

Instructions for Writing Essays

- You must write the essay on your own without any discussion with or any instruction from others. However, you are encouraged to survey relevant research papers and textbooks for writing the essay.
- The essay should be on A4 paper by using the template provided on the department web page.
- The main body of the essay should not exceed two pages.
- You are prohibited from changing the font size, font family, or margin of the template format.
- Upon necessity, you may use character decorations such as bold faces, italics, and colors.
- You are not allowed to describe in the essay any information that can identify your name or affiliation except in the item “NAME OF APPLICANT”
- Symbols that do not relate to the content of the essay are considered to be cheating.
- Any sentence quoted from literature must be presented as such, e.g., by enclosing it by quotation marks “ ” or by making it italic, with the acknowledgement of the precise reference to the source.
- Any sentence without proper quotation can be recognized as plagiarism.
- The information of each reference cited in the essay should be listed and described in LIST OF REFERENCES, by following the format exemplified below; if it is a journal paper, it should include author names, title, journal name, volume number, and publication year (in A.D.); if it is a book, it should include the bibliographic information. The references should be ordered and numbered alphabetically by the surnames of the first authors. The reference should be cited in the body of the essay as [1], [2].

Example of LIST OF REFERENCES

- [1] R. A. Adams and J. J. F. Fournier: *Sobolev Spaces*, 2nd ed. *Pure and Applied Mathematics (Amsterdam)* 140, Amsterdam: Elsevier/Academic Press, 2003.
- [2] D. Clément, A. Kohatsu-Higa and D. Lamberton: A duality approach for the weak approximation of stochastic differential equations. *Annals of Applied Probability*, 16 (2006), pp. 1124–1154.
- [3] T. H. Cormen, C. E. Leiserson, R. L. Rivest and C. Stein: *Introduction to Algorithms*, 3rd ed., MIT Press, Cambridge, MA, 2009.
- [4] G. Strang: *Linear Algebra and Its Applications*, 4th ed., Cengage Learning, 2006.

([1], [3], [4] are examples of books, and [2] is an example of journal papers.)

- LIST OF REFERENCES should be placed after Subject 2 by compiling all the references cited in Subjects 1 and 2.
- LIST OF REFERENCES is not counted as the limit of two pages and can be shown in the 3rd and subsequent pages.

Subject 1.

- Although you may write your educational experience here, you are expected to focus on the research topic you want to undertake in the master's program.
- Mathematical expressions can be used in the description. In addition, describe the content by appropriately citing references.

Subject 2.

- To accurately convey the content, you are expected and encouraged to use mathematical expressions, diagrams, and so on. In addition, describe the content by appropriately citing references.
- For (1), it is not necessary to describe a complete proof, but you should provide a clear description of how the selected tool is established.
- For (2), you should clearly describe the academic significance on the selected tool.
- For (3), you are expected to describe the relationship between the selected tool and its applications succinctly rather than just listing up applications.