

Cleveland State University
Department of Mathematics and Statistics
Graduate Exit Contract
(select one) MTH 696 __ or STA 696__

*To be filled out by instructor and student. Please **Print or Type** in the appropriate fields. Submit electronic copy to mathematics@csuohio.edu. For projects that will take place in a semester for which enrollment is not yet open, please wait to submit form until enrollment has been opened for the academic year containing that semester.*

Graduate program: MS__ APSTATS__

Student Name: _____ CSU ID: _____

Student Email (CSU preferred): _____ Term/Year: _____

(If summer indicate 6W1__ 6W2__ 8W__ 10W__)

Faculty Advisor: _____

In each category below, be as precise as possible while recognizing the tentative nature of some decisions.

Proposed Contract Title: _____

Readings to be covered: _____

Number of meetings with advisor planned: _____

The faculty member and I have discussed my proposal. I agree to all requirements and deadlines for this Exit Contract.

Student signature: _____ Date: _____

I agree to supervise the student listed above. We have discussed the proposal, requirements, and deadlines for this Exit Contract.

Faculty signature: _____ Date: _____

Department Use Only:

Course Number: _____ Section: _____ Class Number: _____ Credit Hours: 4

To be completed when contract is received and accepted

This contract has been accepted toward completion of the requirements for the Master's Degree in Mathematics.

Faculty signature: _____ Date: _____

Cleveland State University

Department of Mathematics and Statistics

Guidelines for MTH 696 and STA 696 Graduate Exit Project

The student must write a professional-quality expository mathematical or statistical paper about their chosen topic. The paper is not required to contain original research, but must report on an area of mathematics, statistics, or a significant application of mathematics or statistics.

The paper must contain the following:

- a. **Title page:** This includes the title, the author's name, advisor's name, the semester of graduation, the course number (e.g., MTH 696, STA 696). It belongs on its own page.
- b. **Abstract:** A brief (one paragraph) description of the content of the paper. It belongs on its own page and should have the word Abstract on it.
- c. **Table of contents**
- d. **Body:** The body of the paper should be divided into sections. The following is a suggested structure.

The **Introduction** should:

1. Provide a clear formulation of the problem to be studied. This should be accessible to non-specialists and avoid technical details.
2. Perform a literature review of relevant past scientific findings. Place the subject in a context meaningful to the reader. It can include a history of the subject. It should explain why the subject is interesting.
3. The approach used should be stated or summarized here with motivating examples if needed.

The **Methods or Background Section** should:

1. Provide definitions and basic facts which the reader will need in order to read the remaining sections, except for those definitions that will not make sense until later. Proofs of established results can be omitted if adequate references to the literature are provided instead.
2. Discussion of the topics and techniques needed to study the given problem and why chosen. For example, a given numerical method, theorem, or statistical approach.
3. Address how the chosen methods of analysis will aid in deriving understanding about the problem.

The **Results or Main Section** should:

1. Discuss the main results of the paper in enough detail for the reader to understand. This is, for instance, where a significant mathematical result and its proof belong.
2. This section should include definitions, theorems, lemmas, proofs, examples, computational results and applications, as needed to prove and illustrate the main results.
3. Make the connection between outcome of the solution or analysis and the original problem.

The **Discussion or Conclusions Section** should:

1. Summarize the work performed.
 2. Draw and analyze any conclusions not yet stated.
 3. If applicable, it should make a connection to the original problem or outline broader application of the result.
 4. It should indicate any other directions which subsequent research might take.
 5. It should outline any limitations of the work that may affect the result.
- e. **References:** List all the resources used, even if they were not directly quoted in the body of the paper.
- f. **Appendix (optional):** If the project included computational explorations, printouts of the code and/or computations may be placed in an appendix.

General Guidelines:

1. This is a 4-credit course and should result in at least 12 hours of independent work by the student per week.
2. Students should schedule regular meetings with the advisor and come prepared to those meetings.
3. Projects done for other courses are not acceptable, but it is possible to work on an extension of a project done in another course with significant addition.
4. Papers will be graded not only for mathematical or statistical correctness, but also for correct use of English and quality of presentation. Papers should be proofread carefully for proper grammar. If students need help, please consult the CSU Writing Center by making an appointment online (<https://www.csuohio.edu/writing-center/writing-center>).
5. The paper must be electronically typed. It may be done using Microsoft Word or using some version of TeX/LaTeX. One resource is Learning LaTeX by David F. Griffiths and Desmond J. Higham. (Dr. Gold has copies available for borrowing.)
6. A consistent bibliographic style should be used. Consult a style manual or use BibTeX if you are writing in LaTeX. Be sure to cite any references that were consulted even if they were not quoted in the body of the paper.
7. This course will strictly enforce the university's policy on plagiarism, as described in the CSU Student Handbook: "The CSU Student Handbook describes plagiarism as stealing and/or using the ideas or writings of another in a paper or report and claiming them as your own. This includes but is not limited to the use, by paraphrase or direct quotation, of the work of another person without full and clear acknowledgment." From <https://www.csuohio.edu/writing-center/plagiarism>. The CSU policy will be strictly enforced in the course, and plagiarism will be reported as required by university guidelines.
8. According to CSU rules, a grade of **I** can be granted to students that are making steady progress on the exit project but need additional time beyond the semester to finish the project.