The purpose of the oral examination is to determine a student’s depth and breadth of scholarship in a chosen area of specialization. The exam will assess the student’s originality, capacity for synthesis and critical examination, intensity of intellectual curiosity, and clarity of communication.

Research proposal

- In consultation with their principal advisors, students are required to prepare and submit a proposal on their research topic.
- The proposal should include an introduction explaining the rationale, background, context and hypotheses underlying the proposed study; methodological details of the work plan, and implications for neighboring disciplines of Environmental Sciences and Engineering.
- The paper should be two to five pages, including figures but not including references, in 12 pt. font with 1.5” margins. **The length should be determined in consultation with the adviser.**
- The research paper should be distributed to the committee with a copy to the graduate coordinator at least two weeks prior to the date of the oral exam. Failure to do so may result in rescheduling of the exam.

Oral exam

All candidates for the PhD degree are expected to take the oral examination by the end of their fourth term in the program. It is the student’s responsibility to file the final PhD Program Plan form, and if necessary a request to delay the exam. The program plan form requests the student and principal advisor each to nominate a member of the examining committee for the oral examination. Normally, these will be the other members of the student’s advisory committee. At a minimum, the examining committee will consist of the principal advisor, the nominee of the principal advisor, the nominee of the student, together with a fourth CHD-appointed member. The advisor will act as a convener (i.e., chair) at the examination and will report the outcome of the examination to the CHD, unless the advisor in not SEAS ladder faculty in which case the student’s SEAS co-advisor will act as convener and report the outcome (and so must be either the advisor’s or the student’s nominee). Any petition to delay is due by the study card due date in the student’s fourth term in the program. Request for permission to delay the examination is by written petition to the CHD and should include statements by both the student and their principal advisor outlining the reasons for postponement.

It is the student’s responsibility to ensure that the necessary room reservation is arranged and exam paperwork prepared by contacting classes@seas.harvard.edu as
soon as the exam date has been set, at least two weeks in advance. The student is also responsible for ensuring any audio-visual equipment is set up. **The examination begins with a presentation of the student’s proposal, lasting approximately twenty to twenty-five minutes if uninterrupted (no more than 20-25 slides).** The presentation should cover the full scope of the proposal. The student’s presentation will be followed by questions from the examining committee members and other faculty members present.

Questions will focus on issues bearing on the ability of the student to carry out dissertation research in their chosen area, but will not be limited to a narrow field of specialization or to the proposed project. Questions that are broad in nature and have a bearing on the research, intended to test general knowledge of earth sciences/environmental science and engineering, will be included. The duration of the examination is variable, often lasting two to three hours.

The student may satisfactorily complete the examination outright [a “Pass”], or the examination committee may stipulate further requirements such as further course work, or re-presenting only a portion of the material or a small amount of additional material [a “Pass with conditions”]. Students who do not pass the qualifying oral examination on first attempt may be given another chance with specific guidelines for improvement on their weakness(es) [an “Inconclusive” result], or they may receive a conclusive “Fail”. The result of any second examination must be conclusive, either Pass (possibly with conditions), or Fail.