Graduate Student Handbook

Master of Science Clinical and Translational Science

West Virginia University Robert C. Byrd Health Science Center School of Medicine

West Virginia Clinical and Translational Science Institute http://wvctsi.org/

Graduate Program Director:

Joan Lakoski, PhD joan.lakoski@hsc.wvu.edu

Programmatic Support:

Jodie Saunders jodie.saunders@hsc.wvu.edu

Updated August 2023

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I. GOALS AND OBJECTIVES OF THE PROGRAM

The M.S. program in Clinical and Translational Science (CTS) provides a strong foundation in clinical and translational science to assist students in achieving their occupational objective. This program provides the student mentored research training with required and elective courses that complement research needs and interests of the student. The degree emphasizes a research project(s) that can be clinical and/or translational to fully engage students in the research process from concept and project development through preparation and submission of a proposal for external funding. The degree culminates with a written grant proposal defended orally to three graduate faculty members.

Students will:

- Apply theories, methodologies, and knowledge to address questions in specific clinical and/or translational science
- Design and conduct research in clinical and/or translational science
- Engage with other students, faculty, and mentors to demonstrate teamwork
- Develop scientific writing skills and knowledge to develop a grant proposal

To achieve these objectives, the proposed coursework provides core foundation knowledge common to first-year curricula in clinical and translational Ph.D. programs. In addition, the M.S. program provides research training and preparation that can assist the new or early-stage investigator in organizing a research team for present and future collaborations. Submission of a grant proposal is a requirement for regular status as a graduate faculty member and having grant funding enhances one's portfolio in a research environment of the academic institution.

In addition to the information contained in this handbook, the student is urged to also consult the current Graduate School Catalog for additional information regarding the requirements of the Graduate Council at West Virginia University.

II. ADMISSION INTO THE M.S. PROGRAM

A. Traditional admissions

The M.S. in Clinical and Translational Science is targeted to faculty, medical residents, fellows, clinicians, and scientists with health-related professional degrees, those seeking a dual degree (such as MD/MS or PhD/MS), or health professional students. Prospective students must have an earned bachelor's degree from an accredited university with an overall GPA of at least 3.0.

Applicants must complete the WVU Graduate Admissions (Hobson's) online application and submit the following:

- 1. official transcripts from all undergraduate and graduate institutions attended
- 2. official GRE scores (waived for individuals with MCAT and/or USMLE step 2 scores)
- 3. TOEFL scores, if applicable (may be waived in some circumstances)
- personal statement outlining past accomplishments (with an emphasis on research, future research interests, and a clear career vision of how becoming a clinical/translational researcher is part of a long-term career plan) and a list of potential research mentors
- 5. three letters of recommendation that evaluate potential as a clinician scientist
- 6. a Curriculum Vitae or resume
- 7. For faculty applicants, a support letter from the Department Chairperson is required stating how research activities integrate with other responsibilities
- 8. For clinicians, support letter from the Department Chairperson, Division Head or Program Director (if applicable) are required.

Under certain circumstances, the admissions committee may waive the GPA requirement allowing admission to the program with Provisional status. A list of provisions will be outlined that must be met for a student to achieve Regular graduate status which is required to complete the program.

Applicants will be evaluated for acceptance into this program by an Admissions Committee and admission occurs for entry in fall, spring and summer semesters.

B. Stipend and tuition support

Stipend support for M.S. in CTS students is not provided by the office of Research and Graduate Education or WVCTSI. The faculty mentor may choose to provide stipend or project support.

West Virginia University full-time faculty and staff who have regular full-time appointments, qualify for benefits, and are admitted to a WVU graduate of first professional program are eligible for Employee Graduate Tuition Waivers of a maximum of 6 credit hours per semester. More information can be found at:https://graduateeducation.wvu.edu/faculty-and-staff/tuition-waivers/employee-tuition-waivers

III. PROGRAM ACTIVITIES

At the time of entry, students will complete an individual development plan (IDP) that will be used to guide their professional development. The student will review the IDP with the Program Director and discuss relevant coursework and activities outlining a Plan of Study. The IDP is updated and reviewed annually. The degree is designed to be completed in 1 year full-time or 2 years part-time, but remains flexible.

A. Core Coursework:

Completion of 34 credit hours is required and the typical course schedule is shown below. Students in the 1-year fast track can complete the degree in three semesters (full-time). Students in the 2-year track (clinicians, residents, fellows, and faculty/staff) can complete the degree in six semesters. All students take the same core course courses (18 credit hours). In depth knowledge in a specialized area is achieved by taking two, 3-credit hour electives of the student's and advisor's choice. The student has to complete nine credit hours of research and one hour of grant preparation the semester of graduation.

| 1-Year Fast Track (Full-Time) | | | | |
|--|----------|------------------|--|--|
| Courses Code | | | | |
| Fall Semester | | | | |
| Applied Biostatistics | BIOS 601 | 4 | | |
| Clinical Research: Ethics and Regulatory Aspects | CTS 610 | 2 | | |
| Principles of Clinical Trials | EPID 625 | 3 | | |
| Program-specific Elective | 3 | 3 | | |
| Research | CTS 697 | 1-4 ² | | |
| Spring Semester | | | | |
| EPID for PH Practice | PUBH 511 | 3 | | |
| Scientific Integrity | CTS 600 | 1 | | |
| Program-specific Elective | 3 | 3 | | |
| Program-specific Elective | 3 | 3 | | |
| Research | CTS 697 | 1-5 ² | | |
| Summer | | | | |
| Scientific Manuscript Writing and Publishing | CTS 620 | 2 | | |
| Research | CTS 697 | 1-3 ² | | |
| Independent Study/Grant Proposal Preparation | CTS 695 | 1 | | |

¹Offered every other year, on off years SBHS 615 or HPML 601 can be substituted

² To be a full time student, total credits for the semester should be at least 9 and for the summer should be at least ³Elective courses should complement the student's choice of project and area of interest. This selection is made with the advice of the student's advisor.

| 2-Year Track (Part-Time) | | | |
|--|----------|---------|--|
| Courses | Code | Credits | |
| | | | |
| Fall Semester | | | |
| Applied Biostatistics | BIOS 601 | 4 | |
| Clinical Research: Ethics and Regulatory Aspects | CTS 610 | 2 | |
| Spring Semester | | | |
| EPID for PH Practice | PUBH 511 | 3 | |
| Program-specific Elective | 3 | 3 | |
| Summer Semester | | | |
| Scientific Manuscript Writing and Publishing | CTS 620 | 2 | |

| Research | CTS 697 | 4 |
|--|----------|---|
| Second Year | | |
| Fall Semester | | |
| Principles of Clinical Trials | EPID 625 | 3 |
| Program-specific Elective | 3 | 3 |
| Spring Semester | | |
| Program-specific Elective | 3 | 3 |
| Research | CTS 697 | 2 |
| Scientific Integrity | CTS 600 | 1 |
| Summer Semester | | |
| Research | CTS 697 | 3 |
| Independent Study/Grant Proposal Preparation | CTS 695 | 1 |

Table 2. Potential Elective Courses

T1 & T2 Electives

| Course Titles | Code | Format | Credits |
|---|-----------|-------------|---------|
| Applied Biostatistics 3 | BIOS 604 | Web or live | 3 |
| Data Management and Reporting | BIOS 611 | live | 3 |
| Public Health Statistical Inference 1 | BIOS 612 | live | 3 |
| Principles of Measurement | NSG 730 | Web | 3 |
| Environmental Health | OEHS 601 | live | 3 |
| Occupational Injury Prevention | OEHS 732 | live | 3 |
| Aerosols and Health | OEHS 734 | live | 3 |
| Molecular Diagnosis in Public Health (bioinformatic emphasis) | OEHS 770 | live | 3 |
| Biopharmaceutics and Pharmacokinetics | PHAR 731 | live | 3 |
| Social and Behavioral Theory | SBHS 601 | live | 3 |
| Public Health Research Methods | SBHS 610 | Web or live | 3 |
| Applied Biostatistics 2 | BIOS 603 | Web or live | 3 |
| Applied Linear Models | BIOS 620 | live | 3 |
| Categorical Data | BIOS 621 | live | 3 |
| Statistics in Clinical Trials | BIOS 662 | live | 3 |
| Environmental Health | OEHS 601 | Web | 3 |
| Environmental Practice | OEHS 610 | live | 3 |
| Public Health Toxicology | OEHS 622 | live | 3 |
| Occupational Health | OEHS 691 | live | 3 |
| Public Health Biology | OEHS 691A | live | 3 |
| Immunology/Biotechnology | PHAR 709 | live | 3 |
| Drug Discovery | PHAR 779 | live | 3 |

| Medical Toxicology | PUBH 766 | live | 2 |
|--------------------------------|----------|------|---|
| Social and Behavioral Theory | SBHS 601 | Web | 3 |
| Survey Research Methods | SBHS 660 | Web | 3 |
| Qualitative Research Methods | SBHS 712 | live | 3 |
| Drug Discovery and Development | PHAR 787 | live | |
| Biochemical Pharmacology | PHAR 814 | live | 4 |
| | | | |

T3 & T4 Electives

| Course Titles | Code | Format | Credits |
|--|----------|--------|---------|
| AdvancedPrinciples Epidemiology | EPID 710 | live | 3 |
| Health Economics – Population Health | HPML 610 | live | 3 |
| Pharmacoepidemiology | PHAR 785 | live | 3 |
| Public Health Program Evaluation | SBHS 613 | live | 3 |
| Community-Based Participatory Research Methods | SBHS 614 | Web | 3 |
| Intervention Design | SBHS 615 | live | 3 |
| Culture and Health | NSG 522 | Web | 3 |
| Statistics in Clinical Trials | BIOS 662 | live | 3 |
| Advanced Epidemiologic Theory | EPID 711 | live | 3 |
| Clinical Research Meth/Pract | PUBH 662 | live | 3 |
| Community Assessment | SBHS 611 | live | 3 |
| Advanced Evaluation of Public Health | SBHS 710 | live | 3 |
| Translational Cardiovascular Science | BMS 793 | live | 3 |
| Prevention Intervention | PUBH 621 | live | 3 |
| Quantitative Methods Epidemiology | EPID 712 | live | 3 |

Policy and Leadership Electives

| Credits | Format | Code | Course Titles |
|---------|-------------|----------|--|
| 3 | live | HPML 670 | Policy Analysis – Population Health |
| 3 | Web or live | HPML 601 | Foundations of Health/Policy |
| 3 | live | HPML 622 | Analytic Methods Health Policy/Mgt./Leadership |
| 3 | live | HPML 624 | Policy Tools for Population Health |
| 3 | live | HPML 620 | Public Health Leadership and Management 1 |
| | live | HPML 620 | Public Health Leadership and Management 1 |

| Education Electives | | | |
|------------------------|---------|--------|---------|
| Course Titles | Code | Format | Credits |
| Measurement/Assessment | EDP 610 | | |

| Measurement/Evaluation | EDP 611 | | |
|-------------------------------|----------|-------------|---|
| Introduction to Research | EDP 612 | Web | 3 |
| Statistical Methods 1 | EDP 613 | Web or Live | 3 |
| Statistical Methods 2 | EDP 614 | | |
| Program Evaluation | EDP 617 | | |
| Mixing Research Methodologies | EDP 618 | Web | 3 |
| Survey Research Methods | EDP 619 | | |
| Multi-Level Modeling | EDP 693A | | |
| Qualitative Data Analysis | EDP 693A | | |
| Structural Equation Modeling | EDP 693B | | |
| Quantitative Research Design | EDP 693C | | |
| Data Visualization | EDP 693C | | |
| Social Network Analysis | EDP 693E | live | |

B. Research Credits:

The Masters in Clinical and Translational Science requires the student to plan and conduct research relating to clinical and/or translational medicine or science. This research will be reported in a written grant proposal that will be orally defended before three graduate faculty committee members. Note that the number of credits (9 credit hours) does not necessarily reflect the amount of time to be spent conducting research or writing the proposal. The degree is conferred based on completion of the project and not time in the degree program.

1-Year (Full-time) Research Plan: By the end of the first semester, the students will select and meet with their graduate advisory committee (see section IV) to describe the proposed topic for their research. In preparation for this, the student will prepare a document outlining the specific aims of the grant proposal and research.

2-Year (Part-time) Research Plan: By the end of the second semester, first year, the students will select and meet with their graduate advisory committee (see section IV) to describe the proposed topic for their research. In preparation for this, the student will prepare a document outlining the specific aims of the grant proposal and research.

C. Grant Proposal

At least 4 weeks prior to graduation, the student should have prepared their grant proposal and slides for their oral defense. It is the student's responsibility to schedule the oral defense with their graduate advisory committee. The presentation should discuss their proposed grant proposal in detail, but also provide a review of all the projects that the student was a part of during their program and their future career directions. As a guide, the presentation should be no longer than 45 minutes.

Format of Proposal

Individuals are encouraged to write their proposal in response to an actual request for applications from a funding agency that can in-turn be submitted. For those who do not identify a specific funding mechanism or who are not eligible as a Principle Investigator, the format below can be followed:

Note: These instructions mirror the guidance provided by NIH for submission of an RO3 or R21 grant, which is recommended for the majority of capstone projects. For the grant proposal and oral defense, we emphasize the 'Research Strategy' guidance from NIH.

The format for the written grant project proposal must include the following:

Title of project

<u>Specific Aims</u> – 1 page or less; describe in brief the hypothesis or question to be addressed. This section operationalizes the goals into action statements whereby discovery is expected relevant to the gap in knowledge.

Research Strategy

- 1. Significance This section introduces the problem; sets the context of its importance in human health; and briefly explores possible solutions. This section should address knowledge gaps identified in the background section.
 - Background information Provide sufficient information for the committee (grant reviewers) to understand the rationale for the hypothesis or question and any other background information that would be needed to understand the approach. This section briefly reviews the relevant literature (this is not a comprehensive literature review as might be expected in a dissertation or thesis but is more relevant to a grant format); summarizes the current body of knowledge and indicates important gaps
 - Hypothesis What is the research question you hope to answer; the goals of the project that are linked to finding a solution to the gap in knowledge in the field
- 2. Innovation How is this project innovative in the field? Are the study methods innovative, is the research question innovative, in other words- what would spark an interest in a funding agency?
- 3. Research Plan This section defines the specific study design that will be employed to reach the specific aims (e.g. randomized control trial, cohort study, no inferiority, intention-to-treat). This section describes the experiments and/or study design that you will perform in order to answer the question or test the hypothesis addressed in the specific aims. Sufficient detail should be provided to convince the committee that you know what you plan to do and how to do it. With each approach, include the rationale for using it, the expected results and any anticipated problems.

- Rationale
- Study Design
- Potential Limitations/Pitfalls
- Discussion of Scientific Rigor
- Overall impact of completing project
- Environment This section describes the availability of requisite physical environment, laboratory equipment, technical staff, and internal commitment to the investigator and project. Included here are a description of the research team collaborators and availability of access to offsite locations.

<u>Appendix</u>

- 1. References
- 2. Biosketch in NIH format.
- 3. Clinical Trials Considerations <u>https://grants.nih.gov/policy/clinical-trials/CT-decision-tree.pdf</u>:
 - Study population this section describes the population selected for study and includes inclusion/exclusion criteria; special considerations for vulnerable populations, availability of study subject with anticipated recruitment period
 - Power and Sample Size This section provides the statistical evidence of how large a sample is needed given the treatment effect size and type I and type II error parameters
 - c. Data Collection and Variable Specification This section describes the variables to be collected, scale factor, laboratory procedures, operational definitions, and steps to assure data quality
 - d. Statistical Analysis and Interpretation This section describes the statistical test to be used (which links back to the power and sample size section)
 - e. Data Safety and Monitoring This section covers any information relevant to adverse events, serious adverse events, interim analysis, stop rules for efficacy or harm

The grant proposal should be single-spaced, using Arial font, size 11 or 12 and the margins must be greater than ½ inch. The overall length should not exceed 6 pages excluding appendix.

For the oral defense of the grant proposal, the following is required:

- 1. Specific Aims: Set the stage for your defense by describing briefly background and problems addressed, describe your hypothesis, and outline your objectives for the project.
- 2. **Significance**: Explain the importance of the problem or critical barrier to progress in the field that the proposed project addresses. Explain how the proposed project will improve scientific knowledge, technical capability, and/or clinical practice in one or

more broad fields. Describe how the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field will be changed if the proposed aims are achieved.

- 3. Innovation: Explain how the application challenges and seeks to shift current research or clinical practice paradigms. Describe any novel theoretical concepts, approaches or methodologies, instrumentation or interventions to be developed or used, and any advantage over existing methodologies, instrumentation, or interventions. Explain any refinements, improvements, or new applications of theoretical concepts, approaches or methodologies, instrumentation, or interventions.
- 4. **Approach**: Describe the overall strategy, methodology, and analyses to be used to accomplish the specific aims of the project. Include how the data will be collected, analyzed, and interpreted. Discuss potential problems, alternative strategies, and benchmarks for success anticipated to achieve the aims. If the project is in the early stages of development, describe any strategy to establish feasibility, and address the management of any high risk aspect of the proposed work.
- 5. **Research Experience and post program goals**: Discuss how your research experiences throughout your MS program have influenced your project, and what, if anything you hope to continue after graduation.

The proposal should be given to the members of your committee **two weeks prior to the defense meeting** unless other arrangements are made. At the defense meeting you should provide a talk with slides in which you describe the project including the background information that drove your hypothesis (see oral defense requirements above).

D. Seminars

Seminars are the easiest way to stay abreast of the latest research. In this M.S. program they will also provide an opportunity to build critical thinking skills. Students will attend the West Virginia Clinical and Translational (WVCTSI) Seminar Series each semester and any seminars that are associated with their area of research. It is requested that all clinical and translational science students become members of the WVCTSI at http://wvctsi.org/

E. Training in ethics:

All students will be required to complete the online course in scientific ethics developed by <u>CITI</u> and available on the website for the WVU Office of Research Integrity & Compliance. Students will enroll in the tailored ethics course combining Scientific Integrity and Ethical & Regulatory Aspects of Clinical Research. Ethics training continues through routine interaction with the faculty advisor. If working in a lab you must fulfill all training requirements per mentor request.

IV. Advisory committee

A. Selection of the committee

The advisory committee has no fewer than 3 members; the majority of which have full graduate faculty status. It is recommended that one member reflect a discipline distinct from the research to ensure that the student can present their work to a broader audience. The chair of the committee is the research advisor unless they do not have full graduate faculty status; in this case, the advisor and student can ask another committee member to serve in this role. Note that there are forms both for establishing the membership of the committee and for making changes to the committee membership located on the Office of Research and Graduate Education web page (link). The committee should be approved in the first semester or prior to the first meeting of the committee.

B. Schedule for Committee Meetings

The suggested schedule and activity for committee meeting is as follows:

1. Late Fall (full-time students) or Late Spring (part-time students) of first year – approval of the plan of study, review goals for MS and basic plans for research or project

2. Students will meet with their committee at least once more after the initial meeting to discuss the research and the grant proposal/oral defense (the number of meeting will be based on the suggestion of the committee chair or advisor)

3. Summer semester of year 1 (full-time students) or Summer semester of year 2 (parttime students) – the students meet with their graduate advisory committee to defend their research that is the basis of their grant proposal with written proposal and oral defense.

4. Students who are not ready to defend at the end of year 1 (full-time) or year 2 (parttime) should have committee meeting in both the fall and spring of the next year to provide updates on their progress.

Each committee meeting should be documented by the evaluation form found under forms at the Research and Graduate Education website. A minimum of two meetings is required for graduation.

V. ACADEMIC AND PROFESSIONAL STANDARDS

A. Communication

Please be advised, all pertinent information from the University is delivered to your WVU Mix Gmail account. It is imperative that you access this email often to obtain important information, such as course information and billing inquires. It is possible to forward these emails to another address, such as an HSC account.

https://wvu.teamdynamix.com/TDClient/KB/ArticleDet?ID=6835

It is your responsibility to communicate with course instructors as early as possible if you are having difficulty or are unsure of how to access course information.

B. Web-Based Course Platforms

SOLE: All information for courses offered through the Health Science Center can be accessed on SOLE, WVU's Health Science Center's portal for online education and information. <u>https://sole.hsc.wvu.edu/login?ReturnUrl=%2f</u>

eCampus: All information for courses offered through WVU Schools or Colleges outside of the Health Science Center can be accessed on eCampus, WVU's official learning management system

*Some of your elective courses may be from outside of the Health Science Center

C. Grades

It is expected that students will perform satisfactorily on all required courses. To remain in good standing in the program a student is required to maintain the following standards:

- a. An overall grade point average of 3.0 in graduate level coursework.
- b. Removal of any incomplete grades within one semester or summer session of their award.
- c. CTS 697 Research is graded S/U. The student should discuss the requirements for an S with their research advisor. An S does not mean the absence of concerns. Written comments originating from either research advisor accompanying the grade will be part of the student's file and will considered part of the annual evaluation of the student's overall performance. A U in CTS 697 will result in the student being placed on probation. A second U will result in dismissal from the program.
- d. Satisfactory reports of meetings with the Student's advisory committee.

Failure to comply with these standards will result in the student being placed on academic probation and may result in dismissal from the graduate program.

D. Student Code of Academic and Professional Integrity

Graduate students in the MS in Clinical and Translational Science are expected to adhere to the following standards of behavior throughout their tenure in graduate school. This code governs student behavior in classrooms, research endeavors, academic and professional gatherings and travel, and in their daily conduct outside of the University. In addition to the code outlined below, all students will uphold the WVU Student Conduct and Discipline Policy. This code can be found at: <u>http://studentconduct.wvu.edu/policies-and-procedures</u>

1. Academic Integrity

Students will:

- not plagiarize the work of others either by directly copying that work or by summarizing the thoughts of others as their own;
- not cheat on any examinations, on academic assignments and activities, and will not provide unauthorized help to others during an examination or graded academic assignment;
- not alter examination scores, answer sheets, other graded materials, or their academic record;
- adhere to the University policies on academic integrity (<u>http://catalog.wvu.edu/graduate/enrollmentandregistration/#academicdishonestytext</u>)

2. Scientific Integrity

Students will:

- have actually carried out experiments as reported;
- represent their best understanding of their work in their descriptions and analyses of it;
- accurately describe methods used in experiments;
- not report the work of others as if it were their own;
- in their publications adequately summarize previous relevant work;
- when acting as reviewers will treat submitted manuscripts and grant applications confidentially and avoid inappropriate use; and
- disclose financial and other interests that might present a conflict-of-interest in their various activities such as reporting research results, serving as reviewers, and mentoring students;
- adhere to the University Research Integrity Procedures that can be viewed at: <u>http://www.law.wvu.edu/student-life/code-of-professional-responsibility</u>

3. Scientific citizenship

Students will:

- strive to provide timely, efficient and high-quality work;
- function as an effective and respectful team member in the performance of collaborative research;
- strive to always acknowledge the contributions of their co-workers;
- strive to keep all work areas clean, organized, and conducive to high-quality research;

- respect shared work areas and reagents and insure that steps are taken to replenish reagents when they are in low supply;
- refrain from activities that might be disruptive to the work of others, including playing music, conversation, telephone calls
- be attentive in presentations by their colleagues and provide constructive criticism as appropriate;
- seek and accept criticism without reprisal or defensiveness;
- strive to address and remedy situations as they arise and to follow through on all promises and commitments to co-workers;
- wear appropriate clothing in the laboratory and other research settings that is consistent with federal, state, and University regulations;
- speak-up and report any practice, condition, or situation, that may cause harm or that is against federal, state, and University regulations;
- when traveling as a representative of the University and laboratory, the student will behave in a professional manner, uphold the rules of the laboratory with respect to the sharing of data, report expenses in a truthful manner, and refrain from frivolous use of travel funds for meals or modes of transportation that are unnecessary.

4. Professional interactions

Students will:

- strive to increase their knowledge and expertise in order to maintain qualifications consistent with the highest standards available in their discipline;
- accept and adapt to the continual change inherent in the creation and delivery of knowledge;
- be appropriate in dress, language and demeanor at all time and avoid language and dress that is offensive to others;
- respect and protect all students', staff, faculty, study participants', and patient's rights to privacy and confidentiality;
- minimize personal text messaging, e-mailing, telephone calls, and social media while at work;
- respond to all communications in a timely manner;
- listen carefully and to be thoughtful and respectful in all forms of communication and during the attendance of seminars;
- provide training and experience to advance the scientific skills and knowledge of ethical research practices for any trainee under their supervision;
- treat all individuals in a caring, respectful, professional, and empathetic manner.

E. Evaluation of Student's Progress

Student progress is reviewed twice per year by the Graduate Programs Committee on Academic and Professional Standards (GP-CAPS). This committee considers all the information listed above under academics and professionalism.

C.1. GP-CAPS Membership

This committee has representatives from all 7 Biomedical PhD programs and the Clinical and Translational Science graduate programs.

C.2. Student Review and Appeals Policy

Students have the right to due process in all decisions regarding their grades, evaluations, and status in graduate school. Appeals of decisions regarding the above must follow a standard set of procedures. The procedure for student review is found on the Research and Graduate education website (http://www.hsc.wvu.edu/resoff/graduate-education/policies-and-forms/). The appeals process can be found in the Graduate Catalog (<u>http://catalog.wvu.edu/graduate/enrollmentandregistration/#appealstext</u>. You should familiarize yourself with this policy before you need to use it.

VI. Vacations, Sick Leave, and Work Schedules

While in graduate work, the student no longer adheres to the vacation schedule of the undergraduate University calendar. If the student is sick, they should inform each faculty member in charge of activities from which they will be absent. Please note any policies regarding absenteeism in the syllabi of courses. This can be by phone or email and should be done prior to the time of the class or meeting. Do not assume that informing your advisor or a single course director of your absence will result in that absence being communicated to all other faculty.

As part of the student's professional training, they are advised to adopt habits that promote health, such as proper nutrition, hygiene, regular exercise, and sufficient sleep. The Health Science Center has a policy for maternity/paternity leave for graduate students, in general this is 6 weeks maternity leave and 2 weeks paternity leave. Many women and men find that they can return to some activity prior to this time. Students who need an extended absence (greater than 1 week) from the program due to illness or personal issues may need to request a formal leave of absence from the program. The Health Science Center Guidelines need to be followed to apply for this.

VII. COMPLETION OF THE DEGREE

A. Defense of the grant proposal

Demonstration of mastery of their area of emphasis and ability to defend their research with a written grant proposal to be orally defended before 3 graduate faculty committee members is the culmination of the degree. (Please see section III.B. for details on the written grant proposal and oral defense).

B. Timetable for completion (from the University Catalog)

Master's degree students are permitted to continue in a program for a maximum of eight years under their original application. Students who have been inactive for two or more years, or who do not enroll for one year after initial admission, are required to apply for, and be accepted for readmission. The application fee is assessed for reapplication. Graduate work planned with the student's advisory committee (e.g., plan of study) must be satisfactorily completed within a period of eight years immediately preceding the conferring of the degree. A course taken more than eight years previously must be revalidated if it is to be used towards meeting degree requirements. Revalidation can be accomplished by submitting the following information for approval to the Office of Graduate Education and Life:

- A letter from the course instructor listing the criteria used to revalidate the course material
- A copy of the student's performance on the student's revalidation examination
- A letter from the college/school graduate coordinator and/or dean supporting the revalidation

Useful Resources:

WVU HSC SOLE https://sole.hsc.wvu.edu/login?ReturnUrl=%2f

WVU eCAMPUS https://ecampus.wvu.edu/webapps/login/

WVU HSC Office of Research and Graduate Education https://www.hsc.wvu.edu/resoff/

WVU Graduate Education and Life https://graduateeducation.wvu.edu/

West Virginia Clinical and Translational Science Institute http://wvctsi.org/

Signature Page

I have read and understand the Handbook of the Master of Science in Clinical and Translational Science. I agree to abide by the requirements outlined in this document as well as the University requirements governing these degrees.

| Signature: | |
|-----------------|--|
| Name (printed): | |
| Date: | |

I pledge to adhere to the Student Code of Academic and Professional Integrity for the Ph.D. and M.S. degree programs (section B.3) and to maintain the highest standard of scientific integrity in all that I do.

| Signature: | | | |
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| - | | | |

Name (printed): _____

Date: _____