

University of Washington School of Public Health
Course Waiver Student Checklist
for Courses Covering CEPH Competencies
PhD—Statistical Genetics

STUDENTS ARE REQUIRED to ensure that all competencies noted below are accounted for to waive an applicable course. If even one from the list below cannot be shown to have been included in prior course work, then a waiver cannot be granted for that course, and the required course must be completed.

All PhD students are required to ensure that both the 12 Foundational Public Health Knowledge Competencies and the three unique degree Competencies ([CEPH 2024 Criteria](#)) are accounted for to waive any applicable course.

CEPH Foundational Public Health Knowledge Competencies

<input type="checkbox"/>	D1-1	BIOST 504 or PHI 500	Explain public health history, philosophy, and values.
<input type="checkbox"/>	D1-2	BIOST 504 or PHI 500	Identify the core functions of public health and the 10 essential services.
<input type="checkbox"/>	D1-3a	BIOST 504 or PHI 500	Explain the role of quantitative methods and sciences in describing and assessing a population's health.
<input type="checkbox"/>	D1-3b	BIOST 504 or PHI 500	Explain the role of qualitative methods and sciences in describing and assessing a population's health.
<input type="checkbox"/>	D1-4	BIOST 504 or PHI 500	List major causes and trends of morbidity and mortality in the US or other community relevant to school or program.
<input type="checkbox"/>	D1-5	BIOST 504 or PHI 500	Discuss the science of primary, secondary, and tertiary prevention in population health, including health promotion, screening, etc.
<input type="checkbox"/>	D1-6	BIOST 504 or PHI 500	Explain the critical importance of evidence in advancing public health knowledge.
<input type="checkbox"/>	D1-7	BIOST 504 or PHI 500	Explain the effects of environmental factors on a population's health.
<input type="checkbox"/>	D1-8	BIOST 504 or PHI 500	Explain biological and genetic factors that affect a population's health.
<input type="checkbox"/>	D1-9	BIOST 504 or PHI 500	Explain behavioral and psychological factors that affect a population's health.
<input type="checkbox"/>	D1-10	BIOST 504 or PHI 500	Explain the social, political, and economic determinants of health and how they contribute to population health and health inequities.
<input type="checkbox"/>	D1-11	BIOST 504 or PHI 500	Explain how globalization affects global burden of disease.
<input type="checkbox"/>	D1-12	BIOST 504 or PHI 500	Explain an ecological perspective on the connections among human health, animal health, and ecosystem health (e.g., One Health).

Statistical Genetics PhD Degree Competencies

- BIOST 550 Estimate allele frequencies and variance of the estimates from genotype count data; perform a hypothesis test for differences in allele frequencies.
- BIOST 550 Calculate conditional probabilities of genotypes for individuals given the genotypes of specific relatives. Calculate disease risk for a Mendelian disease for a known disease model, from the individual's genotype or from information about genotypes of relatives.
- BIOST 551 Estimate kinship and inbreeding coefficients in the absence of pedigree information using population-level SNP data.