

Guidelines Take-home exam HEVAL5130 – Fall2012

General requirements

A take-home exam gives the student an opportunity to show his/her analytical skills, and ability to synthesize information and marshal facts for a clearly articulated argument. Furthermore, a take-home exam tests if the student know where and how to look up information and what to do with it. A take-home exam requires that references to literature and materials used in the in the text are correct and consistent.

Assessment guidelines

The take-home exam will be assessed on the following guidelines:

- The take-home exam addresses the problem stated in a clear and consistence manner. Choices and delimitations made are clarified and substantiated, and the method chosen is presented, justified and discussed.
- The application of methods meets scientific criteria (is methodologically correct).
- Discussion and analysis: Relevant empirical evidence is presented and critical discussed against the theoretical framework.
- The take-home exam should include reference to relevant literature, not only included in the Syllabus for the course
- Format: the take-home exam fulfill format requirements, is written in English and meets the academic standards with regard to style, structure and deepening of the subject.

What determines the grade?

- Structure and length of the take-home exam must meet the formal requirements;
- The application of methods must be methodologically sound;
- Concepts, theories and empirical knowledge are presented correctly, and used in the discussion of the problem stated;
- The student must be capable of arguing in a logical and clear manner;
- There must be originality and critical reflection: the student must be able to indicate what he or she has learned or what he or she would do differently in a next study (note: this is not a matter of personal experiences but of academic insights);
- The student uses an approved reference style, without any errors

Special requirements and evaluation criteria:

All reports need to include the following sections (sub-sections may vary by exam topic):

- Introduction/Background
 - Define objective and the relevance (in addition, relevant background information that would be important for understanding of the home exam)
 - Topic 1: The objective needed to integrate the student's selection of sub-part 1 or 2.
- Theory (presentation of the theory relevant for the chosen topic)
 - Methods should not be presented here.

- Topic1: Survival analysis or time-to-event. Require a presentation of survival- and hazard function, censoring, time-dependency, functions could be defined non-parametric versus parametric. Could also include a Cox specification. Theory on modeling and economic evaluation should also be included. If topic IIa selected, theory on structural uncertainty and heterogeneity. If topic IIb selected, theory on value of information, motivate, define and explain the theory (EVPI, popEVPI and EVPPI), distinguish between the method in Briggs and that of Strong.
- Topic 2: When modelling EBOLA, the students need to explain the mechanisms behind infectious diseases and theory behind calibration.
- Method (depend on the topic)
 - Theory and results should not be in this section
 - Topic 1: In this section it is required that the candidate present the data used for the analysis, define the variables used in the analysis and statistical analysis performed to solve the two main tasks. Brief presentation of the model and the input parameters. If student selected Topic IIb, important to present the data for EVPI, popEVPI and EVPPI (what was assumed). Explain the analysis with and without the full dataset and/or reduction in standard error. Validation must be explained and bugs identified (there were two intentional bugs in the provided model template).
 - Topic 2: Follow the main structure (population, intervention, comparator, outcomes, present the model and perspective and then data inputs preferable summarized in a table). Present schematic and equations, describe calibration approach (including calibrated parameter and target parameter and showing graphical fit to the data (model validation/transparency)). Validation must be explained (equation checks, population stable etc).
- Results
 - Clear presentation of the findings according to questions asked in the home-exam. (if statistical analysis is defined in this section, it is a negative with regard to structure, but not to content).
- Discussion
 - Discuss the results, refer to other literature when relevant, how general are the findings etc. Limitations.
- Conclusion
 - Should be in line with the objective, defined in the introduction of the home exam
- References

The report should be no more than 3000 words (not including tables, figures and reference list)

The grading will be based on two main categories (40%/60% valuation split):

1. Structure (understand what should be included in each section) **(40%)**
 - Follow the recommended structure (especially important to present statistical analysis before results)
 - Nice tables and figures with legends that include necessary information
 - Include ref. category in tables for regression analysis

2. Content and interpretation (show understanding of the theory and application of methods) **(60%)**