

# AM4999z Course Outline

## 2017-2018

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**From the calendar:** "The student will work on a project under faculty supervision. The project may involve an extension, or more detailed coverage, of material presented in other courses. Credit for the course will involve a written as well as oral presentation."

This fourth year "thesis" course typically involves original research by the student, under close supervision by a faculty member. (Under consultation with the supervisor, a project which involves a detailed review of the literature, but no component of original research, may also be possible.) To find a potential supervisor, the student should approach faculty members whose research area is of interest to the student. Ideally, this is done at the end of 3rd year, or during the summer before 4th year.

The student and faculty member typically meet once a week during September/October, to choose or define an original research project for the student. During this time, the student should complete a review of the relevant literature. This may include a "textbook" level review of background material (12 pages), plus a brief review of 5-10 research papers which are most relevant to the project (1-2 paragraphs each). This literature review should be written by the end of September or mid October.

Throughout the year, the student should expect to meet with the supervisor approximately once every two weeks. The student should complete approximately 6 hours' work on the course in between meetings (one half course credit = 3 lecture hours plus 3 hours homework

per week over one term = 6 hours per 2 weeks over two terms). The student is expected to bring printouts and writeups to each meeting, to demonstrate work accomplished between meetings. The student may also be expected to attend regular group meetings or seminars in the supervisor's research group.

A midterm "status" report should be submitted during the December exam period. This can be fairly brief but should summarize what has been accomplished to date. A full writeup (including the literature review) will be submitted in April. This is due one week after the last day of classes. The length and format of this report should be discussed with the supervisor; typically, the style of a research paper is encouraged.

At the end of the year the student will also give a research talk outlining their work, in a joint seminar for all the AM4999z students, or in a seminar series specific to their research group.

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Final Grade	
Literature Review:	10%
Biweekly Meetings (materials provided, steady progress):	20%
Midterm Status Report:	10%
Research Talk:	20%
Final Report:	40%