

## Core Competencies of IHD Doctoral Program

### Domain 1: General Knowledge in International Health & Development

Competency	Examples of competency*	Where competencies are acquired
Advanced concepts pertinent to applied, interdisciplinary, public health <u>research</u> in international domain (resource-poor settings)	Understand and articulate the research approach from research question, to study design, to appropriate methodologies, and interpretation	Coursework, esp. INHL 725, INHL 705, methods courses, such as Epi 603, 712, 713 626, 730, 695, teaching assistantships,
Debate and discuss major public health <u>problems</u> , controversies, and potential solutions in international health	Articulate and critique public health issues pertinent to developing areas, (in relation to disparities such as gender, race, poverty, health systems)	INHL 705, SPHTM Seminars, Independent study & coursework in specialty area  Preparation for substantive comprehensive exams
Expertise in a stated substantive specialty area in international health (as recognized by the committee)	Can communicate key literature, facts, debates, issues, major problems, etc. in relation to a specific area of nutrition, reproductive health, infectious disease, etc.	Additional coursework, independent study, research experience, substantive comprehensive exams
Knowledge of ethical issues in international health research (involving human subjects)	Prepare an acceptable Institutional Review Board application for a research project	Seminars, Coursework, online IRB training, OHRP resources, preparation for fieldwork
Interpretation of findings in a theoretical and research/causal framework	Identify and articulate study limitations, i.e., inferring causality and generalizability based on different study designs, samples, population	Coursework, seminars, comp. exams

### Domain 2: Research Questions and Hypothesis Generation

Competency	Examples of competency*	Where competencies are acquired
Research question conceptualization, articulation and communication	Able to identify priority research questions in specialty area in terms of hypotheses, identify relevant literature, justify new questions in relation to accepted literature, articulate in relation to feasible research approach and methods	INHL 705, INHL 725, Epi 712, independent study, prospectus preparation
Critical, informed evaluation of study designs and findings	Can identify, summarize, critique, and interpret individual study results from relevant publications & presentations; identify the general strengths and weaknesses of a given study	INHL 705 (seminar), SPHTM seminar, INHL 725 (project), Independent study, Journal Club,
Coherent, strategic synthesis of	Can summarize and synthesize	INHL 705, 720, 725, journal club,

literature and current knowledge	the state of knowledge in a problem area, articulate key concepts, assess relevant findings, identify significant gaps, and compare the advantages and disadvantages of study designs and methodologies used to date	independent study, prospectus preparation  Preparation for comprehensive exams, preparation for prospectus
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Domain 3: Research Design

Competency	Examples of competency*	Where competencies are acquired
Describe and critically evaluate different study designs	List and compare advantages and disadvantages of different formal study designs and approaches. Provide feasible alternative standard research designs for given research questions	INHL 645, 725, 705, Epi 712, and others as relevant
Identify and use appropriate data to address research questions	Identify, name, and use standard population-based sources of data for international research; outline approaches to original fieldwork and data collection; compare advantages and disadvantages	INHL 705, INHL 725, other INHL coursework, independent study, also seminars, journal club
Recognize sources of bias and appropriate design; knowledge of analytic, sampling and field techniques to handle biases	Identify, assess and discuss issues and ways of overcoming threats to validity, sampling bias, respondent bias	INHL 645, 624, 705, 725, applied work, independent study, prospectus preparation, dissertation research
Develop an original research protocol	Lay out a full research design from question to methods, with justification and limitations	INHL 725, Epi 712, prospectus preparation

Domain 4: Research Conduct

Competency	Examples of competency*	Where competencies are acquired
Design and evaluate instruments for primary data collection	Develop instruments (questionnaire, assess/discuss validity and reliability; develop sampling strategies	INHL 645, 624, 613, 725, 705, Epi?, independent study, fieldwork,
Proficiency in data collection, data cleaning, descriptive and explanatory data analyses, and written summaries of statistical analyses	Write research manuscripts using secondary data; prepare publishable papers or presentation; manage complex datasets for joint research projects	INHL 725, Epi & biostatistics advanced methods courses, independent study, Applied fieldwork, prospectus preparation, dissertation
Cross-cultural research ethics, communications	Able to negotiate research protocols in a foreign country; knowledge of IRB and human subjects concerns and policies	INHL 705, SPHTM seminar, applied/faculty research
Cross-cultural communications	Ability to work independently	Field research experience, prior

and adaptability	and productively in a foreign setting; working knowledge of relevant foreign language	travel and international experience,
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Domain 5: Communication of Research

Competency	Examples of competency*	Where competencies are acquired
Proposal and manuscript preparation	Provide written communication of study hypotheses, research design, and results	Advanced coursework, prospectus development, dissertation;
Oral presentation of research methods and findings	Clearly communicate study results to the public, policy-making, and scientific communities	INHL 725, 705, 720, 645, 624; Prospectus and dissertation oral defense; observe faculty presentations of research; attend/present at academic conferences (i.e., PAA, APHA)
Teaching and learning	Can identify and effectively communicate concepts, results and implications to relevant public, professional, policy- and research communities	Serve as Teaching Assistant; engage in training during fieldwork, communicate research findings to the beneficiary population, speak at international conferences