Harrisburg University of Science and Technology
Doctoral Program Guidebook

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Purpose of this Guidebook

This Doctoral Program Guidebook contains the rules, regulations, policies, and procedures of the Doctoral programs as established by the Harrisburg University of Science and Technology. The student should become familiar with the material contained in this handbook and work with a faculty advisor to make certain that a selected plan of study complies with the pertinent requirements. The most current handbook is posted on the Records & Registration Communications Site: https://myharrisburgu.sharepoint.com/sites/academics under Doctorate > Student Resources > Guidebook. Students are responsible for being aware of current policies.

Program Guidebook

Each program will provide students with specific guidelines and regulations for that program that align with this handbook. Please see the following links for current program guidelines:

- Computational Sciences: contact Department Chair
- Data Sciences: contact Department Chair
- Information Systems and Engineering Management: contact Department Chair
- Physical Therapy: see website for clinical and student handbook

Admissions

HU Admissions Policies

Please see the following: https://www.harrisburgu.edu/admissions/graduate-admissions/

Readmission of Former Students

Former students who left the program prior to receiving a doctoral degree must reapply to the graduate program as a new applicant unless the former student left the program in good standing within the last 3 years in which case they can submit an application to the university to be reinstated pending approval of the Department Chair, Registration Office, Business Office, and ISO (if applicable).

Governance

Department Chair

The Department Chair of each individual program is responsible for all oversight of administrative affairs within their program, including the administration of academic conduct, standards, and requirements as indicated in the university catalog. In addition, the Department Chair is responsible for recommending admissions and financial support, assigning advisors to incoming students, advising the Doctoral Dissertation Committee and faculty on the interpretation of policies and requirements, and performing other administrative duties as delegated by the provost.

Current Department Chairs can be found at each program's website:

- Computational Sciences: https://www.harrisburgu.edu/programs/phd-computational-sciences/
- Data Sciences: https://www.harrisburgu.edu/programs/phd-data-sciences/
- Information Systems and Engineering Management: https://www.harrisburgu.edu/programs/phd-information-systems-engineering-and-management/
- Physical Therapy: https://www.harrisburgu.edu/programs/doctor-of-physical-therapy/

Doctoral Dissertation Committee

The student will be required to have a Doctoral Dissertation Committee Chair established before the end of the Research Seminar courses. The student will establish their Doctoral Dissertation Committee in two stages.

In the first stage, the student will identify their committee chair before the start of doctoral studies coursework or as defined by the program's milestones.

- The committee chair must be a full-time HU faculty member with a doctoral or terminal academic degree in their field.
- The committee chair must be a faculty member within the student's program.

The rest of the committee members will be identified in stage two before the completion of 30 credit hours.

- The committee members must have a doctoral or terminal academic degree for their field.
- The committee will consist of five members:
    - Committee Chair (1)
    - HU faculty members (3)
    - An external member from outside the institution that is from the student's field of study or industry or a faculty member from another HU program (1)

The Department Chair must approve the committee members selected and provide the Records and Registration office with a list of the committee members and their contact information. The Department Chair can request exceptions in committee composition

from the Provost to the committee membership based on student needs and/or faculty availability.

Dissertation Committee Chair: Responsibilities

Guidance and Support

- Provide continuous guidance and support to the student throughout the dissertation process, from the initial proposal to the final defense.
- Assist in the development of a feasible and rigorous research plan, including the formulation of research questions, methodology, and timeline.

Regular Meetings

- Schedule regular meetings with the student to discuss progress, address any challenges, and provide feedback.
- Facilitate the student maintains a steady pace and adheres to the agreed timeline.

Feedback and Review

- Offer constructive and timely feedback on dissertation drafts (two-weeks), ensuring the work meets the required academic standards.
- Help the student refine their research questions, methods, and analysis as needed.

Committee Coordination

- Assist in identifying and communicating with potential committee members.
- Coordinate the efforts of the dissertation committee members to ensure they provide consistent and valuable feedback.
- Facilitate communication among committee members and the student, resolving any conflicts or discrepancies in feedback.

Compliance and Ethics

- Ensure that the student adheres to all institutional and ethical guidelines related to research, including obtaining necessary approvals for human subjects research, if applicable.
- Assist the student in navigating any compliance issues or institutional requirements.

Preparation for Defense

- Help the student prepare for the dissertation defense, including practicing the defense presentation and addressing potential questions.
- Ensure that all necessary paperwork is completed.

Advocacy

- Advocate for the student within the department and institution, helping to address any administrative or academic issues that may arise.

- Provide professional development support, including guidance on publications, conference presentations, and career planning.

Mentorship

- Act as a mentor, offering advice and support beyond the dissertation, such as networking opportunities, job search strategies, and career advice.

Administrative Duties

- Assist student in completing all required forms and documentation on time, including the dissertation proposal, progress reports, and final submission paperwork.
- Assist student in keeping accurate records of meetings, feedback, and significant milestones in the dissertation process.

Availability

- Maintain regular availability for consultations, providing a reliable point of contact for the student.
- Offer support during critical phases of the dissertation, especially as deadlines approach.

Additional Notes

- The chair should foster a collaborative and supportive environment, encouraging the student to develop independence and confidence in their research capabilities.
- The chair's role is both supervisory and collegial, aimed at helping the student succeed academically and professionally.

These responsibilities ensure that the Dissertation Committee Chair provides essential oversight, guidance, and support, helping graduate students navigate the complex process of completing their dissertations successfully.

Dissertation Committee Chair: Student Contract

Once a student has determined their committee chair, the dissertation chair and student should create a contract (see editable example template below). This contract should outline chair and student responsibilities. The purpose of the contract is to orient the chair and student to shared mutual expectations and guidelines.

Please see template here. (temp link, should be online Chair_Student_Contract.docx).

Dissertation Committee Chair: Releases

To recognize the significant time and intellectual commitment required to chair doctoral dissertations, faculty serving as dissertation chairs will receive teaching credit or compensation in alignment with their level of engagement and the number of students they supervise.

Course Load Credit for Dissertation Chairing

- Faculty serving as dissertation chairs will be formally assigned to co-teach sections of Course 799: Dissertation Research as part of their standard teaching load.
- Each doctoral program will schedule sections of 799 comprising 10+ students, co-facilitated by 2–3 faculty members, primarily those serving as chairs or committee members for enrolled students.
- Credit is calculated annually and should be integrated into the faculty member's normal course load planning.
- Faculty will be awarded teaching credit based on the number of dissertation committees they chair:

Number of Active Dissertation Chairs	Suggested Annual Credit Hours
1–5 students	3 credit hours
6–10 students	6 credit hours
11–15 students	9 credit hours
16+ students	12 credit hours

Maximum Credit Allowed

- Programs may set an annual or total cap on 799-related teaching credits (e.g., no more than 12 credit hours per year).
- Note: A maximum per student may not be necessary, as this is self-limited by the number of semesters students are enrolled in 799. If programs wish to address long-duration students, this should be handled via programmatic policies on time-to-completion rather than by limiting faculty credit.

Optional Alternative: Stipend Model

Programs may choose to provide stipends in lieu of teaching credit:

- $500 at the time of proposal defense
- $500 at the time of final dissertation defense

This model may be preferable when course load credit is unavailable or when faculty are already at their full teaching capacity. It may also be more cost-effective than offering overload teaching credit.

Dissertation Committee Member Responsibilities

Review and Feedback

- Provide thorough and timely feedback on dissertation proposals, drafts, and final versions (two weeks).
- Offer constructive criticism aimed at improving the quality and rigor of the research.

Regular Participation

- Attend scheduled meetings with the student and other committee members to discuss progress and provide input.
- Participate in the dissertation defense and contribute to the evaluation process.

Expertise Contribution

- Share expertise and knowledge relevant to the student's research topic, methodology, and theoretical framework.
- Help the student identify potential resources, literature, and methodologies that could enhance their research.

Collaboration

- Collaborate with the committee chair and other members to provide consistent and coherent guidance to the student.
- Engage in open and respectful communication to resolve any conflicting feedback or perspectives.

Support and Mentorship

- Offer academic and professional mentorship, including advice on research design, data analysis, and interpretation of results.
- Encourage the student's development as an independent researcher and scholar.

Availability

- Maintain availability to the student for consultations and guidance as needed.
- Respond promptly to student inquiries and requests for feedback.

Evaluation

- Participate in the evaluation of the dissertation proposal, progress reports, and the final dissertation defense.
- Provide a fair and balanced assessment of the student's work, highlighting both strengths and areas for improvement.

Interdisciplinary Input

1. If applicable, bring an interdisciplinary perspective to the committee, enriching the student's research with diverse viewpoints.
2. Help the student integrate different disciplinary approaches and methods into their research.

Additional Notes

- Committee members play a crucial role in ensuring the quality and integrity of the dissertation, supporting the student in achieving academic excellence.
- Members should foster a collaborative and respectful environment, contributing positively to the student's research journey and professional development.

These responsibilities ensure that Dissertation Committee Members provide essential support and guidance, contributing to the student's success in completing their dissertation.

Capstone Oversight

Capstone Advisor

Each student will be assigned a Capstone Advisor, typically a full-time faculty member in their program. The Capstone Advisor provides ongoing guidance and ensures academic rigor, ethical compliance, and timely progress.

Capstone Committee

Programs may also establish a Capstone Committee, typically composed of two to three members, which may include one external member when appropriate. The committee is responsible for reviewing the proposal, evaluating progress, and assessing the final product.

Research Assistantships

Research assistantships (RAs) provide doctoral students with the opportunity to engage in funded research activities under the supervision of faculty members. These positions are typically supported by external grant funding and are often tied to specific research projects. As such, openings for RA positions may vary from year to year and are usually advertised by faculty or departments when funding becomes available. Students interested in research assistantships are encouraged to respond to calls for applications and to discuss potential opportunities directly with faculty members conducting funded research.

Important Considerations for International Students

International students must consult with the International Student Office before accepting any RA position. Employment regulations related to student visas can be complex, and it is essential to ensure that accepting an assistantship does not jeopardize visa status or eligibility for continued study in the U.S.

Tuition and Benefits

While some research assistantships include a tuition waiver, this benefit is not guaranteed. The terms of each assistantship, including salary, hours, duration, and tuition coverage, should be clearly outlined by the faculty sponsor or hiring unit prior to the start of the position. Students should review the terms carefully and reach out to the Department Chair if clarification is needed.

Doctoral Curriculum

Doctorate education focuses on enabling students to make original contributions to their respective fields of study. There are two phases of the doctoral program at HU:

1) A learning phase that includes coursework, seminars, research, and fieldwork that contributes to the student's knowledge in the program of study;
2) Aresearch phase that focuses on student's original research culminating in his/her final examination.

Upon a student's defense of the dissertation and completion of all other requirements, the student is awarded the doctoral degree in the program of study. The doctoral programs offer a course of study that emphasizes a strong foundation in science, technology, engineering, or mathematics disciplines. Doctoral candidates are required to complete at least 6 doctoral-level courses (18 semester hours); 6 semester hours in a formal research seminar; and 12 semester hours of dissertation work (or equivalent for clinical or engineering doctorates).

A partnership may be formed with another institution to utilize that institution's facilities for research and project development, enlist doctoral faculty from another institution as a dissertation or project committee member, or take appropriate post-master's courses from that institution (courses are not eligible for transfer). Please see individual program requirements for course requirements.

Course Load Requirements

Normally, students must enroll in at least 6 credit hours of coursework each fall, spring, and summer semester. A student may register for up to 9 hours in a semester; however, the decision to do so should be made carefully along with the student's research supervisor and taking into consideration the student's other responsibilities. Students who have completed all course work with the exception of the dissertation, or who can, with a reduced load, complete all course work in the current year, may take less than the customary 6 hours. However, certain restrictions may apply due to the nature of the student's international status or financial assistance.

Grades

Doctoral Grading Scale

Graduate-level coursework for doctoral students is evaluated on the following scale:

- A – Excellent
- B – Satisfactory
- F – Failing
- Other – See below

Unlike many undergraduate or master's-level grading systems, the doctoral grading scale does not include plus/minus distinctions or a broader range of letter grades. Only grades of A or B are considered passing.

Dissertation Hours courses may be assessed on a Pass (CX – satisfactory progress or CD – program completion)/Not Pass (NP) basis. NP grades do not impact a student's

GPA; however, they do not earn credit for the course. Students receiving an NP grade may repeat the course up to two additional times. If a student continues to receive NP grades in the courses in three semesters, the student will face academic review and potential dismissal from the program.

Monitoring Academic Performance

At the end of each academic semester, the program should run a report to identify any doctoral students who have received a grade of F. In such cases, immediate action is required:

1) Notification: The Department Chair must be contacted without delay.
2) Recommendation: The Department Chair will review the situation and provide a written recommendation, either:
    a. To allow the student to repeat the course, or
    b. To dismiss the student from the program, including a clear justification based on academic performance and program expectations.

This process ensures transparency, consistency, and academic integrity while maintaining appropriate support and accountability for students.

Dissertation Hours

Once a student has begun to enroll in dissertation hours and/or has met the requirements for admission to candidacy, they must be enrolled continuously, for 6 credit hours or more each fall, spring, and summer semester, until the final dissertation is submitted.

Auditing Courses

Eligibility and Allowance

Doctoral may audit up to **three courses** at no additional cost. Confirmation from the respective Department Chair is required to determine if this policy extends to them.

Request Process

To request permission to audit a course, students must submit a written request via email. While not required, students are encouraged to provide a brief rationale for why they wish to audit the course. All requests should be reviewed for eligibility and policy compliance before approval is granted.

Auditing Policies and Requirements

- **Degree Requirements:** Courses that are required for the student's degree program **may not** be audited until they have been successfully completed for credit.
- **Prerequisites:** Students must meet all prerequisite requirements for the course. In cases where prerequisites have not been met, approval from the course instructor is required.

- **Participation:** Auditing students are expected to fully participate in the course, including attendance and submission of assignments, unless otherwise agreed upon by the instructor.
- **F-1 Visa Compliance:** For international students on F-1 visas, audited courses **do not count** toward the credit hours required to maintain full-time enrollment. These students must still be registered for a minimum of **6 credits** of coursework that counts toward enrollment status, regardless of the format of the audited course.
- **Withdrawal Policies:** Standard university withdrawal deadlines and policies apply to audited courses.
- **Academic Record:** Audited courses do **not carry academic credit** but will appear on the student's academic transcript. At the end of the course, students will receive a grade of **Pass (P)** or **No Pass (NP)** based on participation and completion of required activities.
- **Future Enrollment:** A course that has been audited **may not** later be taken for academic credit.

Comprehensive Exams

The comprehensive exam should be scheduled after completion of the first milestone and before registration for the Doctoral Studies course (799). Doctoral candidates will collaborate with their Department Chair to schedule the comprehensive examination. This examination serves as a critical assessment of a student's readiness to undertake independent dissertation research and demonstrates mastery of the core concepts, methods, and knowledge within their field.

Preparation

Students are advised to consult their Department Chair early in the process to review eligibility and begin preparing. Specific expectations, format, and content may vary by program; therefore, students must review the program-specific guidelines to understand the scope and structure of their examination.

Evaluation and Retake Policy

- **Initial Attempt:** Students are allowed one full attempt at the comprehensive exam.
- **Conditional Pass:** If a student does not pass the exam in its entirety, they may be permitted to revise or retake specific sections or questions based on committee feedback.
- **Second Attempt:** Students are allowed a maximum of two full attempts at the comprehensive exam. Failure to pass after the second attempt will result in dismissal from the program.
- **Documentation:** The outcome of the exam, including any conditions for revision or retake, will be formally recorded in the student's academic file.

Students are strongly encouraged to meet with their advisor or Department Chair to prepare adequately and ensure clarity about the expectations and structure of their comprehensive examination. When more than three years has elapsed between the passing of the comprehensive examination and the completion of the program, the student is required to pass a second comprehensive examination before the final oral examination of the dissertation will be scheduled.

Doctoral Dissertation Milestones

The milestones a student must complete to earn the doctoral degree are as follows:

Milestone 1

Coursework

Complete at least 18 semester hours of coursework as identified in the Doctorate Catalog. Please see the doctorate catalog for details of specific program course requirements.

CITI Training

The student must pass program approved, web-based training modules on human subjects and ethical research offered through Collaborative Institutional Training Initiative (CITI Program) training program. The student must submit a certificate of completion to the Records and Registration office via their Student Support Portal found at https://reghelp.harrisburgu.edu/support/home before advancing to Milestone 3. Harrisburg University's policy requires that all research involving human subjects, including the use of secondary and primary data, be reviewed by the University's Institutional Review Board (IRB) to ensure protection of the rights of human subjects.

Degree Audit

The student will be required to have their degree audit reviewed before moving to Milestone 2. The degree audit review is initiated by Records and Registration at the time of registration for the student's final semester of coursework. The degree audit will have specific requirements based on the student's program. The student will not be advanced to milestone 2 until the student has completed all the requirements of 1.

Milestone 2

Doctoral Research Seminars

Complete the Doctoral Research Seminars (6 semester hours) specific to the candidate's area of research. The candidate can enroll in up to 12 hours of Doctoral Research Seminar.

Comprehensive Exam

The format and administration of the comprehensive exam will be determined by the individual program. To successfully complete this milestone, the student must pass the comprehensive exam. The results of the examination are reported to the Department Chair and the Records and Registration office.

Dissertation Chair

Based on their research interests, the student must select a faculty advisor to serve as the chair of their dissertation committee. The student must complete a dissertation contract which must be signed by the student and faculty advisor (please see template).

Milestone 3

Dissertation Committee

With their dissertation chair, the student must establish a dissertation committee. Please see committee guidelines.

Doctoral Studies Coursework

Complete the dissertation courses (minimum 12 semester hours of Doctoral Studies). If the student needs additional dissertation courses to complete their dissertation work, the student will automatically be registered in the next semester of dissertation courses until dissertation approval.

Milestone 4

Proposal Defense

Students must complete a written dissertation proposal and oral defense approved by the dissertation committee. The student must submit the written proposal to the committee at least two weeks prior to the oral defense.

IRB Approval

Regardless of their research topic, the student must have their dissertation research approved by HU's IRB.

Milestone 5

Dissertation Defense

The final milestone toward the Doctoral degree is an oral examination administered and evaluated by the candidate's doctoral thesis committee. The candidate must be registered full-time for the semester in which the oral examination is taken. The candidate is not permitted to do their final oral examination until at least two semesters have passed since the comprehensive examination or the completion of 12 semester hours of dissertation courses. The Department Chair may grant a waiver in appropriate cases. The final oral examination is scheduled through the Records and Registration office on the joint recommendation of the committee chair and the student. The oral examination must be scheduled two months before the end of the current term, and the deadline for holding the examination is five weeks before the end of the semester in which the oral examination is scheduled. After verification of completion, the doctoral degree will be conferred by the next eligible graduation date.

A typical timeline of milestones is shown below:

Milestone	Description	Timeline
1	Complete 18 credit hours of upper-level courses CITI Training	1st year of program By end of the first year

Degree Audit: First Year Review Form to be Approved by Department Chair and Registration Office (Example Form)		
2	Research Seminar(s) Comprehensive Exam Establish Dissertation Chair	4th semester Before registration for Doctoral Studies
3	Establish Dissertation Committee Doctoral Studies (12 credit hours)	No later than after 1st semester of Doctoral Studies
Dissertation Audit: Second Year Form to be Approved by Dissertation Chair, Department Chair, and Registration (Example Form)		
4	Dissertation Proposal Defense** IRB Approval	At least one full semester prior to graduation After proposal is approved
5	Dissertation Defense (pass oral defense **and** approval of written dissertation)***	

**Proposal Defense Scheduling Form must be submitted to the Registration Office with Dissertation Chair approval and completed written proposal at least two weeks prior to defense

***Two months before desired graduation date, Intent to Defend Form must be submitted to the Registration Office and approved by Dissertation Chair and Department Chair.

Time Limits

Completion Time

Doctoral students are expected to make steady progress toward degree completion in a timely manner. The following guidelines outline the expected timeline and maximum allowable time to complete the doctoral degree:

Maximum Time to Degree

- All degree requirements must be completed within 5 years from the date of initial enrollment in the program.
- Students who do not complete the degree within this timeframe may be subject to dismissal unless they obtain an approved extension (see below).

Extensions

- Students may petition for an extension of the time-to-degree limit due to extenuating circumstances (e.g., medical leave, family obligations, research delays beyond the student's control).
- Extension requests must be submitted in writing to the Department Chair and approved by the Provost.
- Approved extensions typically do not exceed 1 additional year, and multiple extensions are rarely granted.

Consequences of Inactivity or Delays

- Students who fail to make satisfactory progress, meet key milestones, or request necessary extensions may:
    - Be placed on academic probation
    - Lose funding eligibility
    - Be withdrawn from the program

Progress Monitoring

- Annual progress reviews are conducted to ensure students are on track. Students are expected to meet regularly with their advisors and submit annual reports documenting milestones achieved, challenges encountered and plans for the next academic year.

Requesting a Leave of Absence

Eligibility

- Students must be in good academic standing to be eligible for a leave of absence.
- Leaves of absence are typically granted for personal, medical, or academic reasons.

Initial Consultation

- Students should first consult with their advisor/dissertation chair or Department Chair to discuss the need for a leave of absence and explore potential alternatives.
- If applicable, students should also discuss the leave with their dissertation committee chair to understand any implications for their research progress.

Formal Request

- Submit a formal written request for a leave of absence to the graduate program coordinator in the Registration Office. The first request needs only the approval of the Registration Office. Subsequent requests must also be approved by the Department Chair. Please see the Enrollment Status Policy for current rules on consecutive breaks.
- The request should include:
    - The reason for the leave of absence.
    - Any supporting documentation (e.g., medical certificates, personal statements).

Program Approval

- For break requests beyond the first, the graduate Department Chair will review the request and may require a meeting with the student to discuss the leave in more detail.
- The Department Chair must approve the leave of absence.
    - Discuss with the academic advisor how the leave may impact academic progress, funding, and any time-sensitive requirements (e.g., comprehensive exams, dissertation deadlines).
    - Plan accordingly to mitigate any negative effects on academic progress.

Institutional Approval

- After program approval, the request will be forwarded to the relevant institutional office for final approval.
- Students will receive official notification of the approval status, and any conditions associated with the leave.

Returning from Leave

- Students must notify the graduate Department Chair of their intent to return at least one month before the end of the leave period.
- Submit any required documentation, such as medical clearance or a personal statement indicating readiness to resume studies.
- Meet with the academic advisor or Department Chair to develop a plan for reintegration into the program and resumption of research or coursework.
- Leaves of absence should be requested well in advance of the intended start date whenever possible.

- Students should keep a copy of all correspondence and documentation related to their leave request.
- For international students, it is essential to consult with the international student office to understand the implications of a leave of absence on visa status and compliance with immigration regulations.

These guidelines ensure that students follow a structured process for requesting a leave of absence, maintaining communication with their program and the institution, and planning for a successful return to their studies.

Dismissal

If a student is academically dismissed from the university (e.g., due to insufficient GPA or time-to-degree violations), the university's standard dismissal procedures apply. Students will receive formal notification and have access to any appeal processes as outlined by the institution's policies.

Academic Failure

Academic failure may result in dismissal from the program or placement on academic probation. Criteria typically include:

- Earning a grade of **F** in any course
- Falling below the minimum required **GPA** for doctoral students
- Failing to meet milestones such as timely completion of coursework, qualifying/comprehensive exams, or the dissertation proposal

Please see the current catalog for up to date academic failure information.

Academic Misconduct

Please review all information in the student handbook.

Academic misconduct includes, but is not limited to, plagiarism, cheating, falsifying data, and unauthorized collaboration. The use of generative artificial intelligence (AI) tools (e.g., ChatGPT, text generators, code assistants) is generally restricted and subject to program-specific policies. Students should refer to their program's official AI policy for clear guidance on appropriate use.

If a student is suspected of academic misconduct:

1. The case will be reviewed in accordance with university or program-level procedures.
2. The student will be notified and given the opportunity to respond to the allegation.
3. Sanctions may include a failing grade, probation, suspension, or dismissal from the program depending on the severity and nature of the offense.

Students are expected to uphold the highest standards of academic integrity throughout their doctoral training.

Grievance Procedures

Please review all grievance policies from the current catalog.

Students who believe they have been treated unfairly, discriminated against, or otherwise subject to inappropriate academic or professional conduct have the right to file a grievance.

- Grievances should be submitted in writing and addressed first to the Department Chair.

- If the matter is not resolved at the Department level, students may escalate the grievance to the Provost or appropriate university office, following institutional grievance procedures.
- Students are encouraged to document all relevant communications and maintain professionalism throughout the process.

For formal grievance policies, students should consult the university's Student Handbook or contact Student Services for guidance.

Non-Academic Failure

Non-academic failure occurs when a student is dismissed from the program for reasons to do with his or her ethical or professional conduct rather than academic performance. Examples include (but are not limited to) plagiarism, falsifying data, lying or cheating, acting maliciously against others, and/or violating Human Ethics considerations.

A student may be evaluated at any time of year if a problem is perceived by the faculty. At the time of the evaluation, both academic and nonacademic factors are considered. One of six possible preliminary recommendations may result from this evaluation:

- **Continue** - the student is encouraged to continue in the program for another year.
- **Continue with Warning** - the student is encouraged to continue in the program for another year, but is apprised, in writing, of problems perceived by the faculty and advised concerning their remediation.
- **Continue with Remediation Plan (without Probation)** - the student is permitted to continue in the program pursuant to his or her successfully completing a specific written plan of remediation prescribed by the faculty.
- **Continue with Remediation Plan (with Probation)** - the student is permitted to continue in the program pursuant to his or her successfully completing a specific written plan of remediation prescribed by the faculty. The situation is serious enough to warrant probation status, which will necessitate self-identification on clinical internship applications.
- **Dismissal due to Failed Remediation Plan** - the student is dismissed from the program because the remediation plan noted in (3) or (4) has not been successfully completed (see text below).
- **Dismissal without Remediation Plan** - the student is dismissed from the program without a remediation plan for pronounced violations of ethical and professional conduct standards or for persistent patterns of conduct that are judged to be resistant to remediation.

If the outcome of the evaluation is other than **continue**, the following steps will be taken:

Communication of the problem to the student. The Department Chair will, with input from the program faculty, compose a committee to gather information and document the

problem. This committee may be composed of 3 persons, 2 program faculty and 1 person from outside the program. However, the composition of the committee is at the discretion of the program director. Faculty (or staff) members providing significant information relevant to the student's evaluation will provide such information as completely as possible, specifying the sources of the information. During the information gathering phase, the student shall be afforded an opportunity to consult with the faculty member(s) involved and to provide information to the committee. Once the committee has gathered information and documented the problem, it will present its recommendation to the program faculty at a meeting in which a quorum of program faculty is present. At that meeting, a majority vote by the program faculty will indicate approval of the committee's recommendation. Then, the committee will present a statement to the student in writing that will include the exact recommendation and supporting information. If the recommendation involves a remediation plan (Recommendations 3 or 4), the details of the remediation plan will also be presented to the student in written form at this time. Remediation plans will be explicit with stated criteria for judging their success or failure as well as a timeline. Criticisms and remediation plans will be signed by the student (if he or she agrees) and the student's program director.

Appeal of problem statement and/or remediation plan. If the student does not agree with the criticisms or the plan for remediation, he or she will be given a maximum of four weeks to prepare a request for reconsideration. The student may select any consenting representative (including another student) to appear with or instead of her or him at a reconsideration hearing before the program faculty who will subsequently vote to affirm or modify the documents in question. If the majority vote is to affirm the documents in question, this will be documented, and one copy will be given to the student and one copy will be placed in the student's file. If the majority vote is to modify the documents in question, the modifications will be documented and presented to the student in writing. The modified criticisms and/or remediation plan will be signed by the student (if he or she agrees) and the student's program director.

Evaluation of the remediation plan. If a remediation plan was put into place, the student's progress toward meeting the specified criteria will be reviewed according to the timeline described in the remediation plan. The initial review will be done by the committee that was originally chosen by the Department Chair to document the problem and write the remediation plan. The review will require gathering of information from the student, faculty, and any other persons involved in the remediation plan. This committee will present a recommendation to the Department Chair. The decision will be documented with supporting details and a copy will be given to the student and a copy will be placed in the student's file.

Appeal of a dismissal decision. If a decision was made to dismiss the student from the program, the student may make a formal appeal. This process is described in the grievance procedures section.

Guidelines for the Dissertation

Dissertation Quality

The dissertation is the culmination of the doctoral program. The dissertation serves two major purposes. First, it is an educational experience that demonstrates the ability to address a major scholarly problem relevant to the field of study using research methods appropriate to the field. Second, the dissertation is a piece of original research that contributes to existing knowledge. The quality of the dissertation should approach or equal a study judged acceptable for publication in a journal widely recognized for its publication standards. The subject matter is limited only by the availability of faculty competent to direct the project. Ordinarily, dissertation studies fall into the category of quantitative research but can be qualitative or mixed methods research. Dissertations that are research reviews, theoretical papers, or historical papers may also be acceptable, provided that the dissertation committee approves the student's specific plan. Some guidance is given below on these less common dissertation categories.

Research reviews must not only be comprehensive and critical in nature but must also integrate the research findings in some new and insightful manner to generate testable hypotheses or generalizations. Techniques such as meta-analysis are preferred over narrative research reviews. Theoretical papers may be acceptable. Such papers may or may not include experimental data gathered by the author. Historical papers, organized topically or as a biography, and of sufficient depth and sophistication, are conceivable as a dissertation format.

Proposal Defense

The main purpose of the proposal is to clearly and convincingly demonstrate the significance of the contribution the student's research will make to the field of study. Significance is measured by the potential to publish the student's work in reputable journals in the field. The proposal focuses on the student's research question and on the methodology(ies) and how the student applies them in the research. The student's program should have specific templates or expectations that would be provided for each path a student may take for their dissertation.

The proposal consists of the completion of the full dissertation proposal document and an oral examination. The proposal has no required page limit but should include an introduction, literature review, and proposed methods for consideration by the committee. Please see specific style guides below. The writing and copy editing of the document is the responsibility of the student alone. Although committee members are not expected to review portions of the full proposal during its writing, they may be asked their advice at any time on matters related to the dissertation. The dissertation chair should review the completed full proposal before it is distributed to the entire committee. The dissertation chair may point out to the student areas in the proposal that need additional work; however, the intent of such a review is not to provide the student with faculty-written substitutes or additions to the proposal text. When available or as suggested by the dissertation committee in advance, results of pilot studies should be reported in the preliminary document.

It is the responsibility of Records and Registration to assist in finding a 2-hour meeting time that is suitable to all committee members, and to communicate the start and end time of the meeting to each committee member (both at the time the meeting is set and a week prior to the meeting). It is advisable to begin scheduling several weeks in advance of the desired meeting date.

During the first week after distribution of the proposal document, committee members should examine the document. If a committee member should decide that the preliminary document is of such low quality that the formal proposal defense is not warranted, they will notify the student's dissertation chair. In such instances, the committee will be convened without the student to decide whether the proposal defense should be held. If the majority decision is against holding the proposal defense, this will be viewed as failing the proposal defense. Should there be no objection received within one week of the distribution of the dissertation proposal, the proposal defense shall proceed as scheduled.

The preliminary oral defense is conducted by the entire committee. The proposal defense can proceed with at least four of the five required members. Every effort should be made to communicate the start and end time of the meeting well ahead of time so that all committee members will be present for the entire meeting.

Upon completion of the proposal defense presentation, the student will leave the meeting, and the committee will hold a nonbinding, pass-fail vote via the chat to serve as a starting point for discussion of the student's performance. All committee members, including the dissertation chair, have a vote. After discussion, the committee members shall cast their formal votes via the discussion, jointly considering the suggested criteria for the written document and the oral presentation. The student will then re-enter the meeting to hear the outcome of the vote. Please see rubrics above for outcomes of the proposal defense.

The student is permitted two attempts at passing the proposal defense. If a second attempt is necessary, the original committee shall remain intact for the second attempt with one exception: Should the topic of the proposal change substantially, the original committee may elect to disband with a unanimous vote. A new committee would then be formed using the procedures outlined earlier. However, it should be noted that, once assigned to a student's committee, a faculty member cannot be removed involuntarily, even in cases where the dissertation topic has been changed. The chair of the committee can request a change in committee members.

Conduct of the Dissertation

Use of substitute dissertation researchers. Normally, the student is expected to collect his or her own data. Any deviation from this policy should be for reasons beyond the convenience of the student and must be approved by the dissertation committee. In considering the use of substitute researchers, the committee should keep in mind that the collection of data is an integral educational component of the dissertation process. In addition, the committee should consider issues such as experimenter bias, ethics, sensitization of participants, and may be well advised in order to strengthen the methodological integrity of the project. Should that be the case, the student should

make certain that the substitute receives carefully detailed training and close supervision during the conduct of the project.

Altered topics. Should the student substantially alter the dissertation topic following the successful completion of the preliminary examination, another full dissertation proposal defense must be developed and distributed to committee members. In addition, the written proposal must be presented in an oral examination. The same voting procedures will be followed. In the event of a failure, the same rules as above apply.

Final Oral Defense

Dissertation document. The copy of the completed dissertation document that is presented by the student to committee members should be in final form and electronically distributed. The dissertation must be emailed to committee members at least two weeks in advance of the final oral defense meeting.

Final oral defense meeting. It is the responsibility of Records and Registration to assist in finding a 2-hour meeting time that is suitable to all committee members, and to communicate the start and end time of the meeting to each committee member (both at the time the meeting is set and a week prior to the meeting). It is advisable to begin scheduling several weeks in advance of the desired meeting date.

During the first week after distribution of the dissertation document, committee members should examine the document. If a committee member should decide that the document is of such low quality that the formal defense is not warranted, they will notify the student's dissertation chair. In such instances, the committee will be convened without the student to decide whether the defense should be held. If the majority decision is against holding the defense, this will be viewed as failing the final defense, and the student will be expected to make improvements and schedule another final oral defense. Should there be no objection received within a week of the distribution of the dissertation, the defense shall proceed as scheduled.

The final oral defense is conducted by the entire committee. It does not begin until all committee members arrive. Every effort should be made to communicate the start and end time of the meeting well ahead of time so that all committee members will be present for the entire meeting.

Upon completion of the final oral defense presentation, the student will leave the meeting, and the committee will hold a nonbinding, pass-fail vote via the chat to serve as a starting point for discussion of the student's performance. All participating committee members, including the chairperson, have a vote. After discussion, a formal vote via discussion is taken, considering jointly the written document (with emphases on the results and discussion sections) and the oral presentation of the student. Please see rubrics above for outcomes of the final defense. The student will then re-enter the meeting to hear the outcome of the vote. If the outcome is "pass," it is not unusual for the committee to make some recommendations for the project and/or the final dissertation document.

The student is then responsible for revising the document as suggested by the committee and preparing the document for electronic submission. Once the student has

completed revisions and the committee chair has approved those revisions, the student should submit the completed dissertation to the Department Chair.

Authorship Order

Emphasis is placed on the execution of research projects and subsequent manuscript publication. Publication credits are desirable and necessary for the professional development of both students and faculty, yet decisions regarding order of authorships are often not discussed and occasionally differences of opinion arise. For these reasons, the following guidelines are suggested for determining authorship on joint student/faculty publications. They may apply to theses, dissertations, and any other projects on which students and faculty collaborate.

Student/faculty publications should be considered an integral part of the educational mission of the department. Authorship order should be discussed early, ideally formalized in writing, and decisions should be based on the relative intellectual, scientific, and professional contributions of the collaborators. As the joint project progresses, discussions regarding authorship should be ongoing as relative contributions to the effort change or evolve. In all student/faculty collaborative projects it is the responsibility of the faculty member to initiate ongoing discussion and to ensure that a mutually agreed-upon decision is reached. The process of discussion initiated by the faculty member serves as a secondary purpose of professional role-modeling.

Proposal and Defense Rubrics

Purpose

The purpose of this rubric is to give dissertation students a clear understanding of the criteria that will be used to guide the assessment of the quality and progress of their scholarship and to provide faculty with guidelines for completing the final assessment.

Application

This rubric will be shared with students as part of their program’s introduction to the dissertation process. It includes descriptions of expected levels of performance for each skill that is assessed. It is expected that a dissertation that is approved by the candidate’s committee would be evaluated as being above the “emerging” category in all areas for the dissertation proposal and defense, and above the developing” category in all areas upon completion of the dissertation.

Implementation

While this rubric should be a foundation for the dissertation process and will be provided to students at the early stages of their dissertation, it will be formally implemented during the oral dissertation proposal defense and the final oral dissertation defense. The rubric will be distributed at the start of the defense meeting and filled out by at least two committee members at the end of the defense. Other written feedback by committee members can be sent to the chair separately (e.g., in the dissertation text). The committee chair is responsible for discussing feedback with the student.

Proposal Rubric

Skill	Exemplary Scholarship 10 9	Developed Scholarship 8 7 6	Developing Scholarship 5 4 3	Emerging Scholarship 2 1
Development of Research Questions	The questions are well-developed and significant to the field. The research has the potential to address critical issues and make a significant contribution.	The questions are well-developed and justified by the existing literature. The potential contribution is well-documented.	The questions are well-developed, but the significance to the field is not clear. A clear justification for the research is missing.	The research questions are not well developed. Not clear what makes the research interesting or important.
Thoroughness of Literature Review	Thorough review that integrates existing literature in a new and insightful way. Identifies gaps in the literature and compellingly argues how the current research will address that gap. Citations are robust and consistently formatted.	Thorough review that draws connections among perspectives and integrates the literature in a meaningful way. Draws a clear relationship between existing literature and the research question. Demonstrates clear mastery of the field. Citations are sufficient and consistently formatted.	Provides a general discussion of previous findings. However, limited viewpoints are represented. Work is mostly summarized, and weak connections are made to the research question. Missing clear understanding of key concepts. Citations are lacking and inconsistently formatted.	The literature review does not include important references to the subject matter. No connections are made to the research question. Literature review primarily summarizes work at a surface level review. Citations are insufficient and improperly formatted.
Methodological Sophistication Sufficient to Address Questions	Creative method and design are presented with a clear explanation of methodological choices. Alternative means of analysis are considered and discussed.	Robust method and design to sufficient to address research questions. Connection between method and analyses understood and developed.	Exhibits basic understanding of research method and design. Identifies limitations of approach – but not fully addressed. Connection between method and data	Methods do not adequately address the questions. Does not consider potential biases/limitations of method.

		Multiple methods of analysis are considered.	analysis not clearly developed.	
Adequately Measures the Constructs of Interest	Creative measurement approach with a clear explanation of measurement choices. Alternative means of measurement are considered and discussed.	Creative measurement approach to address limitations of existing approaches or measurements. Connection between measurement and research questions understood.	Exhibits basic understanding of measurement or feature engineering. Identifies limitations of measurement – but not fully addressed.	Methods section does not adequately address measurement or feature engineering. Does not consider potential biases/limitations of measurement.
Clarity of Writing and Scholarly Presentation of Ideas	Writing is fluid, precise, and clear. Tone is professional and scholarly. Voice is authoritative and conveys clear understanding. Formatting enhances flow and readable.	Writing is fluid, precise, and clear. Tone is professional and scholarly. Adequate transitions between ideas but lacks clear authoritative voice. Formatting is clear and consistent.	Writing is organized and clear. May lack adequate transitions and scientific precision. Tone is informal and lacking depth. Formatting is consistent but difficult to read.	Heavy reliance on jargon. Difficult to read. Terms not sufficiently defined. Formatting is inconsistent and unreadable.
Ethical Concerns Adequately Addressed	Specific ethical concerns are addressed and resolved.	General ethical issues (fairness, risks/benefits) are discussed/considered.	Limited consideration of basic ethical issues.	Ethical issues not considered.
Feasibility	Provides a clear plan for completing the dissertation in a timely manner. Plan addresses resources and skills needed along with alternative solutions.	Provides a general plan for dissertation completion. Plan addresses resources and skills needed.	Needs improvement on a plan to complete the dissertation. Plan does not consider the resources or skills needed for completion.	Does not provide a plan for completing the dissertation.
Presentation: *Content*	Introduction provides clear and concise organization.	Main points are explained and provide sufficient detail.	Introduction outlines the main issues.	Introduction is underdeveloped. Purpose is unclear.

	Main purpose of research is identified and well argued. Research questions are clear. Contributions to the field are discussed. Method is laid out with feasible plan for completion.	Research questions are clear. Method is clear with plan for execution.	Some details are missing. Methods are generally clear.	Main sections missing critical information.
Presentation: *Organization*	Excellent organization. Introduction outlines full presentation. Main points lead directly from one to the other. Clear summary and conclusions.	Good organization. Introduction provides an overview of presentation. Transitions are adequate.	Overall organization is appropriate. Some abrupt content changes are noted.	Difficult to follow. Moves back and forth through main ideas.
Presentation: *Mechanics*	Slides are creative and provide a balance between words and illustrations. Models are well diagramed. Designed to highlight main points as well as subtle issues of interest.	Slides are well constructed and informative. Convey an appropriate amount of information. Easy to read and follow main points.	Slides are organized and present the relevant information. Too many words on most slides. Little effort to make them engaging.	Individual slides do not follow an overall plan. Numerous errors and formats are evident.
Presentation: *Ability to Answer Questions*	Questions are answered completely with full explanations provided for all answers. Alternatives are fully considered and addressed. Exhibits flexibility when presented options.	Questions are understood and answered completely. Explanations are provided for most answers. Alternative possibilities are considered.	Generally, understands the questions and provides basic answers. Does not consider alternatives. Some parts of questions are not addressed.	Questions are poorly understood. Answers are insufficient.

Dissertation Rubric

Skill	Exemplary Scholarship 10 9	Developed Scholarship 8 7 6	Developing Scholarship 5 4 3	Emerging Scholarship 2 1
Improvements to Proposal	Significant improvements to the proposal with new ideas and literature integrated.	Feedback and suggestions to the proposal were sufficiently addressed.	Some revision to the proposal but feedback not adequately addressed.	No revisions or improvements were made to the proposal.
Methodological Explanations	Methods updated to reflect work that was done. Deviations from proposal are noted and justified.	Methods updated to reflect work that was done. Deviations from proposal are noted.	Methods updated to reflect work that was done.	No updates or revisions made to the Methods
Clarity of Writing and Scholarly Presentation of Ideas	Writing is fluid, precise, and clear. Tone is professional and scholarly. Voice is authoritative and conveys clear understanding. Formatting enhances flow and readable.	Writing is fluid, precise, and clear. Tone is professional and scholarly. Formatting is clear and consistent.	Writing is organized and clear. May lack adequate transitions and scientific precision. Formatting is consistent but difficult to read.	Heavy reliance on jargon. Difficult to read. Terms not sufficiently defined. Formatting is inconsistent and unreadable.
Detailed Analysis, Interpretation, and Discussion is Provided	Analysis robustly answers research questions. Analysis is detailed and appropriately tailored for the results. Alternative analyses are included and considered. Interpretations are well-reasoned.	Analysis is thorough and sufficiently answers research questions. Analysis is detailed. Alternative analyses are considered. Interpretations are sufficient.	Basic analysis is complete but does not fully answer research questions. Analysis lacks sufficient detail. Alternatives are not considered.	Analysis of results incomplete. Research questions not answered.

Appropriate Visualizations of Analysis	Analyses are visualized in well-designed tables/figures. Tables/figures clearly and consistently formatted.	Analyses are visualized in tables/figures when appropriate. Tables/figures clearly and consistently formatted.	Important visualizations missing. Tables/figures unclear and inconsistently formatted.	Limited visualizations of analyses. Visualizations unreadable.
Conclusions are Well Reasoned and Appropriate for Quality of Result	Validity of conclusions are rigorously discussed relative to alternative perspectives.	Conclusions are logical and alternatives are considered.	Conclusions are logical but incomplete. Possible alternatives not discussed.	Conclusions not supported by analyses.
Contributions to the Field and Future Directions	Theoretical, methodological, and practical contributions of the work are discussed. Limitations and next directions are considered.	Sufficient discussion of contributions to the field. Limitations are considered.	Limited discussion of contributions to the field.	No clear contributions to the field included.
Ethical Concerns Adequately Addressed	Specific ethical concerns are addressed and resolved.	General ethical issues (fairness, risks/benefits) are discussed/considered.	Limited consideration of basic ethical issues.	Ethical issues not considered.
Presentation: Content	Main purpose of research is identified and well argued. Analyses and results are clearly summarized. Contributions and practical implications/applications discussed. Deviations from proposal noted and justified.	Main points are explained and provide sufficient detail. Analyses and results are clearly summarized. Contributions are discussed. Deviations from proposal noted.	Introduction outlines the main issues. Some details are missing. Deviations from proposal not noted.	Introduction is underdeveloped. Purpose is unclear. Main sections missing critical information.
Presentation: Organization	Excellent organization. Introduction outlines full presentation.	Good organization. Introduction provides an overview of presentation. Transitions are adequate.	Overall organization is appropriate. Some abrupt content changes are noted.	Difficult to follow. Moves back and forth through main ideas.

	Main points lead directly from one to the other. Clear summary and conclusions.			
Presentation: Mechanics	Slides are creative and provide a balance between words and illustrations. Visualizations are included and well-designed. Designed to highlight main points as well as subtle issues of interest.	Slides are well constructed and informative. Convey an appropriate amount of information. Visualizations are included. Easy to read and follow main points.	Slides are organized and present the relevant information. Too many words on most slides. Little effort to make them engaging.	Individual slides do not follow an overall plan. Numerous errors and formats are evident.
Presentation: Ability to Answer Questions	Questions are answered completely with full explanations provided for all answers. Alternatives are fully considered and addressed. Exhibits flexibility when presented options.	Questions are understood and answered completely. Explanations are provided for most answers. Alternative possibilities are considered.	Generally, understands the questions and provides basic answers. Does not consider alternatives. Some parts of questions are not addressed.	Questions are poorly understood. Answers are insufficient.

Rubric Submission

This form is intended to be completed by each committee member following a student's proposal defense. It does *not* replace the existing "pass" documentation currently in use. Instead, it serves as an additional tool to support evaluation and documentation. Committee members may each complete the form individually and submit it to the committee chair, who will then be responsible for submitting the consolidated feedback to the registrar. This documentation supports program-level assessment and may be helpful during external reviews, such as those conducted for Middle States accreditation.

Evaluation Criteria and Scoring Guidelines

Each proposal will be scored across a series of evaluation categories. The following guidelines apply:

- **Pass:** Scores of 8 or higher in each category.
- **Pass with Revisions:** Scores ranging from 3 to 7 in one or more categories.
- **Fail:** More than half of the categories scored in the 1–2 range.

Procedures Following an Unsatisfactory Evaluation (Fail)

If a student receives a failing evaluation (i.e., the majority of scores fall in the 1–2 range), the following steps are required:

- **Mediation Meeting:** The student must meet with the committee chair to review the feedback and discuss the path forward. The chair must confirm that the student is adequately prepared before proceeding to a second defense.
- **Revisions and/or Redo:** The student may be required to revise the written proposal and/or repeat the defense.
- **Multiple Attempts:** Students are permitted a second defense attempt. If the second attempt is also unsuccessful, a third attempt requires formal review and approval. In this case, the committee must submit a remediation plan and a written request for a final attempt to the Provost's Office. If the third attempt also fails, the student will be dismissed from the program.

Dissertation Style Guide

These guidelines provide a framework for thorough presentation of your research. The discussion in some parts of the chapters will differ for quantitative and qualitative research studies. The research questions normally drive selection of the methodological approach(es) and design of the research.

Quantitative research includes laboratory and field experiments, quasi-experimental studies, secondary data analysis of existing databases, and other studies that collect and analyze numeric data. **Qualitative research** includes ethnographies, phenomenological studies, sociolinguistic or discourse analysis studies, histories, cultural studies, and naturalistic inquiry. **Mixed-methods research** combines both quantitative and qualitative approaches, as is common in

case studies, surveys and action research. There are no separate guidelines below for mixed methods. Dissertations using those methods will usually benefit from both the guidelines for quantitative research and those for qualitative research.

These are guidelines only. You must consult with your Department Chair for specific requirements for the path you take.

Dissertations are typically structured as follows:

- Chapter 1 Introduction (broad overview of the research)
- Chapter 2 Review of the literature (and conceptual framework)
- Chapter 3 Methodology
- Chapter 4 Results or Findings
- Chapter 5 Interpretations, Conclusions, and Recommendations
- References
- Appendices

The three paper dissertation route may be structured as follows:

- Chapter 1 Introduction (broad overview of the research)
- Chapter 2 Paper 1
- Chapter 3 Paper 2
- Chapter 4 Paper 3
- Chapter 5 Interpretations, Conclusions, and Recommendations across all manuscripts
- References
- Appendices

Dissertation proposals are expected to include the key elements typically found in Chapters 1 (Introduction), 2 (Literature Review and Conceptual Framework), 3 (Methodology), and the References section of the final dissertation. Whether pursuing the traditional or three-paper format, both the proposal and the final dissertation must effectively communicate complex ideas in a clear, concise, and well-organized manner. For students pursuing the three-paper route, the core components of Chapters 2 through 5 are integrated within each individual manuscript, while the proposal still outlines the overall research plan and framework.

Chapter 1: Introduction

This chapter introduces and provides an overview of the research that is to be undertaken. Parts of Chapter 1 summarize your Chapters 2 and 3, and because of that, Chapter 1 normally should be written after Chapters 2 and 3.

Dissertation committee chairs often want students to provide a 5-10 page overview of their proposed “dissertation research” before undertaking a full literature review and detailed development of the methodology. Some may call this a “prospectus” and some may call it a first draft of Chapter 1. Whatever the terminology, the final draft of your Chapter 1 is to include accurate summaries of the final drafts of your Chapters 2 and 3.

It is important to undertake preliminary examinations of the literature before finalizing the “problem” and research questions of your proposed research. (These terms are defined below.) Exploration of the literature sometimes reveals that your initially chosen focus has already been extensively researched. Contradictory results may offer you an opportunity to do research that clarifies the reasons for the contradictions. If the results consistently support or contradict your expectations, you will probably have to find other research questions that have not yet been well researched.

Note: The items listed below are not intended to be headings in the dissertation but simply outline the elements that are included in a typical dissertation.

1-A. Overview: Briefly explain why the study is being undertaken and what main questions or foreshadowed problems will be addressed. Do this in a general manner, because it will be done more specifically in the following sections.

1-B. Statement of the Problem: Discuss the problem to be addressed in the research— the gaps, perplexities, or inadequacies in existing theory, empirical knowledge, practice, or policy that prompted the study. The problem may be a theory that appears inadequate to explain known phenomena, the lack of empirical data on a potentially interesting relationship between X and Y, or a common practice that appears ineffective. First state the problem generally and then state the specifics that your research will address. In quantitative research, the specifics will include the constructs studied.

That your favorite reading program is rarely used in schools does not constitute a problem; widespread impaired reading in inner-city elementary schools is a problem. That your favorite conjectures are not represented in prevailing theory does not constitute a problem; that the theory does not explain applicable phenomena is a problem. That a certain group has been omitted from prior studies can indeed constitute a problem, because theory, policy and practice have not been shaped by knowledge of that group.

Problems usually have underlying causes that may be well-known or the subject of speculation. They also have consequences that are often apparent. You should briefly discuss these causes and consequences.

1-C. Purpose: The purpose of research is to acquire knowledge to address the problem or certain aspects of it. Quantitative research tries to fulfill that purpose by answering questions and/or testing hypotheses. Qualitative research tries to fulfill that purpose by starting with foreshadowed problems, conjectures, or exploratory questions. Mixed-methods research may use both approaches.

1-D.2. Research Questions or Hypotheses: Research questions address problems of the study. Each research question seeks answers to a specific problem situation described in your study. The type of the data and its availability determine the research

questions. For instance, research questions should relate to the conceptual framework. Each question should address and target a separate problem situation.

A good hypothesis clearly states the expected relationship (or difference) between two variables and defines those variables in operational, measurable terms. The hypothesis (or hypotheses) logically follows the review of related literature and is based on the implications of previous research. A well-developed hypothesis is testable, that is, can be confirmed or dis-confirmed. The qualitative researcher is unlikely to state hypotheses as focused as those of a quantitative researcher but may have and express some hunches about what the study may show.

1-D.2. Significance of the Study: Discuss the potential significance of the research. Significance comes from the uses that might be made of your results—how they might be of benefit to theory, knowledge, practice, policy, and future research. The potential significance should be based upon your literature review in Chapter 2.

1-E. Conceptual Framework: Briefly summarize the theoretical foundation or conceptual framework(s) derived from the literature review that is reported in Chapter 2. Conceptual framework is the theoretical foundations helping us understand the problem situation and its dynamics. It includes your study variables and depicts the established or predicted relationship(s) among these variables. You may adopt an existing conceptual framework or develop your own modified version based on the literature review.

1-F. Summary of Methodology: Briefly summarize the methodology of the research that is described fully in Chapter 3.

1-G. Limitations: All studies have limitations to their internal validity, generalizability, and applicability. The researcher has no control over limitations. You have a responsibility to forewarn readers of the limitations and the reasons for them. Some limitations arise from the delimitations of the study—boundaries to make the study manageable, such as studying only one sub-population of interest, addressing only parts of a problem, or perhaps examining only short-term effects. Some limitations arise from accommodating ethical concerns. Others come from shortcomings in methodology.

1-H. Definition of Terms: Briefly define key terms in the research that might not be well understood by the readers. Cite a source for each definition derived from the literature. It is acceptable for this section as well as sections 1-E and 1-G to appear in other chapters of the dissertation.

Chapter 2: Review of the Literature

Scholarly research is always a leap from the known to the unknown. The literature review and conceptual framework are used to construct a platform of the known from which you jump. Constructed carefully, the literature review and conceptual framework can maximize the chances of your spanning the abyss and reaching something substantive when you land. Constructed carelessly, they can undermine your research.

The literature review should carefully examine prior research and thought relevant to key aspects of your anticipated research. It should be used to inform:

a) The problem to be addressed and its significance

b) The theoretical foundation or conceptual framework
c) The research questions, hypotheses, foreshadowed problems, or conjectures
d) The research paradigm and the methodology

The subsections indicated below are of the process and components of a literature review and not necessarily subheadings of Chapter 2.

2-A. Introduction: Topic(s), Purposes, and Methods of the Literature Review: A literature review usually begins with an indication of the topic(s) to be covered and the purposes of the review. The methods of the review should be briefly described. Indicate the indices and other methods used to search for applicable literature, the terms searched with each, and the years searched (usually the last ten or twenty years, plus key literature from earlier years). A review should address each topic highly applicable to the problem. For problems that are not well researched, the literature review may also address other topics that are tangentially related and might help inform the study. If the literature on a topic is voluminous, it is not uncommon to find more than 100 studies, you should be selective, covering the literature most applicable to the focus of your proposed research, as indicated by the research questions, hypotheses, foreshadowed problems, or conjectures. Consult with your advisor before beginning the literature search to make sure you are covering the topics and years of research that he or she thinks are appropriate.

2-B. Description and Critique of Scholarly Literature: Each major theoretical discourse, conceptual discussion, and empirical study should be described and critiqued briefly. Both the strengths and weaknesses should be identified. For theoretical discourses, indicate the source of the theory, overlaps and disparities with other applicable theories, and whether and how well the theory has been empirically verified. For conceptual discussions, indicate the sources of the concepts, overlaps and disparities with other applicable concepts, and whether and how well the concepts have been empirically verified. For empirical studies (including qualitative ones) indicate the research questions, methodological strengths and weaknesses, results (both their magnitude as well as their statistical significance or extent of cross-verification), conclusions, and implications. It is important to note that a scholarly review of the literature should focus on primary sources such as refereed journal articles rather than secondary sources such as course textbooks.

Organizing the written review can be a challenge because the review has several simultaneous purposes. Often the best strategy is to organize the studies under major topics, theories, constructs, research questions, or methodologies. When a given study addresses more than one organizational category, you might critique it under the first applicable category, and then briefly refer to it under each subsequent applicable category. Alternatively, in the subsequent organizational categories, you might extend the critique as appropriate for that category. When considerable literature falls within one organizational category, it might be organized within second level categories. Otherwise, the description and critique of literature might be presented chronologically. Lesser literature sometimes can be described and critiqued jointly, for instance, by indicating, “Several other smaller studies found (Anderson, 1995; Baxter, 1992, Castro; 1999).”

You should avoid creating a biased review that only covers prior literature that supports your predispositions and disregards other literature. Similarly, you should consistently critique the literature. Do not ignore weaknesses in studies supporting your predispositions and do not be hypercritical of studies that contradict your predispositions. Failure to conduct a fair-minded review is likely to compromise your research.

2-C. Inferences for Forthcoming Study: Once you have described and critiqued the individual sources, you should analyze and synthesize across them to draw inferences applicable to your anticipated research. The inferences generally should be about:

- the problem to be addressed in your research and its significance,
- possible research questions, hypotheses, foreshadowed problems, or conjectures,
- possible theoretical or conceptual framework to be used
- possible research paradigms and methodologies to be used.

The inferences might be stated at the end of each major topic of your review or after all the relevant topics have been discussed. The following questions may generate useful inferences: What does the literature state about the extent of the problem, its underlying causes, where it is most and least severe, and its consequences for theory, knowledge, practice, policy and/or research? How have results of empirical studies varied according to the questions/hypotheses/conjectures that have been addressed? What conceptual frameworks have been applied and with what insights? How might the conceptual frameworks be modified or synthesized to provide new insights to this problem? Which research paradigms and methods have yielded the strongest results and which the weakest results, and why?

2-D. Theoretical/Conceptual Framework for Forthcoming Study (May appear in chapter 3). The problem and research questions, hypotheses, foreshadowed problems, or conjectures were explained above under Chapter 1, but the “theoretical framework” or “conceptual framework” has not yet been explained. These are a theory or set of interrelated constructs that provide perspective or “lens” through which the research problem is viewed and through which the choices about the research will be made. They help narrow down and focus the research. Note that a theoretical or conceptual framework works like a telescope or microscope, and thus it both enhances what you can see and restricts your breadth of vision. For that reason, a conceptual framework should be used judiciously to help inform your study rather than to dictate all aspects of it. Sometimes important breakthroughs occur when a researcher abandons the commonly used conceptual framework and applies one never used with a given problem.

Chapter 3: Research Design And Methodology

The methods are the procedures used to acquire empirical evidence and analyze it for purposes of answering research questions, testing hypotheses, and examining foreshadowed problems, following up on conjectures, and going forward from exploratory questions. The choice of methodology should be made in light of the literature review and with careful deliberation. Small oversights can sometimes

undermine a long and difficult study. Your committee will help you think through the appropriateness of proposed methods and will probably suggest some refinements.

Your approved proposal is considered a blueprint for research. You are expected to do everything indicated in that blueprint. In experimental research, it is usually expected that no changes will be made unless you encounter unanticipated problems that require modifications. In other quantitative research, such as quasi-experimental, longitudinal and secondary data analysis, additions over and beyond the blueprint may be appropriate to deal with unanticipated opportunities. In qualitative research, the proposal outlines the broad parameters of the study, but usually several details are expected to be decided during the actual data collection and analysis. Changes in the planned research should be made only after consultation with your full dissertation committee. Changes in the collection and handling of data from humans will generally require re-submission for IRB approval.

A few important aspects of the methods cannot be known until after the study has been conducted, such as the response rates from samples, errors or accidents in carrying out the planned methods, and whether the collected data meets the assumptions of the planned statistical analyses. Consequently, whatever is written in the research proposal about methodology may have to be updated some when preparing Chapter 3 of the dissertation.

The subsections indicated below are the components of the methodology and not necessarily subheadings of Chapter 3. Mixed-methods studies may benefit from the guidelines below for both quantitative research and qualitative research.

3-A. Methodology: Briefly re-introduce the problem and provide an overview of the methodological approach.

3-B. Conjectures, or Exploratory Questions: State the conjectures, or exploratory questions that guided the inquiry. The conjectures or exploratory questions can be descriptive, associational, and causal. Qualitative research answers questions in a holistic manner based on all or most of the available information, cross-verifying among several sources of information. The process often involves continual drawing of tentative inferences throughout the ongoing data collection and verifying those inferences with the subsequently-collected data.

3-C. Research Procedures: Describe in detail how the inquiry was undertaken. Generally, the description should be thorough enough that other skilled researchers could approximately replicate your study from the description.

- Introduce the epistemology that will guide the inquiry.
- Explain the theoretical perspective that will drive the research, and why it was selected.
- Indicate the methodology used and why it was selected.
- Indicate the specific methods used and the justification for them. How were sites, cases, and informants selected? Why? What access did you unsuccessfully seek? Which people perhaps tried to minimize contact with you and which repeatedly sought it out? How did you collect your data? Why? What verification procedures were used in the field? How did you protect against imposing your

biases on the data? Describe and append any interview guides, protocols, rubrics used to assist in the data collection.
- Indicate how you managed your qualitative data. Did you take notes or make audio/video recordings? Was any data not analyzed? Why?
- Indicate how you analyzed and interpreted your data, making sure the analysis was consistent with the selected methodology. If you inferred themes, explain how. If you coded the transcripts, explain the coding system and checks for coding reliability and validity. How did you analyze the data from the coding? How did you triangulate or otherwise verify findings? How did you interpret the full set of data?

3-D. Human Participants and Ethics Precautions: Summarize potential risks to humans from whom data is collected in your research, and summarize precautions taken to ensure informed consent (when needed) and to minimize the risks to participants in your research. This information can be drawn from the Office of Research and Sponsored Programs - Institutional Review Board (IRB) Submission Form that must accompany your proposal when it is submitted for review and approval. (Reminder: You must have approval from the Institutional Review Board before beginning data collection from or about humans!) Also address other ethical issues, such as your possible conflicts of interest and personal biases that could have influenced the research, and how you minimized their effects. After receiving IRB approval, participant recruitment and data collection will begin."

Chapter 4: Results Or Findings

Data analysis, whether quantitative or qualitative, is intended to summarize a mass of information to answer the research questions, test the hypotheses, examine the foreshadowed problems, and explore the conjectures. The results are generally reported in Chapter 4 and then interpreted in Chapter 5. That is not possible for some modes of qualitative research, where analysis and interpretation are closely intertwined, but even then, the interpretation in Chapter 4 should be at a low level, with higher level, overall interpretations reserved for Chapter 5.

The text should tell a story and teach the result in an order that will be intuitive, interesting, and easily understood by a reader not previously informed about the subject. The text should highlight and emphasize what is most important. It should present more briefly the less-important results.

Deciding which results are most important should be based on consideration of: (a) the epistemology, theoretical foundation, or conceptual framework that guided the study, (b) the main questions, hypotheses, or conjectures of the research; (c) the magnitude and statistical significance or cross-validation of results, although when results were strongly predicted and not found, that is also an important finding; (d) the consistency of the results across multiple measures of a construct and across similar constructs; and (e) the potential implications for theory, knowledge, practice, policy, and future research. Do not bury your reader in a flood of computer-generated statistics. That is likely to confuse them and make nothing memorable. Important results should generally be shown in a table, chart, or graph, and mentioned in the text. They may also be illustrated with an example or two. Less important results might be shown in a table, but

not mentioned in the text, or presented briefly in the text and not shown in a table or graph. If there are less important results whose complex details may be of interest to a few people, put those results in an appendix and have the text briefly reference the appendix.

Standardize key terminology in this chapter and throughout the dissertation. While the use of synonyms for key concepts and variables can minimize irritating repetition, it may also leave readers unsure whether the differing terms represent somewhat different things.

The results need to be reported in sufficient detail to justify any subsequent conclusions and recommendations, which are normally reported in Chapter 5. When you sit down to write Chapter 4, review both the guidelines for it herein and the guidelines below for Chapter 5. Then, as you write Chapter 4, keep a separate list of points that might be discussed in Chapter 5.

4-B. Text: The text should focus on the most important results and devote less attention to the less important results. All results should be indicated but not necessarily reported individually. For instance, if you did a series of analyses relating the outcomes to demographic characteristics, and there were no statistically significant results and that was not surprising, it may be preferable to say that in one sentence rather than report each of those individual results. The text should also note patterns and inconsistencies among the various results. Make sure to briefly report response rates and item-completion rates for each data-collection effort.

4-C. Reporting Statistics: Mean values should almost always be accompanied by their standard deviations, and the “n”s (unless the “n” is consistent for all analyses). For main results, it is desirable to report both the “p values” (of statistical significance) and indications of the magnitude of the results, including mean differences and effect sizes indicated by omega squared, r squared, etc. When results are not significant, discuss whether low power of the statistical analysis may have obscured real differences or relationships.

4-D. Tables, Graphs and Charts: Tables are a good way to present many results in a condensed format, but most people find large tables of data overwhelming, so the text should highlight the most important results. You might also bold the most important results in the table. Graphs and charts naturally highlight results, if kept reasonably simple and presented well. In every case, there should be preceding text introducing a table, graph or chart. There may also be text afterward, discussing additional points.

4-E. Raw Data: Raw data for individual participants is usually not reported in the dissertation, unless there were only a small number of participants. Some illustrative quotes are, however, often included. Make sure that your use of quotes does not violate representations made in your Informed Consent materials. When the full data set can be printed on a few pages, it may be included in an Appendix. Note: The APA Manual indicates that raw data should be kept for at least five years, and that you are generally obligated to make your data available to others for reanalysis.

Chapter 5: Conclusions, Interpretations, And Recommendations

This is the chapter in which you give meaning to the results partly by tying them to past theory, research, policy, and practice and partly by extrapolating them to future theory, research, policy, and practice. Chapter 5 is a time for imagination and boldness, but with scholarly caution. The interpretations, conclusions, and recommendations must have some basis in your study and are more credible if also based on prior literature.

Chapter 5 is often the weakest one in the first draft of the completed dissertation. Students often are exhausted from the prior work and are rushing to finish Chapter 5 by a deadline. They usually fail to appreciate that Chapter 5 requires a change in mindset. Chapters 2, 3, and 4 require the student to progressively narrow the focus and then Chapter 5 requires them to broaden their perspective.

Try to take a break of at least several days after completing Chapter 4 before you start writing Chapter 5. Prepare for writing Chapter 5 by reading the guidelines below; your statement of the problem, significance, and limitations in Chapter 1; your literature review in Chapter 2; your whole Chapter 4; and your notes made when writing Chapter 4 of points that should be included in Chapter 5.

The subsections indicated below are of the common components of Chapter 5 and not necessarily the subheadings of the chapter.

5-A. Summary: Begin with a very summary of the problem addressed and the main results of your research. Indicate whether the hypotheses were supported.

5-B. Conclusions: The results should be interpreted considering the full set of results, the applicable literature, the theoretical foundation or conceptual framework used, and the limitations of the study and literature. What do the results mean and what do they not mean? What are the possible causes of the results? What are the possible consequences of the results?

Conclusions are generalizations that tie back to the existing literature. The conclusions may be about the problem that was addressed or about theory, conceptual frameworks, policy, practice, or research. Conclusions indicate what is now known when your results and the prior literature are considered together. For each conclusion, you should briefly cite the results and literature that support it, either before stating the conclusion or after stating it. Double check each conclusion, while some of your results may support a given conclusion, some of your other results may contradict it. If the literature reports results similar to yours from studies with different populations or settings, that can be a basis for cautious generalization beyond your population and setting. On the other hand, if there are no other studies like yours, or the other studies' results contradict yours, be careful not to over-generalize your results. Conclusions may be included in the Interpretation section or a separate following section.

When addressing these questions, it is useful to distinguish what was learned with reasonable assurance, what was suggested only tentatively, and what was not learned. When the evidence is overwhelming, make your statements authoritatively. When the evidence is only suggestive, add caveats to your statements such as, "The results suggest ...," "It appears ...," or "It could be that ". Informed speculations are appropriate and useful in the interpretations, if you signal the reader that you are speculating.

Interpretation: The interpretation of statistically significant and large results is usually straight forward. Interpretation of statistically significant and small results is often bungled by doctoral students and even sometimes by mature scholars. Statistical significance only means that some association or difference probably (with a small chance of error) exists in the population, NOT that it is important. Statistically significant small associations or differences may be of little or no use for organizational or programmatic purposes. On the other hand, if an expensive program or structure has provided little improvement, it may be important to know this so that efforts are made to improve the program or structure, or to redirect the resources to better uses. Finally, the failure to find statistically significant results may be due to low power and may hide a real association or difference in the population.

While statistical significance is rarely tested in qualitative research, the underlying principles expressed in the above paragraph are applicable. It is important to assess the magnitude of the results. Small results may be useful for refining theory or informing management, but they should not be touted as means of making large improvements in practice.

5-C. Contributions to the Field

As part of the concluding chapter of the dissertation, students are encouraged to include a dedicated **"Contributions to the Field"** section. This section provides an opportunity to clearly articulate how the dissertation advances knowledge, theory, methods, practice, or policy within the student's discipline.

This section could include:

- **Theoretical Contributions:** A description of how the research extends, challenges, or refines existing theories or conceptual frameworks.
- **Empirical Contributions:** A summary of new findings or insights generated by the research and how they address gaps in the existing literature.
- **Methodological Contributions:** Any innovations or adaptations in research design, measurement, or analytic techniques that may be useful to other researchers.
- **Practical or Policy Implications:** Discussion of how the findings may inform practice, interventions, programs, or policy decisions in relevant settings.
- **Future Research Directions:** Suggestions for how other researchers can build upon this work, including unanswered questions or new avenues for inquiry.

This section should be written clearly, highlighting the original and significant contributions the student has made through their research. It helps contextualize the value of the dissertation and demonstrates readiness to engage in scholarly or professional leadership within the field.

5-D. Recommendations: Recommendations are suggestions for action that are based upon the results and the applicable literature, with consideration for the limitations of both. The implications can be for modifications or new initiatives in theory, practice, and policy. They can also be for future research, new problems that have become apparent,

new research questions raised by the results, and conceptual frameworks and methodologies that seem to hold promise or should be avoided in the future. When formulating implications, try to anticipate implementation difficulties and unintended negative consequences. There always can be multiple implications for a given purpose, and the first implication that you generate may not be the best one. The tone of implication can range from tentative to advisory to exhortative, although the latter is inadvisable in dissertations, because they are considered the work of new scholars.

Statement of Nondiscrimination

Non-Discrimination Grievance Procedure - Federal

Title IX of the Education Amendments of 1972 prohibits discrimination based on sex in educational programs and activities that receive federal financial assistance. To ensure compliance with Title IX and other federal and state civil rights laws, Harrisburg University of Science and Technology has developed internal policies that prohibit discrimination and sexual misconduct based on sex, such as sexual misconduct and sexual violence. A copy of the Title IX non-discrimination procedure is available upon request.

Sexual Misconduct Policy

Harrisburg University's Sexual Misconduct Policy in located in the Student Handbook posted on MyHU.

Non-Discrimination Policy - State

The Pennsylvania Fair Educational Opportunities Act provides student access to benefits and services of the University and prohibits discrimination without regard to race, color, gender, religious creed, ancestry, national origin, sexual orientation, age, civil union, marital status, veteran status, handicap or disability, perceived handicap or disability, relationship or association with an individual with a handicap or disability, use of a guide or support animal, and/or handling or training of support or guide animals. This commitment includes, but is not limited to, admissions, course offerings, transfer of credit, financial aid, scholarships, student employment, internships, educational and social programs, and student advisement and counseling.

Any complaint of an alleged act of discrimination must be filed within 180 days of the incident by contacting the PA Human Relations Commission located at 1101-1125 Front Street, 5th Floor, Harrisburg, PA 17104-2515 (717) 787-9784.