Year 1					
Fall Semester		**Credits**	**Spring Semester**		**Credits**
ETH 600	Healthcare Data Ethics	2	HOI 620G	Predictive Modeling	3
HOI 600	Intro to Health Data Science	3	HOI 635	Statistical Programming	3
HOI 605	Python for Informatics and Data Science	3	HOI 645	Epidemiology	3
HOI 655	Health Economics	3	HOI 665	Health Informatics	4
MAT 610	Statistical Inference and Modeling	3		Elective	3
	Total	**14**		**Total**	**16**

Year 1					
Summer Semester		**Credits**			
HOI 750	Capstone OR	3			
HOI 751	Industry Practicum	3			
	Total	**3**			

TOTAL CREDITS = 33

Master of Science in Molecular Biosciences Thesis Track

YEAR 1 FALL				YEAR 1 SPRING		
Code	**Name**	**Credits**		**Code**	**Name**	**Credits**
BIO 625	Advanced Molecular Biology	3		BIO630	Advanced Cell Biology	3
BIO 670	Research Rotation	2		BIO 650	Research Design	2
ETH 610	Ethics in Research	1		BIO 660	Journal Club	1
MAT 610	Statistical Inference and Modeling	3			Elective 1	3
					Elective 2	3
Total Credits		**9**		**Total Credits**		**12**

YEAR 2 FALL				YEAR 2 SPRING		
Code	**Name**	**Credits**		**Code**	**Name**	**Credits**
	Elective 3	3			Elective 4	3
BIO 701	Thesis Research	3		BIO 702	Thesis Research	3
Total Credits		**6**		**Total Credits**		**6**

*Requires completing Thesis Research after Years 1& 2.

**All students will register for BIO 380 Microbiology Seminar (0 credits) every semester.

#All Master's students are encouraged to attend Journal club every semester.

M.S. MOLECULAR BIOSCIENCES CAPSTONE TRACK

YEAR 1 FALL				YEAR 1 SPRING		
Code	**Name**	**Credits**		**Code**	**Name**	**Credits**
BIO 625	Advanced Molecular Biology	3		BIO 630	Advanced Cell Biology	3
BIO 660	Journal Club (G-1)	1		BIO 650	Research Design	2
ETH 610	Ethics in Research	1			Elective 2	3
MAT 610	Statistical Inference and Modeling	3			Elective 3	3
	Elective 1	3				
Total Credits		**11**		**Total Credits**		**11**

YEAR 2 FALL				YEAR 2 SPRING		
Code	**Name**	**Credits**		**Code**	**Name**	**Credits**
BIO 660	Journal Club (G-2)	1		BIO 665	Molecular Biosciences Capstone Course*	4
	Elective 4	3			Experiential Learning	0
	Elective 5	3				
Total Credits		**7**		**Total Credits**		**4**

*May require completing Capstone Course after Years 1 & 2.

**All students will register for BIO 380 Microbiology Seminar (0 credits) every semester.

#All Master's students are encouraged to attend Journal club every semester.

Master of Science in Pharmaceutical Sciences, Thesis Track

Year 1					
Fall Semester		**Credits**	**Spring Semester**		**Credits**
ETH 610	Ethics in Research	1	PSC 651	Pharmaceutical Sciences Journal Club	1
PSC 631	Foundations of Pharmaceutical Sciences	3	PSC 761	Thesis Research	2
PSC 651	Pharmaceutical Sciences Journal Club	1		Core Course* or Elective	3
PSC 661	Research Rotation	2		Core Course* or Elective	3
PSC 672	Experimental Design and Data Analysis	2			
	Total	**9**		**Total**	**9**

Year 2					
Fall Semester		**Credits**	**Spring Semester**		**Credits**
PSC 761	Thesis Research	3	PSC 761	Thesis Research	3
	Core Course* or Elective	3		Core Course* or Elective	3
	Core Course* or Elective	3			
	Total	**9**		**Total**	**6**

TOTAL CREDITS = 33

*Students in the MS Pharmaceutical Sciences program must select at least 2 courses from the list of currently offered core courses below. More than 2 can be selected, which will then be counted as electives.

List of Core Courses, M.S.P.S.		
Code	**Course Name**	**Credits**
PSC 620	Downstream Processing of Biopharmaceutical Products	3
PSC 646	Regulatory Science	3
PSC 733	Pharmacology and Molecular Genetics of Cancer	3
PSC 757	Quantitative Drug Design	3

List of Elective Courses, M.S.P.S.		
Code	**Course Name**	**Credits**
BHS 750	Flow Cytometry	3
BIO 630	Advanced Cell Biology	3
BIO 631	Mammalian Cell Culture	3
BIO 635	Cell Death and Disease	3
PSC 609	Pharmaceutical Analytical Techniques I	3
PSC 610	Pharmaceutical Analytical Techniques II	3
PSC 624	Industry Pharma & Biopharma Entrepreneurship	3
PSC 625	Clinical Biochemistry	3
PSC 641	Advanced Pharmaceutics	3

M.S. Pharmaceutical Sciences, Capstone Track

Year					
Fall Semester		**Credits**	**Spring Semester**		**Credits**
ETH 610	Ethics in Research	1		Core Course* or Elective	3
PSC 631	Foundations of Pharmaceutical Sciences	3		Core Course* or Elective	3
PSC 651	Pharmaceutical Sciences Journal Club	1		Core Course* or Elective	3
PSC 661	Research Rotation	2			
PSC 672	Experimental Design and Data Analysis	2			
	Total	**9**		**Total**	**9**

Year 2					
Fall Semester		**Credits**	**Spring Semester**		**Credits**
	Core Course* or Elective+	3	PSC 750G	Capstone	3
	Core Course* or Elective	3		Core Course* or Elective+	3
	Core Course* or Elective	3			
+ PSC 609 Pharmaceutical Analytical Techniques I highly recommended			+ PSC 611 Pharmaceutical Analytical Techniques II highly recommended		
	Total	**9**		**Total**	**6**

TOTAL CREDITS = 33

*Students in the MS Pharmaceutical Sciences program must select at least two courses from the list of currently offered core courses below. More than two can be selected, which will then be counted as electives.

List of Core Courses, M.S.P.S.		
Code	**Course Name**	**Credits**
PSC 620	Downstream Processing of Biopharmaceutical Products	3
PSC 646	Regulatory Science	3
PSC 733	Pharmacology and Molecular Genetics of Cancer	3
PSC 757	Quantitative Drug Design	3

List of Elective Courses, M.S.P.S.		
Code	**Course Name**	**Credits**
BHS 750	Flow Cytometry	3
BIO 630	Advanced Cell Biology	3
BIO 631	Mammalian Cell Culture	3
BIO 635	Cell Death and Disease	3
PSC 609	Pharmaceutical Analytical Techniques I	3
PSC 610	Pharmaceutical Analytical Techniques II	3
PSC 624	Industry Pharma & Biopharma Entrepreneurship	3
PSC 625	Clinical Biochemistry	3
PSC 641	Advanced Pharmaceutics	3

Appendix B: Thesis Guidelines

All graduate students enrolled in a thesis-bearing graduate program must complete thesis research as part of their required culminating experience. The guidelines below describe the process for 1) selecting a thesis advisor, 2) selecting a thesis committee, 3) developing a thesis project, 4) preparation and approval of the thesis proposal, 5) writing the thesis, 6) the thesis defense, and 7) submitting the thesis to UMI dissertation service and approval by ORSP.

Academic and Thesis Advisor
Graduate students are assigned an interim academic advisor by the program director upon arrival at the College. Interim academic advisors can help students with course registration and other program questions until they select a permanent academic or thesis advisor. Graduate students may request from the Program director that the interim academic advisor become their permanent advisor. Alternatively, graduate students may select a different faculty member as their permanent academic/thesis advisor. Students must select a permanent academic advisor by the end of the first semester.

Graduate students enrolled in thesis programs are encouraged to select a permanent thesis advisor as early in their program of study as possible, ideally within the first month of enrollment in the program but no later than the end of the first academic semester. During the graduate student orientation session, graduate students are provided with a listing of graduate faculty available to serve as thesis advisors for each graduate program. Graduate students are encouraged to set up individual meetings with faculty to discuss possible research projects. Some graduate programs require students to enroll in a research rotation course designed to assist students with selecting a permanent thesis advisor. Thesis advisors must be members of the research graduate faculty for a thesis graduate program and must be approved by the program director.

Thesis Committees
Students enrolled in thesis graduate programs must establish a thesis committee. The thesis committee is composed of at least three members, including the thesis advisor, who serves as chair. The thesis advisor, in consultation with the student, identifies appropriate members of the thesis committee. Thesis committee members should have expertise in a discipline related to the student's thesis research. The thesis committee must be approved by the program director. For most programs, thesis committee members are ACPHS graduate faculty. However, one external faculty or another with expertise related to the thesis project may serve on the thesis committee for some graduate programs with the program director's approval. The thesis committee is responsible for approving the thesis proposal, periodically monitoring the student's progress in their thesis project, and approving the final thesis and thesis examination defense.

Thesis Proposal and Progress Reports and Meetings
Graduate students enrolled in thesis graduate programs must prepare a thesis proposal as part of their thesis research project. The thesis proposal outlines, in detail, the student's proposed thesis research project. The written thesis proposal is prepared by the student, in consultation with their thesis advisor. Each program establishes its own timeline for completion of the thesis proposal. However, the thesis proposal is typically completed during the second academic semester. The thesis proposal's format is similar to guidelines used for preparation of the thesis and grant proposals for submission to extramural funding agencies such as the National Institutes of Health or the National Science Foundation.

Once the student completes the thesis proposal to the satisfaction of the thesis advisor, it is presented to the thesis committee for review. Typically, the student gives the written proposal to the thesis committee and allows at least two weeks for them to review the document. Once reviewed, a meeting with the committee to formally present the proposal is scheduled. The thesis committee may require changes to the proposal. The thesis proposal must be approved by the thesis committee and the program director. Upon presentation and approval of the thesis proposal to the thesis committee, the student must submit a completed and signed thesis approval form to the Office of Research and Sponsored Programs (orsp@acphs.edu).

Students must meet with the thesis committee at least once per semester and twice after the thesis proposal is approved. These periodic progress meetings are designed to help the student progress in the thesis work and keep the committee informed of any changes or problems encountered in the project. In these meetings, the committee may make useful suggestions and assist students with overcoming challenges in the work and to help keep the student on track with degree completion.

Thesis
Upon completion of the research project to the satisfaction of the student's thesis advisor and thesis committee, the student must submit a formal thesis based on the research as part of the degree requirement. The thesis and abstract must be prepared in a style and format specified by the guidelines in Appendix D. The document must first be reviewed and critiqued by the thesis advisor, and revisions are provided to the student. The thesis advisor is responsible for ensuring that the thesis meets the style and format requirements. Once the thesis advisor is satisfied with the thesis, the thesis is forwarded to the thesis committee for review. The thesis committee should be given at least two weeks to review the thesis. If deemed necessary, the thesis committee may decide if the student must make revisions in the document(s) and/or perform further work to satisfactorily complete the research project. The thesis committee will then pass their comments and suggested revisions back to the thesis advisor and the student, who will then make the necessary revisions. The student's research advisor will examine the revised document to ensure that the student has made the necessary revisions. The thesis committee must certify by at least two-thirds affirmative vote of its membership that the document is ready for the thesis examination. *Students must be registered for at least one research credit during the semester in which the thesis is being evaluated and defended.*

Scheduling the Thesis Defense

The thesis must be written, and approval must be granted by the thesis advisor and committee to schedule the defense. Students must also have completed all didactic coursework for the degree *before* the thesis defense can be scheduled. Once the student's thesis advisor and thesis committee review the thesis document and determine that the student is ready for the thesis defense, the thesis advisor requests approval for scheduling the thesis defense of the program director. The Office of Research and Sponsored Programs requires two weeks' notice for the scheduling of the thesis defense to ensure the presentation date and time is adequately advertised to the College community. The program director completes a degree audit to ensure that all coursework is complete. Once the coursework is complete, the program director will inform the thesis advisor and student that the thesis defense may be scheduled. The thesis defense should be held in a location and when all members of the College community involved in graduate education can attend the thesis presentation. Once a date, time, and location have been determined by the student, thesis advisor and program director, the thesis presentation will be advertised by the Office of Research and Sponsored Programs to the entire College community (students, faculty, administration) through email announcements and flyers posted around campus.

Thesis Defense (Examination)

The final thesis examination is an oral defense of the student's research and is also designed to establish the competency of the student in their major or related field. The thesis committee, chaired by the student's thesis advisor, moderates the final examination. *All members of the thesis committee must be present at the final thesis examination.* The final examination is structured in two parts: the first part is open to all members of the College community (students, faculty, administration) and the second part of the examination is restricted **only** to members of the thesis committee.

In the first part of the examination, the student gives a formal presentation to explain their work and conclusions reached in the thesis work. Typically, this presentation is 45-60 minutes long. Once the presentation is complete, members of the general audience (not the thesis committee) are given the opportunity to ask questions of the student. When the chair determines there are no further substantive questions from the general audience, they will close the public part of the final examination and dismiss everyone except the student and the members of the thesis committee. This second portion of the thesis defense is where the *examination* of the student's ability occurs. The committee asks the student specific questions regarding the research, methods used, interpretation of the results, the basis of the student's conclusions, and the general significance of the work. This part of the thesis examination helps the committee determine if the student has a complete and thorough understanding of the work presented in the thesis. This portion of the thesis examination is typically 45-60 minutes long. The student will then be excused, and the committee will then deliberate and vote on whether the thesis and final examination fulfills the requirements for the graduate degree. Only members of the thesis committee are eligible to vote, and at least two-thirds of the members of the thesis committee must cast affirmative votes to for the student to pass the thesis examination.

If the committee passes the student but decides that modifications of the thesis are required, the student must make these modifications and present them to their research advisor ***within two weeks of the date of the thesis defense***. The thesis advisor must certify in writing to the program director and the thesis committee members that the student has satisfactorily performed the required modifications.

If the final examination results in failure, the student will be provided with a written report prepared by the thesis committee with copies to the program director outlining reasons for the failure and suggestions which may help to resolve the failure. The student is entitled to a second examination which may only be scheduled after the thesis advisor certifies in writing to the program director that the student has resolved the problems which resulted in the failure. Failure of the second final examination will result in the student being dismissed from the graduate program without a graduate degree.

Submitting the Thesis

The thesis, including the title page of the thesis, signed by the thesis committee members, is then submitted electronically (as a PDF file) to the Office of Research and Sponsored Programs through the UMI Dissertation Service. The final thesis is reviewed by ORSP to determine that the thesis conforms to the style and formatting guidelines outlined in Appendix D. Students will be informed if additional revisions are required. Once the thesis is cleared by ORSP, the thesis is sent for binding. Students are responsible for the costs of binding and are required to provide one bound copy to the thesis advisor, one bound copy to ORSP and one bound copy to the library. Students may have additional copies bound if they choose. Official bound copies of the thesis are delivered to ORSP and distributed by ORSP to the advisor and library. The student's personal copies may be sent directly to an address of their choice.

Clearance for Graduation and Receipt of the Diploma

Upon meeting the final thesis requirements with approval through ORSP, ORSP will tell the registrar, program director, the thesis advisor and student they have been cleared for graduation and receipt of their diploma. ACPHS awards diplomas three times during the year: in May (as part of the formal commencement ceremonies), August and December. The thesis defense and final approval must be completed by established deadlines sent out by ORSP at the beginning of each academic semester, including the summer sessions, to be eligible for one of these graduation dates.

Appendix C: Master of Science Thesis Formatting Guidelines

Preparation of the Thesis

This document sets forth the format for the preparation of all master's theses. However, additional requirements may be imposed by the thesis advisor and committee, if these additions do not conflict with those of this document. The thesis advisor is responsible for ensuring that the thesis meets the format and style requirements outlined below.

Organization

Each thesis or dissertation contains a preliminary section followed by its main body and the references and appendices.

Preliminary Section

The preliminary section of the thesis contains the signed title page, abstract, list of figures, list of tables and a table of contents. This section should be numbered using lowercase Roman numerals (i, ii, iii, iv, …).

Title Page

The title page includes the thesis title, author, date, submission phrase (submitted to ACPHS faculty in partial fulfillment of the degree of Master of Science in…) and printed names and signatures. The title should be concise, informative and contain key words to facilitate indexing and searching. The date is provided in month and year format and is the date on which final approval of the thesis or dissertation is granted by the committee. The printed names and signatures are those of the advisor and committee members. Signatures must be done in blue or black ink ONLY. A sample title page appears below.

Abstract

The abstract may not exceed 350 words. Abstracts are constructed using complete sentences and paragraph structure, with no embedded headings, bullets or tables. The third person, past tense is used. An abstract is written after the thesis work is completed. The abstract begins by stating the main objective(s) and hypothesis of the thesis work in one or two sentences. The most significant methods used in the work are summarized. In most cases, two to three sentences should be sufficient for describing the methods. The main body of the abstract reports on the results and conclusions of the thesis work. The experimental findings are reported in the most concise and direct manner possible. The conclusion should be a concise analysis and interpretation of the results of the work. This section should make an impact on the reader so that it is clear what the outcome of the scientific work is and what it means.

List of abbreviations and symbols
All acronyms, symbols and abbreviations used in the thesis must be defined and listed.

List of figures
Figure numbers, figure title and page number where the figure is located must be included. Page numbers should be flush with the right margin.

List of tables
Table numbers, title and page number where the table is located must be included. Page numbers should be flush with the right margin.

Table of Contents
The main body of the thesis includes different sections (see below). The table of contents should list the various sections of the thesis, with titles and identify the page number(s) where these sections appear in the thesis. Page numbers should be flush with the right margin.

Main Body
The thesis's body must contain an introduction with a hypothesis and specific aims of the thesis project. The introduction is followed by a background and significance section, materials and methods, results and discussion, and conclusions. References and appendices follow the main body. When appropriate, care must be taken to secure from the copyright owners' permission to reprint copyrighted material.

Introduction: Hypothesis and Specific Aims
The introduction must be a complete, but concise description of the thesis work, including a specific hypothesis and specific aims of the work. A summary of the experimental design used to achieve the specific aims should be included in the introduction.

Background and Significance
The thesis must contain a background section summarizing relevant work done in the area and its relationship to the project presented in the thesis. The background section should present work published in peer-reviewed journals relevant to the field of study and all reference to previously done work should be properly cited.

Materials and Methods
The materials and methods section includes a detailed description of all methods used in the experiments to complete the specific aims. Complete sentences (not bullets, flowcharts, or abbreviations) must be used to describe the procedures done, although graphs, flowcharts or other diagrams may supplement the text. Experimental descriptions should be in the format typically used in peer-reviewed journals in the field of study.

Results and Discussion
The results and discussion section of the thesis is the most important section. Results from each of the experiments described must be included. Results may be presented using tables, graphs or other diagrams but must be in text format too. The results must be discussed in the context of the hypothesis and specific aims of the project and their relevance to previously published work in the area. Explicitly discuss whether the hypothesis is supported or not, and whether the specific aims were achieved, explicitly discussing how the results support this claim.

Conclusion
Provide an overall conclusion summarizing the thesis project's successes and/or failures. Identify what more needs to be done in the area or future directions the project may take.

In-text Citations, References and Appendices
All references cited in all sections of the thesis used must be included in this section. Only documented references may be used. Web pages may be cited but the URL and date referenced must be included in the citation. Students must use an approved citation style such as Vancouver, APA or MLA for all in-text citations and reference page style and it must be consistent throughout the thesis. When submitting the final thesis, the student will need to indicate the style and edition used for citations and references. This can be done through the "comments to administrator" section on the ProQuest submission site.

Appendices may be used to provide additional documents or data that are important to material presented in the thesis but are supplementary to the main body of work. When such data are voluminous, they are best presented as concisely as possible in one or more appendices. Appendices must be titled and are usually designated using uppercase letters (A, B, C). Appendices must be listed in the table of contents.

Thesis Format

Spacing
The text of a thesis must be double spaced throughout except for footnotes, references, and extended quotations, which are single spaced. Paragraphs should be delineated by an indentation.

Margins
All margins must be one inch except the left, which must be 1.5 inches to allow for binding.

Pagination
There is no page minimum or limit to the MS thesis, however a typical MS thesis may be anywhere from 30 -100 pages long. Every page of a thesis is assigned a number, although a number may not appear on every page. The position of the page number must be consistent from page to page. Preliminary pages must be numbered consecutively using small Roman numerals (i, ii, iii, iv etc..). The remainder of the thesis or dissertation should have Arabic numerals (1, 2, 3, 4, etc..).

Tables and Figures
The term "table" is used to designate a portion of the thesis containing a columnar or other systematic arrangement of numbers, words, or symbols. The term "figure" refers to representations by graphs, charts, drawings, or photographs. Except in highly unusual circumstances, the word table or figure are used as descriptors rather than graph, picture, etc. Each table and figure must be numbered and have a legend with a maximum length of 40 words. The titles and legends of tables and figures should be concise and descriptive of the information presented in that table or figure. Tables and figures are constructed either horizontally or vertically but must fit within the required margins. Tables and figures are inserted in the text throughout the thesis and should be referred to and placed near the relevant text. Tables and figures larger than the standard page size must be reduced by some reproduction method to fit within the required margins. All tables and figures must be of high quality and resolution and be fully legible.

Numbering
Tables are numbered sequentially with numbers appearing at the top of the table, preceding the title and separated from it by a period. Figures are numbered sequentially, with the number placed below the figure preceding the caption and separated from it by a period. Structural chemical formulas are sequentially numbered, with the number centered under the formula. Chemical or mathematical equations are sequentially numbered, with the number enclosed in parentheses and placed at the right margin.

Coloring
Black and white figures are preferred. Colored figures must be of sufficient contrast such that information conveyed by different colors can be distinguished in black and white copies.

Abbreviations
Whenever possible abbreviations should conform to practice within a discipline. Lists of acceptable abbreviations are frequently included in journal instructions to authors information. Theses and dissertations should routinely use SI units and abbreviations, unless there is a compelling reason to prefer an alternative system of units. All unusual and unconventional abbreviations must be defined when first encountered in the thesis or dissertation and included in the list of abbreviations and symbols in the preliminary pages (vide supra). The abbreviation "et al" may be used in the text to indicate the work of three or more authors. It is not permitted on the reference list.

Printing and Binding
Type sizes of 10 - 12 characters per inch or point are acceptable. The same type size and font style must be used throughout the entire document to insure uniformity of appearance. Only one side of each page may be used for printing. Students must purchase a minimum of two bound copies of the thesis (one for the ACPHS library, one for the advisor and one for the program). Students may purchase as many additional personal copies as they choose. All costs associated with printing and binding are the responsibility of the student.

Submitting the Thesis and Final Approval
Students must submit the final, approved thesis in PDF format to the ProQuest online system for final review by the Office of Research and Sponsored Programs (ORSP).

ORSP will review the submitted thesis to be sure it meets all formatting guidelines and will notify the student if any corrections need to be made. Students will also be notified once the thesis has been cleared by ORSP. Once cleared, the thesis will be approved for binding. ProQuest will send the three College copies directly to ACPHS. Any additional, personal copies ordered by the student will be sent to the address provided by the student. Binding and shipping take 8-12 weeks so students must provide an address that will be viable 2-3 months out.

For more information about submitting the thesis for final review and approval, visit ProQuest ETD.

Sample Thesis Title Page

Preparation of 2(- Aminotaxol Through the β-Lactam Synthon

Method by Hengqun Shen

Submitted to the faculty of the Albany College of Pharmacy and Health Sciences in partial fulfillment of the Degree of Master of Science in Pharmaceutical Sciences

Date: _____

Approved By: _____

_____	_____	_____	_____
Printed Name	*Signature*	*Date*	*Thesis Advisor*
_____	_____	_____	_____
Printed Name	*Signature*	*Date*	*Committee Member*
_____	_____	_____	_____
Printed Name	*Signature*	*Date*	*Committee Member*
_____	_____	_____	_____
Printed Name	*Signature*	*Date*	*Committee Member*

Appendix D: Master of Science Capstone Guidelines

The following guidelines are designed to be used by students in the:

- MS Molecular Biosciences
- MS Biotechnology
- MS Biomedical Sciences

Capstone guidelines for other programs are available as follows:

- MS Clinical Laboratory Sciences: as part of BHS790 capstone course
- MS Cytotechnology and Molecular Cytology: BIO790 capstone course
- MS Pharmaceutical Sciences: as part of PSC750 capstone course

The capstone track provides students with experiential learning opportunities (internships/co-ops) in the biopharmaceutical industry, federal or state public health labs, or basic/clinical research laboratories to gain skills and knowledge required for seeking employment in these sectors. The capstone course will serve as a culminating part of the MS degree program, capstone track. Upon completion of the experiential education component to the satisfaction of the student's capstone mentor, the student must give an oral presentation and submit a formal capstone document based on either: 1) a major literature review on an existing scientific topic that is relevant to the student's field of study or 2) a no-credit experiential learning experience such as a co-op, internship, or basic/clinical lab research. Upon completion of the course, the student will demonstrate the ability to understand, synthesize and analyze a complex industrial/clinical/scientific topic using critical thinking skills, evaluating possible outcomes and clearly presenting sound scientific conclusions.

Capstone Advisor

Capstone students are assigned an interim academic advisor by the program director upon arrival at the College. Interim academic advisors can help students with course registration and other program questions until they select a permanent capstone advisor. Students must select their capstone advisor based on their career goals by the end of the first semester and must be approved by the program director. Capstone track students are also strongly encouraged to seek summer internship/co-op opportunities during their fall semester of their first year in consultation with their advisor and program director.

Capstone Presentation

Students must have completed all didactic coursework and the capstone document before the capstone presentation can be scheduled. The capstone presentation will be scheduled by the program director during the week before the final exams in consultation with the mentor after satisfactory completion of the capstone project by the student. The presentation will be held in a location and at a time that allows all members of the College community involved in graduate education to attend the presentation. Once a date, time, and location have been determined by the student, capstone advisor and program director, the capstone presentation will be advertised by the program director to the entire College community (students, faculty, administration) via an email announcement. The oral presentation is typically 30-45 minutes long and is designed to establish the competency of the student in their major or related field. Once the presentation is complete, members of the audience are given the opportunity to ask questions of the student. All core program faculty members will evaluate the student based on the quality of the project, presentation, and ability to answer questions. These faculty evaluations and the written Capstone

document will be used by the program director as a basis to award a Capstone grade to the student.

Capstone Document

The capstone document should be submitted to the program director one week before the final examinations start. The quality of capstone document should be of peer-reviewed journal article. It should typically be 25-40 pages long and must be prepared in the style and format specified in the guidelines provided below. The document should be first critiqued by the capstone mentor and revised before being submitted to the program director. The program director will then assign a faculty reader with expertise related to the capstone project who will provide comments and suggestions on the document to the student for making necessary revisions. The student's capstone mentor will examine the revised document to ensure that the student has made the necessary revisions. The capstone document, including the title page, signed by the advisor, faculty reader, and program director, is then submitted electronically (as a pdf file) to the program director and the ACPHS Library.

Style and Formatting Guidelines

This document sets forth the format for preparing all master's capstone documents. However, additional requirements may be imposed by the mentor and faculty reader if these additions do not conflict with those of this document. The capstone mentor is responsible for ensuring that the document meets the format and style requirements outlined below.

Organization

Each capstone document contains a preliminary section followed by its main body and the references and appendices.

Preliminary Section

The preliminary section of the document contains the signed title page, abstract, list of figures, list of tables and a table of contents. This section should be numbered using lowercase Roman numerals (i, ii, iii, iv, …)

Title Page

The title page includes the title, author, date, submission phrase (submitted to the faculty of the Albany College of Pharmacy and Health Sciences in partial fulfillment of the Degree of Master of Science in…) and printed names and signatures. The title should be concise, informative, and contain key words to facilitate indexing and searching. The date is provided in month and year format and is the date on which final approval of the document is granted by the committee. The printed names and signatures are those of the advisor, faculty reader, and Program director. Signatures must be done in blue or black ink ONLY. A sample title page appears below.

Abstract

The abstract may not exceed 350 words. Abstracts are constructed using complete sentences and paragraph structure, with no embedded headings, bullets or tables. The third person, past tense is used. An abstract is written after the work is completed. The abstract begins by stating the main objective(s) of the project in one or two sentences. For a research project, the most significant methods used in the work are summarized. In most cases, two to three sentences should be sufficient for describing the methods. The

main body of the abstract reports on the results and conclusions of the work. The experimental findings are reported in the most concise and direct manner possible. For a literature review-based project, the abstract should outline the scope of the topic followed by a summary of the main sections and findings. The conclusion should be a concise analysis and interpretation of the results of the work. This section should make an impact on the reader so that it is clear what the outcome of the scientific work is and what it means.

List of abbreviations and symbols
All acronyms, symbols and abbreviations used in the capstone document must be defined and listed.

List of figures
Figure numbers, figure title and page number where the figure is located must be included. Page numbers should be flush with the right margin.

List of tables
Table numbers, title and page number where the table is located must be included. Page numbers should be flush with the right margin.

Table of Contents
The main body of the document includes different sections (see) below. The table of contents should list the various sections of the document, with titles and identify the page number(s) where these sections appear in the document. Page numbers should be flush with the right margin.

Main Body
The body of the document must contain an introduction to the capstone project. Based on the type of Capstone project (literature review or research project) the main body sections will vary.

Literature Review Project

A scientific literature review should clearly define the scope of the topic. It should provide an exhaustive range of research conducted on the topic and critically analyze and evaluate published knowledge in the area. It should also identify the areas of controversy and limitations of studies. Further, it should provide information on gaps in the knowledge and future directions of research. The structure of a literature review document should be:

- **Introduction:** An overview of the topic under consideration, along with the objectives of the literature review
- **Main body:** Critical analysis, evaluation of topically relevant research/data. Use sub-headings to group your topics. Use diagrams, tables, and figures where appropriate.
- **Conclusion:** Summarize the key points from the review

Basic/Applied Research Project

For a basic/applied science research project, the introduction is followed by a background and significance section, materials and methods, results and discussion, and conclusions. References and appendices follow the main body. When appropriate, care must be taken to secure from the copyright owners' permission to reprint copyrighted material.

Introduction

There must be a complete, but concise description of the project. A summary of the experimental design used to achieve the project goals should be included in the introduction.

Background and Significance

The document must contain a background section summarizing relevant work done in the area and its relationship to the project. The background section should present work published in peer-reviewed journals relevant to the field of study and all reference to previously done work should be properly cited.

Materials and Methods

The materials and methods section includes a detailed description of all methods used in the experiments to complete the specific aims. Complete sentences (not bullets, flowcharts or abbreviations) must be used to describe the procedures done, although graphs, flowcharts or other diagrams may supplement the text. Experimental descriptions should be in the format typically used in peer-reviewed journals in the field of study.

Results and Discussion

The results and discussion section of the document is the most important section. Results from each of the experiments described must be included. Results may be presented using tables, graphs or other diagrams but must be in text format too. The results must be discussed in the context of the goals of the project and their relevance to previously published work in the area.

Conclusion

Provide an overall conclusion that summarizes the successes and/or failures of the capstone project. Identify what more needs to be done in the area or future directions the project may take.

In-text Citations, References and Appendices

All references cited in all sections of the document used must be included in this section. Only documented references may be used. Web pages may be cited but the URL and date referenced must be included in the citation. Students must use an approved citation style such as Vancouver, APA or MLA for all in-text citations and reference page style and it must be consistent throughout the document.

Appendices may be used to provide additional documents or data that are important to material presented in the document but are supplementary to the main body of work. When such data are voluminous, they are best presented as concisely as possible in one or more appendices. Appendices must be titled and are usually designated using uppercase letters (A, B, C). Appendices must be listed in the table of contents.

Capstone Report Format

Spacing and Font size

The text of a capstone report must be double spaced throughout except for footnotes, references, and extended quotations, which are single spaced. Type sizes of 11 - 12 characters per inch or point are acceptable. The same type size and font style must be used throughout the entire document to ensure uniformity of appearance. Paragraphs should be delineated by an indentation.

Margins

All margins must be one inch

Pagination

A typical capstone report may be anywhere from 25-40 pages long. Every page is assigned a number, although a number may not appear on every page. The position of the page number must be consistent from page to page. Preliminary pages must be numbered consecutively using small Roman numerals (i, ii, iii, iv etc..). The remainder of the document should have Arabic numerals (1, 2, 3, 4, etc..).

Tables and Figures

The term "table" is used to designate a portion of the document containing a columnar or other systematic arrangement of numbers, words, or symbols. The term "figure" refers to representations by graphs, charts, drawings, or photographs. Except in highly unusual circumstances, the word table or figure are used as descriptors rather than graph, picture, etc. Each table and figure must be numbered and have a legend with a maximum length of 40 words. The titles and legends of tables and figures should be concise and descriptive of the information presented in that table or figure. Tables and figures are constructed either horizontally or vertically but must fit within the required margins. Tables and figures are inserted in the text throughout the document and should be referred to and placed near the relevant text. Tables and figures larger than the standard page size must be reduced by some reproduction method to fit within the required margins. All tables and figures must be of high quality and resolution and be fully legible.

Numbering
Tables are numbered sequentially with numbers appearing at the top of the table, preceding the title and separated from it by a period. Figures are numbered sequentially, with the number placed below the figure preceding the caption and separated from it by a period. Structural chemical formulas are sequentially numbered, with the number centered under the formula. Chemical or mathematical equations are sequentially numbered, with the number enclosed in parentheses and placed at the right margin.

Coloring
Black and white figures are preferred. Colored figures must be of sufficient contrast such that information conveyed by different colors can be distinguished in black and white copies.

Abbreviations
Whenever possible abbreviations should conform to practice within a discipline. Lists of acceptable abbreviations are frequently included in journal Instructions to Authors information. Documents should routinely use SI units and abbreviations unless there is a compelling reason to prefer an alternative system of units. All unusual and unconventional abbreviations must be defined when first encountered in the document and included in the list of abbreviations and symbols in the preliminary pages. The abbreviation "et al" may be used in the text to indicate the work of three or more authors. It is not permitted on the reference list.

Sample Capstone Document Title Page

Title: _____
By: _____

Submitted to the faculty of the Albany College of Pharmacy and Health Sciences in partial fulfillment of the Degree of Master of Science in Molecular Biosciences.

Approved by:

_____	_____	_____	_____
Printed Name	*Signature*	*Date*	*Capstone Advisor*
_____	_____	_____	_____
Printed Name	*Signature*	*Date*	*Faculty Reader*
_____	_____	_____	_____
Printed Name	*Signature*	*Date*	*Program director*

Appendix E: Contact Information

Program directors

MS, Biomedical Sciences
Elizabeth Brookins, PhD
Email: Elizabeth.Brookins@acphs.edu
Phone: 518-694-7240

MS, Biotechnology
Payel Datta, PhD
Email: Payel.Datta@acphs.edu
Phone: 518-694-7151

MS, Clinical Laboratory Sciences
Michelle Parent, PhD
Email: Michelle.Parent@acphs.edu
Phone: 518-694-7208

MS, Cytotechnology and Molecular Cytology
Jenna LeBlanc, MS, CT (ASCP)
Email: Jenna.LeBlanc@acphs.edu
Phone: 518-694-7315

MS, Health Data Science
Michael Racz, PhD
Email: michael.racz@acphs.eduphs
Phone: 518-694-7182

MS, Molecular Biosciences
Vir Singh, PhD
Email: Vir.Singh@acphs.edu
Phone: 518-694-7368

MS, Pharmaceutical Sciences
Manish Shah, PhD
Email: Manish.Shah@acphs.edu
Phone: 518-694-7308

Additional Contacts
Shannon Smith
Associate Director of Admissions, Graduate Programs
shannon.smith@acphs.edu