STUDENT HANDBOOK

DEPARTMENT OF INFECTIOUS DISEASES AND MICROBIOLOGY
GRADUATE PROGRAMS
(2026-2027)

This handbook applies only to students who enter their specific academic program in Fall 2026 and will apply to your academic program throughout your course of study to completion of the program.

For students who entered their academic program of study prior to Fall 2026, please reference the appropriate Handbook corresponding with your starting semester. You must follow these handbook requirements in completing your courses of study. If you need another copy, please see the IDM Academic and Student Affairs Administrator(idm@pitt.edu).

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INTRODUCTION

Students – Welcome to the Department of Infectious Diseases and Microbiology! This **Student Handbook (AY 2026-2027)** will be a crucial resource and your best source for specific details on departmental and program degree requirements and expectations for degree completion. University, Public Health, and department requirements are all subject to change; these will be communicated to you. It is your responsibility to check your pitt.edu email regularly as this is the OFFICIAL communication source for the entire university. Departmental and School level information sessions, activities, retreats, etc. should be attended to obtain information that will be shared about changes, new initiatives, and opportunities for students.

Faculty – This document provides the requirements, policies, and procedures for the graduate programs' operations. Please use it as a resource while advising IDM graduate students.

Academic Integrity (Students & Faculty) **–** All faculty and students are required to be knowledgeable of and adhere to the existing academic integrity policies of the University of Pittsburgh**.** The complete University of Pittsburgh Guidelines on Academic Integrity are available online. The Pitt Public Health policies and procedures are available online as well on the website. All students must complete the Academic Integrity Module, and access will be given at the start of the school year. Please be advised that any student that is found to be in breach of academic integrity will be subject to the guidelines, procedures, policies, and punishments detailed in the above, linked documents.

ALL IDM STUDENTS ARE BOUND BY THE REGULATIONS BELOW

Academic Integrity: Students are expected to comply with the University of Pittsburgh's Policy on Academic Integrity and Pitt Public Health Academic Integrity Procedures. Any student suspected of violating this obligation for any reason will be required to participate in the procedural process, initiated at the instructor level, as outlined in the University Guidelines on Academic Integrity.

Disabilities: If you have a disability that requires special testing accommodation or other classroom modifications, you must notify the instructor and Disability Resources and Services no later than the second week of the term. If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and Disability Resources and Services (DRS), 140 William Pitt Union, (412) 648-7890, drsrecep@pitt.edu, (412) 228-5347 for P3 ASL users, as early as possible in the term. DRS will verify your disability and determine reasonable accommodation for this course.

Nondiscrimination: The University of Pittsburgh prohibits discrimination or harassment based on race, color, religion, national origin, ancestry, sex, age, marital status, familial status, sexual orientation, disability, or status as a disabled veteran or a veteran of the Vietnam era.

Social Media: Students will work in practicum sites and other learning environments within and outside the University, and students should be aware of confidentiality issues. Students are prohibited from posting and "live streaming" information, data, or photos via phones, laptops, or other electronic devices from these learning sites, classrooms, or other educational sessions on social media of any kind. Exceptions for this can be made only with written release from individuals at the learning sites, classes, or educational sessions. Approval must be obtained by the practicum site mentor, faculty instructor, or faculty advisor for approval prior to any recording. Failure to comply with may result in disciplinary action or expulsion from the program.

DOCTOR OF PHILOSOPHY (PhD) PROGRAM

I. COMPETENCIES

Upon completion of the PhD degree, the graduate will be able to:

- Conduct bioinformatic analysis of pathogen genome data, explaining the relevance to infectious disease pathogenesis and host response.
- Demonstrate knowledge of the molecular biology of hosts and pathogens and how pathogenesis of infectious diseases evolves from the interactions of organisms on a molecular level.
- Explain all aspects of the lifecycle of a variety of infectious viruses and further evaluate current control and prevention measures.
- Communicate appropriate public health content in writing and through oral presentation.
- Conduct independent hypothesis-driven research and publish peer-reviewed manuscripts based on their research project.

II. SUMMARY OF REQUIREMENTS

A. Courses

Degree Requirements for PhD in Infectious Disease and Microbiology		
Course number	Course name	Credits
IDM 2001	Molecular Biology of Microbial Pathogens	3
IDM 2002	Molecular Virology	3
IDM 2103	Host Response to Microbial Infection	3
IDM 2004	Viral Pathogenesis	2
IDM 2014	Functional Genomics of Microbial Pathogens	3
IDM 2021 (4 terms)	Special Studies in Microbiology	1-15
IDM 2021 (2 Summer terms)	Special Studies in Microbiology	6
IDM 2024	Principles of Molecular Methods	2
IDM 2025 (4 terms)	Microbiology Seminar	1
IDM 2038	Prevention, Treatment, and Control of Global Infectious Diseases	3
IDM 2041	Research Ethics and Scientific Communication	1
IDM 3440	Vaccines and Immunity	2
BIOST 2041	Introduction to Statistical Methods	3
EPIDEM 2110	Principles of Epidemiology	3
IDM 2161	Methods Infectious Diseases Epidemiology	1
PUBHLT 2011	Essentials of Public Health	3
PUBHLT 2022 (two terms)	The Dean's Public Health Grand Rounds	0
PUBHLT 3100	Grant and Thesis Proposal Writing for Public Health	3
PhD Research/Elective Credits		variable

Required Course Exemptions: If you have earned a graduate degree and have completed a similar course, you must follow the instructions and procedures for department and school-wide course exemptions.

Elective Courses
(* = Requires appropriate prerequisite course(s) and/or co-requisite course(s) - See Appendix B)

Six (6) elective credits must be completed. Below are elective suggestions; however, you are strongly encouraged to identify appropriate electives (offered at Pitt Public Health or other schools at Pitt) that are most related to your research area.

Advisors and course coordinators can approve other electives.

Course Number	Course Name	Credits	Semester Offered
EPIDEM 2160*	Epidemiology of Infectious Disease	2	Fall
EPIDEM 2180*	Fundamentals of Epidemiological Methods	3	Spring
EPIDEM 2260 *	Epidemiological Basis for Disease Control	2	Fall
FACDEV 2200	Practicum on University Teaching	1-3	Fall/Spring/Summer
IDM 2037	Advanced Vector Borne Diseases (HIGHLY RECOMMENDED)	3	Fall
IDM 2069	Infection Prevention and Control in Healthcare Settings	2	Spring
MSIMM 2210	Comprehensive Immunology	2	Spring
MSIMM 2230*	Experimental Basis of Immunology	2	Spring
MSIMM 3280*	Immunology of Infectious Disease (Based on availability)	2	Fall

B. Required Milestone Examinations

Doctoral Preliminary Examination

Each student must pass an oral preliminary examination at the completion of their first year in the program. The exam is designed to test their ability to analyze, discuss and interpret a scientific paper in the field of molecular biology, microbiology, immunology, or infectious diseases, as well as to demonstrate a comprehensive understanding of associated broader concepts.

NOTE: According to University policy, students are not permitted to take the examination unless their cumulative GPA is 3.0 or higher.

Doctoral Comprehensive Examination

Each student must pass a comprehensive examination at the completion of their second year of the program. The exam consists of a written proposal that outlines their proposed research plan, and an oral examination covering the selected topic of their research as well as the broader concepts in infectious diseases, immunology, virology, and related areas, and research methods in these areas.

NOTE: According to University policy, students are not permitted to take the examination unless their cumulative GPA is 3.0 or higher.

C. Research/Dissertation

1. Selection of Research Topic and Dissertation Advisor
   Incoming students will be given access to a list of current faculty members accepting PhD students. Interviews with accepted PhD applicants will occur with potential available PIs. Incoming PhD students will begin work in their lab at the start of year 1. Faculty members must agree to support a 4–5–year lab appointment. Students may choose to change advisors only with permission from the current and proposed advisors and the IDM PhD Program Director.

2. First Dissertation Committee Meeting - Submission and Approval of Research Proposal
   After passing the doctoral comprehensive exam at the end of the second year, the student must form a dissertation committee according to Committee Composition Rules and submit a research proposal to their dissertation committee for approval. *It is not required that the chair of the dissertation committee be the Primary Investigator for the student's lab research*. Since the comprehensive examination is usually held in July, the first dissertation committee meeting must be held by mid-December.

3. Yearly Dissertation Committee Meetings
   The student must present a concise progress report of their research every 12 months for review by the dissertation committee at an official committee meeting. If a student enters their 6th year, they should have committee meetings every 6 months.

4. F31 Grant Writing
   After passing the comprehensive exam, eligible students (US citizens and permanent residents) are strongly encouraged to write and submit an F31 grant proposal to the National Institutes of Health. Read more in the grant section below.

5. Seminar Presentation Policy
   As part of the Departmental Research Series and Journal Club, all PhD students are required to give a seminar on their work. Second- and third-year PhD students will have a 30-minute block. Fourth year and beyond will get a full hour. The presentation will be evaluated by the faculty, students, and staff in attendance. The evaluation criteria will include presentation skills, presentation organization, graphics, clarity in word choice and diction, introduction, and summary, etc. Although input is regularly provided from the student's dissertation committee on experimental design, data, analyses, approaches, and feasibility, it is likely that feedback on these aspects of the content might also be provided. Each attendee will complete an evaluation form, and the results will be shared with the student within a week of the presentation. The student should consult the PI about the evaluation. Note: All PhD students are required to attend Journal Club regardless of year in the program, and attendance will factor into your yearly doctoral evaluation.

6. Publication Requirement for Graduation (*policy instituted August 2005 & amended August 2013*)
   It is required that students have a minimum of one publication as primary author PUBLISHED and/or IN PRESS at the time of their dissertation defense. One of these papers must be a first-author publication. Review papers are excluded from this criterion. The dissertation committee should monitor the students' progress towards these publications, so that the requirement is completed on time.

7. Dissertation Defense
   Upon completion of the dissertation research, the student will present his/her work in an open seminar and defend their dissertation in a closed oral examination with their committee.

Additional Policies and Regulations : 2026-2027 Graduate & Professional Studies Catalog

III. PUBLIC HEALTH REGULATIONS FOR PhD STUDENTS

For additional guidance, refer here: https://www.sph.pitt.edu/student-resources

A. Dissertation Mentor: All students must choose their dissertation mentor from the IDM primary and secondary faculty. Only in unusual circumstances may a student petition to have their IDM graduate research project mentored by a non-IDM faculty member. This request will be subject to review and approval by the IDM PhD Program Director and Vice Chair for education.

B. Credit requirement: at least 72 credits of graduate study are required for doctoral degrees in Pitt Public Health.

C. GPA: A grade point average of at least a B (GPA = 3.0) and at least a satisfactory (S) must be maintained. A student with full graduate status is automatically placed on probation whenever their cumulative graduate GPA falls below 3.0. When a student's GPA falls below 3.0, the student, advisor, program director, and department receive notice from the school's Student Performance Committee. If a student has a cumulative GPA below 3.0 for two full consecutive terms, they are likely to be dismissed from the program. Students must have a cumulative GPA of 3.0 or above to be eligible to take the preliminary and comprehensive examinations and graduate. A doctoral student receiving a grade lower than B (i.e., 3.0 grade points) in any course must take it again and achieve a B or higher grade.

D. Grade Requirements: A grade of B or better must be maintained for all schoolwide core courses required in a student's academic program (see summary of requirements above). If a grade of C is earned, Pitt Public Health Educational Policies and Curriculum Committee recommend that the student and advisor meet to discuss the grade, and that the student is strongly encouraged to re-take the core course. However, this final decision is up to the advisor and the student. If a grade below C is earned, that student must repeat the course, according to Pitt Public Health policy.

E. Graduate Student Researcher (GSR) requirements: PhD students with Graduate Student Researcher (GSR) appointments need to be evaluated for both their academic progress and their employment status. Evaluation of academic progress is done separately through courses as well as preliminary and comprehensive exams. Please see the IDM PhD Program Director for more information.

F. Preliminary Exam: Through the exam, the student must be able to analyze and interpret data and grasp associated concepts.

G. Comprehensive Exam: Through the comprehensive examination, the student must demonstrate mastery of the general field of doctoral study, acquisition of both breadth and depth around specialization within the general fields, and the ability to use the research methods of the discipline. (Taken from Univ. Regulations on Governing Graduate Study at the University of Pittsburgh, Oct. 1991).

H. Full-Time Status: Normally, full-time students should register for the maximum number of credits (15) per semester before advancing full-time dissertation research (FTDR) after the second year of study. Students must be in FTDR status at the start of the 3rd year. Any exceptions require approval from the IDM PhD Program Director.

I. Course Level for Credits: At least one-half of the credits earned in a doctoral degree program must be at the graduate level (the 2000 or 3000 series). No courses below 1000 or from 7000-7999 may be applied toward graduate requirements.

J. Conferral of Degree: Doctoral degrees are conferred only to those students who have completed all course requirements with at least a 3.0 GPA, completed a successful dissertation defense, and all other requirements for graduation.

K. Post Course Requirement: A student who has completed all course requirements for a graduate degree but has not fulfilled other requirements (e.g., writing of a dissertation) is required – if University facilities or faculty time are being used - to register for at least one credit or full-time dissertation research each term, or for a greater number of credits as the school or department considers appropriate.

L. Degree Completion Timeline: Full-time doctoral students should complete their degree within five (5-6) years after admission to the program.

IV. SUGGESTED SEQUENCE OF COURSES

72 credit requirements to reach Full-time Dissertation Research (FTDR) status must be completed by the start of the 3rd year of study.

FIRST YEAR

Fall Term *(Students cannot take more than 15 credits in any semester)*

Course Number	Course Name	Credits
IDM 2001	Molecular Biology of Microbial Pathogens	3
IDM 2103	Host Response to Microbial Infection	3
IDM 2024	Principles of Molecular Methods	2
BIOST 2041	Introduction to Statistical Methods I	3
IDM 2021	Special Studies in Microbiology (Lab Rotation I)	3
IDM 2025	Microbiology Seminar	1
PUBHLT 2022	Public Health Grand Rounds	0
Total Credits		15

Spring Term

Course Number	Course Name	Credits
IDM 2002	Molecular Virology	3
IDM 2041	Scientific Communication & Research Ethics	1
IDM 3440	Vaccines & Immunity	2
PUBHLT 2011	Essentials of Public Health	3
IDM 2021	Special Studies in Microbiology	5
IDM 2025	Microbiology Seminar	1
PUBHLT 2022	Public Health Grand Rounds	0

Total Credits		15

Summer Term (*Students cannot take more than 6 credits during the summer term*)

Course Number	Course Name	Credits
IDM 2021	Special Studies in Microbiology (Research)	6
Total Credits		6

DOCTORAL PRELIMINARY EXAMINATION IN JUNE

SECOND YEAR

Fall Term

Course Number	Course Name	Credits
IDM 2004	Viral Pathogenesis	2
IDM 2021	Special Studies in Microbiology (Research)	6
IDM 2025	Microbiology Seminar	1
IDM 2037	Advanced Vector Borne Diseases	3
EPIDEM 2110	Principles of Epidemiology	3
Total Credits		15

Spring Term

Course Number	Course Name	Credits
IDM 2014	Functional Genomics of Microbial Pathogens	3
IDM 2038	Prevention, Treatment and Control of Global Infectious Diseases	3
IDM 2161	Methods of Infectious Disease Epidemiology	1
IDM 2021	Special Studies in Microbiology (Research)	4
PUBHL 3100	Grant and Thesis Proposal Writing for Public Health	3
IDM 2025	Microbiology Seminar	1

Total Credits		15

Summer Term

Course Number	Course Name	Credits
IDM 2021	Special Studies in Microbiology (Research)	6
Total Credits		6

DOCTORAL COMPREHENSIVE EXAMINATION IN JULY

THIRD, FOURTH, & FIFTH YEARS

Fall Term

Course Number	Course Name	Credits
FTDR 3999	Full-time dissertation study	0

Spring Term

Course Number	Course Name	Credits
FTDR 3999	Full-time dissertation study	0

Summer Term

Course Number	Course Name	Credits
FTDR 3999	Full-time dissertation study	0

DISSERTATION DEFENSE

Please note: PhD students must take 15 credits each fall and spring semester and 6 credits each summer of their first two years to meet the 72-credit requirement to reach Full-time Dissertation Research (FTDR) status.

V. EXAMINATION REQUIREMENTS

A. Doctoral Preliminary Examination

The purpose of the PhD preliminary examination is to determine the suitability of the student as a candidate for progression to the second year of the PhD program. Each PhD student must pass the preliminary exam to continue in the PhD program. *According to University policy, a cumulative GPA above 3.0 is required to be eligible to take this milestone examination.*

The exam is typically held in June in the first year of study. In the event of a failure, the student may apply to the IDM Vice Chair for Education for a re-examination. Students who are not allowed to retake the examination or who do not pass the re-examination will be released from the program. One week in June is identified during the academic year, so faculty and students can block this time off to ensure all exams are scheduled and held in a timely fashion. It is expected that all students will take their exam this week.

Selection and Establishment of the Examination Committee

- The examination committee must follow these rules:
- The committee must be comprised of at least three Pitt faculty members.
- The exam chair must be a faculty member from the Department of Infectious Diseases and Microbiology.

- The composition of the committee must represent two university departments; at least half of the committee must hold primary appointments in Pitt Public Health, and at least half must be of graduate faculty status.
- Refer here: Committee Composition Rules.

The dissertation advisor will not be a member of this committee, nor will they attend. The IDM Vice Chair for Education will work with the IDM Academic and Student Affairs Administrator to establish these examination committees. Once a committee is identified, the IDM Academic and Student Affairs Administrator submits it to the Dean's Office. The committee will conduct the examination within four weeks of the Dean's Office's approval notification. Students will be notified of their committee members and will be provided with further instructions. Once instructions are provided, students are encouraged to practice with their lab and/or fellow students if no faculty member participates.

Examination Format

The examination coordinator will select a recently published paper from a leading peer-reviewed journal that does not directly pertain to the student's anticipated dissertation work. The student shall prepare a critique of the paper for oral presentation. The exam consists of the oral presentation of the data with figures from the paper along with the critique followed by a series of questions from the committee members designed to determine if there is a solid understanding of the background of the study, actual data, the potential flaws, the advantages and limitations of techniques involved, and the implications of the results for the field. Additional questions can also be asked that seek to probe the students' comprehensive understanding of the broader concepts associated with the paper, from their courses, and of current importance in the field. The committee shall vote pass/fail with a simple majority opinion sufficient for a passing grade.

Re-examination Procedure

If the student fails the preliminary PhD exam, the student may appeal to the IDM Vice Chair for Education and IDM PhD Program Director by submitting a written request via email. If granted, the IDM Vice Chair for Education and IDM Academic and Student Affairs Administrator will select one or two new committee members to serve on the re-examination committee and try to keep the original committee chair if possible. The new committee will follow its composition rules. The exam format will remain the same. It is up to the IDM Vice Chair for Education if the journal publication that forms the basis of the exam is changed or remains the same as the original exam. Students who are not allowed to retake the examination or who do not pass the re-examination will be released from the program.

B. Doctoral Comprehensive Examination

The comprehensive examination tests the student's ability to think independently and demonstrate comprehensive knowledge in the broad area of infectious diseases and related sub-disciplines. In the comprehensive examination, the student will be required to demonstrate comprehensive knowledge in the areas related to infectious diseases, including, but not limited to, principles and methods in immunology, virology, pathogenesis of infectious diseases, cell biology, and molecular biology. The University of Pittsburgh's regulations on doctoral study can be found at 2026-2027 Graduate & Professional Studies Catalog and includes the following statement:

"The Comprehensive Examination should be designed to assess the student's mastery of the general field of doctoral study, the student's acquisition of both depth and breadth in the area of specialization within the general field, and the ability to use the research methods of the discipline."

An informal, instructional meeting will be held about three (3) months before the exam date.

The exam will usually occur in June or July of the second year of study with a final grade of pass or fail. In the event of a failure, the student may apply to the IDM Vice Chair for Education and IDM PhD Program Director for a re-examination. Re-examinations must be complete by the start of the fall semester. Students who are not allowed

to retake the examination or who do not pass the re-examination will be released from the program. One week is identified during the academic year, so faculty and students can block this time off to ensure all exams are scheduled and held in a timely fashion. It is expected that all students will take their exam this week.

Selection and Establishment of the Examination Committee

The examination coordinator (usually the PhD Program Director) will work with the IDM Academic and Student Affairs Administrator to establish the comprehensive examination committee under the following rules:

- The committee must be comprised of at least three Pitt faculty members.
- The exam chair must be from the Department of Infectious Diseases and Microbiology.
- The composition of the committee must represent two university departments, at least half of the committee must hold primary appointments in Pitt Public Health, and at least half must be of graduate faculty status.

The dissertation advisor will not be a member of this committee, nor will they attend. Once the PhD Program Director selects the committee, the IDM Academic and Student Affairs Administrator submits it to the Dean's office. Students will be notified of their committee members and will be provided with further instructions. Once instructions are provided, students are encouraged to practice with their lab and/or fellow students if no faculty member participates.

Examination Format

The examination format will consist of two components, a written proposal and an oral examination:

Written Proposal:

- The students will write a grant proposal (like the NIH R21 proposal) based on their current research project (see below for details).
- Approximately three weeks before the scheduled oral exam, the student will submit the full written proposal to the chair of the exam committee, who will distribute it to the rest of the committee for review.
- At least one week before the oral exam, the chair of the committee will advise the student if the proposal is acceptable to proceed to the oral exam.
- If the proposal is judged not satisfactory, the student will be asked to revise and resubmit, and the oral examination will be rescheduled.
- The PhD Program Director will notify the students of specific timelines and due dates for their particular examination using the above bullet points as a guideline.

Oral Examination:

- The second component of the examination is the oral examination, which will have two parts, the first being questions related to the proposal and project, and the second being broader than comprehensive questions.
- At the beginning of the oral examination, and in the student's absence, the Examination Chair will briefly address the committee, communicating the ground rules for the examination.
- The students will then give a 20-to-30-minute presentation to introduce their research project using their medium of choice (i.e., PowerPoint, whiteboard, etc.)
- The first 1-1.5hours of the examination will focus on the student’s project proposal, including the rationale, background, preliminary data, approaches, methods, reasoning, interpretation, and anticipated findings. Then, the student will be examined on their comprehensive knowledge of those areas related to infectious diseases and related sub-disciplines.
- It will be the panel’s task to evaluate the students’ comprehensive understanding of overall concepts, details, and methodologies related to their proposal.
- At the end of the oral examination, the panel will vote in private to pass or fail the student. A simple majority shall prevail. There will be no conditional pass/fail decision. After the panel vote, the panel will immediately notify the student of the decision, and the Chair will provide an evaluation of the student’s performance. The Chair of the panel will also notify the examination coordinator of their decision and

submit a written critique of the student's performance. Students and their dissertation advisors will be notified of the exam outcome.

- A "pass" will be warranted when the student demonstrates both breadth and depth in their understanding of aspects in their field as noted above.
- A student who fails the comprehensive examination may petition the IDM Vice Chair for Education to be allowed to re-take the examination. Should the student fail the re-examination, they will not be allowed to continue in the IDM doctoral program. Examination re-takes must be completed by the start of the fall semester to align with the requirement that PhD students enter FTDR status by the beginning of the 3rd year.

Project Proposal for Comprehensive Examination

The project proposal will be a grant application with seven pages. The format will follow the National Institutes of Health R21 application.

The proposal should be written in Arial 11 font and consist of the following:

A. A title page with student name, proposal title, and abstract of up to 30 lines summarizing the proposal. The abstract should include a brief background of the project, specific aims and hypotheses, the significance of the project, the unique features of the project, and the methodology to be used.
B. A one-page section describing Specific Aims.
C. A six-page section describing the Research Strategy, including preliminary data.
D. References Cited section (no page limit).

The proposal is to represent the students' ideas and original writing, although feedback from the advisor is allowed and encouraged. The advisor is not to directly editing the written document; it is to be the student's own work. The studies proposed should include the students' current project but are not limited to what is currently being studied. Experiments and ideas can be explored in this proposal that might not be performed by the students but are interesting, important, and sound rationale. During the informational meeting, advice on writing the proposal will be provided. This proposal is not a dissertation proposal but could highly likely serve as an early version of one.

The following are permitted when developing the written proposal:

- Verbal discussions about aims and overall goals of the project with your PI.
- Written feedback from other students during a grant writing course, including faculty that run the course (as long as the faculty is not your PI or associated with your lab).
- Written feedback from other students in your lab/program.
- Written feedback from post-docs in your lab/department.

The following are NOT permitted when developing the written proposal:

- Direct sharing of drafts of the written comprehensive exam proposal with your PI or other individuals at the faculty level (such as Research faculty in your lab).
- Use of generative AI in writing the proposal.
- Direct use of all or a portion of your PI's funded grant(s) in your written proposal.

Re-Examinations

If the student fails the comprehensive PhD exam, the student may appeal to the IDM Vice Chair for Education and IDM PhD Program Director by submitting a written request via email. If granted, the IDM Vice Chair for Education and IDM PhD Program Director will select one or two new committee members to serve on the re-examination committee and try to keep the original committee chair if possible. The new committee will follow its composition rules. The exam format will remain the same. Students not allowed to retake the examination or who do not pass the re-examination will be released from the program. Examination re-takes must be completed by the start of the fall semester to align with the requirement that PhD students enter FTDR status by the beginning of the 3rd year.

VI. PUBLICATION REQUIREMENT FOR GRADUATION

It is required that doctoral students have a minimum of one publication based on their dissertation as a primary author of **PUBLISHED** and/or in **PRESS** at the time of their dissertation defense. The dissertation committee should monitor students' progress towards publication, so that they can meet this requirement on time.
If a student cannot meet this requirement due to extreme conditions and plans to submit the manuscript, the student should appeal to the IDM Vice Chair for Education and IDM PhD Program Director explaining the situation in writing and the proposed timeline for submission/publication. This letter should have the PI's approval and signature as well.

VII. GRANT WRITING – F31 GRANT

PhD students are strongly encouraged to write and submit an F31 grant proposal to the National Institutes of Health after passing the comprehensive exams. Grant submission is required for students who are eligible. Below are some resources:

- NIH announcement: http://grants.nih.gov/grants/guide/pa-files/PA-14-147.html
- Application guide: http://grants.nih.gov/grants/funding/424/index.htm
- General Tips: http://www.pitt.edu/~gsiegle/Siegle-f31hints-BehaviorTherapist10_fordistrib.pdf

Students should consult their faculty advisor and grants administrator. The resources and guidelines attached can change at any time, so you should contact IDM's Grants Administrator or faculty advisor's grants administrator, about 6 months before submission. Other grant mechanisms can substitute for the F31 only with approval from the IDM PhD Program Director.

VIII. DISSERTATION REQUIREMENTS

Dissertation Committee
The students and faculty advisor select the dissertation committee members. The Graduate School of Public Health and the University of Pittsburgh have established Committee Composition Rules. Once the committee members are selected, the student is responsible for notifying the IDM Academic and Student Affairs Administrator of the proposed committee members. *It is not required that the chair of the dissertation committee be the Primary Investigator for the student's lab research*. A memo requesting approval from the students' committee is sent to the Director of Student Affairs at Pitt Public Health. Committee meetings are not held until approved. The IDM Academic and Student Affairs Administrator will notify the student and their faculty advisor upon approval. The student is responsible for scheduling the committee meetings. If a conference room or audio-visual equipment is needed, the student must contact the IDM Academic and Student Affairs Administrator before the meeting for a reservation. If the student needs assistance for the meeting, they must notify the IDM Academic and Student Affairs Administrator of their meeting date to ensure the appropriate paperwork is completed. The dissertation committee's main responsibilities are to advise the student in the effective analysis of a research problem and to approve a body of original research of sufficient quality to form the basis for the PhD dissertation.

First Dissertation Committee Meeting - Dissertation Proposal
After passing the doctoral exam, the student must submit a research proposal to their dissertation committee for approval. Since the comprehensive examination is usually held in July, the first dissertation committee meeting must be **held by mid-December**. Prior to or at the first committee meeting, the Chair of the committee will be selected. **It is highly recommended that the chair of the committee be someone other than the student's PI.** This meeting will satisfy the following Pitt Public Health graduation milestones: dissertation overview approved, fulfilled research requirements, and admitted to candidacy. Upon approval of the research proposal, the student will continue to work towards completion of the dissertation work. Remember, the proposal used for the comprehensive exam is not your dissertation proposal but can serve as an early version of one. **Please note: Prior to the first committee meeting, students must submit their research proposal to all dissertation committee members in two (2) weeks in advance.**

Information to include in proposal:

A. Project significance and background
B. Specific aims
C. Preliminary data
D. Research methods/design.

Proposal Format:

1. 6-10 pages
2. Double Spaced
3. Times new roman or Arial
4. 1" margins

Continuing Dissertation Committee Meetings- Progress Reports

The student must present a concise progress report of their research at least every 12 months for review by the dissertation committee at an official meeting. This will be held in the fall semester of each year. Please note: Prior to the committee meeting, the student must send the progress report to all dissertation committee members two (2) weeks in advance.

The yearly report will include:

A. Project Background and Significance
B. Specific aims
C. Updated Results/Data
D. Research Methods

A minimum of three dissertation meetings is required by the graduate program prior to graduation (once per year). However, if the student and/or advisor feel the need to have more than one meeting per year, you are encouraged to schedule additional committee meetings. If a student does not complete their degree program in five (5) years, upon beginning their sixth year of study, they must hold at least two (2) dissertation committees in that sixth year. In the rare case that a student enters a seventh year of study, they must hold at least three dissertation committee meetings in the seventh year.

Dissertation Format

The student's dissertation must provide evidence of original scholarly research of sufficient quality to be published in a leading scientific journal. The student's dissertation committee will authorize the student to begin authoring the dissertation. Its style and format must conform to the standards set by the Graduate Council as shown below.

The dissertation will contain:

A. Title Page
B. Abstract
C. Introduction (including related literature review)
D. Hypothesis
E. Specific Aims
F. Materials and Methods
G. Results
H. Discussion
I. Implication for Public Health
J. Literature Cited (follow ASM Journal style)

Typically, items D and E are combined into one brief chapter. In case students wish to substitute items F and G with published or submitted manuscripts of their dissertation work, they should use the following format. If the previously published articles are included in the results section, they must be presented in a manner consistent with the remainder of the text and they must generate one contiguous document: i.e., with identical typeface, margins, and consistent sequential numbering of tables, figures, and footnotes. Bibliographic citations should be integrated with those for the rest of the document and presented in the Literature cited section. Separate reference sections

should be included at the end of each manuscript in the results section. Additional results not included in the publications can be included as a separate chapter in the results section, although this is not the only way they can be appropriately included in the dissertation. The discussion should include the overall conclusions and implications of the results (published and unpublished). The future direction of the project, based on the results, should also be mentioned, and deeply reflected in the discussion section.

The dissertation advisor will read preliminary drafts of the dissertation and will approve the final copy for submission to the dissertation committee. **The final copy must be submitted to the dissertation committee at least two (2) weeks prior to the dissertation defense date for review.** Noncompliance with this policy could necessitate rescheduling the defense date.

Dissertation Defense
The dissertation defense consists of a formal public seminar on the subject of dissertation. This is followed by a closed-door examination of the student by the dissertation committee members. Approval of the dissertation requires unanimity by the dissertation committee. The defense must be held at Pitt Public Health. The student must work with the IDM Academic and Student Affairs Administrator at least two months in advance of the anticipated defense date to coordinate the defense announcement and the location of a suitable room. It is the student's responsibility to find an appropriate date for the defense and efforts should be made to consult the calendars of the Department Chair and IDM Vice Chair for Education and IDM PhD Program Director so all are aware of the defense and can attend if possible.

Dissertations completed by IDM alumni are available online via the University of Pittsburgh ETD digital library system. Please note that students must submit dissertations online via ETD online form and adhere to the ETD template. Please see templates on the ETD website: https://etd.pitt.edu/

X. TEACHING OPTION

In addition to completing the Teaching Certificate, IDM PhD students will have the opportunity to lead paper discussions or give lectures in some IDM classes. Interested students should ask the IDM Vice Chair for Education to recommend course instructors. Note, this opportunity is only available to PhD students who have completed all coursework, have successfully passed their comprehensive exam, and have FTDR status.

MASTER OF SCIENCE (MS) PROGRAM

I. COMPETENCIES

Upon completion of the MS degree, the graduate will be able to:

- Describe comprehensive knowledge of the process involved in the development, testing, and considerations for implementation of a successful vaccine.
- Explain an ecological perspective on the connections between human health, animal health, and ecosystem health.
- Discuss the mechanisms of innate and acquired immunity and their roles in health and disease.
- Describe experimental methods and analyses used in modern infectious disease research.
- Design, analyze, and interpret data from research experiments covering molecular biology, microbiology, immunology, and infectious diseases.
- Communicate with the results of their own independent laboratory-based research.

II. SUMMARY OF REQUIREMENTS

A. Courses

Degree Requirements for MS in Infectious Disease and Microbiology		
Course number	**Course name**	**Credits**
IDM 2103	Host Response to Microbial Infection	3
IDM 2021 *(every term)*	Special Studies in Microbiology	1-15
IDM 2026	Thesis Writing	1-3
IDM 2024	Principles of Molecular Methods	2
IDM 2025 *(4 terms) (3 terms for part time)*	Microbiology Seminar	1
IDM 2037	Advanced Vector-borne Infectious Diseases	3
IDM 2041	Research Ethics and Scientific Communication	1
IDM 3440	Vaccines and Immunity	2
BIOST 2041	Introduction to Statistical Methods	3
EPIDEM 2110	Principles of Epidemiology	3
IDM 2161	Methods Infectious Disease Epidemiology	1
PUBHLT 2011	Essentials of Public Health	3
PUBHLT 2022 *(two terms)*	The Dean's Public Health Grand Rounds	0
Electives: Approved by Advisor		2

Required Course Exemptions: If you have earned a graduate degree and have completed a similar course, you must follow the instructions and procedures for department and school-wide course exemptions.

Elective Courses
(* = Requires appropriate prerequisite course(s) and/or co-requisite course(s) - See Appendix B)

At least two (2) elective credits must be completed. Suggestions are listed below. However, you are strongly encouraged to identify appropriate electives in consultation with your advisor (amongst courses offered through Pitt Public Health, MVM, or MSIMM programs) that are most related to your research area.

Advisors and course coordinators can approve other electives, including the following:

Course Number	Course Name	Credits	Semester Offered
EPIDEM 2160*	Epidemiology of Infectious Disease	2	Fall/Spring
EPIDEM 2180*	Fundamentals of Epidemiological Methods	2	Spring
EPIDEM 2260 *	Epidemiological Basis for Disease Control	2	Fall
IDM 2001	Molecular Biology of Microbial Pathogens (HIGHLY RECOMMENDED)	3	Fall
IDM 2002*	Molecular Virology (HIGHLY RECOMMENDED)	3	Spring
IDM 2004	Viral Pathogenesis (HIGHLY RECOMMENDED)	2	Fall
IDM 2014*	Functional Genomics of Microbial Pathogens (HIGHLY RECOMMENDED)	3	Spring
IDM 2038	Prevention, Treatment, and Control of Global Infectious Diseases	3	Spring
IDM 2069	Infection Prevention and Control in Healthcare Settings	2	Spring
MSIMM 2210	Comprehensive Immunology	2	Spring
MSIMM 2230*	Experimental Basis of Immunology	2	Spring

B. Required Examination

Master's Comprehensive Examination

Each student must pass a comprehensive examination designed to test their ability to analyze and interpret data in molecular biology, microbiology, immunology, and/or infectious diseases. Students are required to have taken IDM 2024 and IDM 2103, and they must have had at least one semester of IDM 2025 and presented at Journal Club before taking the exam. More details on this examination are provided below.

C. Research

1. *Selection of Research Topic and Major Advisor*

   At the beginning of the term, students will be given a list of potential lab projects and opportunities. Students can do up to 2 6-week optional lab rotations to see if one is a good fit. They should identify and ensure commitment to a lab PI by the end of the 1st semester. Students will begin their thesis research with their PI starting in January of their 1st year and continue through the summer and second year of study. The student's lab work and progress will be formally evaluated once per year by the PI.

2. *Journal Club*

   As part of IDM 2025 Seminar/Journal club, 1st year students are required to present a minimum of one journal club paper during their first year of study and prior to taking the comprehensive exam.

3. *Seminar Presentation*

   As part of the IDM 2025- Seminar and Journal Club, all MS students will be required to give a seminar on their work in the Fall Semester of their second year. The presentation will be evaluated by the faculty, students, and staff in attendance. *The evaluation criteria will include presentation skills, presentation organization, graphics, clarity in word choice and diction, introduction, and summary, etc.* Each attendee will complete an evaluation form, and the results will be shared with the student within a week of the presentation. The student may then consult with their advisor about the evaluation.

4. *Submission and Approval of Research Proposal*

   After passing the comprehensive exam, students should assemble a committee, have it approved by the IDM Academic and Student Affairs Administrator, and schedule a committee meeting in the fall of their 2nd year. Students must submit a research proposal to their thesis committee for approval within five (5) months after passing the comprehensive examination and 2 weeks prior to the committee

meeting. The research proposal should follow the guidelines described in the section in the Thesis Requirements section.

5. *Presentation of Thesis and Defense*
   Students will present their work in an open seminar and defend their thesis in a closed oral examination with their thesis committee. **Please note: Prior to the defense, students must submit their thesis to all thesis committee members two (2) weeks in advance.**

III. PITT PUBLIC HEALTH REGULATIONS FOR MS STUDENTS

For additional guidance refer here: https://www.sph.pitt.edu/academics/forms-handbook

A. Credit requirement: a minimum of 36 credits of graduate study is required for Master of Science (MS) degrees in Pitt Public Health

B. Thesis Advisor: All students should choose their thesis advisor from the IDM primary and secondary faculty. In unusual circumstances may a student petition to have their IDM graduate research project mentored by a non-IDM faculty member. This request will be subject to review and approval by the IDM Vice Chair for Education and IDM MS Program Director. In such a case, the student will be required to identify a co-advisor from amongst the IDM primary faculty.

C. GPA: A grade point average of at least a B (GPA = 3.0) and a satisfactory (S) must be maintained. **A student with full graduate status is automatically placed on probation whenever their cumulative graduate GPA falls below 3.0.** When a student's GPA falls below 3.0, the student, advisor, and department receive notice from the school's Performance Committee. If a student has a cumulative GPA below 3.0 for two consecutive terms, they may be dismissed from the program. Students must have a cumulative GPA of 3.0 or above to be eligible to take the comprehensive examination, and to graduate.

D. Grade Requirement: A grade of B or better must be maintained for all school-wide required courses in a student's academic program (see summary of requirements above). If a grade of C is earned in either a department program required course or an elective course, the Pitt Public Health Educational Policies and Curriculum Committee recommends that the student and advisor meet to discuss the grade and that the student be strongly encouraged to re-take the course. However, this final decision is up to the advisor and the student. If a grade below a C is earned, that student must repeat the course: https://www.sph.pitt.edu/academics/forms-handbook/academic-handbook/course-requirements.

E. Provisional Admission: In addition to the requirements for regular students, provisional students must fulfill the other requirements of admission by the end of the first or second term of study at which time they will be re-evaluated and either accepted as a regular student or dismissed from the program.

F. Comprehensive Exam: Successful completion of the master's comprehensive examination is required.

G. Full-Time Enrollment: Normally, full-time students should register 9-15 credits per semester.

H. Course Level for Credits: Courses are required to be at the graduate level (the 2000 or 3000 series). **No courses below 1000 or from 7000-7999 may be applied toward graduate requirements.**

I. Degree Conferral: Master's degrees are conferred only to those students who have completed all course requirements with at least a 3.0 GPA and have completed a successful thesis defense.

J. Graduation Requirements: A student who has completed all course requirements for a graduate degree but has not fulfilled other requirements (e.g., writing of a thesis) is required - if University facilities or faculty time are being used - to register for at least one credit each term, or for a greater number of credits as the school or department considers appropriate.

K. Degree Completion Timeline: Full-time students are expected to complete their degree within two (2) years after admission to the program. It is recommended that part-time students complete their degree within 3-4

years after admission to the program. (University policy stipulates that "*All requirements for MA and MS degrees must be completed within a period of four consecutive calendar years from the student's initial registration for graduate study; all requirements for professional master's degrees, in five years*.")

IV. SUGGESTED SEQUENCE OF COURSES

Note: Full-time MS students cannot register for less than 9 credits until their second year's spring term. A total of 36 credits are required.

FIRST YEAR

Fall Term

Course Number	Course Name	Credits
BIOST 2041	Introduction to Statistical Methods	3
IDM 2103	Host Response to Microbial Infection	3
IDM 2001	Molecular Biology of Microbial Pathogens	3
IDM 2024	Principles of Molecular Methods	2
IDM 2025	Microbiology Seminar	1
PUBHLT 2022	Public Health Grand Rounds	0
Elective(s) as appropriate		

Spring Term

Course Number	Course Name	Credits
IDM 3440	Vaccines & Immunity	2
IDM 2041	Research Ethics and Scientific Communication	1
IDM 2021	Special Studies in Microbiology	1
IDM 2025	Microbiology Seminar	1
IDM 2002	Molecular Virology	3
PUBHLT 2011	Essentials of Public Health	3
PUBHLT 2022	Public Health Grand Rounds	0
Elective(s) as appropriate		

STUDENT CHOOSES LAB/ADVISOR IF ROTATED

MASTER'S COMPREHENSIVE EXAMINATION (TYPICALLY in JUNE)

SECOND YEAR

Fall Term

Course Number	Course Name	Credits
EPIDEM 2110	Principles of Epidemiology	3
IDM 2021	Special Studies in Microbiology	3
IDM 2037	Advanced Vector Borne	3
IDM 2004	Viral Pathogenesis	2
IDM 2025	Microbiology Seminar	1
Elective(s) as appropriate		

Spring Term

Course Number	Course Name	Credits
IDM 2021	Special Studies in Microbiology (Thesis Research)	1
IDM 2025	Microbiology Seminar	1

IDM 2014	Functional Genomics	3
IDM 2161	Methods of Infectious Disease Epidemiology	1
Elective(s) as appropriate		

V. EXAMINATION REQUIREMENTS

Master's Comprehensive Examination

Description of the Examination

The purpose of the comprehensive examination is to test the student's knowledge and thinking skills in areas related to their didactic program of studies. The following is excerpted from the University's Regulations Pertaining to Master's Degrees.

"Comprehensive Examination. MA or MS degrees are conferred only upon those students who, in one or more comprehensive examination or the equivalent, show that they have mastered the general field of their graduate study."

Examination Format

The format of the master's comprehensive examination is the presentation and **critique** of a recently published paper to a faculty examination committee. The MS Program Director will select a group of papers for the examinations each year and assign them to the individual students. The papers will have been published recently (within 1-2 years of the examination) and will not directly pertain to the student's anticipated thesis work. The exam will be divided into two sections. *

1. The first hour will be spent primarily on the selected paper. The student shall prepare an analysis and critique of the paper for oral presentation. The exam consists of the oral presentation of the data with figures from the paper along with a **critique** (no longer than 50 minutes) followed by a series of questions from the committee members designed to determine if there is a solid understanding of the background of the study, actual data, the potential flaws, the advantages and limitations of techniques involved, and the implications of the results for the field.

2. The second hour will be spent asking more comprehensive questions. Any subject area from the paper that is related to the classes taken by the students can be included in this part of the comprehensive exam. The committee shall vote for pass/fail with a simple majority sufficient for a passing grade. Note: Students can bring a clean copy of the paper and a notebook with them to the exam and nothing else.

* *The format above is merely a guideline. The examination committee can interrupt the presentation and ask questions at any point during the 2-hour period.*

Governance of the Examination Committee

The comprehensive examination is taken at the end of the first academic year, typically in June. Students must take the exam when it is scheduled. It is anticipated that one week in June will be identified for this examination with enough advance notice for faculty and students to plan accordingly. The MS Program Director selects examination committee members, like Chairs. The committee will adhere to the Committee Composition Rules dictated by the school. The committee conducts the examination in four weeks (minimum) after distribution of the paper to the student by the MS Program Director. An information session for the students will be held before the exam. For part-time students, the timing and scheduling of the exam will be determined following approval by the Program Director and will be based on individual circumstances.

Re-examination Procedure

If the student fails the MS comprehensive exam, the student may appeal to the IDM Vice Chair for Education by submitting a written request via email. If granted, the MS Program Director will select one new committee member to serve on the re-examination committee and will keep the original Committee Chair if possible. The exam format and scientific paper will remain the same. Students who are not permitted to retake the examination or who do not pass the re-examination will be released from the program.

VI. THESIS REQUIREMENTS

Thesis Committee

The members of the thesis committee are selected by the students in conjunction with input from their faculty advisor. Pitt Public Health and the University of Pittsburgh have established Committee Composition Rules for which students must adhere to.

Once the committee members are identified, the student is responsible for notifying the IDM Academic and Student Affairs Administrator of the **proposed** committee members. A memo requesting approval from the students' committee is sent to the Director of Student Affairs.

Committee meetings cannot be held until the committee is approved by Student Affairs**.** The IDM Academic and Student Affairs Administrator will notify the student and their faculty advisor upon approval. The student is responsible for scheduling the committee meetings.

If a conference room or audio-visual equipment is needed, the student must contact the IDM Academic and Student Affairs Administrator in advance of the meeting to reserve the room and/or equipment. Regardless of whether the students require assistance for the meeting, they are to notify the IDM Academic and Student Affairs Administrator of their meeting date to ensure that the appropriate paperwork is completed at the meeting. For full-time students, the first thesis committee meeting is to be held within **five (5) months** of passing the MS comprehensive examination. **Note: Part-time students may have their first committee meeting before their comprehensive exam with approval from the program director. The student and the MS Program Director should also identify an IDM faculty member to serve as co-advisor if their major advisor is a non-IDM faculty member.**

First Thesis Committee Meeting

After passing the master's comprehensive exam, the student must hold a thesis committee meeting and submit a research proposal for approval. Since the comprehensive examination is usually held in June, the **first thesis committee meeting must be held by mid-November. Note: Students must submit a research proposal to all thesis committee members two (2) weeks in advance.**

Information to include in the thesis proposal:

A. Project significance and background
B. Specific aims
C. Preliminary data
D. Research methods/design.

Proposal Format:

1. 6-10 pages
2. Double spaced with 1" margins
3. Helvetica or Arial font

Thesis Format

The format will include a narrative and tables/figures of the research and will be similar in format to that of a traditional doctoral dissertation. A student must be registered for at least one credit during their graduation term. An inactive student must be readmitted and registered for three credits to graduate. The student's thesis must provide evidence of original scholarly research. The student's thesis committee will meet when the student's research is nearing completion and will authorize them to begin writing thesis.

At this time, students should make certain that all required courses (**total of minimum 36 credits**) have been taken. This can be verified by the IDM Academic and Student Affairs Administrator. The style and format of the thesis must conform to the standards set forth by the Graduate Council as shown below.

The thesis will contain:

A. Title Page
B. Abstract
C. Introduction (related literature review)

D. Statement of the Project
E. Specific Aims
F. Materials and Methods
G. Results
H. Discussion
I. Literature Cited (follow ASM Journal style)

Students could substitute items F and G with published articles or articles that have been submitted for publication of their thesis work. In that case, an exhaustive literature review in the introduction may not be necessary. However, a sufficiently complete introduction of the research objectives and background are still necessary. Additional results not included in the publications can be included as a separate chapter in the results section, although this is not the only way they can be appropriately included in the thesis. The discussion should include the overall conclusions and implications of the results (published and unpublished). The future direction of the project, based on the results, should also be mentioned in the discussion section. Note: All these are to be structured following the Electronic Thesis and Dissertation (ETD) policies set forth by the University. Details can be obtained through Pitt Public Health Student Affairs.

Thesis Presentation and Defense
Upon completion of the thesis work, the students will present their work in a seminar and defend their dissertation in an oral examination. The student is responsible for scheduling the presentation and defense of their master's thesis. **Note: Students must submit the thesis to all committee members for two (2) weeks in advance.** Noncompliance with this rule could necessitate rescheduling the defense date.

Submission of Thesis Copy
Students must submit one copy of the approved final thesis to the student's faculty advisor no later than one week after the semester ends.

VII. SPECIAL NOTE TO PART-TIME STUDENTS

Scheduling required coursework and exams to graduate in a timely fashion.

It is recommended that part-time students complete their degree within 3-4 years after admission to the program. Part-time students should be enrolled for a total of 6 credits each semester, but students can maintain part-time status by registering 1-8.5 credits.

Since each part-time student is presented with a unique situation, it is difficult to have a standard schedule designed to cover everyone's individual needs. This is also complicated by the fact that certain required and prerequisite courses are only offered during specific times and semesters throughout the year. The department recognizes that this can present various logistical hurdles. The Program Director will serve as the primary academic advisor and offer guidance to help the student navigate scheduling challenges. This may also include adjusting the timing of the comprehensive exams. If a student cannot take a required course as suggested, or if they do not have the required courses needed to take the comprehensive exam during the regularly scheduled dates, they should discuss their situation with the Program Director, who will help to arrange alternatives. In some cases, another graduate level class may be used to substitute for a listed required course upon permission from the director of the required course and the MS Program Director, and comprehensive exams can be arranged to be taken outside of the standard dates.

Comprehensive Exam for Part-Time Students
Students should complete 26 credits before taking the comprehensive exam. To ensure you take the correct courses to prepare for the exam, consult your advisor and/or the MS Program Director.

Seminar/Journal Club Requirement (IDM 2025)

Part-time students must register for IDM 2025 for three (3) semesters. To receive credit, part-time students can do the following:

1. Attend the regular Monday and Wednesday seminars and journal clubs.
2. Attend a seminar outside of the department that is comparable to an IDM seminar, totaling 15 hours, and write

an abstract about each seminar attended. Return abstracts to the IDM Academic and Student Affairs Administrator to ensure the requirement is fulfilled. Submit course substitution forms to your advisor and program director.

Note: Option number 2 is ONLY available to part-time students. All full-time students must attend the department seminar/journal club.

MASTER OF PUBLIC HEALTH (MPH-IP)
INFECTION PREVENTION

I. COMPETENCIES

Upon completion of the MPH - IP degree, the student will be able to:

- Develop knowledge related to domestic and global infectious disease pathogenesis, prevention, and clinical diagnosis.
- Describe stigma and the impact on the prevention and control of infectious diseases.
- Demonstrate knowledge and approaches for clinical, behavioral, biomedical interventions, and advocacy to impact the prevention, control, and/or elimination of infectious diseases and intersecting clinical conditions, populations, and environments.
- Develop, implement, or evaluate infection prevention in clinical settings, including surveillance, containment, and policies for prevention, control, and intervention.
- Synthesize skills and knowledge of infectious disease research, practice or policies as applied to infectious clinical conditions, outbreaks/clusters in clinical, and/or community healthcare settings.
- Discuss evidence-based approaches to prevention and treatment of infectious diseases.

II. SUMMARY OF REQUIREMENTS

A. Courses

Course number	Course name	Credits
BCHS 2509	Social and Behavioral Sciences and Public Health	3
BIOST 2011	Principles of Statistical Reasoning	3
EOH 2013	Environmental Health and Disease	2
EPIDEM 2110	Principles of Epidemiology	3
HPM 2001	Health Policy and Management in Public Health	3
PUBHLT 2022	The Dean's Public Health Grand Rounds (two terms)	0
PUBHLT 2015	Public Health Biology	2
PUBHLT 2033	Foundations in Public Health	1
PUBHLT 2034	Public Health Communications	2
PUBHLT 2035	Applications in Public Health	2
IDM 2069	Infection Prevention in Healthcare Settings	2
IDM 2068	Infection Prevention and Control Internship (REQUIRED)	3
IDM 2025	Microbiology Seminar	1
IDM 2134	Control and Prevention of STIs	2
IDM 2037	Advanced Vector Borne Diseases	3
IDM 2038	Prevention, Treatment, and Control of Global Infectious Diseases	3
IDM 2051	Infection Prevention in Community Settings	
IDM 2053	MPH-Infection Prevention Thesis/essay	
Electives	*See list of suggested electives*	6 credits

++ IDM 2069 is pre-requisite for IDM 2068 and must submit application and be accepted.

Required Course Exemptions: If you have earned a graduate degree and have completed a similar course, you must follow the instructions and procedures for department and school-wide course exemptions.

Elective Courses
(* = Requires appropriate prerequisite course(s) and/or co-requisite course(s) – See Appendix B) (# = requires Departmental consent – See Appendix F for instructions)
(+ = course would replace student's IDM 2007 practicum requirement)

Below are some suggestions; however, you are strongly encouraged to identify appropriate electives that are most related to your research area or career goals. These electives can be chosen from graduate courses offered in any school within the University upon approval of your advisor, the Program Director, and the course coordinator.

Course Number	Course Name	Credits	Semester Offered
BCHS 2520	Theories of Health Behavior & Health Education	3	Fall/Spring
BCHS 2523	Public Health Program Planning & Proposal Writing	3	Fall/Spring
BCHS 2525	Introduction to Applied Research	3	Fall/Spring
BCHS 2558	Health Program Evaluation	3	Spring
EPIDEM 2181	Design & Conduct of Clinical Trials	2	Fall
EPIDEM 2260	Epidemiological Basis Disease Control	3	Fall
HPM 2012	Financial Management Foundations Health Care and Public Health	3	Fall
HPM 2049	Human Resources Management for Health Care and Public Health Professionals	2	Spring
HPM 2145	Marketing Health Servies Strategy & Business Plans	3	Fall
HPM 2064	Health Policy Analysis	2	Spring

B. PRACTICUM

Overview
All MPH-IP students must complete **IDM 2068: Infection Prevention Internship** (3 credits) to fulfill the program's practicum requirement. A practicum is a structured, educationally supervised assignment at an approved site, with an experienced professional who mentors the student. It lets students apply classroom theories, interventions, and best practices to infectious disease work while building skills in leadership, capacity building, and advocacy. Students will gain practical experience in healthcare-associated infection surveillance and prevention, outbreak investigation, and the application of evidence-based interventions and infection prevention policies. It also prepares students for the Associate – Infection Prevention and Control (aCIC) certification examination. Students should begin planning with their faculty advisor early in the program.

Eligibility and Application
Only students who have completed **IDM 2069 (Infection Prevention in Healthcare Settings)** are eligible. Slots at UPMC infection prevention hospital sites are limited, so students must complete an application and an interview. Students are responsible for applying within the required time limit. Their faculty advisor approves the internship through the agreement in the MPH Practicum/Internship portal, and the internship cannot begin until the agreement is completed and signed.

Schedule and Hours
The internship is completed in the Summer Term of the first year. Students must be available Monday through Thursday for the entire term and complete a **minimum of 200 hours** at the site.

Competencies and Deliverables
In collaboration with their faculty advisor and internship preceptor, students must identify:

- Five competencies to be attained. At least three must be CEPH foundational competencies, and no more than two may be MPH program competencies.
- Two practical, non-academic work products (deliverables) that benefit the host organization.

Students are responsible for applying within the required time limit and should begin planning with their faculty advisor early in the program. Before the internship begins, students must be accepted into the internship, obtain faculty approval, and complete the required practicum agreement, including the competencies and deliverables, through the https://www.publichealth.pitt.edu/research-practice/mph-practicum. All required forms must be completed and signed by the faculty advisor and internship preceptor before the internship begins.

After the internship, students submit documentation in the portal showing that the competencies were attained and the deliverables completed.

Goals

The specific goals of IDM 2068 are:

Identify, describe, and obtain necessary skills to function as a potential infection preventionist.

- Discuss and apply CDC NHSN Hospital associated infection (HAI) concepts and procedures.
- Discuss and integrate into practice the CDC definitions of healthcare acquired infections, dynamics of surveillance, regulations, mandatory reporting to health departments, CDC.
- Identify and develop skills in the application of evidence-based interventions for HAI prevention.
- Describe and participate in the interprofessional team to review and discuss hospital outbreaks and the status of outbreak investigations.
- Acquire skills in the review of medical records, laboratory, and microbiological data, to develop interventions.
- Develop knowledge and skill in developing plans to investigate outbreaks, compile and analyze data to learn the process for infection prevention in healthcare settings including special clinical units, populations, and clinical situations.
- Develop knowledge of the relevance of resistant microorganisms of importance in prevention control practice and antimicrobial stewardship.
- Obtain knowledge in hospital infection control policies, patient isolation, for critical areas such as the intensive care units, clinical units, operating suites, pediatrics, burn units, and others.
- Obtain experience in working as part of an infection prevention team in a healthcare setting.

Internship Progress and Evaluation

- Students provide status reports to their academic advisor on practicum progress.
- Students must submit weekly logs of experiences to internship leaders and course directors.
- Non-participation and unexcused absences within the internship site will result in the student failing the practicum.
- Students are expected to follow the policies and procedures of the University of Pittsburgh and their internship site.
- Academic advisor communicates with the IDM 2068 course directors by phone, email, or via the web before the placement is approved and at least once during the placement.
- Student and internship mentor record hours to ensure they meet the 200-hour minimum requirement
- Mentors and students complete the required evaluation forms, which are placed in the practicum documentation file in the Practicum Portal. Mentors and students complete the required evaluation forms, which are placed in the practicum documentation file in the Practicum Portal.
- Upon completion, the internship is graded on a letter grade.

IDM 2007

If IDM MPH- Infection Prevention students wish they can take an additional practicum experience as elective credit after completing IDM 2069/2068. Students will register for IDM 2007 with guidance from the IDM MPH-IP faculty advisor.

For any Practicum course (IDM 2069/2068 or IDM 2007) that is completed, MPH students are required to submit a practicum document showing the attainment of competencies and completion of work products. For the latest information on the practicum, please visit: Practicum Portal: https://www.publichealth.pitt.edu/research-practice/mph-practicum

Department Forms & Documentation

Pitt Public Health and the department require the completion of the following forms and one report due at various times throughout your practicum experience:

Department Forms & Documentation

Pitt Public Health and the department require the completion of the following forms and one report due at various times throughout your practicum experience.

1. Practicum Learning Agreement – Completed this agreement in collaboration with faculty advisor and practicum mentor before your practicum starts. Obtain signatures and submit them to the IDM Academic and Student Affairs Administrator. Upload a copy to the Practicum portal.
2. Practicum Mid-Point Student Self-Evaluation Form – Students must submit the completed form to faculty advisor with a copy to the IDM Academic and Student Affairs Administrator.
3. Practicum Mid-Point Evaluation Form for Site Preceptors – Students must submit the completed form to your faculty advisor, with a copy to the IDM Academic and Student Affairs Administrator
4. End of Practicum Evaluation Form for Students – The student must submit the completed form to your faculty advisor, with a copy to the IDM Academic and Student Affairs Administrator.
5. End of Practicum Evaluation Form for Site Preceptors – At the conclusion of the practicum, students must provide this form to their practicum mentor for completion and submit the completed form to their faculty advisor, with a copy to the IDM Academic and Student Affairs Administrator.
6. Student Report – Students must prepare and submit a report summarizing their activities and experiences during the field placement at the conclusion of the practicum. Submit the report to the faculty advisor, with a copy to the IDM Academic and Student Affairs Administrator.

C. Thesis/Essay

Students must complete a thesis or essay to graduate from the program. Both products are scholarly work that must meet requirements.

Three competencies (2 foundational and 1 program-specific) are to be integrated and synthesized in the essay. A ILE agreement form is completed to document the competencies to be addressed in the essay prior to starting essay writing. Each student will present an essay or thesis to their committee in an oral presentation open to other faculty, staff, and students from the department and school. This essay or thesis presentation must be completed at least 2 weeks prior to graduation. Upon submission of the essay, the student will complete a ILE assessment form with their advisor indicating the competencies attained in their essay. The student advisor signs off on the synthesis and integration of competencies in the essay. Students are advised to begin work on essay/thesis during the 2nd semester of study to meet deadlines and address unanticipated delays and challenges. See *Essay/Thesis Requirements.*

III. PITT PUBLIC HEALTH REGULATIONS FOR ALL MPH STUDENTS

For additional guidance refer here: https://www.sph.pitt.edu/academics/forms-handbook

A. *Thesis/Essay Mentor*: All students must choose their thesis/essay mentor from the IDM primary and secondary faculty.

B. *Credit Requirement:* A minimum of 42 credits for graduate study is required for MPH degrees in Pitt Public Health.

C. *GPA*: A grade point average of at least a B (GPA = 3.0) and at least an "S" in Pitt Public Health core courses which make up the program for any graduate degree must be maintained. **A student with full graduate status is automatically placed on probation whenever their cumulative graduate GPA falls below 3.0**. When a student's QPA falls below 3.0, the student, advisor, and department receive notice from the school's Student Performance Committee. If a student has a cumulative GPA below for two consecutive terms, they are likely to be dismissed from the program. Students must have a cumulative GPA of 3.0 or above to be eligible to graduate.

D. *Grade Requirement*: A grade of B or better must be maintained for all school wide core courses required in a student's academic program (see summary of requirements above). If a grade of C is earned, Pitt Public Health Educational Policies and Curriculum Committee recommends that the student and advisor meet to discuss the grade and that the student is strongly encouraged to re-take the core course. However, this final decision is up to the advisor and the student. If a grade below C is earned, that student must repeat the course.

E. *Essay/Thesis*: Completion of a satisfactory essay or thesis.

F. *Full-Time Status*: Full-time students should register for 9-15 credits per semester.

G. *Degree Completion*: Full-time students are expected to complete their degree within 2 years after admission to the program. It is recommended that part-time students complete their degree within 3-4 years after admission to the program.

H. *If* a thesis is completed, electronic copies of the approved thesis are required to be submitted to the faculty advisor and the IDM academic office. The finalized electronic thesis (ETD) must also be submitted to the Pitt Public Health Office of Student Affairs. If an essay is completed, electronic copies of the approved essay are required to be submitted to the faculty advisor, IDM academic office, and Pitt Public Health Office of Student Affairs.

IV. CURRICULUM

The program is designed to prepare public health professionals who can define, assess, and develop interventions for individuals, program agencies, and communities regarding prevention, treatment, care, and other interventions with particular focus on infection prevention in infectious diseases. The aim of the curriculum is to address critical infectious diseases, public health issues in urban, rural, medically underserved areas, and international settings.

The program prepares public health professionals to conduct programmatic, clinical, research, interventions for specific populations, communities, and settings through community capacity building, evidenced based interventions, education, infection prevention, to clinical care settings, public health departments, county or state and government agencies, institutions, community-based organizations, NGOs, hospitals, and other settings regarding infectious diseases.

The curriculum utilizes a conceptual framework which incorporates epidemiology, surveillance, prevention, clinical treatment, prevention, psychosocial intervention, and environmental intervention within clinical, community, agency, and other settings where infectious disease must be addressed.

Each student is expected to attain knowledge and skill in the following areas:

- Epidemiology of communicable diseases in the US and worldwide
- Infection prevention in health care settings including hospitals, long-term care, and other community settings
- Infection prevention laboratory diagnosis and monitoring

- Diagnosis, treatment of infectious diseases
- Syndemics of infectious diseases
- Infectious diseases within specific institutional or community settings
- Infectious disease prevention, clinical treatment, and care
- Global and emerging infectious diseases including COVID 19
- Individual, social, and community disease control and treatment
- International models for infectious disease prevention and treatment
- Diversity issues within the context of infectious disease prevention
- Educational and evidence-based approaches to interventions, prevention, and treatment within specific populations
- Psychosocial factors influencing individual and community behaviors.
- Development and implementation of culturally appropriate programs
  I. Policy development and advocacy
  II. Collection, analysis, and interpretation of relevant data
  III. Evaluation of individual and community-focused interventions.

V. SUGGESTED SEQUENCE OF COURSES

Note: Full-time MPH students cannot register for less than 9 credits until spring term of their second year. A total of 42 credits are required.

FIRST YEAR

Fall Term

Course Number	*Course Name*	*Credits*
IDM 2134	Prevention and Control of STIs	2
IDM 2025	Microbiology Seminar/Journal Club	1
PUBHLT 2015	Public Health Biology	2
PUBHLT 2022	Public Health Grand Rounds	0
BCHS 2509	Social and Behavioral Sciences and Public Health	3
EPIDEM 2110	Principles of Epidemiology	3
IDM 2037	Advanced Vector Borne	3

Spring Term

Course Number	*Course Name*	*Credits*
IDM 2069	Infection Prevention in Healthcare Settings	2
PUBHLT 2033	Foundations of Public Health (Online)	1
IDM 2025	Microbiology Seminar/Journal Club	1
PUBHLT 2022	Public Health Grand Rounds	0
IDM 2038	Prevention, Treatment and Control of Global Infectious Diseases	3
PUBHLT 2034	Public Health Communications	2
BIOSTAT 2011	Principles of Statistical Reasoning	3

Elective(s) up to 3 credits if desired		

Summer Term

Course Number	*Course Name*	*Credits*
IDM 2068	*Infection Prevention Internship (Internship work to be completed in Summer)	*DO NOT REGISTER Credits recording in Fall 2nd year*

*IDM 2068 work toward the practicum is completed in summer term and recorded for credit and tuition in the Fall term of the 2nd year of study

SECOND YEAR

Fall Term

Course Number	*Course Name*	*Credits*
IDM 2068	*Infection Prevention Internship (Internship work to be completed in Summer)	3
IDM 2025	Microbiology Seminar/Journal Club	1
IDM 20XX	*Community Outbreak Response (under development)*	*3*
EOH 2013	Environmental Health & Disease	2
HPM 2001	Introduction to Leadership, Management & Policy in Public Health	3
IDM 2051	Infection Prevention in Community Settings	2

*IDM 2068 work toward the practicum is completed in summer term and recorded for credit and tuition in the Fall term of the 2nd year of study

Spring Term

Course Number	*Course Name*	*Credits*
IDM 2053	Essay/Thesis Writing	1
PUBHLT 2035	Applications in Public Health	2
Elective(s)	Elective/Certificate	Up to 12 if desired

ACADEMIC MONITORING AND ADVISING

1. **Student responsibility to academic advisor**
   - The student should schedule ongoing meetings with academic advisor
     - Four sessions during the first year
     - Monthly sessions in second year
   - Take advantage of your advisor's regularly scheduled office hours or schedule a meeting.
   - Any change in the selected concentration of study within the MPH program must be approved within the first semester of study in collaboration and approval of: MPH - IP Academic advisor along with the Director of another program.

2. **Student responsibility for academic progress**
   - Schedule an appointment with your advisor during the academic year and each semester of study.
   - Possess and continuously review the current program outline, course sequencing, and offerings for

your program of study and bring to meetings to discuss with your academic advisor.
- Complete registration forms and obtain academic advisor signatures in a timely manner.
- Keep an academic advisor informed immediately of any issues that may impede your progress.
- Monitor the University of Pittsburgh academic transcript. Each semester, the student should obtain a copy of their transcript through PeopleSoft to ensure that all credits for required courses completed have been properly recorded.

3. **Student responsibility for research related to thesis or essay**
   - All MPH students must complete the online IRB module during the first semester of study. Please visit this website for training requirements: http://www.citi.pitt.edu/citi/ , and create an account through this website: https://www.osiris.pitt.edu/
   - The students must discuss their planned thesis or essay with their academic advisor by the **end of the first semester to begin.**
   - Begin the process for IRB submission if needed and develop the draft thesis/essay form for submission to Student Affairs
   - Formation of the thesis/essay committee for submission for approval to student affairs,
     - Committee Composition Rules

     The student must identify the members of their committee, have their committee approved with assistance from the IDM Academic and Student Affairs Administrator, and convene their committee before beginning any data collection. Approval of topic, research questions, and methods must occur <u>before</u> proceeding.
   - All MPH students must complete the research integrity modules during the first semester of study. A copy of the completion certificate must be sent to their advisor for inclusion in your academic file **and before thesis/essay proposal can be approved**.

Departmental Events

1. All second-year MPH students must present a poster on their research or practice at the departmental Research Day.
2. Students must participate in formal in-person and/or virtual meetings scheduled with the MPH Program Director and/or IDM faculty for academic communication.

ESSAY/THESIS REQUIREMENTS

<u>Thesis/Essay Committee and Topic</u>

MPH students are required to submit a master's essay or thesis and register for 2-4 credits of IDM 2021: Special Studies. At the end of the student's first semester or beginning of the second semester, the student must select a topic and thesis/essay committee in collaboration with their faculty advisor. Each committee will have a thesis/essay chair; this person may or may not be the student's IDM faculty advisor.

Students and advisors are restricted to the University rules for committee composition. Students work with their advisors to complete an ILE agreement form where they identify three competencies that will be integrated and synthesized through essay activities before starting their essay. Two competencies must be CEPH foundational, and one must be an IDM-IP MPH program of competency. Upon submission of their essay, the student and their advisor will complete an ILE assessment form with the advisor verifying the integration and synthesis of competencies in the essay.

The thesis or essay is deemed scholarly work and a demonstration of the student's ability to conduct research or develop a comprehensive essay. The topic of this scholarly work must be in the field of infectious diseases related

to any clinical, behavioral, infection prevention, policy, or systems of aspects of infectious diseases. It must also be related to specific populations, patients, programs, institutions, agencies, or systems in either domestic or international settings. The standard of excellence for either an essay or thesis is the same and must demonstrate the ability develop a topic or hypothesis to explain or test to develop scientific evidence, best practices, procedures, approaches for a targeted setting, population, or system.

The essay/thesis must meet appropriate academic standards and be written in a scholarly manner. The essay or thesis must be presented and approved by the thesis/essay committee 2 weeks before the end of the term in which the student expects to graduate. This presentation is open to other faculty, staff, and students and scheduled in advance by the IDM Academic and Student Affairs Administrator. This also requires that the student provide the essay/thesis committee with the final document at least 7 business days before the Essay/Thesis presentation. Failure to meet these requirements may result in committee refusal to review the documents resulting in delays in graduation. This delay may result in the need to take an additional semester and pay for at least 1 credit to complete all requirements for graduation.

The topic, thesis/essay chair, and committee are all approved in writing by completing the ILE Agreement Form. Before collecting any data for the thesis/essay, students must complete, obtain signatures, and submit form to the IDM Academic and Student Affairs Administrator and obtain IRB approval if needed. The IDM Academic and Student Affairs Administrator will submit the committee to Student Affairs for official approval. The student and the advisor will be notified once the committee is approved.

Focus of Essay/Thesis

The thesis or essay must be in the field of infectious diseases. The thesis is original research done by the student independently or as part of an investigation of a problem, issue, practice, or policy identified. The thesis work aims for the student to demonstrate the ability to conduct research. This work may be related to practicum or internship experience but not required.

Thesis or Essay Types (not entirely mutually exclusive, discuss with your faculty advisor)

Original investigation (Thesis):

This requires the formulation of a hypothesis related to an infectious disease topic and the collection and analysis of data to test the hypothesis. Existing data from other research projects can be used if written approval is obtained from the principal investigator of the study. Determination of IRB submission must be agreed upon before work can commence. The student may choose to collect new data for a study. However, for a masters' thesis, time and cost may limit the scope of the research.

The research can take the form of a demonstration or pilot project with a demonstration of sampling, methodology, structure, analysis, and procedures which could be used in a more expanded and rigorous study. The thesis topic does not have to be related to a practicum experience but must be related to infectious diseases.

Program Evaluation (Essay or Thesis):

This type of thesis/essay is aimed at conducting a systematic evaluation of a program, agency, or practice involving infectious diseases. Utilization of tested evaluation methods can be utilized including outcome-based, surveys, interviews, data collection, etc. aimed at assessing the challenges and strengths of a program or project within a specific clinical, community, and hospital setting. This type of thesis/essay includes the development and recommendations for improvement in effectiveness, structure, design, and/or change in objectives, goals, or metrics for a program.

Literature Review (Essay):
The relevant literature on a specific infectious diseases topic is reviewed, analyzed, and summarized in detail to create a definitive document that describes a problem, issue, policy, practice, etc. This is not a limited literature search but a comprehensive document that demonstrates competence in evaluation, analysis, and synthesis of content.

Policy Analysis (Essay):
This involves a review of relevant infectious disease federal, local, and agency policies (legislation, regulations, best practices, guidelines, bylaws, etc.) for analysis, prioritization, and synthesis to develop a document that outlines the implications for services, system, planning, and policy in infectious diseases. Such essays would include recommendations for changes in policies for a specific agency, program, institution, government agency, or the legislature.

Program Development (Essay):
This type of essay focuses on the development of a specific infectious disease program, plan, or initiative for a specific agency, department, or institution based upon an identified need or issue. The essay identifies and describes a specific plan of action, procedures, and policies to address the need or issue. The essay may be prepared for presentation verbally or in writing to the agency, department, or institution for their use and the MPH essay requirement.

Management Issue Analysis (Essay or Thesis):
This essay/thesis requires the collection and analysis of data related to specific infectious disease programmatic, organizational or management issue that exists in a healthcare, governmental, community agency or organizations responsible for infectious disease related clinical care, behavioral health, prevention, or other programs. This work could also analyze a management decision (institution of a new program, restructuring of staff, etc.) which may include a review of relevant management approaches and principles, evaluation of the effects of the decision on agency structure, functioning, and service delivery.

Essay/Thesis Committee Meeting
Students must meet with their Primary Academic Advisor in-person for approval of their essay committee. If the primary academic advisor is not the chair or member of the essay committee, the academic advisor must be kept informed by the student of progress monthly by email or phone. Students must submit an abstract of the project to all committee members when asking them to serve on their committee. An initial meeting of the essay committee must be convened by Zoom or in person during the 2nd semester of study. The abstract form is included in the ILE Agreement Form. The final in person presentation of the essay must occur 2 weeks before the MPH graduation deadline.

Thesis Committee Meeting
Students completing a thesis must meet with their committee members in person, adhering to the same timeline as above. The student's academic advisor may not be the thesis chair or member. If academic advisor is not the thesis chair, the student must tell them of progress. In addition to the abstract in the ILE Agreement Form, students completing a thesis need to submit a proposal to the committee at the formal meeting to obtain initial approval to move forward. This can be done in person or via Zoom or other distance-based platforms.

The proposal for a **thesis** will consist of:
Introduction
Hypothesis
Review of relevant literature
Proposed methodology.

The proposal for an **essay** will consist of:

Introduction
Problem/research
Questions/issues
Review of relevant literature
Proposed methodology.

Prior to the first committee meeting, students must submit their research proposal to all thesis committee members two (2) weeks in advance**.** After the first meeting, the students need to send drafts to their academic advisor and committee members. Students should develop a timeline for draft completion and submit to their thesis/essay chair for review and approval.

Institutional Review Board (IRB)

All thesis/essay work involving human subjects must have IRB approval. Please discuss this with your IDM academic advisor and your thesis/essay chairperson. Refer to the University of Pittsburgh IRB website: http://www.irb.pitt.edu/. During the first semester of study, students must complete the University of Pittsburgh online research modules https://cme.hs.pitt.edu and the successful completion certificate (copy) of each module will be provided to the Faculty Advisor. Students must maintain the original copy in their Practicum portal site for future reference and documentation for IRB submission.

Thesis/Essay Format

These scholarly works should be written in a clear, concise prose, utilizing the Style and Form Manual for Graduate Thesis and Dissertation Preparation at the University of Pittsburgh, for final preparation procedures. This is available through the Pitt Public Health Office of Student Affairs or (https://etd.pitt.edu). All students must adhere to the ETD system format. For essay and thesis format and requirements, please read the academic handbook. The most recent edition of the American Psychological (APA) Style Manual must be followed. Most theses or essays will include the following elements:

Abstract: A brief statement of the hypothesis (thesis), problem/research question(s), design, methodology, conclusions, and implications for public health.

1. ***Introduction***: Includes a statement of the purpose and aims of the study. This includes either specific hypothesis (thesis) or problem/research questions (essay). It must also describe the problem's scope or reason for the study's focus.

2. ***Review of relevant literature:*** A comprehensive review that includes a synthesis of journal articles, books, and other documents that describe relevant findings and indicate gaps in knowledge which the study may attempt to address.
3. ***Methods:*** Includes a description of terms, assumptions, approaches to data collection and analysis; procedures, instruments to be used, informed consent, storage of data describing the specific to the IRB approval process, and limitation of the study.
4. ***Findings:*** Describes review of the study results, including figures, tables, etc. and/or a summary of the evaluation, review, or intervention developed depending on the type of thesis/essay type selected (see above)
5. ***Discussion:*** Describes the implications of the results, synthesis of major trends, discussion of meaning of the data for the field, correlation with other studies from the literature review, and outlines areas for further investigation of research.
6. ***Conclusions:*** Includes a summary of major findings and their application based on the type of study (See above).
7. ***Bibliography:*** Includes all references in the document and must follow the APA format

Thesis/Essay Submission & Defense/Presentation

The committee determines if the student is ready to present the thesis for final defense. The defense cannot be

scheduled until approved by thesis/essay advisor that the document is of sufficient completeness and quality. The student may be required to complete additional data collection, analysis, or other development prior to final defense/presentation.

In collaboration with the advisor/committee chair, the date, time, and location of the final defense will be scheduled for at least 1 month in advance. If a conference room or audio-visual equipment is needed, the student must contact the IDM Academic and Student Affairs Administrator in advance of the meeting to reserve the room and/or equipment.

Print and email copies of the thesis/essay will be made by the student and delivered to the office of all committee members 2 weeks prior to the date of the defense. The advance submission of the document must be a full 2 weeks excluding any holidays or semester breaks and fit within the schedules of participating committee faculty.

Per school-wide essay/thesis completion policy, only the Program Director can request an extension to complete work on the thesis/essay. Student Affairs will not grant extensions directly in response to student or advisor requests. Please read more about this policy.

Thesis/Essay Presentation:
Each student must present the completed thesis/essay in person to faculty and students once the thesis/essay advisor approves the document.

Students are expected to prepare a PowerPoint presentation of their thesis for presentation which must be submitted to their thesis/essay advisor for approval before presentation.

IDM Academic and Student Affairs Administrator schedules the location for presentation.

Students must schedule this presentation for one month in advance. Students and their advisor must complete the ILE Assessment Form.

Submission of Thesis/Essay Copies
Students must submit one copy of the approved final thesis to the student's faculty advisor no later than one week after the semester ends.

****Failure to comply with any deadlines for submission of documents, scheduling of defense, or submission of documents for approval by the thesis/essay advisor can result in the student being required to register for another semester of study and which may delay anticipated graduation term and need to register and pay for an additional 1 credit****

SPECIAL NOTE TO PART-TIME MPH STUDENTS

It is recommended that part-time students complete their degree within 3-4 years after admission to the program. Part-time students should be enrolled for a total of 6 credits each semester, but students can maintain part-time status by registering 1-8.5 credits.

Since each part-time student presents a unique situation, it is difficult to have a standard schedule designed to cover everyone's individual needs. This is also complicated by the fact that certain required and prerequisite courses are only offered during specific times and semesters throughout the year. The department recognizes that this can present various logistical hurdles. The MPH IP Co-Director for Student Services will serve as the primary academic advisor and offer guidance to help the student navigate scheduling challenges. In some cases, another graduate level class may be used to substitute for a listed required course upon permission from the director of the required course and the MPH Program Director.

Seminar/Journal Club Requirement (IDM 2025)

1. Part-time students must register for IDM 2025 – MPH Seminar for two semesters. To receive credit for the course, part-time students can do the following:
2. Attend the regular Monday and Wednesday seminars and journal clubs with the rest of the department.
3. Attend seminars or retreats outside of the department, totaling 15 hours, and complete the Seminar Substitute form to return to IDM 2025 MPH Journal Club for instructors for credit.
    - A combination of two and three is also permitted. For example, if you must miss one or two classes, you can make those sessions up by attending an outside event.

MASTER OF PUBLIC HEALTH (MPH – OH)

Infectious Diseases and One Health

The MPH with a concentration in Infectious Diseases and One Health enables students with a unique educational experience, which brings together pathogen biology, immunology, and epidemiology within the broader framework of public health. Students then have the chance to apply what they learn in a laboratory setting. Students graduate from the program with the expertise necessary for occupations in public health education, analysis, and research in the non-profit, government, or private sectors. The program also prepares students for further education in medical or graduate programs.

I. COMPETENCIES

Upon completion of the MPH-OH degree, the graduate will be able to:

- Discuss the general approaches used by successful microbial pathogens to establish disease.
- Suggest novel approaches to the prevention and control of infectious pathogens.
- Distinguish between the distinct types of host response mechanism and explain their relevance to various domestic and global infectious diseases.
- Differentiate between the various models of infectious disease spread in human populations.
- Analyze the unique molecular mechanisms used by infectious viruses to cause infection and evade immune responses.
- Analyze and critique the current research literature on infectious disease pathogenesis.

II. SUMMARY OF REQUIREMENTS

A. Courses

Course number	Course name	Credits
BCHS 2509	Social and Behavioral Sciences and Public Health	3
BIOST 2041*	Introduction to Statistical Methods	
EOH 2013	Environmental Health and Disease	2
EPIDEM 2110	Principles of Epidemiology	3
HPM 2001	Health Policy and Management in Public Health	3
PUBHLT 2022	The Dean's Public Health Grand Rounds (two terms)	0
PUBHLT 2033	Foundations in Public Health	1
PUBHLT 2034	Public Health Communications	2
PUBHLT 2035	Applications in Public Health	2
IDM 2103	Host Response to Microbial Infection	3
IDM 2004	Viral Pathogenesis	2
IDM 2007	Public Health Communicable Disease Practicum (IDM 2068/2069 can be substituted for this course with program director permission)	3
IDM 2010	Pathogen Biology	2
IDM 2021	Special Studies in Microbiology	2-3

IDM 2025	Microbiology Seminar	1
IDM 2161	Methods of Infectious Disease Epidemiology	1
Electives	*See list of suggested electives*	9-10

**Students wishing to take BIOST 2011 should consult their advisor before making this decision.*

Required Course Exemptions: If you have earned a graduate degree and have completed a similar course, you must follow the instructions and procedures for department and school-wide course exemptions.

Elective Courses

Below are some suggestions; however, you are strongly encouraged to identify appropriate electives that are most related to your research area or career goals. These electives can be chosen from graduate courses offered in any school within the University upon approval of your advisor, the Program Director, and the course coordinator.

Course Number	Course Name	Credits	Semester Offered
BCHS 2520#	Theories of Health Behavior & Health Education	3	Fall/Spring
BCHS 2523#	Public Health Program Planning & Proposal Writing	3	Fall/Spring
BIOST 2016*	Sampling Design & Analysis	3	Fall
EPIDEM 2160*	Epidemiology of Infectious Diseases	2	Fall/Spring
EPIDEM 2180*	Fundamentals of Epidemiological Methods	3	Spring
EPIDEM 2181*	Design & Conduct of Clinical Trials	2	Fall
EPIDEM 2260*	Epidemiological Basis Disease Control	2	Fall
IDM 2001	Molecular Biology of Microbial Pathogens	3	Fall
IDM 2014*	Functional Genomics of Microbial Pathogens	3	Spring
IDM 2021^	Special Studies in Microbiology (Lab Practice)	3	All
IDM 2022	Special Topics	1-3	Fall/Summer
IDM 2134	Control and Prevention of STIs	2	Fall
IDM 2037	Advanced Vector-Borne Infectious Diseases	3	Spring
IDM 2038	Prevention, Treatment, and Control of Global Infectious Diseases	3	Spring
IDM 2068 *#+	Infection Prevention and Control Internship	3	Fall
IDM 2069	Infection Prevention and Control in Healthcare Settings	2	Spring
IDM 3440*	Vaccines and Immunity	1	Spring
PUBHLT 2018*	Overview of LGBT Health Disparities	2	Fall
PUBHLT 2020*	Advanced Topics in LGBT Research	3	Spring

* Requires appropriate prerequisite course(s) and/or co-requisite course(s) – See Appendix B
# Requires departmental consent – See Appendix F
^ If completing a lab rotation, please notify the IDM Academic and Student Affairs Administrator and register for 3 credits of IDM 2021.

B. Practicum

Each student is required to complete an Infectious Disease public health focused practicum. Practicum is a structured and educationally supervised assignment at an approved practice, service, or policy site with an experienced professional. Students may start their practicum after their first semester of study. Planning the practicum should begin with the student's advisor as soon as the program starts.

Students must spend a minimum of 200 hours at the practicum or internship site and complete all necessary

paperwork for the department and practicum location. All materials for Practicum can be accessed through the Practicum Portal. This includes practicum learning agreement form, self- evaluation form, and preceptor evaluation form. All completed forms must be submitted to your advisor and the IDM Academic and Student Affairs Administrator and must be on file to qualify for graduation. Student must upload practicum or internship deliverables through the Practicum Portal

If IDM MPH-One Health students wish they can take IDM 2069 and IDM 2068 in place of IDM 2007. Permission from the IDM MPH-IP co-director, Dr. Linda Frank, is required to enroll in these courses. Please note, however, that IDM 2069 is a prerequisite for IDM 2068 and students must therefore take both courses.

Regardless of which Practicum course is selected (IDM 2068/2069 or IDM 2007), MPH students are required to submit a practicum document showing the attainment of competencies and completion of work products. For the latest information on the practicum, please visit: Practicum Portal.

C. Thesis/Essay

Students must complete a thesis or an essay to graduate from the program. Students may conduct mentored laboratory or other research for this and receive course credit for the course IDM 2021 for each semester in which they do such research. Students may also use data obtained during their practicum for their thesis/essay, but prior permission from the practicum site must be obtained and documented.

Students are required to select three competencies (2 foundational and 1 program-specific) that will be integrated and synthesized in their essay. Students complete a ILE agreement form document the competencies they will address in their essay prior to the start of their essay writing. Upon completion of the essay, the student will complete a ILE assessment form with their advisor indicating the competencies attained in their essay. The student advisor signs off on the synthesis and integration of competencies in the essay.

III. CURRICULUM

The MPH program in One Health is designed to prepare public health professionals with skills in many areas, including immunology, microbiology, parasitology, and epidemiology and data analysis, to address critical problems in the prevention, control, and eradication of infectious diseases both globally and within the USA. Students will have gained expertise in infectious disease pathogenesis and epidemiology, their relationship to the control of infectious diseases, and the skills appropriate for careers within local and state health departments, federal agencies or global organizations conducting infectious disease surveillance and control programs. This MPH concentration utilizes a conceptual framework that brings together pathogen biology, immunology, and epidemiology within the broader framework of public health.

Each student is expected to demonstrate knowledge and expertise in the following areas:

- Biology of bacterial, viral, protozoan, and metazoan pathogens
- Host response to infectious agents.
- Ways of manipulating the host response by vaccination
- Epidemiology of infectious disease spread.
- Acquisition and analysis of laboratory and community data on infectious pathogens
- Human behavioral practices and their effects on the spread of infectious diseases
- Current best practices and remaining challenges in the eradication of infectious disease

IV. SUGGESTED SEQUENCE OF COURSES

Note: Full-time MPH students cannot register for less than 9 credits until spring term of their second year. A total of 42 credits are required.

FIRST YEAR

Fall Term

Course Number	Course Name	Credits
BIOST 2041	Introduction to Statistical Methods I	3
EPIDEM 2110	Principles of Epidemiology	3
IDM 2103	Host Response to Microbial Infections	3
IDM 2010	Pathogen Biology	2
IDM 2025	MPH Seminar	1
PUBHLT 2022	Public Health Grand Rounds	0
PUBHLT 2033	Foundations of Public Health (Online)	1

Spring Term

Course Number	Course Name	Credits
BCHS 2509	Social & Behavioral Sciences and Public Health	3
EOH 2013	Environmental Health and Disease	2
HPM 2001	Introduction to Leadership, Management and Policy for Public Health	3
IDM 2025	MPH Seminar	1
PUBHLT 2022	Public Health Grand Rounds	0
IDM 2161	Methods in Infectious Disease Epidemiology	1
Elective(s)	Elective opportunity/Certificate class	

SECOND YEAR

Fall Term

Course Number	Course Name	Credits
IDM 2004	Viral Pathogenesis	2
IDM 2007*	Public Health Communicable Disease Practicum	3
IDM 2021	Special Studies (Thesis/Essay)	2-3
IDM 2025	MPH Seminar	1
PUBHLT 2034	Public Health Communications	2
Elective(s)	Elective opportunity/Certificate class	

Spring Term

Course Number	Course Name	Credits
IDM 2021	Special Studies (Thesis/Essay)	2-3
PUBHLT 2035	Applications in Public Health	2
Elective(s)	Elective opportunity/Certificate class	

*Students typically conduct the work for their practicum in the summer semester but register for the credit in the following fall semester.

Students who wish to complete the program in three semesters must take an average of 14 credits in each semester and should discuss their plans with their academic advisor as soon as possible on *matriculating into the program.*

V. PITT PUBLIC HEALTH REGULATIONS FOR ALL MPH STUDENTS

For additional guidance refer here: https://www.sph.pitt.edu/academics/forms-handbook

A. *Thesis/Essay Mentor*: All students must choose their thesis/essay mentor from the IDM primary and secondary faculty.

B. *Credit Requirement:* A minimum of 42 credits for graduate study is required for MPH degrees in Pitt Public Health.

C. *GPA*: A grade point average of at least a B (GPA = 3.0) and at least an "S" in Pitt Public Health core courses which make up the program for any graduate degree must be maintained. **A student with full graduate status is automatically placed on probation whenever their cumulative graduate GPA falls below 3.0**. When a student's QPA falls below 3.0, the student, advisor, and department receive notice from the school's Student Performance Committee. If a student has a cumulative GPA below for two consecutive terms, they are likely to be dismissed from the program. Students must have a cumulative GPA of 3.0 or above to be eligible to graduate.

D. *Grade Requirement*: A grade of B or better must be maintained for all school wide core courses required in a student's academic program (see summary of requirements above). If a grade of C is earned, Pitt Public Health Educational Policies and Curriculum Committee recommends that the student and advisor meet to discuss the grade and that the student is strongly encouraged to re-take the core course. However, this final decision is up to the advisor and the student. If a grade below a C is earned, that student must repeat the course.

E. *Essay/Thesis*: Completion of a satisfactory essay or thesis.

F. *Full-Time Status*: Full-time students should register for 9-15 credits per semester.

G. *Degree Completion*: Full-time students are expected to complete their degree within 2 years after admission to the program. It is recommended that part-time students complete their degree within 3-4 years after admission to the program.

H. *If* a thesis is completed, copies of the approved signed bound thesis are required to be submitted to the faculty advisor and the IDM academic office. The finalized electronic thesis (ETD) must also be submitted to the Pitt Public Health Office of Student Affairs. If an essay is completed, copies of the approved signed bound essay are required to be submitted to the faculty advisor, IDM academic office, and Pitt Public Health Office of Student Affairs.

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VI. PRACTICUM REQUIREMENTS

MPH students are required to engage in an Infectious Disease public health focused practicum. Students register for 3 credits from IDM 2007: Public Health Practicum.

Practicum is a structured and educationally supervised assignment at an approved practice, service, or policy site with an experienced professional. It is aimed at identifying and applying theoretical frameworks and skills discussed and demonstrated in the classroom to the communicable disease/behavioral health field. This activity provides the student with hands-on experiences with community, research, clinical or organizational settings to learn new skills, approaches to public health issues, leadership, public health capacity building,

advocacy, and other public health skills and competencies.

Students work with their advisor and practicum preceptor to identify five competencies that will be attained throughout the practicum and two practical non-academic work products (deliverables) to be completed for the benefit of the organization/agency. At least three of the five competencies must be CEPH foundational competencies, and at most two competencies can IDM-PEL MPH program competencies. The practicum site choice is based upon recommendations by the faculty advisor and the career goals of the student.

MPH students are required to submit practicum documents showing the attainment of competencies and completion of work products. For the latest information on the practicum, please visit: Practicum Portal

Practicum Site Selection

The student has the primary responsibility for identifying potential practicum sites in collaboration with their faculty advisor who will officially approve the practicum site by signing the Practicum Learning Agreement. students may start a practicum any time after the first semester.

1. Student schedules appointment with faculty advisor to discuss practicum sites that fit the student's interest.
2. Student and faculty advisor meet and agree on a practicum site and complete the *Practicum Learning Agreement* before the start of the practicum.
3. Students contact practicum sites to ensure available practicum opportunities.
4. Student obtains the signatures of the practicum preceptor and faculty advisor on the *Practicum Learning Agreement form and* submits form to the IDM Academic and Student Affairs Administrator for student file.

Practicum Progress

1. Students provide status reports to their faculty advisor on practicum progress.
2. Nonparticipation and unexcused absences within the placement agency will result in the student failing the practicum.
3. Students are expected to follow the policies and procedures of the University of Pittsburgh and the practicum site.
4. Faculty advisor communicates with the practicum mentor in person, by phone, or via the web before the placement is approved and at least once during the placement.
5. Student and practicum mentor record hours to ensure they meet the 200-hour minimum requirement.
6. The practicum is graded on a letter grade basis.
7. Students may accept a stipend from the agency if available, but it is not required for an agency to be approved.

Department Forms & Documentation

Pitt Public Health and the department require the completion of the following forms and one report due at various times throughout your practicum experience:

Department Forms & Documentation

1. Pitt Public Health and the department require the completion of the following forms and one report due at various times throughout your practicum experience. Practicum Learning Agreement – Completed in collaboration with faculty advisor and practicum mentor before your practicum starts. Obtain signatures and submit them to the IDM Academic and Student Affairs Administrator. Upload a copy to your Practicum portal site.
2. Practicum Mid-Point Student Self-Evaluation Form – Completed at the mid-point of practicum. The student must submit the completed form to faculty advisor with a copy to the IDM

Academic and Student Affairs Administrator.

3. Practicum Mid-Point Evaluation Form for Site Preceptors – Completed at mid–point. of practicum. Students will give their practicum mentor this form, and they must submit it to faculty advisor with a copy to the IDM Academic and Student Affairs Administrator.
4. End of Practicum Evaluation Form for Students – Completed at the conclusion of your practicum. The student must submit the completed form to faculty advisor with a copy to the IDM Academic and Student Affairs Administrator.
5. End of Practicum Evaluation Form for Site Preceptors – Completed at the conclusion of practicum. Students will give their practicum mentor this form, and they must submit it to faculty advisor with a copy to the IDM Academic and Student Affairs Administrator.
6. Student Report – Completed at the conclusion of practicum. Students just author a report of their activities during the field placement and submit it to the faculty advisor with a copy to the IDM Academic and Student Affairs Administrator.

VII. THESIS/ESSAY REQUIREMENTS

Thesis/Essay Committee and Topic

MPH students are required to submit a master's essay and register for 2-4 credits of IDM 2021: Special studies. At the end of the student's first year of study, the student must select a thesis/essay committee in collaboration with their faculty advisor. Each committee will have a thesis/essay chair, who may, but does not have to be, the student's IDM faculty advisor. This individual must, however, be a member of the IDM faculty. Students and advisors must follow the University rules for committee composition. The topic of this scholarly work must be in the field of infectious diseases related to any clinical, behavioral, laboratory, environmental, policy, or systems aspects of infectious diseases as they apply to individuals, programs, institutions, or systems in both domestic and international settings. Students work with their advisor to complete an Integrative Learning Experience (ILE) agreement form where they identify three competencies that will be integrated and synthesized through their thesis/essay activities before starting their work. Two competencies must be CEPH foundational competencies, and one must be an IDM-MPH OH program competency. Upon submission of their essay, the student and their advisor will complete an ILE assessment form with the advisor verifying the integration and synthesis of competencies in the essay. The standard of excellence for both the essay and the thesis is the same and must demonstrate the ability to reason, based on scientific evidence, and draw appropriate conclusions. The essay/thesis must meet appropriate academic standards and be written in a scholarly manner.

The topic, thesis/essay chair, and committee are all approved in writing by completing the ILE Agreement Form Planning Form. Students must complete, obtain signatures, and submit forms to the IDM Academic and Student Affairs Administrator, who will obtain Pitt Public Health Student Affairs approval on the committee. Once approved, the faculty advisor and student will be notified.

Focus of Essay/Thesis

The thesis or essay must be in the field of infectious diseases. The project undertaken for a thesis must include original research done independently in a laboratory or other research setting by the student, or the investigation of a problem undertaken during a practicum in a public health agency, health care institution, or other public health setting. The essay is an original piece of scholarship that presents a critical review of the literature of a problem, policy, issue, or practice in the above-described fields of study. An essay may also include the description and analysis of any original data generated by the student in these settings.

Thesis or Essay Types (not entirely mutually exclusive, discuss with your faculty advisor)

- Original investigation (Thesis): This involves the formulation of a hypothesis and the collection and

analysis of data to test the hypothesis. The data may already exist or can be new data collected by the student. Consideration of the time and financial resources necessary might limit the scope of the research; in this case the thesis could take the form of a demonstration or pilot project, describing a methodology, structure and/or process that would have a much wider field of potential applicability.

- Literature Review (Essay): This involves the examination of all the relevant literature on a given topic, to create a definite "state-of-the-art" document about the topic. This is more extensive than a normal literature search, which would be required for the other types of essays/theses as well. In a literature review essay, the student must demonstrate competence in analysis, evaluation, and criticism of existing material, as well as the synthesis of latest content.
- Policy Analysis (Essay): This is a review of relevant federal, local, and agency policies (legislation, regulations, guidelines, bylaws, etc.), together with an analysis of their implications for service, planning, and future policy development. A recommendation for policy direction for an agency, or an individual position paper, would be a part of the final essay product. An essay might also analyze the process of policy development in an agency.
- Program Evaluation (Essay): This involves the application of accepted methods of program evaluation to reach conclusions about the effectiveness or success of that program in meeting its own objectives. This essay type would include a critique of the program as well as recommendations for future improvements in all aspects of the program's function.
- Program Development (Essay): This type of essay documents the development of a specific program, plan, or initiative for a specific agency, department, or institution. The essay is based upon an identified need or issue and should describe a tailored plan of action to address this. The essay should be prepared as if it is to be presented to the agency, department, or institution for their use, as well as to satisfy the essay requirement of the MPH-PEL program.
- Management Issue Analysis (Essay or Thesis): This essay involves the collection and analysis of data relevant to specific programmatic management issues which may occur within health care organizations, government agencies, or community-based organizations involved in infectious disease diagnosis or monitoring, or the provision of other kinds of services or programs related to infectious disease. The essay may also analyze a management decision (institution of a new program, restructuring of staff, etc.), which may include a review of relevant management principles and approaches, and an evaluation of the effects of the decision on agency structure, functioning and service delivery.

Essay Committee Meeting

Students must meet with their committee; however, a formal in-person meeting is not needed. Distance-based communication can be utilized for this meeting (i.e., zoom, MS Teams, etc.). Students must submit a brief description of the project to all committee members when asking them to serve on their committee. After obtaining the agreement of their committee, students should complete the ILE Agreement Form.

Thesis Committee Meeting

Students completing a thesis must meet with their committee members in person, adhering to the same timeline as above. In addition to completing the ILE agreement form, students doing a thesis need to submit a proposal to the committee at the formal meeting.

The proposal for a **thesis** will consist of:
Introduction

- Research questions
- Review of relevant literature
- Proposed methodology

Additionally, prior to the first committee meeting, students must submit their research proposal to all thesis committee members two (2) weeks in advance. After the first meeting, it is up to the student to send drafts to the advisor. Students should develop a timeline for draft completion and communicate this to their advisor for approval.

Institutional Review Board (IRB)

All thesis/essay work involving human subjects must have documented evidence of either IRB approval or exemption. Please discuss this with your IDM faculty advisor and your thesis/essay chairperson. Refer to the University of Pittsburgh IRB website: http://www.irb.pitt.edu/. During the first semester of study, students must complete the University of Pittsburgh online research modules, https://cme.hs.pitt.edu and the successful completion certificate (copy) of each module will be provided to the Faculty Advisor. Students must maintain the original copy for their records for future reference and documentation for IRB submission.

Thesis/Essay Format

Essays and theses are written in a clear, concise prose, utilizing the Style and Form Manual for Graduate Thesis and Dissertation Preparation at the University of Pittsburgh, March 1993 for final preparation procedures. This is available through the Pitt Public Health Office of Student Affairs or (https://etd.pitt.edu) All students must adhere to the format outlined by the ETD system. For essay and thesis format and requirements, please read the academic handbook.

The most recent edition of the American Psychological (APA) Style Manual must be followed. Most theses or essays will include the following elements:

- ***Introduction***: A statement of the purpose of the study, the research description of the agency, or the environment in which the data are to be collected, identifying the problem and stating scope or focus of the study or research, including, where appropriate, the hypothesis to be tested.
- ***Review of relevant literature:*** A comprehensive review, and synthesis of journal articles, books, etc. on the same theme, indicating major relevant findings and indicating gaps in knowledge which the study may attempt to address.
- ***Methods:*** Documents, terms, and statement of assumptions, how the information is to be collected and analyzed; describes the specific procedures used to collect and store the data, describes the IRB approval process, and the limitation of the study.
- ***Findings:*** Describes data management, results of study, policy decisions, policy materials, and original research data and identifies biases or limitations of the study results.
- ***Discussion:*** Describes the implications of the results, synthesis of major trends, discussion of meaning of the data for the field, correlation with other studies from the literature review, and outlines areas for further investigation of research.
- ***Conclusions:*** Includes a summary of major findings, application to agency planning, the field, and other recommendations.
- ***Bibliography:*** Includes all references in the document and must follow the APA format
- ***Abstract:*** A brief statement of the research question, design, and conclusions of the study.

Thesis and essays completed by IDM alumni are available online via the University of Pittsburgh D-Scholarship System.

Thesis Submission & Defense

- The committee determines if the student is ready to present the thesis for final defense.
- The student may be required to complete additional data collection, analysis, or other development prior to final defense.
- In collaboration with the advisor/committee chair, the date, time, and location of the final defense will be scheduled for at least 1 month in advance. If a conference room or audio-visual equipment is needed, the student must contact the IDM Academic and Student Affairs Administrator in advance of the meeting to reserve the room and/or equipment.
- Copies of the thesis will be made by the student and delivered by email to all committee members 2 weeks prior to the date of the defense. The advance submission of the document must be a full 2 weeks excluding any holidays or semester breaks and fit within the schedules of participating committee faculty.
- Students are expected to prepare a PowerPoint presentation of their thesis defense, which must be

submitted to their thesis/essay advisor for approval before the defense.

- The committee will conduct a final examination on the thesis after the defense.
- Per school-wide essay/thesis completion policy, only the Program Director can request an extension to complete work on the thesis/essay. Pitt Public Health Student Affairs will not grant extensions directly in response to student or advisor requests.
- The student should complete the Electronic Thesis & Dissertation (ETD) form and send it to their committee members for their signature after the defense.

Essay Submission and presentation

- The committee determines if the student is ready to submit the essay for graduation review.
- The student may be required to complete additional data collection, analysis, or other development prior to submission.
- The student should communicate with their faculty advisor regularly throughout writing.
- Copies of the essay will be delivered by email to all their committee members 2 weeks prior to the date of the defense and the advance submission of the document must be a full 2 weeks excluding any holidays or semester breaks and fit within the schedules of participating committee faculty.
- Students will present their essay during their Monday Seminar, Wednesday Journal Club, or at a different time by agreement with their essay advisor or Program Director.
- Per school-wide essay/thesis completion policy, only the Program Director can request an extension to complete work on the thesis/essay. Pitt Public Health Student Affairs will not grant extensions directly in response to student or advisor requests.

Submission of Final Thesis/Essay documents

Students are required to submit their final, approved, thesis, or essay document to their faculty advisor and to the IDM academic office, no later than one week after the end of the semester. The finalized electronic thesis (ETD) must also be submitted to the IDM academic office in addition to the Pitt Public Health Office of Student Affairs. Students must complete the ILE Assessment Form.

It is the student's responsibility to comply with all departmental and school guidelines for submitting their thesis/essay documents, and for scheduling their thesis defense. A student who fails to meet these deadlines may be required to register for another semester and to delay their planned graduation.

VIII. SPECIAL NOTE TO PART-TIME MPH STUDENTS

It is recommended that part-time students complete their degree within 3-4 years after admission to the program. Part-time students should be enrolled for a total of 6 credits each semester, but students can maintain part-time status by registering 1-8.5 credits.

Since each part-time student presents a unique situation, it is difficult to have a standard schedule designed to cover everyone's individual needs. This is also complicated by the fact that certain required and prerequisite courses are only offered during specific times and semesters throughout the year. The department recognizes that this can present various logistical hurdles. The Program Director will serve as the primary academic advisor and offer guidance to help the student navigate scheduling challenges. In some cases, another graduate level class may be used to substitute for a listed required course upon permission from the director of the required course and the MPH Program Director.

Seminar/Journal Club Requirement (IDM 2025)

1. Part-time students must register for IDM 2025 – MPH Seminar for two semesters. To receive credit for the course, part-time students can do the following:
2. Attend the regular Monday and Wednesday seminars and journal clubs with the rest of the department.
3. Attend seminars or retreats outside of the department, totaling 15 hours, and complete the Seminar Substitute form to return to IDM 2025 MPH Journal Club for instructors for credit.

- A combination of two and three is also permitted. For example, if you must miss one or two classes, you can make those sessions up by attending an outside event.

GRADUATION GUIDELINES

A. Application for Graduation

In conjunction with their advisor, students are to ensure that all graduation requirements are complete. These include completion of core courses, completion of departmental required courses, completion of the minimum credits required for the degree to be awarded, passing of all required examinations, completion of written requirements (dissertation, thesis, essay), achievement of a cumulative GPA of 3.0 or higher, and completion of a practicum (if required).

Graduation occurs at the University of Pittsburgh at the end of all semesters. There are two graduation dates during the summer semester (June and August). Students must enroll for one credit during their last semester of study. Note that international students must obtain permission from the Office of International Services as to whether they can register for less than full-time status. During the last semester students are to contact the Pitt Public Health Office of Student Affairs to complete an application for graduation. After the application is complete, the student is responsible for completing all required forms and adhering to all policies and procedures. Further information is available on the PITT PUBLIC HEALTH Web.

B. Electronic Theses & Dissertations (ETDs)

Students submitting a dissertation or thesis as their written requirement for their degree must submit their dissertation/thesis electronically via the University of Pittsburgh's ETD system. Assistance in this process is available from the University Library System, Pitt Public Health, and Computing Services and Systems Development. Further information is available at https://etd.pitt.edu/. Note: it is imperative that students adhere to the ETD formatting specifications. It is common for Pitt Public Health's Office of Student Affairs to return the document multiple times for failure to adhere to these specifications.

C. IDM Exit Interview (optional)

After completing all requirements for the degree, including the thesis/dissertation defense or approval of the MPH essay, all IDM students are invited to participate in an exit interview with the IDM Vice Chair for Education. This interview is to obtain useful feedback about the students' experiences in IDM, to obtain forwarding address information, and to discuss plans for ensuring that the Department receives a bound copy of the thesis/dissertation. Students are to contact the IDM Academic and Student Affairs Administrator to meet with the IDM Vice Chair for Education during the final weeks of their last semester to set up an interview.

Graduation Forms

- Report on Requirements - Certificate
- Report on Requirements - Doctoral Degree
- Report on Requirements - Master's Degree
- Essay Approval Form
- ETD Approval Form (for thesis and dissertations)

IDM PROGRAM NOTES

COMPLETED MS OR MPH FOR IDM DOCTORAL CONSIDERATION

Students who have completed or are on track for completing all requirements for the MS or MPH program may apply for entrance into the IDM PhD program by applying through SOPHAS - www.sophas.org. Applications to the PhD program can occur prior to completing the MS or MPH degree, although entrance into the PhD program can only occur after the completion of the MS or MPH degree. Students wishing to apply to the PhD program must formally do so. *"Transfer" into the PhD program from another IDM program is not a departmental practice. Anyone who desires to be considered for the PhD program must complete the SOPHAS application and full process in accordance with practices for external candidates. There are no guaranteed admissions internally.* Application procedures can be obtained from the IDM Academic and Student Affairs Administrator or from the IDM website.

DOCTORAL TO MASTER'S PROGRAM TRANSFERS

The student, with concurrence from their faculty advisor, must inform the Admissions Manager in the Pitt Public Health Office of Student Affairs, the IDM Department Chair, IDM Vice Chair for Education, and the IDM Academic and Student Affairs Administrator of their decision to transfer to the master's program. The students should also discuss this with the IDM Vice Chair for Education prior to taking action to make this transfer. After receiving permission from the IDM Department Chair, the student must finish the required courses for the master program, pass the master's comprehensive examination (MS students), and successfully defend a master's thesis (MS and MPH students). It is noted that Pitt Public Health requires three core courses to be completed for a student to receive an MS degree, even if they are seeking an MS upon exit from the PhD program. The MPH program has eleven (11) Pitt Public Health core courses that must be completed. If the student has earned a graduate degree and/or has taken a similar course, he must follow the instructions in Appendix G to obtain exemption from a required course. Procedures for department and school-wide course exemptions differ.

TRANSFERRING WITHIN IDM - MPH CONCENTRATIONS

The student must meet their academic advisor to discuss transfer. With concurrence from their academic advisor, the student must inform their respective MPH Director in writing about their desire to transfer, including a brief rationale for the change. The student advisor sends a copy of the email to the Admissions Manager in the Pitt Public Health Office of Student Affairs. The student should also inform the IDM Academic and Student Affairs Administrator of the transfer. Once the student's MPH Program Director and the Department Chair have signed off on the transfer, the IDM Academic and Student Affairs Administrator will notify the student by email of the successful transfer.

MPH TO MS DEGREE and MS TO MPH DEGREE

If a student has completed his/her MPH degree, and is accepted to pursue an MS degree, only 6 credits from the MPH degree can be transferred into the MS degree and vice versa. This means the student must complete 30 additional credits to earn the MS degree at Pitt or 36 additional credits to earn an MPH degree.

ENTRY OF NON-DEGREE STUDENTS INTO DOCTORAL OR MASTER'S PROGRAMS

Active non-degree to Pitt Public Health students who wish to apply for an IDM degree granting program must submit a formal statement to the Pitt Public Health Admissions Manager requesting consideration for admission to a specific program. Applications to degree programs are subject to review by the IDM Admissions Committee. Credits earned during the semester(s) under a non-degree status will count towards IDM program course requirements. Upon acceptance into the program, students will be subject to the requirements set for the selected IDM graduate program. Pitt Public Health policy states that non-degree students are only eligible to earn 12 credits prior to admission to a degree-granting program.

IDM FACULTY AND RESEARCH INTERESTS

During your graduate studies, you will work closely with a faculty member who will serve as your academic advisor. As you begin to identify potential advisors, one critical factor in your decision-making process will include the specific research interests of individual faculty members. Complete faculty bio sketches, statements of research interests, recent publications, and contact information are available on the Pitt Public Health Directory:

Faculty Research | School of Public Health (pitt.edu)

You are encouraged to identify a major advisor immediately upon entering an IDM graduate program.

APPENDIX A
PITT PUBLIC HEALTH DEPARTMENTAL ACADEMIC OFFICES

DEPARTMENTS & CENTERS

Department	Contact	Telephone	E-mail
Behavioral and Community Health Sciences	Paul Markgraf	412-624-3107	pjm111@pitt.edu
Biostatistics	Helen Chen	412-624-3022	hec54@pitt.edu
Environmental and Occupational Health	Bryanna Snyder	412-383-7297	bms85@pitt.edu
Epidemiology	Samantha Kline	412-383-5269	smk351@pitt.edu
Health Policy and Management	Jessica Dornin	412-624-3625	jld115@pitt.edu
Human Genetics	Noel Harrie	412-624-3066	nce1@pitt.edu
Infectious Diseases and Microbiology	Erin Schuetz	412-624-3331	idm@pitt.edu
Multidisciplinary MPH	Renee Valenti	412-624-3023	renee.valenti@pitt.edu

CERTIFICATE PROGRAMS

- Disaster Preparedness
- Environmental Health Risk Assessment
- Evaluation of Public Health Promotion and Health Education Programs
- Global Health
- Health Equity
- LGBT Individuals' Health & Wellness
- Public Health Genetics

APPENDIX B
COURSES REQUIRING PREREQUISITES

Course Number	Course Title	Course Offered	Prerequisite Course(s)
BCHS 2598	Social Inequities in Health	Summer	BIOST 2011/2041 EPIDEM 2011
BIOST 2016	Introduction to Sampling	Spring	BIOST 2011 OR 2041 & BIOST 2093
BIOST 2042	Introduction to Statistical Methods II	Spring	BIOST 2041
BIOST 2049	Applied Regression Analysis	Spring	BIOST 2042
BIOST 2093	Data Management and Analysis	Spring	Pre-requisite: BIOST 2041
EPIDEM 2160	Epidemiology of Infectious Disease	Fall	EPIDEM 2110
EPIDEM 2161	Methods Infectious Diseases Epidemiology	Spring	EPIDEM 2110 & EPIDEM 2160
EPIDEM 2170	Chronic Disease Epidemiology	Fall	EPIDEM 2110 & BIOST 2011 OR 2041
EPIDEM 2180	Epidemiological Methods I	Spring	EPIDEM 2110 & BIOST 2041 Co-requisite: BIOST 2042
EPIDEM 2181	Design of Clinical Trials I	Fall	EPIDEM 2110
EPIDEM 2260	Epidemiological Basis Disease Control	Fall	EPIDEM 2110 & BIOST 2011 or 2041
IDM 2002	Molecular Virology	Spring	IDM 2001 OR INTBP 2000
IDM 2014	Functional Genomics of Microbial Pathogens	Every other Fall	IDM 2001 or IDM 2010
IDM 2161	Methods Infectious Diseases Epidemiology	Spring	EPIDEM 2110
IDM 3440	Vaccines and Immunity	Spring	IDM 2103
MSIMM 2230	Experimental Basis of Immunology	Spring	Co-requisite: MSIMM 2210
MSIMM 3480	Immunology of Infectious Disease	Fall	Co-requisite: MSIMM 2210 or Pre-requisite: IDM 2103
PUBHLT 2016	Capstone: Problem Solving in Public Health	Fall/Spring	EPIDEM 2110 & BIOST 2011 or 2014 & PUBHLT 2014 & 2015 & 2022 & BCHS 2509 & EOH 2013 & HPM 2001
PUBHLT 2018	Overview of LGBT Health Disparities	Fall	EPIDEM 2110
PUBHLT 2020	Advanced Topics in LGBT Research	Spring	PUBHLT 2018

Only course instructor(s) can grant exemptions from class prerequisites or co-requisites. Per instructor consent, an "Admission to Closed Class or Restricted Class" form may need to be completed. This form is available in Pitt Public Health *Student Affairs.*

Please refer to the Pitt Public Health Course Catalog for updates to this list.

APPENDIX C
COURSES REQUIRING PERMISSION TO ENROLL

Departments and instructors reserve the right to limit enrollment in courses to a particular number of students per class section and/or give priority to students requiring a particular course to meet a graduation requirement or enrolled in a certificate program. Per instructor and/or department consent to an "Admission to Closed Class or Restricted Class" form may need to be completed. This form is available in Pitt Public Health Student Affairs.

Please refer to the PITT PUBLIC HEALTH course catalog for updates to this list.

APPENDIX D
Procedure for Required Course Exemptions

Department Required Course Exemptions

If the student has taken an equivalent course to satisfy a ***department*** course requirement, the individual must complete a Department Required Course Exemption form, obtain official transcripts and syllabi for courses used as the basis for the request and present it first to the faculty advisor for their recommendation, and then to the program director for exemption consideration. The program director will sign if they approve or disapprove. The completed Department Required Course Exemption form must be returned to the IDM Academic and Student Affairs Administrator.

Pitt Public Health Core Course Exemptions

If the student requests an exemption from a Pitt Public Health Core Course, the individual must complete a PITT PUBLIC HEALTH Core Course Exemption form, obtain official transcripts and syllabi for courses used as the basis for the request, and present it first to the faculty advisor for their recommendation, and then to the instructor of the course for exemption consideration. The completed, original Pitt Public Health Core Course Exemption form must be returned to the Office of Student Affairs.

- MPH School Core Course Exemption
- PhD School Core Course Exemption
- Public Health Essentials Core Course Exemption
- Public Health Course Exemption