SDSU/UCSD Joint Doctoral Program (JDP) in Public Health – Epidemiology
Written Qualifying Exam Procedures

1. Overview of Examination Purpose and Competencies

The JDP PH requires that students take and pass a written qualifying exam as part of the process of advancing to candidacy. The written qualifying exam for Epidemiology track students is meant to assess and demonstrate students' competency and ability to critically apply foundational knowledge in epidemiology based on the core curriculum taught at SDSU and UCSD.

The completed exam should formulate clear and well-justified study aims, propose appropriate research methods (with particular attention to statistical analysis techniques), and include a description of potential limitations (e.g., biases) and strategies to mitigate them. Students must demonstrate capacity for critical thinking and articulation of a cohesive proposal that could address a real-world research problem using epidemiologic methods. The quality of writing should be scholarly and at a level commensurate with good scientific writing practices, including explaining any acronyms used and proper citations. All portions of the exam are expected to reflect high-level critical thinking, depth and detail that illustrates the student's achievement of the epidemiology track core competencies as applicable to the qualifying exam. .

The JDP Public Health Epidemiology track expects students to gain the following core competencies:

- Describe the distribution and determinants of health and disease in populations, and the factors that influence these distributions.
- Describe major national and international health concerns, their established risk factors and other contributing factors for these problems.
- Develop a systematic approach for planning, collecting, processing and analyzing information in research and practice settings.
- Apply appropriate analytic and statistical methods to data generated from a wide variety of public health research.
- Design and implement independent research addressing a public health problem.
- Develop and write fundable research proposals and critique those of other investigators.
- Identify, measure, and discuss the major categories of bias and their potential impact on measures of association, assess the potential for their occurrence in specific situations, and propose methods to evaluate and/or reduce their influence on the measures of major interest.
- Identify situations where confounding and effect modification may be important, and apply designs and statistical methods to quantitatively assess confounding and effect modification.
- Apply a range of sampling techniques and calculate appropriate sample sizes in accordance with study objectives.
- Employ methods of direct and indirect standardization or adjustment for factors such as age or gender in a study population.
- Identify and apply appropriate advanced statistical methods such as multivariable regression, factor analysis, logistic regression, survival analysis, and cluster analysis.
- Apply the principles of causation in designing studies and interpreting published literature.
- Use appropriate epidemiologic and statistical methods to calculate and interpret dose-response issues and trends in prevalence or incidence of disease outcomes or risk factors.

2. Examination Procedures

Written qualifying exams for Epidemiology students will be administered once per year each Fall, delivered at a predetermined date and time via email. The exam period will begin in September, and final results will be communicated to the student in December.

By June of the year of the exam, students will be asked to identify a potential Chair to serve on their Examining committee. If a Chair has not yet been identified, students will be asked to identify a mentor to serve on the Examining committee.

Prior to taking the exams, students will be required to sign an integrity oath (Appendix 1) and expected to follow all exam guidelines, including on-time submission of the work. No late exams will be accepted, see policy that follows.

Students will be **given two weeks to complete the initial written proposal**. After the proposal is returned to the committee, an oral Q&A session will occur where students answer questions about their proposal by the entire exam committee. The written exam will then be graded by the Examination Committee within one month and feedback will be sent to the student. If necessary, the student will have **two weeks to revise their proposal**. Additional details on examination grading (Section 4) and timelines (Section 5) are described below. In the case of a failed revision, students will have one additional attempt to pass the exam within the current academic year.

Students who do not pass the exam on this additional attempt **will take a new exam the following academic year.** Students will be provided with a tailored remediation plan from their Chair and Program Directors consisting of additional coursework and other training/resources that should be utilized and undertaken to assist in their development.

3. Examination Format

The exam format will involve writing a research proposal in response to a prompt. The written exam should include the following sections:

1. Specific Aims (1 page)
2. Research Strategy, including *Significance, Innovation, and Approach* (6 pages)
3. References Cited
4. Human subjects (if appropriate)

Epidemiology track-specific guidance:

- All proposals should be based on a secondary analysis of an existing data source(s) (e.g., R03 type proposal)
- For epidemiology track students, the Significance and Innovation sections of the Research Strategy, while important, are not the focal point of the exam. The Approach section (including design, methods, and analysis) should receive the most attention.
- Students are strongly encouraged to include an appropriate conceptual framework and/or design figures underpinning the study design.
- A justification is required for the use of measures to address the specific aims. Students are strongly encouraged to use the best possible ‘state of the science’ measures appropriate to address the research question.
- A detailed data analysis section is required outlining how each of the specific aims will be addressed.
- Include a section on study power with calculations. If specific frequencies for the proposed dataset are not available, assign frequencies based on a justified rationale substantiated by existing literature/effect sizes.
- A study timeline diagram and description should be included.

The written proposal must be – in its entirety - the original work of the student. A statistician may be consulted for power calculations, but may not write this section or perform the analysis. While the proposal may be useful for supporting future research the student hopes to conduct, it must not represent previous proposals written by the student, or previous work that the student was a part of. If there are questions about this requirement, the student should discuss it with the examination Chair prior to starting the proposal. The proposal should be distinctly different from the planned dissertation project.

If a student is asked to revise and resubmit their exam, the revised exam must underline all revised sections and include a 1-page response to reviewers describing how they have strengthened their proposal based on the feedback.

All materials must be submitted as word documents and formatted as single-spaced,12-point font, with a minimum of 0.5 inch margins.

For sample exam prompts, see Appendix 2.

5. Examination Grading Procedures and Criteria

The JDP Epidemiology Written Qualifying exam is designed to assess the student learning objectives described in Section 1. This will be complemented by an oral Q&A session with the Examining Committee meant to allow the student to address committee questions, demonstrate their grasp of the material and the methods, and prepare the student for revisions. The oral Q&A session will be scheduled in the second week after exams are due, and will be attended by all graders and the two track directors.

The written exam will be graded by at least two Examining Committee members (Chair, JDP track director) and feedback will be sent to the student. Feedback will consist of a completed assessment rubric (Table 1) as well as detailed feedback on the strengths and areas for improvement of the proposal. If necessary, the student will have one month to revise their proposal to address areas of improvement identified by the Committee.

Building on competencies developed in the Epidemiology JDP curriculum, the following rubric will be used to evaluate the Epidemiology exams:

Table 1. Qualifying examination assessment rubric

Criteria	Adequately addressed	Partially addressed	Not adequately addressed	Comment on strengths and areas for improvement
Description of distribution and determinants of health and disease in population of interest, and the factors that influence these distributions, as it applies to study question				
Overall study design is appropriate, feasible, and well justified				
Three primary sources of bias (confounding, information, selection) are identified, discussed and mitigation plans presented (if applicable to study design)				
The study design and sample size are supported by appropriate data, including power calculations				
The data analysis plan is well-developed, coherent, feasible, and aligns with the aims				

and hypotheses				
Writing, organization, and formatting are clear, cohesive, and laid out in a logical, easy to understand way				
Demonstration of comprehension and critical thinking during oral Q&A session				

At least 2 members of the Examining Committee will review and grade the exam and come to consensus on whether the initial exam merits a “pass, revise and resubmit, or fail”. In general, a passing grade will be based on **scoring a minimum of ‘adequately addressed’ on all criteria following revision.**

6. Examination Calendar

Table 2. Examination schedule and timelines

Timeframe	**Phase**	**Description**
First week of June prior to exam	N/A	By June of the year of the exam, students will be asked to identify a potential Chair to serve on their Examining committee. If a Chair has not yet been identified, students will be asked to identify a mentor to serve on the Examining committee.
Second week of September	Writing phase	Students will receive an e-mail with a list of research prompts to select from on the Monday morning by 9:00 AM Students will have **two weeks (10 business days) to complete the initial submission of the exam**
Fourth week of September	Exams due	Completed exams must be returned to the Chair by Monday at 5:00 PM **Late exams will NOT be accepted, see policy that follows**
Fourth week of October	Written feedback and exam results provided to student	Students will be provided with written comments from the Examination Committee on their completed exam by the Chair.
First week of November	Oral Q&A with Examining Committee	The students will attend an oral Q&A session (up to 30 minutes) to respond to questions from the Examining Committee on their submitted exam. Students will also have opportunities to ask clarifying questions on the feedback during this time. Students will be notified of the initial exam outcome (pass, revise and resubmit, or fail) by the Chair after the Q&A session, as well as guidance if a revision is necessary.
Third week of November	Resubmit revised exam	Students will have **two weeks (10 business days) to complete the revision of the exam following the Oral Q&A session.**

		Final revised exams must be resubmitted by Monday at 5:00 PM. **Late exams will NOT be accepted, see policy that follows.**
Second week of December	Final exam results	The Chair will provide a final determination (pass/fail), based on consultation with the committee, of the examination results.

7. Roles and Expectations of Examining Committee

a. Each committee member will write a prompt for their student, with all prompts reviewed by the track directors prior to dissemination.
b. The Examining Committee for each exam will be comprised of 2-3 members, which must include the Dissertation Chair and at least one Epidemiology track Co-Director. The committee must have at least one member from SDSU and UCSD.
c. The full Examining Committee will attend and participate in the oral Q&A session with the student.
d. All members of the Examining Committee must review and grade the exam, and come to consensus on whether the initial exam merits a "pass" or "revise and resubmit."
e. Students may meet with the Chair to discuss the feedback during the revision period prior to developing a point-by-point response and revision of the proposal.
f. In cases in which the Examining Committee feels that there were very serious limitations on the proposal, the committee may ask the student to rewrite the full proposal.
g. The Examining committee will consider the student's written response to all reviewer comments and if applicable, the revised proposal, prior to coming to consensus on a pass/fail score.
h. The Chair of the Examining Committee for each student will be expected to report interim and final outcomes of the exam to the student, with cc to the Examining Committee and Epidemiology track Co-Directors.
i. The Examining Committee are expected to adhere to the Examination deadlines, which will be communicated prior to the beginning of the Examination period.

8. AI Use Policy

Students are expected to adhere to policies on academic integrity and AI at both SDSU and UCSD. Restricted AI use is permitted **ONLY for the purpose of copy-editing, general background research, and formatting. Use of AI is NOT permitted for generative material included in the exam such as writing, creation of tables or figures, or generating reference lists.**

All components of the exam are expected to represent the student's original contribution and reflect their own ideas, interpretation, and insights. Students are expected to be fully responsible and accountable for the contents of their work, including the accuracy, comprehensiveness, and impartiality of the literature review, references, analysis plan, and study design.

If students use AI for an allowable purpose (copy-editing, general background research, or formatting), this must be disclosed as part of the submitted exam through an AI disclosure statement (2-3 sentences max).

These expectations are consistent with NIH policies. For example, as of September 25, 2025 the *NIH will not consider applications that are either substantially developed by AI, or contain sections*

substantially developed by AI, to be original ideas of applicants (for more information, see NOT-OD-25-132).

Most funding agencies and journals have specific guidelines on the use and disclosure of AI, which students are encouraged to review. See sample guidelines on AI use for authors from the Lancet Public Health.

Appendix 1: JDP in Public Health - Epidemiology
Written Qualifying Exam Integrity Statement

This statement applies to all components of the Written Qualifying Exam

Instructions: Initial each policy requirement to indicate that you have read and agree to the requirement, and then sign the document at the bottom.

_____ I confirm that any work I submit as part of the exam is my own work and represents my original ideas.

_____ I agree that while I may work on parts of the exam with text resources and internet resources as allowed, I may not seek help from any other person with the exception of a statistical consultant, if needed, for power calculations.

_____ I understand that any responses that I submit must be my own, created by me and with proper and complete citation of sources that I identify and verify myself (not use of generative AI).

_____ I agree that I will not discuss the exam question or content of my response with any other student or faculty during or after the exam. This includes current students, students in other classes, and faculty.

_____ I understand that the only person I may ask questions of are the Exam Chair, however I understand that they reserve the right to not provide me with answers to my questions.

_____ I understand that if I submit material that is too similar or plagiarized from any other person or source (printed or electronic), the score/credit on this exam may be adjusted if it is deemed appropriate by the Chair and Program Directors.

_____ I understand that if I fail to follow the exam instructions and prompts, credit may be deducted from my final points.

_____ ***Late submissions policy:*** I understand that late submissions **will not be accepted**, unless unforeseen, extenuating circumstances are explained and approved by the Chair at least 24 hours in advance of the time that the exam is due.

I have read and agree to all of these requirements

_____
Student Signature

_____
Date

Appendix 2 – Sample Written Qualifying Exam Prompts

A request for applications invites applications proposing innovative analysis of existing social science, behavioral, administrative, and neuroimaging data to study the etiology and epidemiology of substance using behaviors (defined as alcohol, tobacco, prescription, and other substances) and related disorders, prevention of substance use and HIV, and health service utilization. This funding opportunity goals are: (1) To support basic, clinical, translational, and implementation research in the field of substance use; and (2) To develop new knowledge and approaches for the prevention, diagnosis, and treatment of drug use, misuse, and addiction, drug overdose, and related health outcomes, including HIV/AIDS. *Design a study to identify risk factors and consequences of substance use or substance use disorder that may be disproportionately experienced by young people facing health disparities (e.g., race/ethnicity, sex, age, disability, socioeconomic status, geographic location, comorbid mental health or SUD diagnoses, individuals with physical disabilities, veterans/military, and criminal justice populations).* *We would like you to incorporate the Adolescent Brain Cognitive Development study (ABCD) data set into your proposal. You may also incorporate other data sets if you think they enhance the rigor and impact of your proposed study.*
Emerging research has elucidated the importance of structural factors in (re)producing health disparities among underserved and marginalized populations. In comparison with much research focused on behavioral risk factors, we know less about the mechanisms through which structural determinants of health impact mental health outcomes. *Propose a study to evaluate the relationship between structural exposures (e.g., neighborhood environments, laws and policies, racism and discrimination) and mental health outcomes in a selected population facing health disparities. The study should address the extent as well as mechanisms/pathways by which structural factors relate to these outcomes. The study must be hypothesis driven and should use epidemiologic methods.*
Growing research has elucidated the limitations of single-disease interventions and suggests the importance of interventions to address the syndemic nature of co-occurring health disparities Syndemics refer to when two or more epidemics co-occur in a particular population, place or time under shared conditions or social and structural inequity. *Propose a study to examine the syndemic nature of at least two inter-related infectious or chronic conditions and the exposures that may be driving these syndemics. The study should justify the selected study population and conditions, and address both the determinants as well as potential causal mechanisms driving these syndemics.* *Consider research questions and hypotheses that would be most useful given the state of the science, as well as the priorities and needs of the selected population.*