MACON & JOAN BROCK
VIRGINIA HEALTH SCIENCES
AT OLD DOMINION UNIVERSITY

Biomedical Sciences Research Master's Program

Student Handbook

2025-2026

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CONTENTS

WELCOME

Dr. David Taylor-Fishwick (Taylor)

As Program Director and on behalf of the Executive Committee, I welcome you to the Biomedical Sciences Research Master's Program. This Program is part of the School of Health Professions that is headed by Dr. C. Donald Combs, Senior Associate Vice President and Dean of EVMS School of Health Professions.

You are provided this handbook as a central resource for the Biomedical Sciences Research Master's Program. Included are:

The Biomedical Sciences Research Master's Program can be completed as a thesis or non-thesis track. The curriculum explores core concepts in the first year, setting each student up with the foundations to effectively progress their mentored laboratory research experiences. Both thesis and non-thesis tracks have a written component in order to satisfy the graduation requirements.

We all look forward to supporting your development through the program and maximizing your potential. While we are mentors, educators and researchers, we also look forward to learning from you and growing with you throughout your journey at EVMS.

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PROGRAM CONTACT INFORMATION

The program is administered by the Program Director (PD), the Executive Committee, and the Program Coordinator. The Executive Committee is composed of the Program Director, Admissions Committee Chair, and Curriculum Committee Chair. The Biomedical Sciences Program Office at EVMS provides administrative support for the program.

Program Director (PD)
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You will be provided access to the complete program requirements through the EVMS learning management system (LMS).

The Biomedical Sciences Program has developed a **Student Resource Center** which is located in the LMS. This site centralizes relevant program-related information and resources for you.

Pronto is a messenger-like communication platform. This will be a primary communication tool to connect students to the program and course faculty in the program.

CURRICULUM

The Research Master's Program is designed so that well-qualified, highly motivated full-time students can graduate in TWO (2) years.

COURSE OVERVIEW

Fall Year 1	Spring Year 1	Summer Year 1	Fall Year 2	Spring Year 2	Summer Year 2
• Molecules to Cells [MtC] • Molecular and Cellular Techniques [MCT] • Cell Communication and Signaling [CCS] • Molecular Genetics [MG] • Oral Communication Forum [OCF] • Lab Rotation I	• Cell Energetics and Organ Function [CEOF] • Applied Biostatistics and Bioinformatics [ABB] • OCF • Lab Rotation II • Research	• Research	• Methods & Logic in Translational Biology [MLTB] • Responsible Conduct in Science [RCS] • OCF • Scientific Writing and Research Design [SW] • Research • BP Elective	• OCF • Research • BP Elective	• Research • Thesis Defense

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YEAR 1

FALL SEMESTER	Credits
BP700: Molecules to Cells	2
BP701: Molecular and Cellular Techniques	2
BP703: Cell Communication and Signaling	3
BP704: Molecular Genetics	2
BP710: Oral Communication Forum	1
BP719: Lab Rotation I	2
Total	**12 credits**

SPRING SEMESTER	Credits
BP706: Cell Energetics and Organ Function	3
BP781: Applied Biostatistics and Bioinformatics	3
BP710: Oral Communication Forum	1
BP720: Lab Rotation II	2
BP798: Research	2
Total	**11 credits**

SUMMER SEMESTER	Credits
BP798: Research	3
Total	**3 credits**

LABORATORY ROTATIONS

Students will complete TWO (2) eight-week laboratory rotations (BP719 and BP720 in different laboratories) during Fall and Spring of Year 1. Each laboratory rotation will consist of a minimum of 88 hours of laboratory work **(11-20 hours per week)**.

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YEAR 2

FALL SEMESTER	Credits
BP771: Methods & Logic in Translational Biology	3
BP709: Scientific Writing and Research Design	1
BP773: Responsible Conduct in Science	1
BP710: Oral Communication Forum	1
BP798: Research	3
BP Elective	2
Total	**9-11 credits**

SPRING SEMESTER	Credits
BP710: Oral Communication Forum	1
BP798: Research	3
BP Elective	2-3
Total	**4-7 credits**

SUMMER SEMESTER	Credits
BP798: Research	3
BP799: Thesis	1
Total	**4 credits**

ELECTIVE COURSES

Students are required to complete **a minimum of 2 credits** of elective coursework.

MENTORED RESEARCH

The primary focus of the second Spring semester is mentored research. If required, students may make up their elective requirement (minimum of 2 credits) during the spring semester year 2.

THESIS/REPORT COMPLETION

Most students will complete their THESIS during the summer semester of year 2 or complete their RESEARCH REPORT (non-Thesis option) during the spring semester of year 2.

RESEARCH CREDITS

All students must complete a **minimum of 12 credits** of Research [BP 798] and **1 Credit** Thesis [BP 799] if completing the Thesis option.

See Graduation Requirements for more details on the timing of completion (BP798, BP799).

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PROGRAM REQUIREMENTS

EVMS LABORATORY TRAINING REQUIREMENTS

Students participating in research at EVMS are required to complete laboratory safety training.

Required training includes

- Autoclave Safety
- Chemical Hygiene
- Biosafety
- Animal Research (CITI "working with the IACUC" and appropriate animal modules)

Information on these training courses will be provided during orientation for new students and may also be obtained from the Program Office. Additional training may be required depending on research focus.

STUDENT HEALTH INSURANCE

Students enrolled in the program are required to have a health insurance policy with major medical and surgical coverage. Students may be covered by their own policy, or a parent's or spouse's policy, or enroll in an EVMS student health insurance policy. A waiver should be obtained from the Office of Human Resources if a non-EVMS policy is used.

ACADEMIC AND TECHNICAL STANDARDS

All students are required to fulfill the academic and technical standards with or without reasonable accommodations. Accommodations are provided to aid in fulfilling those standards, not to waive them. You can view these standards online on the Biomedical Sciences Technical Standards page.

REQUIREMENTS FOR DEGREE COMPLETION

The research Master's program is designed so that well-qualified, highly motivated full-time students can graduate in TWO (2) years. **All requirements for the degree need to be completed within FOUR (4) calendar years from the date of matriculation**.

NOTE:

- Students receiving federal student loans are required to complete their requirements within THREE (3) years. Exceptions must be approved by the PD and the Dean of the School of Health Professions.
- Students whose graduate study is interrupted for military service will be granted an extension for the period of their service, not to exceed FIVE (5) years.

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- Leave(s) of Absence from the program are limited to ONE (1) year cumulative. Students must meet with Financial Aid once their Leave of Absence form has been signed by the Assistant Vice-Dean of Student Affairs and the PD.

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PROGRAM RESOURCES

STUDENT DISABILITY SERVICES DISCLAIMER

All students are required to fulfill the academic and technical standards of their academic program with or without reasonable accommodations. Accommodations are provided to aid in fulfilling those standards, not to waive them.

EVMS is dedicated to providing reasonable accommodations to students with a documented disability. Students are required to self-identify with the Office of Student Disability Services to begin the accommodation process. Accommodations are not retroactive. Students are therefore encouraged to begin the accommodation process as early as possible.
To request accommodations under the Americans with Disabilities Act or Section 504 of the Rehabilitation Act, you should contact the EVMS Disability Officer: StudentDisability@odu.edu.

For more information about the disability accommodations process, you are invited to visit: http://www.evms.edu/education/additional_resources/disability_guide_for_students/

FINANCIAL AID

Financial aid is available to Biomedical Sciences Research Master's Program students from the Financial Aid Office at Eastern Virginia Medical School. Students must meet the criteria established by the Office of Financial Aid and be in good standing to receive student loans.

WELLNESS/STUDENT AFFAIRS

EVMS students are supported by an engaged Student Affairs Office. There are many initiatives to support student wellness needs. See the student wellness site.

COURSE SYLLABI

Course Directors will provide students an official course syllabus (approved by the School of Health Professions Curriculum Committee) by **the first day of the course**. These syllabi will be posted on the course's LMS shell.

Each Syllabus will include

- **a Late Work policy** for assignments and take-home exams
- **Grading Policies** (e.g., how much each exam, quiz, assignment and participation will count) and the unified **Grading Scale**

If you have questions about the course, FIRST, ask the Course Director for that course.

PROGRAM POLICIES

THE HONOR CODE

The Honor Code is based upon the integrity of the individual. This system assumes that the student will embrace their role in the community with self-respect and duty. Lying, cheating, and/or plagiarism are violations of the Honor Code.

Each piece of work submitted by a student should result from the students own work. Exceptions may be specified by each Course Director for group work. Enforcement of the Honor Code is a responsibility shared by both faculty and students. Instructors may, where deemed appropriate, conduct proctored examinations. For more information, see the online version of the EVMS Code of Conduct.

EVMS SCIENTIFIC MISCONDUCT POLICY

Students participating in research at EVMS must be familiar with and follow the EVMS Guide on Scientific Misconduct. Copies of the Guide are available from the Administrative Office or online through the Office of Research and Integrity.

INTELLECTUAL PROPERTY POLICY

Students participating in research should be familiar with the Policy on Intellectual Property. The Program Director must be informed if there is an intention to register Intellectual Property.

OUTSIDE EMPLOYMENT

Research Master's students are discouraged from seeking outside employment. Short term laboratory, research or teaching jobs may be permitted. Employment that requires significant time away from classes and/or the research laboratory that will negatively impact the ability of a student to progress in the Program will not be supported.

A student considering employment should discuss and obtain the approval of their Advisor and the PD.

ATTENDANCE POLICY

1. **Unexcused absences are not allowed.** Course directors reserve the right to subtract credit points for unexcused absences as specified in the syllabus for each course. Absences may be excused in extenuating circumstances, at the discretion of each Course Director, when the student contacts the Course Director within 24 hours after the missed class. Documentation of illness or other emergencies may be requested at the discretion of the Course Director.

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2. **Anticipated excused absences from an exam will require the student to take the exam before the rest of the class.** Eligibility to take a make-up exam or change the date of a scheduled exam will require documentation stating the reason for the absence. At the discretion of the Course Director, a make-up exam may have a different format and version than from the regularly scheduled exam. If the Course Director deems the excuse to be inappropriate, the Course Director or student may bring the issue to the Biomedical Sciences Executive Committee. The Committee will determine the eligibility of the student to be granted a make-up exam.

GRADING POLICIES - GRADING SCALE

The Program follows the grading scale for the School of Health Professions, shown below;

Percentile	Letter Grade	GPA Weight
100-94	A	4.00
93-90	A-	3.67
89-87	B+	3.33
86-84	B	3.00
83-80	B-	2.67
79-77	C+	2.33
76-74	C	2.00
73-70	C-	1.67
69 or less	F	0.00

All SHP programs for which EVMS serves as the school of record will use the grading scale for those courses in which grades affect the Grade Point Average (GPA). Mathematical rules for rounding to the nearest whole number based on two decimal places apply. For example, a final grade of 93.45 would round to a 94 (A). A final grade of 93.44 would round to a 93 (A-).

PASS/FAIL COURSES

A graduate student may earn Pass/Fail credit in courses so designated. At this time, Thesis (BP 799) is a Pass/Fail course.

GRADES NOT AFFECTING GPA

Code	Description
I	Incomplete
P	Pass
W	Official Withdrawal
WF	Unofficial Withdrawal

PROCEDURES FOR ELECTIVE COURSES

Research Master's students are required to complete **a minimum of 2 credits** of elective coursework.

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The student's advisor must **meet with the student** to discuss which course(s) would best serve the student's educational interests.

The student and advisor must specify the **advanced course(s)** chosen (at least 2 credits) which the student will take, which will better serve their training. The PD should then be notified.

Alternative advanced courses include **Special Topics** (independent study with the advisor or other faculty); courses from other EVMS programs, and appropriate graduate courses at ODU or NSU. See the Student Resource Page in the LMS for links to available options.

Students should plan in advance. Not all elective courses are offered every semester.

NOTE: Students can also petition to take a course not listed by providing the associated syllabus to the Executive Committee for review.

MINIMUM ACADEMIC STANDARDS

To remain in good academic standing, the student must achieve the following standards:

1. Maintain a cumulative GPA of 3.0 or greater on a four-point scale.
2. Pass all required courses with a grade of "C-"or better, and meet other requirements within the time frames specified.
3. A minimum GPA of 3.0 is required to be awarded a M.S. degree.

A student who completes the requirements for the degree, but whose GPA is below a 3.0, may be permitted by the PD to take up to seven additional credits of coursework in an effort to increase the GPA to 3.0. Grades in courses accepted for transfer credit are not counted in the computation of grade point average. *Grade reports are available online.*

Extenuating circumstances: If the student believes there are extenuating circumstances as to why their performance has not met the minimum requirements of the program, they may submit a written petition to the PD. The report/petition, which should thoroughly explain the circumstances with appropriate documentation where appropriate, will be reviewed by the Executive Committee.

Considering the recommendations of the Executive Committee, the PD will form a decision and notify the student in writing. If the student's petition is rejected, the student may be subject to probation or dismissal from the program, as appropriate.

INCOMPLETE GRADES

The grade "I" indicates assigned work yet to be completed in a given course or an approved absence from the final examination. When an instructor assigns a grade of "I," a written agreement is prepared and signed by the instructor and student that specifies the work remaining to be completed and the time frame for doing so. The work should be completed as soon as possible, but no later than the mid-point of the following grading period/term unless special written approval is granted by the Course Director and PD due to extraordinary circumstances. The student must petition the Course Director and the PD for

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such an extension at least two weeks before the end of the agreed upon deadline. Unless an extension has been approved by the Course Director and the PD, the "I" will convert to either an "F" or to the grade as specified in the written agreement after the mid-point of the semester. An "I" grade may not be changed to a "W" under any circumstances.

WITHDRAWALS

A student can withdraw from a course up until the mid-point of the grading period/term and receive a "W" grade. Withdrawal after the midterm is not permitted without special approval by the PD. However, in the event of an illness or severe hardship beyond the student's control, the student should submit a written petition for permission to withdraw from the course to the Instructor and PD no later than the last day of classes. If permission is granted by the PD, a grade of "W" is recorded. If permission is not granted, then the student cannot withdraw from the class. A student who stops attending classes without withdrawing is assigned a "WF" grade unless the student's performance was failing, in which case a grade of "F" will be assigned.

POLICY TO ADD/DROP COURSES

Students can add/drop courses through their online registration portal in Banner. These actions must be completed prior to the deadlines.

All major changes to student status (e.g., leave of absence; withdrawal, etc.) requires the submission of a Student Status Change Form.

Students receiving Financial Aid are required to discuss with the Office of Financial Aid all changes with potential impacts to their Financial Aid status.

TRANSFER OF CREDITS

Requests to transfer graduate credits from another accredited US or Canadian institution are considered on an individual basis after students are admitted to the EVMS Biomedical Sciences Graduate Programs. International credits are reviewed on a case-by-case basis.

A student may transfer up to 6 graduate credit hours, if all of the following conditions hold:

- Graduate course credits were completed at an accredited US or Canadian institution and reflected on an official transcript;
- Transfers can feasibly occur within the matriculation limit of this program;
- The grade earned is a 'B' or better; and
- Credits for the course were completed at a regionally accredited school or program in Biomedical Sciences.

All transfer requests must be made ***no later than one full term prior to graduation from the program.***

Requests for credit transfer are subject to the approval of the PD. Students wishing to request graduate credits to be transferred into the Biomedical Sciences Graduate programs are required to submit to the Program Administrative Office:

1. a copy of the syllabus for the course and
2. a Transfer Approval Request Form

The PD may consult with teaching faculty as appropriate. Grades that are approved for transfer are included on a student's transcript; however, transferred grades are not included in semester or cumulative GPA calculations.

PROGRAM DEADLINES

Students are expected to meet all program deadlines. These deadlines are provided in this handbook and on the Student Resource Center (Canvas) Meeting deadlines for the program fosters the development of professionalism. Failure to meet deadlines for the program results in academic consequences, which are academic warning and academic probation.

ACADEMIC WARNING will apply to students who repeatedly miss deadlines for documentation, or fail to submit required documentation more than TWO (2) weeks after the deadline, or fail to register for courses more than TWO (2) weeks after the deadline.

ACADEMIC PROBATION will apply to students who fail to submit required documentation more than FOUR (4) weeks after the deadline or fail to register for courses more than FOUR (4) weeks after the deadline.

OF NOTE: Academic Warning and Academic Probation become a permanent part of a student's academic record.

Continued failure to meet deadlines that span a further TWO (2) semesters places the student at risk of additional disciplinary action, which may include dismissal from the program.

ACADEMIC WARNING

An academic warning may be issued to a student who fails to meet program requirements, or who misses deadlines for submission of required forms, course evaluations, etc. An academic warning will become part of a student's academic record. The PD will send the student a letter informing them of the requirements they have failed to meet, describing how they may fulfill the requirements, and indicating further actions that may be taken (e.g., academic probation) if the requirements are not met.

ACADEMIC PROBATION

1. If the **cumulative GPA falls below 3.0**, if a **student fails to meet program deadlines** (as specified in this Handbook), **does not submit course evaluations in a timely manner** (see below), or **is not making adequate progress** in thesis research, the student may be placed on academic probation. Probation indicates the student is at risk in the program and serves as a notification that grades must improve and/or milestones must be met in a timely manner if dismissal is to be avoided.

2. No student may remain on probation for more than two consecutive semesters. Failure to attain a cumulative GPA of 3.0 after two semesters of probation will result in dismissal from the program. Students dismissed from the program are not permitted to take additional Biomedical Sciences courses at EVMS.
3. A student must make academic progress during the first semester on probation (e.g., the GPA must increase) or be subject to dismissal from the program.
4. A student who is placed on academic probation twice will be dismissed from the program unless there are extenuating circumstances as determined by the PD and as advised by the Executive Committee.

The PD will make every reasonable effort to notify students of their academic status. A letter will be mailed to each student placed on probation or dismissed from the program. It is the responsibility of every student whose GPA falls below 3.0 to check with the PD to determine their academic status. Non-receipt of a letter by a student placed on probation or dismissed from the program will not be considered as grounds for claiming eligibility to enroll for a subsequent semester.

DISMISSAL

No student may remain on probation more than two consecutive semesters. Failure to attain a cumulative GPA of 3.0 after two semesters of probation will result in dismissal from the Program. Students dismissed from the program are not permitted to take additional Biomedical Sciences courses at EVMS.

APPEALING DISMISSAL

Reinstatement is generally not allowed;, but, special cases may be considered after a written appeal by the dismissed student to the Dean of the School of Health Professions, who will confer with the Executive Committee. Written appeals must explain:
(1) why the student is likely to succeed, if reinstated,
(2) how any deficiencies or extenuating circumstances have been resolved, and
(3) present a plan for finishing the program.

APPEALS AND GRIEVANCE

Students in the School of Health Professions have the right to due process involving grievances and appeals. The student should discuss the grievance with the PD. If the grievance is not resolved, a student may file a written appeal to the Dean of the EVMS School of Health Professions within seven days of the student's notification of the PD's decision. Upon receipt of the appeal, the Dean will notify the Registrar accordingly. The Dean or a designee will review all pertinent material and meet with the student. The Dean may convene a Grievance/Appeals Committee composed of PDs, faculty, students, and/or administrators not directly involved in the grievance. All testimony, evidence, and witnesses relevant to the appeal shall be made available to this Committee. The student has the right to appear before the Committee, present testimony and such witnesses or evidence as is

deemed relevant by the Committee. The student shall not have the right to be represented by counsel at these Committee meetings. The Committee will submit its recommendations to the Dean after the review is completed.

The Dean will notify the student within ten days of their decision. The decision may include reinstatement, retention, probation, termination, suspension, special academic assignments, or other interventions deemed appropriate to the situation. The judgment of the Dean concerning the grievance shall be final and binding on all parties, with the exception of recommending the termination of a student's participation in an academic program.

In the case of termination from an academic program, the student may file a written appeal to the EVMS Executive Vice President, Health Sciences within five days of the student's notification from the Dean of the School of Health Professions. The Executive Vice President will review all pertinent material and notify the student within ten days of receipt of the appeal of their decision. The decision of the Executive Vice President is final.

GRADUATION REQUIREMENTS

THESIS OPTION -- Research Master's students choosing the **thesis option** should aim to complete all of their requirements prior to leaving campus. In the event that they are unable to do so, students are expected to defend their thesis within **2 months** of leaving campus. All requirements for degree completion must be achieved within three (3) months of a successful defense. If the student does not follow this timeline, no degree will be granted.

NON-THESIS OPTION -- Research Master's students choosing the non-thesis option are required to submit their RESEARCH REPORT, give their oral presentations, and have their final Guidance Committee meetings within **2 months** of leaving campus.

Students should submit their THESIS or RESEARCH REPORT to the program office and their committees one month prior to the beginning of the new semester, or they will be advised to register for 1 credit of Thesis (BP799) until all degree requirements have been met.

It is highly recommended that the student fulfills all requirements prior to leaving EVMS.

TURNITIN PROGRAM SCANNING OF MAJOR WRITING ASSIGNMENTS

TurnItIn is available to students and faculty to support the integrity of provided work assignments.

PURPOSES

1. To teach students proper ways to cite and use material from others' work.
2. To teach students the difference between citation, quotation, and plagiarism.
3. To ensure that students' writing assignments do not contain plagiarized material.

PROCEDURE

1. Students will be taught how to use the TurnItIn program to ensure they have not

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unintentionally plagiarized.

2. TurnItIn reports showing little or no similarity to published work or internet sources identified by the program must be submitted along with the following major writing assignments:
    a. Assignments and exam essay questions as requested by Course Directors
    b. Research proposal for Scientific Writing and Research Design (year 2)
    c. Thesis Proposal and Thesis (year 2) OR Research Report (year 2)
3. Short phrases or standard descriptive wording of concepts or lists of items are acceptable, even if they are identical to phrases in published works of others.
4. Phrases or sentences longer than a few words that are very similar to published material, or which have had a small number of words changed, will not be allowed. **Students must put ideas into their own words, even if the ideas come from published work (which should be properly cited).**
5. Quotations should be discouraged, except in rare instances when a quotation is unique, historical, or expresses a new and important idea.
6. All results or ideas of others should be properly cited. **The correct article(s) and/or book chapter(s) in which the results or ideas were published should be cited** for each of these.

POLICY ON USE OF GENERATIVE ARTIFICIAL INTELLIGENCE

We recognize there are challenges to appropriately incorporating generative artificial intelligence (AI) into the program. These policies, along with unified EVMS policies, are under development. Students are responsible for their own work and learning should not be ceded to chatbots. Students may be called upon to support their answers to assignments in any course. Any work that has used AI in its development must be cited as such.

See also the guidelines for Generative Artificial Intelligence

POLICY FOR BIOMEDICAL SCIENCES STUDENTS THAT EXPERIENCE CONFLICT LEADING UP TO SEPARATION FROM A LABORATORY

It is hoped that the placement of a student within an advisor's laboratory has been successful; however, it is recognized that circumstances can evolve. A structured process is in place if a student and/or advisor feels they need help to resolve a conflict which may lead up to a need to move laboratories.

1. A conflict or problem that cannot be resolved between an advisor and a student should be reported to the PD by either party.
2. The PD will meet with the student and advisor to try to understand the problem.
3. If the problem is not resolved, the student and advisor will be required to meet with the student's Guidance Committee and the PD or other EVMS officials, as appropriate.

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4. If, after attempts to resolve the conflict or issue, either the student or the advisor wishes to terminate the mentoring relationship, a written request must be submitted to and approved by the PD. The request should give reason(s) why the mentoring relationship should end.
5. If the student wishes to leave a laboratory, the advisor and the PD must receive written notice of termination of the mentoring relationship. The student will leave the lab at a date mutually agreed upon by the student and the advisor. After giving the PD written notice this will occur within 90 days. The student will continue to perform research in the mentor's laboratory until the agreed termination date.

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REQUIRED ACTIVITIES FOR BIOMEDICAL SCIENCES RESEARCH MS STUDENTS

INDIVIDUAL DEVELOPMENT PLAN (IDP)

An Individual Development Plan (IDP) must be completed annually by each student, second year and above. The purpose of the IDP is to aid the student in developing their career plan, and explore their goals as they develop and grow as scientists in the program. Annual submission of the IDP provides the student and advisor the opportunity to revisit the student's goals, and make changes to the student's path as needed. The form will be submitted by the student to the student's advisor. The student and advisor will then meet to review the student's career goals and the progress they are making towards them. The final plan will be approved by the advisor, and **must be submitted to the Biomedical Sciences Program office BEFORE December 15 annually**.

RESEARCH GRADING FORM

This form, which is filled out at the beginning and end of the semester, will enable the mentor and student to set goals and determine if they have been met over the course of a semester. The completed form should be submitted at the end of each semester starting with the summer semester of year 1. Additionally, this record of research performance will help the Guidance Committee in their discussion of the student's research. Recently completed forms should be shared with the Guidance Committee.

DOCUMENTED SEMINAR ATTENDANCE

Students are actively encouraged to broaden a wide scientific knowledge base and are required to attend, per year, at least **FIVE (5)** basic science seminars given by faculty-level scientists (Ph.D. or M.D.). Students are required to document attendance by completion of a form that will be submitted to the program office monthly. The forms will be filed in the student's academic record. You can access the seminar attendance form via the LMS resource center.

Students who do not submit forms within 2 weeks of the end of the academic year will be placed on academic warning, and if the evaluations are not submitted 4 weeks after the end of the academic year, they will be placed on academic probation.

ATTENDANCE AT RESEARCH DAY, GRADUATE STUDENT RESEARCH CONFERENCE

To support professional exposure and development, students are required to participate in and/or attend Research Day (mid-October) and Graduate Student Research Conference (Spring) each year they are in the program. Attendance will be documented. **Students**

should attend the entirety of both events. See the Attendance Form in the LMS Resource Center.

Students who do not attend will be put on academic warning. Extenuating circumstances must be approved by the PD. Students may be required to provide supporting documentation for an approved absence.

COURSE EVALUATIONS

Feedback is an essential component of improving the Program and Course content. The opinions of our students are highly valued and influential in directing changes to the program and program courses. **Students are required to submit the appropriate course evaluations for all courses taken**.

Students who do not submit course evaluations within 5 days of the end of a semester will be placed on academic warning, and if the evaluations are not submitted 4 weeks after the end of a semester, they will be placed on academic probation. These actions will become part of the student's permanent academic record. Continued failure to submit course evaluations by the deadline for an additional 2 semesters may result in further disciplinary action, up to and including dismissal from the program.

PROGRESSION THROUGH THE CURRICULUM

YEAR 1: BASIC BIOMEDICAL SCIENCES AND RESEARCH SKILLS

THE FOCUS OF YEAR ONE is to impart foundational knowledge, develop general research skills, expose students to develop an understanding of scientific journals, effective scientific communication, provide exposure to research experiences and start developing critical thinking.

Students will be assigned a faculty mentor for the first TEN (10) weeks. Additionally, students will have access to a group of faculty counselors and student peers following matriculation. Faculty counselors are available to advise and support students in their integration to EVMS and the Biomedical Sciences program.

During the first year, the student must satisfactorily complete all required courses, including **two** laboratory rotations. Laboratory rotations are opportunities to explore different research areas and research environments. Students are highly encouraged to build their portfolio and exposure, and should complete rotations in different laboratories.

Laboratory research rotations are for a period of 8 weeks and require **at least** 88 hours of lab time (**11-20 hours/week**). The rotations must be completed by the end of the first year.

Up to 6 credits of graduate courses taken at other institutions can be transferred into the curriculum for each student at the discretion of the PD.

Before the start of Year 2: Prepare for mentored research.

Before June 1st: Identify an Advisor.
Before June 15th: Identify Guidance Committee Chair and members.
Before July 1st: Submit completed Guidance Committee form to the program office.

HOURS IN THE RESEARCH LABORATORY

Research is a full-time job and dedication by students is expected to maximize their return. Students are required to be in their research laboratories full-time and should work a **minimum of 40 hours per week**, minus required class attendance hours. To make optimal progress in their research, **most students will find it necessary to work longer hours, including evening and/or weekends**.

YEAR 2: SPECIALIZATION AND DEVELOPMENT OF APPLIED MENTORED RESEARCH

THE FOCUS OF YEAR TWO is to build practical experience onto the foundations established in year one. Students are provided the opportunity to apply their knowledge to a specialized research project and to take a theoretical project through stages associated with project

development. Students are provided opportunities to present data and interact in a discussive format with diverse faculty. Consideration is provided for future career pathway options.

During year 2, the student will satisfactorily complete the remaining required courses, as well as the **elective courses** as needed.

BEFORE October 15 (Fall year 2): The student will meet with their Guidance Committee. The student will work with their Guidance Committee to determine which thesis track is appropriate (thesis/non-thesis).

BEFORE November 1: The Thesis/Non-Thesis Option Selection Form and minutes from the first Guidance Committee meeting should be submitted to the program office. This form should be considered a binding commitment to the thesis or non-thesis track.

THESIS VS NON-THESIS

During the first year, students will discuss with their initial Guidance Committee and faculty counselors the process of identifying an advisor (PI), Master's Guidance Committee and decision on track choice (thesis vs non-thesis).

As a guide, students who intend to continue in an academic and/or research area are highly encouraged to pursue the thesis option. The thesis provides students with a competitive advantage for their next career step. Production and defense of a thesis allows demonstration of critical thinking, project management, research development, trouble shooting, and resilience. This may be less apparent in the non-thesis track.

Both the thesis and non-thesis tracks require the following elements (details for each differ):

- production of a written document, and
- oral presentation to a research group.

Thesis	Non-Thesis
Typical completion: summer semester (yr 2)	Typical completion: spring semester (yr 2)
Original hypothesis-driven research	Project or skills-focused research
Generation of written thesis	Generation of written research report
Oral presentation to wide audience, Q&A	Oral presentation to department, Q&A
Oral defense of thesis to committee	Oral presentation to committee, Q&A

THESIS OPTION

SUMMARY OF THESIS OPTION

Students are required to write up a formal research proposal by **February of their spring semester in year 2.** At the conclusion of their thesis research, the student will **write and defend a thesis**.

Students must present a full-length **public defense (up to 60 minutes with questions),** followed by **a meeting with their committee** to defend (answer questions on) their research. Completion of the program can be at the end of the spring semester, or during the summer semester.

The **thesis and defense** must be acceptable to the committee and advisor. Both must certify completion of the requirements on the appropriate form(s). The student must fulfill timely completion of all the requirements for award of a degree. If a student has not completed all requirements to graduate prior to the start of the next semester, they will be advised to register for 1 credit of Thesis (BP799) to avoid the risk of failure.

Snapshot of key dates:

Before June 1 (year 1)	Select an advisor (PI)
Before June 15 (year 1)	Select Guidance Committee members
Before July 1 (year 1)	Submit a signed 'Guidance Committee Selection' form to the program office
Before October 15 (year 2)	Meet Guidance Committee
Before November 1 (year 2)	Decide thesis/non-thesis track
Before February 1 (year 2)	Submit thesis proposal to Guidance Committee
Before February 15 (year 2)	Defend thesis proposal to the Guidance Committee
Before March 1 (year 2)	Submit signed thesis proposal forms to the program office
July – August (year 2)	Anticipated period to complete thesis defense

Students should register for 1 credit of Thesis (**BP799**) if they have not submitted their thesis to the program office and their Guidance Committee 30 days prior to the start of a new semester. All requirement for degree completion must be achieved within three (3) months of a successful defense. If the student does not follow this timeline, no degree will be granted.

GUIDANCE COMMITTEE: THESIS OPTION

Overview: The Guidance Committee must be set up **BEFORE June 15** in the summer of year 1, following selection of a research advisor. The Guidance Committee form is to be signed by the committee members and submitted to the PD **BEFORE July 1**. The Guidance Committee must be composed of at least four Biomedical Sciences program faculty members. Additional members may be added who are not program faculty, but who have special expertise of value for the thesis research. These members must have an appointment at an academic institution. **The student's advisor must be part of the Guidance Committee, but cannot be the chair of the student's guidance committee.**

DEVELOPING A MASTER'S THESIS COMMITTEE

The student should work closely with their thesis advisor (PI) to establish the composition of their Thesis Committee. The committee will have a minimum of four (4) members and must include:

- The Thesis Advisor (PI), **but this person may not serve as Chair.**
- The Committee Chair usually will be at the academic rank of Associate Professor or higher, and must be a member of Biomedical Sciences graduate faculty. The Chair should not be a close collaborator with student's advisor.
- The committee members must include at least two other members of Biomedical Sciences graduate program faculty.
- Individuals with current academic appointments at Associate Professor and above from recognized academic institutes may be added to the committee if they offer a particular expertise.

Once the committee members are selected, they must be approved by the Biomedical Sciences PD by submitting the *Initial Guidance Committee Meeting Form*.

All committee members should have expertise enabling them to provide critical and helpful advice in an area of the thesis research. Committee members must also be willing to read and evaluate the thesis in a timely manner.

The committee should serve the needs of the student. As projects proceed in new directions, perspective changes, or the student feels the committee is not meeting their needs, the composition of the committee can be changed without embarrassment to the student in consultation with their Master's thesis advisor and the PD.

The Guidance Committee shall counsel the student during the research and thesis phase of their training. Additionally, the Guidance Committee shall provide career counseling to help the student achieve career goals.

The Guidance Committee will:

1. Determine the student's research interest.
    a. The student, the Chair of the Guidance Committee, and the Research Advisor will identify a feasible project in an area of mutual interest.
    b. A brief project description (e.g., thesis proposal outline/specific aims) should be presented orally to the Guidance Committee for comment, modification and approval **BEFORE October 15** in the fall Semester of Year 2.
2. Counsel the student in the preparation of the thesis proposal.
    a. The Guidance Committee will guide thesis students by constructive review in developing a detailed thesis research proposal. The proposal must be provided to the Committee **BEFORE** February 1 of year 2, and will consist of:
        i. A complete **one-page specific aims section**, including **rationale**, **hypothesis**

to be tested, **aims**, and a general statement of **approaches** to be used;

ii. An outline of the **experimental plan**, including the experiments to be done for each aim and specific techniques to be used in the experiments.

b. The student will deliver an **oral slide presentation** of the background, aims and research plan of their project to their committee **BEFORE** February 15 of year 2.

c. The student will submit the following to the program office **BEFORE** MARCH 1:

i. The final approved proposal outline, as described above;

ii. The completed required forms signed by all committee members.

d. The student's proposal and oral presentation must both be acceptable to the Guidance Committee. The thesis research must be original and creative, and demonstrate an understanding of the scientific method.

3. Counsel and aid the student during the thesis research phase through committee meetings.

a. The Guidance Committee will guide the student during their thesis research phase and provide advice to overcome challenges. However, the work is to be the student's own, and the research must be on an original and significant problem.

b. At each committee meeting, the student should be prepared to make an oral presentation of progress and discuss any significant challenges that have arisen, to obtain constructive criticism from the committee. At the conclusion of each meeting, the committee may excuse the student to discuss the acceptability of the student's progress.

c. The Guidance Committee will utilize the research grading forms to assess the student's progress. Students should be prepared to answer the following questions when meeting with their committee:

i. What are your major research accomplishments since the last committee meeting?

ii. What are the major challenges you face in your project, and how do you plan to overcome them?

4. Ensure that the student is making satisfactory progress on their thesis project.

a. A student whose research progress is found to be unsatisfactory (by a majority of the committee) shall be placed on academic probation.

b. If progress is unsatisfactory, a period of between 3 months to one semester will be provided to address concerns raised and documented. Concluding this probationary period, the committee will meet with the student to assess progress.

c. If progress remains unsatisfactory, the Committee Chair will notify the PD. The student may be dismissed from the program unless the student successfully appeals the decision, highlighting extraordinary circumstances, to the PD.

5. Counsel the student during the thesis writing and presentation phase. *Before completing*

the Program, the student is required to register for at least 1 credit of Thesis, ***BP799.***

a. After the thesis research is completed, and with the approval of their committee, the student will write a thesis. The student should follow the current guidelines for writing theses (see Appendix E). The thesis MUST be reviewed and critiqued by the advisor (**primarily**) and the Guidance Committee (secondarily). Students should respond to this feedback whilst ensuring that the final research report is their own work**.** The thesis should be submitted to committee members **at least three weeks before the defense.** The thesis should be in a near-final form prior to scheduling an oral defense.

b. The thesis must also be submitted to the program office to check formatting and to the TurnItIn Program within this time frame.

c. The final version of the thesis is submitted to the PD and the program office for approval following all corrections required after the oral thesis defense. This must occur within TWO (2) months of the defense. All requirements for degree completion must be achieved within THREE (3) months of a successful defense. If the student does not follow this timeline, no degree will be granted.

6. Administer the thesis defense.

a. The aim of the defense is to explore, with the candidate, the methodological and substantive contributions of the thesis. The time, date, and place of the thesis defense will be provided by the student to the program office **AT LEAST three (3) weeks before the defense**.

b. The program coordinator will notify program faculty, students, and administrators at EVMS of the date of the defense at least two (2) weeks before the defense. The location may be chosen by the student and their advisor, and should have sufficient room for at least 20 people to attend. The program coordinator can assist in finding a room.

c. The defense will consist of an oral presentation of the student's research (40-60 minutes) followed by a question period from the audience. It is open to the entire EVMS community. At the conclusion of audience questions, the student and committee will meet for further detailed examination and questioning of the thesis work. The student is then excused and the committee members discuss the student's performance. If more than one committee member votes to fail the student, the result will be a failure. The student is immediately informed of the decision (which may include a request for modifications to the written thesis).

d. In case of failure, the committee may recommend that the student be permitted a re-examination no earlier than three months after the first defense or the committee may recommend that the student be dismissed from the program.

e. Upon approval of the thesis and its defense, the advisor and Guidance Committee are responsible for giving the final approval for any requested modifications to the written thesis.

f. The result will be reported to the PD using the appropriate form within 10 days.

Please see the Canvas Resource Center for these forms.

MEETINGS OF MASTER'S THESIS COMMITTEE

The student is responsible for organizing and arranging all meetings of their committee.

The program will not process paperwork for the enrollment of students in courses if deadlines have not been met (unless the PD has approved an exception).

Either the student or committee may initiate more frequent meetings, as needed. Ad hoc meetings may be held, when necessary, without all committee members present.

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NON-THESIS OPTION

SUMMARY OF NON-THESIS OPTION

Students will be required to write up a formal summary of their research (**research report**) that includes detailed methodology and explanations of the data gathered.

Students must present an **oral presentation (30-60 minutes in length),** followed by a **meeting with their committee** to answer questions on their research before completion of the program (usually at the end of spring semester, beginning of summer semester), and submit their **laboratory notebooks to their advisors**.

The **research report**, presentation, and notebook must be acceptable to the committee and advisor, who must certify completion of these requirements on the appropriate form in order for the student to fulfill all the requirements for degree completion. If a student has not completed these requirements 30 days prior to the start of the next semester, they will be required to register for 1 credit of research.

DEVELOPING A MASTER'S COMMITTEE (NON-THESIS)

The student should work closely with their advisor (PI) to establish the composition of their committee. The committee will have a minimum of three (3) members and must include:

- The Advisor (PI), **but this person may not serve as Chair.**
- The Committee Chair will usually be at the academic rank of Associate Professor or higher, and must be a member of Biomedical Sciences graduate faculty. The Chair should not be a close collaborator with student's advisor.
- The Committee members must include at least ONE other member of Biomedical Sciences graduate program faculty.
- Individuals with current academic appointments at the rank of Associate Professor or higher from recognized academic institutes may be added to the committee if they offer a particular expertise.

Once the committee members are selected, they must be approved by the Biomedical Sciences PD by submitting the *Initial Guidance Committee Meeting Form* *(in Student resource center).*

All committee members should have expertise that allows them to provide critical and helpful advice in the area of the students research. Committee members must also be willing to read and evaluate the research report.

The committee should serve the needs of the student. As projects proceed in new directions, perspective changes, or the student feels the committee is not meeting their needs, the composition of the committee can be changed without embarrassment by the student in consultation with their advisor and the PD.

Snapshot of key dates:

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Before June 1 (year 1)	Select an advisor (PI)
Before June 15 (year 1)	Select Guidance Committee members
Before July 1 (year 1)	Submit signed 'Initial Guidance Committee Selection' form to program office
Before October 15 (year 2)	Meet Guidance Committee
Before November 1 (year 2)	Decide thesis/non-thesis track
March - June (year 2)	Submit forms associated with research project to the program office
July – August (year 2)	Anticipated period to complete Research Report

MASTER'S GUIDANCE COMMITTEE: NON-THESIS OPTION

This Committee is to be set up for each student **BEFORE June 15** in the summer of year 1, following selection of a research advisor. The Guidance Committee form is to be signed by the committee members and submitted to the PD **BEFORE July 1**. The Guidance Committee must be composed of at least four Biomedical Sciences program faculty members. Additional members may be added who are not program faculty, but who have special expertise or value for the research proposal. All members must have an appointment at an academic institution. The student should meet with their committee **BEFORE October 15** in the fall semester of year 2 to discuss their project.

The Guidance Committee shall counsel the student during the research phase of their training. Additionally, the Guidance Committee shall provide career counseling to help the student achieve career goals.

The committee will:

1. Determine the student's research interest.
    a. The student and the Chair of the Guidance Committee and research advisor will identify a feasible project in an area of mutual interest.
    b. A brief project description should be presented orally to the Guidance Committee for comment, modification and approval BEFORE October 15 in the fall semester of year 2.
2. Counsel and aid the student during the research phase through committee meetings.
    a. The Guidance Committee will guide the student during their research phase and provide advice to overcome challenges. However, the work is to be the student's own and the research must be on an original and significant problem.
    b. The Guidance Committee will utilize the research grading forms to assess the student's progress. Students should be prepared to answer the following questions when meeting with their committee:
        i. What are your major research accomplishments since the last committee meeting?
        ii. What are the major challenges you face in your project, and how do you plan to overcome them?
3. Ensure that the student is making satisfactory progress on the research project. A

student whose research progress is found to be unsatisfactory (by a majority of the committee) shall be placed on academic probation.

   a. If progress is unsatisfactory, a period of between 3 months to one semester will be provided to address concerns raised and documented. Concluding this probationary period, the committee will meet with the student to assess progress.
   b. If progress remains unsatisfactory, the Committee Chair will notify the PD. The student may be dismissed from the program unless the student successfully appeals the decision, highlighting extraordinary circumstances, to the PD.

4. Counsel the student during the research report writing and presentation phase.
   a. **Although the research report is NOT a thesis, the formatting required is the same as that used for a data chapter in a thesis**. The research report should be reviewed and critiqued by the advisor (primarily) and the Guidance Committee (secondarily). Students should respond to this feedback while maintaining that the final research report is their own work.
   b. The final research report submission should be provided to committee members three weeks before the oral presentation/**final** Committee Meeting. The **research report** should be in a near-final form prior to scheduling the oral presentation and **final** Committee meeting.
   c. The **research report** must also be submitted to the program office to check formatting and to the TurnItIn Program within this time.
5. Attend the **final Guidance Committee meeting**. The Guidance Committee will discuss the student's research report, notebooks, and oral presentation to determine whether or not the student has met all the requirements for the M.S. degree. The Guidance Committee will then make their recommendations on the **Result of MS Requirement** form.
   a. The final version of the research report is submitted to the PD and the program office for approval following any corrections required after the **final** Committee Meeting within **one** (1) month.

ALL GRADUATION REQUIREMENTS FOR A NON-THESIS DEGREE MUST BE COMPLETE WITHIN 2 MONTHS OF A SUCCESSFUL DEFENSE.

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APPENDICES FOR BIOMEDICAL RESEARCH MASTER'S STUDENTS

APPENDIX A: STUDENT CHECKLIST FOR RESEARCH MASTER'S STUDENTS:

FALL SEMESTER – YEAR 1

- ☐ Acknowledge receipt and reading of student handbook.
- ☐ Complete all training requirements.
- ☐ As needed, meet with the initial Guidance Committee to determine if any required courses can be waived because of prior equivalent graduate course work.
- ☐ **September:** Set up laboratory rotations.

SPRING SEMESTER – YEAR 1

- ☐ Meet with initial Guidance Committee to discuss lab rotations and selection of an advisor.
- ☐ Continue courses and complete at least two laboratory rotations.

SUMMER SEMESTER – YEAR 1

- ☐ **BEFORE June 1**: Choose **Faculty Advisor.**
- ☐ **BEFORE June 15**: Set up Guidance Committee; seek guidance from committee members on year 2 courses.
- ☐ **BEFORE July 1:** Submit committee form to program office.

FALL AND SPRING SEMESTER – YEAR 2

- ☐ **BEFORE October 15:** Meet with your committee in fall semester to discuss project.
- ☐ **BEFORE November 1**: Submit committee meeting form and minutes to program office within 2 weeks of meeting; submit choice of **thesis/non-thesis option** (this should be considered as binding!).
- ☐ **January**: Application for graduation – January prior to May graduation. To participate in the ceremony, students are expected to complete requirements by August 15.
- ☐ **BEFORE March 1- Thesis Option**: Defense, revision and approval of **thesis proposal.**
- ☐ **Non-Thesis Option**: Chalk talk or seminar sponsored by the student's department.
- ☐ **Non-Thesis Option**: Complete oral presentation to committee, submit research report, and submit lab notebooks to advisor. All components must be deemed acceptable by the committee to meet degree requirements! *Submit signed form and minutes to Program Office*

SUMMER SEMESTER TO END OF PROGRAM

- ☐ **Non-Thesis Option:** If not already achieved, complete research and written report.
- ☐ **Thesis Option:** Complete research and thesis. Submit thesis to committee 3 weeks before defense
- ☐ Set up thesis defense and inform program coordinator 3 weeks in advance.
- ☐ **Thesis Defense/Oral Presentation:** *Submit signed form to program coordinator within 10 days.*
- ☐ Final approved version of thesis/research report must be **approved for formatting** by program director and coordinator. The **SafeAssign report** must also be approved.

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☐ The original thesis and one or more copies are submitted for binding. **Submit thesis approval form**

Final steps both thesis and non-thesis option:

☐ **Exit interview** with PD (***Required***).
☐ Approval for award of the Master's degree by PD.
☐ Distribution of final bound copies of thesis by student and program coordinator.

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APPENDIX B: GUIDANCE COMMITTEES WRITTEN & ORAL PRESENTATION REQUIREMENTS

FIRST YEAR ADVISOR

Students will be assigned a Faculty Mentor for the first TEN (10) weeks.

The PD, and/or faculty counselors, will be available to provide advisory support for first year students.

FORMATIVE GUIDANCE COMMITTEE

The Formative Guidance Committee consists of the PD, Faculty Mentor and faculty counselors identified by the PD. The Formative Guidance Committee members are available to counsel first-year students about required and elective coursework and choosing an advisor for their research.

The roles of the Initial Guidance Committee include:

1. *Determine the student's objectives in the program and career goals.*

   The student's objectives in the program and goals upon graduation are related. It is essential to know these goals to schedule appropriate coursework and to give guidance concerning research and training opportunities at EVMS.

2. *Provide guidance to satisfy the student's goals while meeting all the program requirements.*

   In the spring semester of year 1, the Initial Guidance Committee will meet with the student to review the student's goals and assist the student in selecting the appropriate option (thesis or non-thesis) and research advisor.

3. *Counsel the student in the early phases of research (as needed).*

   The program encourages students to begin exploring their research interests at the earliest opportunity to facilitate selection of a research mentor and thesis project. The student should utilize the Initial Guidance Committee for counsel on research activities prior to choosing an advisor.

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APPENDIX C: STUDENT RESPONSIBILITIES

Organize all committee meetings before the deadline. It is recommended that students demonstrate professionalism and respect by organizing meetings several weeks in advance and not assuming an immediate availability of the faculty committee members. Please be respectful to faculty members' many commitments. Students should provide written material **at least two** (2) weeks prior to any expectation of feedback.

For each meeting, the student is responsible for preparing:

- a written summary outlining the thesis project
- progress on this project
- objectives for completion of the thesis, which should include a timetable.

The summary should make clear what would be necessary to constitute an acceptable Master's thesis, in the student's view. A copy of this summary is to be given to each member of the thesis committee and to the graduate program office. Students should present and critically discuss experiments (successful or unsuccessful) at each meeting. Students should be current on the literature in relevant areas and should be prepared to discuss broader issues of relevance and importance as well as experimental data.

STUDENT OBLIGATIONS FOR COMMITTEE MEETINGS -- THESIS OPTION

The student shall:

1. Be responsible for working with their Guidance Committee to schedule committee meetings in a timely manner.
2. Arrive at their committee meetings well prepared.
3. Record minutes of their meetings, to be approved by the advisor. These minutes shall be detailed and describe the discussion and decisions made by the committee, and must be signed by both the student and the advisor. The form **Record of Guidance Committee Meeting** and minutes must be submitted to the program office within 2 weeks of the meeting.
4. Coordinate with the Committee Chair to provide the Guidance Committee with copies of the appropriate meeting forms. **Forms are available in the Biomedical Sciences Resource Center.**
5. Acquire PD approval to make changes to their Guidance Committee by submitting the **Request for Change in Guidance Committee form**.
6. Submit the **thesis proposal** to the Guidance Committee as follows:
   a. The proposal should be provided to the committee **BEFORE February 1** of year 2,

and will consist of:

i. A complete **one-page specific aims section**, including **rationale**, **hypothesis to be tested**, **aims**, and a general statement of **approaches** to be used;

ii. An outline of the **experimental plan**, including the experiments to be done for each aim and specific techniques to be used in the experiments.

b. The student will make an **oral slide presentation** of the background, aims and research plan of their project to their committee **BEFORE February 15** of year 2.

c. The student will submit to the program office **BEFORE March 1**:

i. The **final approved** proposal outline;

ii. The completed forms signed by all committee members.

d. The student's proposal and oral presentation must both be acceptable to meet this requirement. The thesis research must be original and creative, and demonstrate an understanding of the scientific method. Before completing the program, the student must have completed at least 1 credit of Thesis, **BP799.**

7. Prior to the FINAL committee meeting, the student will give a formal oral presentation to the program faculty, student and staff.

a. This should be scheduled such that all members of the Guidance Committee are able to attend.

b. The presentation should be professional in nature.

c. The presentation shall be followed by the **thesis defense**. Generally, these should all occur on the same day, as is traditional for a dissertation defense.

d. The student will have all members of the Guidance Committee sign the **Result of MS Requirement** form, and submit to the program office.

e. Once all edits to the thesis are completed, students will also complete and submit the **Thesis Acceptance and Processing** form.

i. Submit the thesis to the Biomedical Sciences program office for formatting review, preferably before the defense.

ii. Submit the final version in PDF format after its approval for archiving.

iii. Submit the thesis for binding. A receipt must be returned to the program office before the student can be awarded their degree. Bound copies will be distributed to the EVMS library and research advisor, as well as the student, if the student chose to have a copy bound for themselves.

8. In the semester that the student defends their **thesis** :

a. The student must be registered for a minimum of one credit of Thesis, BP799.

b. The M.S. degree will be awarded after all requirements are completed.

c. Students who wish to participate in EVMS graduation ceremonies in May must apply in January.

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Students may participate in commencement if they are expected to complete requirements by August. The degree will be awarded after completion of all requirements is certified by the PD.

STUDENT OBLIGATIONS FOR COMMITTEE MEETINGS -- NON-THESIS OPTION

The student shall:

1. Be responsible for working with their Guidance Committee to schedule committee meetings in a timely manner.
2. Arrive at their committee meetings well prepared.
3. Record minutes of their meetings, to be approved by the advisor. These minutes shall be detailed and describe the discussion and decisions made by the committee, and must be signed by both the student and the advisor. The **Record of Guidance Committee Meeting** form and minutes must be submitted to the program office within two (2) weeks of the meeting.
4. Coordinate with the Committee Chair to provide the Guidance Committee with copies of the appropriate meeting forms. **Forms are available in the Biomedical Sciences Resource Center.**
5. Procure PD approval to make changes to their Guidance Committee by submitting the **Request for Change in Guidance Committee** form.
6. Submit the **research report** to the Guidance Committee as follows:
    a. The **research report** must be submitted to the committee 3 weeks prior to the scheduled oral presentation and final committee meeting.
    b. The **research report** should be formatted in a manner similar to that for the thesis "data chapter".
    c. The **research report** should include an appropriate **introduction**, **rationale**, detailed **methods** used, and a detailed description of the **results.** The presentation should be summarized in an appropriate **discussion/conclusion** section. This report may be formatted as an **original article** for a relevant journal in the student's field of research.
    d. References should be formatted according to the guidelines for the **thesis**, and include all authors' names, full journal name, volume, and inclusive page numbers.
7. Prior to the FINAL committee meeting, the student will give an open chalk talk presentation within their department/research group.
    a. This should be scheduled such that all members of the Guidance Committee are able to attend.
    b. The presentation should be professional in nature.

c. The presentation shall be followed by the FINAL committee meeting. Generally, these should all occur on the same day, as is traditional for a PhD dissertation defense.

d. The student will have all members of the Guidance Committee sign the **Result of MS Requirement** form, and submit to the program office.

9. In the semester that the student presents their **research report**:

a. All requirements must be completed for the M.S. degree to be awarded.

b. Students who wish to participate in EVMS graduation ceremonies in May must apply in January.

Students may participate in commencement if they are expected to complete requirements by August. The degree will be awarded after completion of all requirements is certified by the PD.

APPENDIX D: RESPONSIBILITIES FOR THE STUDENT ADVISOR (PI), GUIDANCE COMMITTEE GUIDANCE COMMITTEE CHAIR

The following sections (I- III) outline the relative responsibilities assigned to the advisor (PI) for the student, Committee member, and Committee Chair. This is provided for the information of the student and applies to both thesis track or non-thesis track options.

I. Responsibilities of the Advisor (PI)

The thesis advisor (PI) should provide a verbal or written preliminary evaluation to the student of the adequacy of the written summary prepared for each committee meeting. The advisor should provide both the student and committee with their evaluation of the student's progress and prospects. The PI is expected to be the primary reviewer of the student's written thesis and to help the student in preparation of their oral defense.

II. Responsibilities of the Committee

The Committee should provide candid advice to both the student and advisor with the goal of facilitating progress towards the best possible Master's thesis, scientific development of the student, and a timely progression toward their thesis defense. The committee should explicitly decide whether the summary of the Master's thesis project describes goals adequate for award of a Masters' degree and communicate this decision with any modifications or reservations to the student and advisor.

The committee should consider at each meeting:

- project strengths and weaknesses.
- the realism of the proposed timetable.
- the student's familiarity with the relevant literature.
- student's experimental strengths and weaknesses.
- the adequacy of advice provided to the student by the thesis advisor and others.

The committee should provide advice in as positive a manner as possible to provide support to the student in what is a very time-sensitive undertaking.

The committee has the responsibility, particularly for thesis projects that may be overly ambitious, to set deadlines for obtaining significant results that would allow timely graduation. Between meetings, the committee members should be willing to meet with the student for informal advice and discussions.

The committee members, excluding the thesis advisor, have the responsibility at each meeting to meet **separately** with the thesis advisor and with the student. This can occur at the beginning and/or end of the meeting. The purpose of these meetings is to hold

confidential discussions on any subjects relevant for the student's progress and welfare.

III. Responsibilities of the Committee Chair

The Committee Chair should prepare a brief written report on each meeting for submission to the graduate Biomedical Sciences program office. This report will include among other things, a statement on the timetable and the adequacy of the student's statement of proposed work necessary for an acceptable Master's thesis. The Chair should meet separately with the student and advisor after each meeting to discuss this report and other aspects of the meeting. While advice should be provided in as positive a manner as possible, the Chair has the responsibility of identifying potential and actual problems, and ensuring that candid advice on the project and/or the student's progress and prospects is conveyed to the student and the program.

The Chair has the responsibility to ensure that any concerns about the student's interests or welfare are conveyed to the Biomedical Sciences PD and Executive Committee. The Chair should be acquainted with services provided by the medical school and the graduate program to enhance student welfare, and should facilitate student use of these services when appropriate.

For clarity, responsibilities stated in this appendix are the same for thesis and non-thesis tracks.

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APPENDIX E: FORMATTING AND SUBMISSION OF THESIS AND RESEARCH REPORT

FORMAT OF THESIS

The thesis will follow the format in the current guide to theses and dissertations, which may be obtained from the PD or program office.

STEPS TO FINALIZING THESIS

1. The **thesis** and the TurnItIn software report will be submitted to the Biomedical Sciences office after the committee has approved the thesis. The program coordinator will review the thesis for formatting and the student will be given a list of items that need to be corrected to conform to the formatting standards (see above). After the corrections are made, the document will be approved by the PD.
2. The student will submit the original of their thesis, plus 1-3 copies on bond paper.
    a. 1 copy for EVMS Library
    b. 1 copy for advisor
    c. 1-2 copies to student (Optional)
3. The student will take the copies to the bindery. After the fees have been paid, the student will bring the receipt for reimbursement to the program coordinator. The student's degree will be then awarded based on the date that all requirements were completed.
4. The student is responsible for obtaining final signatures from committee members.
5. M.S. theses must also be submitted to the Biomedical Sciences coordinator as **PDF files of the final approved and correctly formatted version**. The PDF file version will be archived in the program office. The document is legally copyrighted without registration.
6. The student must deliver bound copies to the research advisor and the program coordinator.

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APPENDIX F: ADMINISTRATION AND PROGRAM FACULTY

EXECUTIVE COMMITTEE

To assist the PD and ensure adequate input by participating faculty members at EVMS, the Program's Executive Committee sets program policy. The committee consists of the PD, Chair of the Curriculum Committee, and Chair of the Admissions Committee. The PD calls meetings as needed, records and distributes minutes and an agenda for each meeting, and will serve as Chair. The Executive Committee will approve and be responsible for program faculty issues and policies.

BIOMEDICAL SCIENCES FACULTY

Medical Campus

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