

## GUIDELINES FOR MCDB 596

**Committee Meetings:** Students are to schedule committee meetings in each of the two academic terms to discuss their thesis and research. The format of the meeting can be arranged by the research mentor. Students should notify the office of the DUS as to the date of the committee meetings at [andrea.chamba@yale.edu](mailto:andrea.chamba@yale.edu). The student should complete the top portion of the **Committee Meeting Spring #1** (available on Canvas) and provide the form to the Research Mentor for completion. The Research Mentor is expected to provide the completed form to the office of the DUS via [andrea.chamba@yale.edu](mailto:andrea.chamba@yale.edu) after the committee meeting. Committee meetings may be scheduled by the student through [25LivePro website](#).

**Poster Symposium (Spring only): Monday, April 29 from 3-5pm**

**Posters due via electronic upload to CANVAS: Friday, April 26 by 5pm**

**Poster Presentations: All students will be required to be available to present on their posters at the Poster Symposium.**

The purpose of the MCDB Poster Symposium is to share information and more specifically to highlight undergraduate research at Yale. This symposium will be held in YSB. The symposium will be open to anyone wishing to attend, so please encourage friends, colleagues and other students to attend. Your research mentor is strongly urged to attend. Each student must prepare a poster. Posters can be as large as 4' X 6' but may be smaller. We will have poster boards and easels available for you to mount your poster. Posters may be printed professionally (please note that there is no funding available for this expense from MCDB), or the student may print them on a color printer and assemble individual sheets onto the poster board at the poster session. Please do not wait until the 11<sup>th</sup> hour to print your poster since local printers may not be able to meet your deadline. Posters should have a title, and the authors (including you and your research mentor) should be listed as well, usually in large letters at the top, and your research course. The poster should include three sections: Introduction, Results, and Conclusions. The Introduction explains the purpose of your project; the Results section contains figures and/or tables showing your data, with legends or commentary; the Conclusion summarizes what you learned. Feel free also to include what you would do next if you were to continue working on the project.

If you continue in research, the first presentation you are likely to give at a scientific meeting is a poster, so this will be good practice. The fewer the words and the LARGER THEY ARE WRITTEN make it easier for people to notice and examine your poster. If a poster contains a great deal of text in small font, the audience may not read it. The same applies to data. Tables with large numbers of entries may be ignored. Simple figures with a concise conclusion for each are optimal. You should begin to organize your poster well in advance and if you are outsourcing the print job, plan on several days for the project to be completed. Bring it to the session ready to assemble. Please keep in mind that content should take precedence over form. It is most important that your poster be clear, informative, and include meaningful data. Aesthetic appeal is of course nice, but the science is paramount. Finally, discuss your presentation with your colleagues and research mentor well before the session and if you have any further questions/concerns bring the preliminary poster to show the instructor in charge.

**Submission and Formatting Instructions for All Written Work:** All papers should be uploaded to the Assignment section in Canvas by the deadlines stated. ***Additionally, please follow these formatting instructions:*** Students should follow the American Psychological Association Guidelines for formatting instructions. You can use the following URLs for more information:

- [www.apastyle.org](http://www.apastyle.org)
- [https://owl.purdue.edu/owl/research\\_and\\_citation/apa\\_style/apa\\_formatting\\_and\\_style\\_guide/general\\_format.html](https://owl.purdue.edu/owl/research_and_citation/apa_style/apa_formatting_and_style_guide/general_format.html) (which is referenced by the Center for Teaching and Learning at this URL: <https://ctl.yale.edu/FacultyResources/English>)
- <https://ctl.yale.edu/sites/default/files/files/Formated%20Writing%20an%20APA%20Style%20Empirical%20Paper%20KVCulin.pdf>

Be sure to include a title page with the following information: (a) Title of Research, (b) Student Name, (c) PI Name and names of other laboratory mentors (other than PI), (e) Course & Term. Make sure to include a header on pages 2 through the end of the document with (a) Student Name, (b) Course & Term and (c) Page Number. Save papers as a pdf using the following nomenclature:

*StudentLastName\_FirstName\_MCDB596Thesis\_Term&Year.pdf.*

***Please send a copy to all your committee members***

**Written Thesis:** Due **one week prior to** Committee Meeting/Thesis Presentation – send to all committee members; **Final Deadline: Friday, April 26 @ 5:00pm** for uploading Thesis to Canvas.

- One chapter should be Introduction/Review of the field. Subsequent chapter(s) will discuss the student's research and a thorough discussion of it.
- The length of the thesis should be 40-100 pages double spaced (not including Bibliography in the page count).
- Each committee member should receive a copy of the thesis at least one week prior to meeting with the committee.
- Additional guidelines for thesis should be arranged in consultation with the student's research mentor.
- There will be letter grades for each semester. The grade will be determined by the student's faculty committee.

**Thesis Defense:** The student is expected to give an oral thesis defense to the committee, followed by a comprehensive examination of the thesis conducted by the thesis committee. Students should notify the office of the DUS via [andrea.chamba@yale.edu](mailto:andrea.chamba@yale.edu) as to the date of the thesis defense – and provide the **Thesis Defense Scheduled Form**. Student should also provide the **Thesis Defense Committee Meeting Spring #2 Form** to the research mentor before the defense. The Research Mentor is expected to provide the completed form to the office of the DUS via [andrea.chamba@yale.edu](mailto:andrea.chamba@yale.edu) following the defense.

All forms are available in the Canvas course site.

## MCDB 596 – INTENSIVE RESEARCH IN MCDB FOR BS/MS CANDIDATES

### MCDB 596 STUDENT CONTRACT

As a student conducting year-long independent research for Yale College course credit and the BS/MS Senior requirement, I agree to the following:

- I am expected to devote an average of >20 hr/week to this research. I am aware that failure to do so will result in withdrawal from the Masters program.
- I will make every effort to attend my research mentor's laboratory meetings.
- I will attend prepare and present a poster at the MCDB Poster Symposium on April 29, 2023.
- I will make every effort to schedule my Thesis Defense at a time that fits with my mentor's schedule.

Name: \_\_\_\_\_

Signature: \_\_\_\_\_ Phone: \_\_\_\_\_ Class \_\_\_\_\_

Email Address: \_\_\_\_\_

Research Mentor: \_\_\_\_\_ Dept: \_\_\_\_\_

Committee Member: \_\_\_\_\_ Dept: \_\_\_\_\_

Committee Member: \_\_\_\_\_ Dept: \_\_\_\_\_

Committee Member: \_\_\_\_\_ Dept: \_\_\_\_\_

Title for Research:

#### Due Dates

**Student Contract: MONDAY, January 29 @ 5:00pm – upload to Canvas.**

Committee Meetings: submit form to committee at meeting. Students are to schedule the meeting, book a room, and complete the top portion of the Committee Meeting Form and bring to Thesis Advisor at meeting. *It is the student's responsibility to complete this form, upload to Canvas, and send a copy to office of MCDB DUS via [andrea.chamba@yale.edu](mailto:andrea.chamba@yale.edu)*

## MCDB 596 COMMITTEE MEETING FORM

Student: \_\_\_\_\_ Date of Committee Meeting: \_\_\_\_\_  
Deadline: No later than mid-Semester

Thesis Advisor: \_\_\_\_\_ Dept: \_\_\_\_\_

Committee Member: \_\_\_\_\_ Dept: \_\_\_\_\_

Committee Member: \_\_\_\_\_ Dept: \_\_\_\_\_

Committee Member: \_\_\_\_\_ Dept: \_\_\_\_\_

Research: \_\_\_\_\_

Proposal/Plan:

*It is the student's responsibility to schedule the Committee Meeting date, book a room, complete the top portion of this form and provide to Thesis Advisor at Committee Meeting.*

*Thesis Advisor: Please complete the "Proposal/Plan" portion of this form; and return to office of MCDB DUS via [andrea.chamba@yale.edu](mailto:andrea.chamba@yale.edu)*

MCDB 596  
THESIS DEFENSE  
(SCHEDULED)

Student: \_\_\_\_\_

Date of Thesis Defense: \_\_\_\_\_

Zoom Meeting Info for Thesis Defense: \_\_\_\_\_

Research Title:

\_\_\_\_\_  
\_\_\_\_\_

Thesis Advisor: \_\_\_\_\_ Dept: \_\_\_\_\_

Committee Member: \_\_\_\_\_ Dept: \_\_\_\_\_

Committee Member: \_\_\_\_\_ Dept: \_\_\_\_\_

Committee Member: \_\_\_\_\_ Dept: \_\_\_\_\_

I hereby certify by submission of this form that all parties listed above have been informed of the Thesis Defense date and location at least one week prior to defense. I also further certify that I have provided electronic copies of my written thesis to each member of my committee at least one week prior to the scheduled defense.

\_\_\_\_\_  
Student Signature (electronic accepted – include net id)

*Student: It is the Student's responsibility to schedule the Thesis Defense date, book a room, complete this form , upload to Canvas and send copy to [andrea.chamba@yale.edu](mailto:andrea.chamba@yale.edu).*

## MCDB 596 THESIS DEFENSE COMMITTEE MEETING – SPRING #2

Student: \_\_\_\_\_ Date of Committee Meeting: \_\_\_\_\_  
Deadline: 1 week before Senior Grades are due

Thesis Advisor: \_\_\_\_\_ Dept: \_\_\_\_\_

Committee Member: \_\_\_\_\_ Dept: \_\_\_\_\_

Committee Member: \_\_\_\_\_ Dept: \_\_\_\_\_

Committee Member: \_\_\_\_\_ Dept: \_\_\_\_\_

Research: \_\_\_\_\_

Proposal/Plan:

*Student: It is the Student's responsibility to schedule the Thesis Defense date, book a room, complete the top portion of this form and provide to Thesis Advisor at Thesis Defense.*

*Thesis Advisor: Please complete the "Proposal/Plan" portion of this form; assign a letter grade below, and return to office of MCDB DUS via [andrea.chamba@yale.edu](mailto:andrea.chamba@yale.edu)*

**Proposed MCDB 596 Grade (SPRING):** \_\_\_\_\_ *\*(letter grade) should reflect the following:*

*Written Thesis  
Thesis Defense*

*Poster Presentation  
Lab Performance*

Additional Factors for Grade Consideration by the Committee:

1. Progress made since last Committee meeting
2. Knowledge of scientific literature relevant to the research project
3. Thinking critically about research project
4. Demonstrating initiative and independence in experimental design and project directions
5. Motivation and work ethic
6. Technical competence at the bench, trouble-shooting ability
7. Quality and clarity of oral presentations