

1 **Institute of Biology**  
2 **College of Science**  
3 **University of the Philippines**  
4 **Diliman, Quezon City**  
5

6 **UNDERGRADUATE THESIS GUIDELINES**  
7

8 (Effective First Semester, A.Y. 2015-2016)

9 (Approved as revised during the Regular IB Faculty Meeting on October 20, 2014, on 23  
10 November 2015, on 16 January 2017, on 4 September 2017, on 11 July 2018, on 18 March  
11 2019, and on 6 September 2021)  
12

13 **I. THESIS**  
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15 This will be an individual thesis where only one Advisee will be working on a  
16 particular thesis problem. The thesis should demonstrate the ability of the  
17 Advisee to apply the scientific method and basic research skills; it should also  
18 contribute new knowledge.  
19

20 **II. FACULTY ADVISERS**  
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- 22 1. Advisers must be regular faculty members of the Institute, must be at least  
23 an M.S. Degree holder, must have ongoing research, and must have  
24 published in a peer-reviewed journal.  
25
- 26 2. Adviser shall be responsible for:
  - 27 2.1. advising the student in the preparation of his/her thesis  
28 proposal.
  - 29 2.2. guiding and monitoring the student's thesis research.
  - 30 2.3. ensuring the academic integrity of the student's thesis  
31 research.
  - 32 2.4. signing the bound copies of the student's thesis.  
33
- 34 3. Faculty members with M.S. degree but who are enrolled in Ph.D. graduate  
35 program are not allowed to accept Advisees, but they may serve as Co-  
36 Advisers.  
37
- 38 4. Faculty advisers may recommend a co-adviser, whose expertise would  
39 complement that of the adviser in enabling the student to address the thesis

40 problem. Co-advisers must be at least an M.S. Degree holder with  
41 institutional affiliation to be endorsed by the academic group.

- 42
- 43 5. The number of Advisees per Adviser depends on the willingness and  
44 capability of the Adviser, but each Ph.D. faculty must accept at least two  
45 Advisees if there is demand.
- 46
- 47 6. When circumstances warrant a change in thesis topic and/or adviser, the  
48 student writes the Undergraduate Committee for deliberation on the merit  
49 of the request.

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51 **III. THESIS EXAMINERS AND ORAL THESIS PRESENTATION**

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53 Each thesis student will have an examiner to be recommended by the  
54 Adviser and appointed by the Undergraduate Committee. The Thesis  
55 Examiner may come from any Academic Group or from an external  
56 institution. The Thesis Examiner must have either a Ph. D. or M. S. degree.  
57 A faculty member who is enrolled in a Ph. D. program may serve as an  
58 examiner. The Examiner's role is to read the thesis manuscript, make  
59 corrections and suggestions to further improve the manuscript, and evaluate  
60 if the manuscript meets academic standards. Co-advisers may also serve as  
61 examiners to thesis students they co-advise. In addition, thesis students are  
62 required to make an oral thesis proposal presentation during the second  
63 enlistment of BIO 200 (2 units) and an oral thesis presentation towards the  
64 end of the third enlistment of BIO 200 (1 unit) as scheduled in the thesis  
65 advising agreement (Appendix 2) with the faculty members of the  
66 Academic Group in attendance.

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68 **IV. THESIS STUDENTS**

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70 Only students who have completed at least 95 units of their courses may enlist  
71 in the first one (1) unit of BIO 200.

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73 **V. PROCEDURE**

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75 1. Selection of Thesis Adviser

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77 Thesis students may select their Adviser in any of the following areas: Cell  
78 and Molecular Biology, Developmental Biology, Ecology, Genetics,  
79 Microbiology, Morphoanatomy, Physiology, and Taxonomy.

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81 2. Official Acceptance

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Advisers officially accept their students by signing the Certificate of Acceptance Form (see Appendix 1).

### 3. Enlistment of BIO 200

#### 1<sup>st</sup> Enlistment (1 unit)

Upon submission of the signed Certificate of Acceptance Form, students will be allowed to enlist in BIO 200 (1 unit). This is taken during the 3<sup>rd</sup> year, 2<sup>nd</sup> semester in the program, provided that the students have completed 95 units of coursework in the BS Biology curriculum.

#### 2<sup>nd</sup> Enlistment (2 units)

Upon submission of the signed Thesis Advising Agreement (see Appendix 2) and thesis proposal endorsed by the Adviser, students will be allowed to enlist in BIO 200 (2 units). This is taken during the 4<sup>th</sup> year, 1<sup>st</sup> semester in the program, provided that the students receive passing numerical grade in the 1<sup>st</sup> enlistment.

#### 3<sup>rd</sup> Enlistment (1 unit)

Enlistment in the last one (1) unit of BIO 200 is allowed if the student received passing numerical grade in the 1<sup>st</sup> and 2<sup>nd</sup> enlistment of BIO 200. This is taken during the 4<sup>th</sup> year, 2<sup>nd</sup> semester in the program.

### 4. Consultation and Submission of Thesis Proposal

4.1. The student must consult his/her Adviser not later than the end of the first semester of their junior year to decide on the thesis problem and title.

4.2. The student must prepare a thesis proposal during the first enlistment of BIO 200 and submit it to the adviser. This will be the adviser's basis for giving a grade.

4.3. The student submits the proposal approved by the adviser to the Institute of Biology (IB) Office through the Registration Adviser on

122 or before the last day of late registration of the semester, in which  
123 the student intends to enlist BIO 200 for the second time.

124  
125 4.4. Proposal Format: The thesis proposal should be printed in A4 paper  
126 and should have the following components:

- 127  
128 Front Cover – contains the following:  
129 Title: Center, approximately 10cm from the top  
130 Proponent: Center, approximately 3cm below the title  
131 Adviser: Left hand corner approximately 5cm from the bottom  
132 Introduction – contains the following:  
133 Background of the problem  
134 Significance of the Research  
135 Gap/s on the Problem  
136 Specific objectives of the Study  
137 Review of Related Literature  
138 Materials and Methods (Include section on biosafety and waste  
139 disposal, if applicable)  
140 Literature Cited  
141 Line Item Budget  
142 Gantt Chart  
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## 145 VI. ACTUAL RESEARCH

- 146  
147 1. A student can make a request for materials listed in the line-item budget (if  
148 applicable) of the approved proposal for as long as the prospective Adviser  
149 approves such request. The request should be endorsed by his/her Adviser  
150 to the Office of the Director through the Deputy Director for  
151 Administration.  
152  
153 2. The Office has the prerogative to disapprove unreasonable requests such as  
154 the requisition for regulated and prohibited drugs.  
155  
156 3. Special permit to work outside working hours (i.e., 7:00 A.M. to 7:00  
157 P.M.) has to be approved by the Office of the Director, through the Deputy  
158 Director for Administration. Such request has to be filed at least 24 hours  
159 before the actual date.  
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161 4. Working overnight will be discouraged unless experimental design calls for  
162 it as certified by the Adviser.  
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5. The Adviser is encouraged to accompany his/her Advisee on field trips outside the campus. The Adviser should ensure that the Advisee submits to the IB Admin. Office a signed waiver form and proof of insurance before allowing his/her Advisee to work off campus. In case a student works off campus during the midyear term, i.e., before enlistment in BIO 200, the Thesis Adviser should seek permission from the College of Science Dean.

## **VII. THESIS WRITING**

Thesis will be written according to the format for CS graduate thesis with modifications as stated below.

## **VIII. THESIS MANUSCRIPT FORMAT**

### **1. General Guidelines:**

- 1.1. Font used throughout the thesis should be Times New Roman and Font Size is 12.

Chapter headings are capitalized centered, in bold font, and must start on a new page.

Subheadings for each chapter are in sentence case (first letter capitalized), left justified and bold font. The first line of the paragraph must be indented 5 spaces and the format of the text should be fully justified.

- 1.2. Double-spacing must be used throughout the text, except for Table and Figure captions, which should be single-spaced.

- 1.3. Page numbers must be at the bottom of the page and centered. Pagination and Arabic numbers starts on the first page of the INTRODUCTION. Pages prior to this page are designed with lower case Roman numerals.

- 1.4. Paper for the thesis (original and photocopies) must be white A4-size bond paper, high quality substance 20.

- 1.5. Reproduction/Photocopying of the thesis must be on a powder photocopier.

206  
207 2. Organization of Contents:  
208  
209 TITLE PAGE – depending on thesis classification, see Appendix 3A, 3B,  
210 3C or 3D for sample  
211 ENDORSEMENT (to be signed by the Director, Thesis Adviser, Thesis  
212 Co-Adviser if any, and/or Examiner) – see Appendix 4 for sample  
213 ACKNOWLEDGEMENTS (To be signed by the thesis student; the  
214 Institute of Biology must be acknowledged for providing support)  
215 ABSTRACT  
216 TABLE OF CONTENTS  
217 LIST OF TABLES  
218 LIST OF FIGURES/illustrations/graphs/charts/maps/plates  
219 INTRODUCTION – must include the following:  
220                   Significance of the Study  
221                   Objectives  
222 REVIEW OF RELATED LITERATURE (with option to remove RRL and  
223 integrate with the Introduction and Discussion)  
224 MATERIALS AND METHODS (Include section on biosafety and waste  
225 disposal, if applicable)  
226 RESULTS  
227 DISCUSSION  
228 CONCLUSION(S)  
229 RECOMMENDATION(S)  
230 LITERATURE CITED – (The journal style for citing references will  
231 depend on the preference of the Adviser)  
232 TABLES  
233 FIGURES  
234 APPENDIX/APPENDICES  
235  
236 NOTE: Each component must start on a new page.  
237

## 238 **IX. SUBMISSION OF BOUND & SOFT COPIES**

239  
240 1. Minimum of three (3) bound copies (one copy each for the student, Adviser  
241 and College of Science) of the thesis (signed by the Director, Adviser, Co-  
242 Adviser if any, and Examiner), photocopy of the Title Page and  
243 Endorsement Page with original signatures, and pdf file of the thesis  
244 manuscript to be e-mailed to biology.upd@up.edu.ph (the Adviser should  
245 be copied on the e-mail message).  
246

247 2. The prescribed format for the bound copies (see Appendices 5 and 6) is the  
248 same as that of the College of Science.

249  
250 2.1. The following information (typed in Times New Roman, 16-point  
251 font size) should be found on the front bound cover of the thesis and  
252 properly spaced (See Appendix 5):

253  
254 2.1.1. Title (in capital letters)

255 2.1.2. Name of student (in capital letters)

256 2.1.3. Name of Institute (in capital letters) followed by the following  
257 (center justified):

258 College of Science

259 University of the Philippines

260 Diliman, Quezon City

261 2.1.4. Month (in capital letters) and year of submission

262  
263 2.2. The following information (in capital letters) should be found on the  
264 side bound cover of the thesis, properly spaced, bounded by two  
265 vertical lines and separated by a single vertical line (see Appendix  
266 6)

267  
268 2.2.1. Initial of the student's first and middle names each followed  
269 by a period (".") and then the student's last name.

270 2.2.2. Title of the thesis. If the whole title of the thesis will not fit,  
271 use only the first few words that will fit followed by three dots  
272 ("...").

273 2.2.3. Year of submission preceded by "UP" (the initials of the  
274 University of the Philippines).

## 275 276 277 **X. GRADES**

278  
279 1. **1<sup>st</sup> Enlistment (1 unit).** A student will be given a numerical grade in BIO  
280 200 based on the following:

- 281 • Proposal manuscript
- 282 • Laboratory/Field Activities (this includes preliminary experiments,  
283 participation in laboratory meetings, presentations, field work, and  
284 other student outputs whichever is applicable)
- 285 • Performance (Mentor/Peer evaluation)

286 An **INC** or **DRP** may be given if the student does not fulfill the minimum  
287 requirements within the time frame set by the Adviser.

288  
289 2. **2<sup>nd</sup> Enlistment (2 units)**. A student will be given a numerical grade in BIO  
290 200 based on the student's presentation of the proposal, work performance,  
291 and preliminary results:

- 292 • Progress Report/Research Output
- 293 • Laboratory/Field Activities
- 294 • Performance (Mentor/peer evaluation)

295 An **INC** or **DRP** may be given if the student does not fulfill the minimum  
296 requirements within the time frame set by the Adviser.

297  
298 3. **3<sup>rd</sup> Enlistment (1 unit)**. A numerical grade is given for BIO 200, based on  
299 the student's presentation of the final thesis and upon submission of the  
300 bound copies as well as the electronic file of the manuscript.

- 301 • Thesis manuscript
- 302 • Laboratory/Field Activities
- 303 • Performance (Mentor/Peer evaluation)

304 A final grade of **INC** or **DRP** will be given if the student does not comply  
305 with the requirements within the time frame set by the Adviser.

306  
307  
308 4. The student should ensure that he/she be cleared from all accountabilities  
309 related to thesis work. Any material borrowed by the Advisee from the  
310 Institute shall be the responsibility of the Adviser.





## Appendix 1

### CERTIFICATE OF ACCEPTANCE

\_\_\_\_\_ Semester, SY 20\_\_\_\_ – 20\_\_\_\_\_.

This is to certify that I am officially accepting \_\_\_\_\_ whose signature appears below, as my thesis advisee in \_\_\_\_\_ (*Specific Area*).

I also certify that I have read and understood the Undergraduate Thesis Guidelines of the Institute of Biology.

\_\_\_\_\_  
Name & Signature of Adviser

\_\_\_\_\_  
Date

#### Conforme

I hereby agree to comply with the Undergraduate Thesis Guidelines of the Institute of Biology.

\_\_\_\_\_  
Name & Signature of Student

\_\_\_\_\_  
Date



Diliman, Quezon City 1101  
Telephone (632) 981-8500 loc. 3727

Email: [biology.upd@up.edu.ph](mailto:biology.upd@up.edu.ph)  
Website: [www.biology.upd.edu.ph](http://www.biology.upd.edu.ph)

311  
312 **THESIS ADVISING AGREEMENT AND CERTIFICATE OF ACCEPTANCE**  
313  
314 This is to certify that our signatures herewith signify that we agree to the following schedule to ensure the  
315 successful completion of the thesis titled \_\_\_\_\_. We understand that non-compliance to this  
316 schedule by (*Name of student*) \_\_\_\_\_ would mean a delay in his/her graduation. In case the Adviser  
317 is separated from the University, the student will be assigned a new Adviser by the Undergraduate  
318 Committee without prejudice to the student's progress.  
319

Date	Activity
End of 1 <sup>st</sup> semester, AY _____	Application to potential thesis advisers.
Start of 2 <sup>nd</sup> sem AY _____	Attendance in undergraduate thesis orientation
2 <sup>nd</sup> sem AY _____	Start discussion of thesis topic with the Adviser and writing of thesis proposal.
Registration period 1 <sup>st</sup> semester, AY _____	Submission of approved thesis topic and proposal to the Institute of Biology Office through the Registration Adviser; the student cannot enlist in Bio 200 without the proposal endorsed by the Adviser.
1 <sup>st</sup> semester, AY 2020-2021	Implementation of research begins (lab experimentation (if applicable), field work (if applicable), data gathering and analysis)
1 <sup>st</sup> -2 <sup>nd</sup> week of October	Oral presentation of the thesis proposal
End of 1 <sup>st</sup> semester, AY _____	Preliminary results available; Progress report submitted to the Adviser; basis for grade for the 1 <sup>st</sup> semester enlistment
January – February	Continuation of thesis activities; data analysis; draft write-up
Midsem	Data gathering completed (on the administration side, no more permits will be issued to work on thesis except for valid reasons)
3 <sup>rd</sup> week of March	First draft submission to the Adviser
1 <sup>st</sup> – 2 <sup>nd</sup> week of April	Oral presentation of the thesis
3 <sup>rd</sup> week of April	Adviser-approved manuscript submitted to the Examiner
3 <sup>rd</sup> week of May	Deadline for submission of bound thesis manuscript and soft copy to the Director's office
4 <sup>th</sup> week of May	Submission of bound manuscript to the Dean's office

320  
321 It is also understood that the thesis will (please check the appropriate box/es):  
322  require the student to perform laboratory experiments in the Institute of Biology\*.  
323  involve fieldwork in \_\_\_\_\_ (fieldwork constitutes any activity  
324 outside the Institute or the student's place of residence)\*.  
325  be completed in its entirety in the student's place of residence.

326 \* subject to the current guidelines of the Biosafety Committee of the Institute and the current quarantine conditions set by the national and  
327 local government

328 (By signing below, the adviser certifies that he/she officially accepts the student as a thesis adviser; also, by signing below,  
329 the student and adviser certifies that they have read and understood the Undergraduate Thesis Guidelines of the Institute  
330 of Biology and agrees to comply with the said guidelines.)

NAME (please print)	SIGNATURE	DATE
STUDENT		
ADVISER		

Noted by (parent/guardian):  

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331  
332 **For third enlistment in BIO 200**  
333 This is to certify that (*name of student*) successfully presented his/her thesis proposal to the (*academic group*) \_\_\_\_\_.  
334 Name and signature of academic group head: \_\_\_\_\_



**UNIVERSITY OF THE PHILIPPINES**

**Bachelor of Science in Biology**

**Marc Timothy C. Tan**

*Population genetic structure of the Philippine native catfish, *Clarias macrocephalus*, and its implications for conservation and management*

Thesis Adviser:

**Jonas P. Quilang, Ph.D.**

**Institute of Biology**

**University of the Philippines Diliman**

Thesis Examiner:

**Brian S. Santos, M.Sc.**

**Institute of Biology**

**University of the Philippines Diliman**

Date of Submission

1 April 2014

Thesis Classification:

**I**

*This thesis is not available to the public. Please ask the library for assistance.*

Appendix 3B (Sample Title Page for Thesis Classification of **P**: author wishes to publish the work personally)



**UNIVERSITY OF THE PHILIPPINES**

**Bachelor of Science in Biology**

**Marc Timothy C. Tan**

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**Institute of Biology**

**University of the Philippines Diliman**

Thesis Examiner:

**Brian S. Santos, M.Sc.**

**Institute of Biology**

**University of the Philippines Diliman**

Date of Submission

1 April 2014

Thesis Classification:

**P**

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**UNIVERSITY OF THE PHILIPPINES**

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*Population genetic structure of the Philippine native catfish, *Clarias macrocephalus*, and its implications for conservation and management*

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**Institute of Biology**

**University of the Philippines Diliman**

Thesis Examiner:

**Brian S. Santos, M.Sc.**

**Institute of Biology**

**University of the Philippines Diliman**

Date of Submission

1 April 2014

Thesis Classification:

**C**

*This thesis is not available to the public. Please ask the library for assistance.*

Appendix 3D (Sample Title Page for Thesis Classification F: a regular work, i.e., it has no patentable invention or creation, the author does not wish for personal publication, there is no confidential information)



**UNIVERSITY OF THE PHILIPPINES**

**Bachelor of Science in Biology**

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**University of the Philippines Diliman**

Thesis Examiner:

**Brian S. Santos, M.Sc.**

**Institute of Biology**

**University of the Philippines Diliman**

Date of Submission

1 April 2014

Thesis Classification:

**F**

*This thesis is available to the public.*

Appendix 4 (Sample Endorsement Page to be signed by the Adviser, Co-Adviser if any, Examiner, and Director)

Institute of Biology  
College of Science  
University of the Philippines  
Diliman, Quezon City

### **ENDORSEMENT**

This is to certify that this undergraduate thesis entitled **Population Genetic Structure of the Philippine Native Catfish, *Clarias macrocephalus*, and its Implications for Conservation and Management** prepared and submitted by Marc Timothy Calimbahin Tan in partial fulfillment of the requirements for the degree of Bachelor of Science in Biology, is hereby accepted.

JONAS P. QUILANG, Ph.D.  
Thesis Adviser

BRIAN S. SANTOS, M.Sc.  
Thesis Examiner

The Institute of Biology endorses acceptance of this undergraduate thesis as partial fulfillment of the requirements for the degree of Bachelor of Science in Biology.

SONIA D. JACINTO, Ph.D.  
Director  
Institute of Biology

POPULATION GENETIC STRUCTURE OF THE PHILIPPINE  
NATIVE CATFISH, *CLARIAS MACROCEPHALUS*, AND ITS  
IMPLICATIONS FOR CONSERVATION AND MANAGEMENT

MARC TIMOTHY CALIMBAHIN TAN

INSTITUTE OF BIOLOGY  
College of Science  
University of the Philippines  
Diliman, Quezon City

APRIL 2014



**|| M.T.C. TAN | POPULATION GENETIC STRUCTURE OF THE PHILIPPINE NATIVE CATFISH... | UP 2014 ||**