Texas A&M International University



Master of Science in Biology

Graduate Handbook

Revised Spring 2017

TABLE OF CONTENTS

	I. Introduction	2
•	Objectives of the Masters Program	2
	II. Admission	2
•	Admission Requirements for the Program	2
•	Stemwork	3
•	Financial Support	3
•	Anti-Discrimination/Title IX	4
	III. Degree Requirements	5
•	Thesis Program	5
•	Non-Thesis Program	5
•	Thesis / Non-Thesis Program Comparison	6
•	Additional Degree Requirements	6
•	Retention Requirements	6
•	Timeline/Deadlines	7
•	Graduate Advisory Committee	8
	Advice to Graduate Students	8
	• Thesis	9
	IV. Curriculum	9
•	Courses	9
•	Graduate Two Year Course Cycle	12
	V. Graduate Faculty	13
	VI. Appendix	
•	Checklist For Graduate Students and Faculty Advisors	16
•	Request For Service on a Graduate Advisory Committee	17
•	Thesis Proposal Coversheet	18
•	Thesis Approval Form	19
•	Comprensive Examination Form	20
•	Copyright and Availability Form	21

I. Introduction

Objectives of the Masters Program

The educational objectives of the MS degree in Biology are:

- To prepare students for a doctoral program in biology
- To prepare students for teaching biology in community colleges and institutions of higher education
- To enrich students' background for teaching biology in high and middle school
- To prepare students for jobs related to biology in industry, education, or government.

The principal aim of graduate study is to develop in the student the power of independent work. Consequently, the character of work expected of graduate students is different from that of less-advanced students. A wide knowledge of the major subject and related subjects will be expected. To this end, the student will do assigned readings, attend lectures, and conferences, and make use of the library in equipping himself/herself to do effective study.

With the thesis or research paper and the oral and written examinations, students in the Master of Science in Biology program will demonstrate:

- The ability to do independent research (field, laboratory or library based)
- An understanding of the scientific method
- Familiarity with the scientific literature relevant to their research
- Advanced knowledge in specific scientific content areas as chosen by their paper topic and the elective courses they selected.

The specific objectives of the thesis and non-thesis track for MS degree in Biology are:

- The thesis track prepares students for a Doctoral Program in Biological Sciences
- The non-thesis track prepares students for teaching biology in community colleges and institutions of higher education
- Both tracks prepare students for careers in industry and governmental positions.

II. Admission

Admission Requirements for the Program -

- A candidate must have a bachelor's degree in biology or related field (related fields such as Botany, Environmental Sciences (with a biology emphasis), Marine Science (with biology emphasis), Marine Biology, Microbiology, Neurobiology and zoology).
- The student's entire record will be considered including the completed application for admission, overall undergraduate GPA of 2.5, GPA of 3.0 in the discipline (a student with a GPA between 2.75 and 3.0 will be admitted on probation), a Statement of Purpose.

- Approval of the graduate committee of the Department of Biology and Chemistry. The decision by the committee will be based on the interests the candidate has in biology and if a graduate faculty member can and will work with the candidate. The candidate's interest will be determined by the personal statement (statement of purpose) that the candidate writes for admission. The statement should describe what research the student is interested in doing in the program and how working with a faculty member(s) in the Department can achieve this. Students are strongly encouraged to contact potential mentors prior to applying (http://www.tamiu.edu/coas/depts/biochem).
- Admission to the thesis program will be determined by the acceptance of the student by an advisor. A student's admission for a thesis can be denied because the student's interest does not match any research program available. A student can be admitted to the non-thesis but the students will be required to take comprehensive exam to complete the degree.
- Students must submit transcripts from all institutions attended to the Office of Graduate Studies for acceptance into the MS program. GRE not required for admission to the program in biology.
- Students will not be admitted to the graduate program of the university until all of the above entrance requirements are met. If an applicant does not meet these requirements, the Graduate Council may approve admission of the applicant on a conditional basis. Final admission to the MS in Biology program is by approval of the graduate committee of the Department of Biology and Chemistry. (This should be done before course work begins.) The decision by the committee will be based on the interests the candidate has in biology and if a graduate faculty member can and will work with the candidate.

<u>Stemwork</u>

It is strongly recommended that a student seeking a Master in Biology should have Bachelors degree with a major in Biology or related field. However, if a student is seeking a Master in Biology degree without a Bachelors in Biology, then the following are the minimum requirements as preparation for the graduate coursework: CHEM 1311/1111, CHEM 1412, CHEM 2423, BIOL 1306/1106, BIOL 1311/1111, BIOL 1413, BIOL 3406, BIOL 3410, BIOL 3412, and BIOL 3413. A candidate without a degree in biology must have an overall GPA of 2.5 in their bachelor's program and a GPA of 3.0 in stemwork for the Master in Biology, including chemistry, to be admitted to the program. In addition, the student should give a justification that is accepted by the graduate committee of the Department of Biology and Chemistry why they are seeking a degree in biology. The GPA includes stem work taken before the application and all stem work required by the graduate committee of the Department of Biology and Chemistry to fulfill the requirement.

The student's advisor and/or committee may require additional courses if thought necessary to prepare the student for a specific field in biology.

Financial Support

Office of Graduate Studies has more information on financial support.

http://www.tamiu.edu/gradschool/fellowships.shtml

SCHOLARSHIPS:

• Tuition up to \$3000 per year (\$1000 per term, including summer).

ASSISTANTSHIPS:

• An assistantship is a financial award to a graduate student for part-time work (up to 20 hours per week) in teaching, or research while pursuing study towards an advanced degree. Graduate Assistant awards will be up to \$13,500 (\$1500 per month times 9 months) depending on your work assignment.

ELIGIBILITY REQUIREMENTS FOR SCHOLARSHIPS AND ASSISTANTSHIPS:

- Must be a fully admitted graduate student who is working towards a masters or doctoral degree.
- Must enroll in 9 graduate hours each semester (or summer) that you receive scholarship money.
- Must maintain a minimum overall GPA of 3.5.
- Application deadline is April 1 (earlier preferred).

TRAVEL REIMBURSEMENTS:

• Travel reimbursements available for Graduate Students attending conferences.

ELIGIBILITY REQUIREMENTS FOR TRAVEL REIMBURSEMENTS:

- Must be a fully admitted graduate student who is working towards a master's degree and be in good standing.
- Student must be actively participating (presenting paper, serving as panelist, etc.) in the conference/meeting.

More information, forms and brochures can be found at the following website: http://www.tamiu.edu/gradschool/lamar_bruni_vergara.shtml

Anti-Discrimination/Title IX

TAMIU does not discrimination or permit harassment against any individual on the basis of race, color, sex, religion, national origin, age, disability, genetic information, veteran status, sexual orientation or gender identity in admissions, educational programs, or employment. If you would like to file a complaint relative to Title IX or any civil rights violation, please contact the TAMIU Director of Equal Opportunity and Diversity/Title IX Coordinator, Lauren A. Jones, J.D., 5201 University Boulevard, Killam Library 159B, Laredo, TX 78041, <u>TitleIX@tamiu.edu</u>, 956.326.2857 and/or the Office of Civil Rights (Dallas Office), U.S. Department of Education, 1999 Bryan Street, Suite 1620, Dallas, TX 75201-6810, 214.661.9600. Reports can also be made through our anonymous, electronic reporting site: <u>www.tamiu.edu/reportit</u>.

III. Degree Requirements

There are two program tracks for the Master of Science in Biology degree.

Thesis Program

Required Courses: BIOL 5290 Graduate Seminar ¹ BIOL 5401 Biometry ²	4 hours 4 hours
Biology Electives	16 hours
Thesis BIOL 5398 and 5399 Thesis	6 hours
Total for Degree:	30 hours

¹To be repeated once when the topic changes to fulfill the requirement of four SCH. ²To be taken in the first three semesters of student's graduate work.

Non-Thesis Program

Required Courses:	
BIOL 5290 Graduate Seminar	4 hours
BIOL 5401 Biometry ²	4 hours
Biology Electives	28 hours
Total for Degree:	36 hours

¹To be repeated once when the topic changes to fulfill the requirement of four SCH. ²To be taken in the first three semesters of student's graduate work.

Thesis / Non-Thesis Program Comparison

	Non-thesis		Thesis	
Required Courses	BIOL 5290 Graduate Semin BIOL 5401 Biometry	ar 4 4	BIOL 5290 Graduate Semir BIOL 5401 Biometry	nar 4 4
Elective Courses	Graduate Biology Courses	28	Graduate Biology Courses	16
Thesis Courses			BIOL 5398/5399 Thesis	6
TOTAL		36		30

Additional Degree Requirement Details

- Thesis track requires a thesis, seminar on the thesis and a successful defense. Thesis research can be laboratory or field based, or both.
- Students in the non-thesis tracks must pass a written comprehensive exam (valid for one year). If the written exam is failed two times, the entire program will need to be repeated. Non-thesis students must complete the exam by mid-November or mid-April prior to graduation. In addition, a non-thesis student will be required to write and defend a library based review paper on a topic in biology decided on by the student and the student's advisory committee. The review paper should be completed, defended and passed by mid-November or mid-April prior to graduation. A comprehensive exam will not be required for thesis students, but they will be expected to show a broad knowledge of biology at their oral defense with the discretion of the advisory committee.
- Courses taken in this program will be valid for five years.
- A graduate student cannot take an undergraduate course for credit, but can take a graduate course that is concurrent with an undergraduate course.
- The graduate course will be more rigourous than the concurrent undergraduate course and this is reflected in the syllabi.
- A graduate student cannot take a course for graduate credit if the student has passed (with an A, B, or C) a similar course for undergraduate credit such as the concurrent courses taught in the biology program.

<u>Retention Requirements</u> (see Academic Regulations – Graduate in University catalog)

• A minimum grade point average of 3.0 ("B") on a 4.0 scale computed on all graduate work attempted must be maintained in the major.

• No more than four (4) semester credit hours with a letter grade of "C" earned at this university will be accepted for a master's degree.

Timeline / Deadlines

These are suggested times for completing the thesis or non-thesis degree in two years.

- 1. University Application Filed by
- April 30 for summer or fall semester entry.
- November 30 for spring semester entry.
- 2. Transcripts in Office of Graduate Studies
- Transcripts should be submitted with application.
- Only six hours of graduate courses in biology before admission to the program.
- 3. Dean's Acceptance Letter
- May for summer or fall semester entry.
- January for spring semester entry.
- 4. Approved Degree Plan
- Complete advisory committee form by end of first semester.
- Request a faculty member for advisory committee no later than end of first semester.
- Degree plan approved no later than end of second semester.
- Discussion of thesis proposal by the end of second semester.
- 5. Thesis Proposal Submitted (if applicable)
- By the beginning of third semester including completed thesis proposal coversheet form.
- 6. Thesis Proposal Approved (If applicable)
- Committee will meet with student and provides recommendations to improve thesis (see below for Thesis Proposal Coversheet).
- By the beginning of the third semester.
- 7. Completion of Course Work
- Third semester for thesis, fourth semester for non-thesis.
- 8. Comprehensive Exam (If applicable)
- Taking the comprehensive exam for a non-thesis student during last semester of course work.
 - Last day to take exam in fall semester is last Friday of October.
 - Last day to take exam in spring semester is last Friday of March.
- 9. Application for Graduation
- Beginning of final semester.

10. Oral Defense (If applicable)

• Middle of final semester.

11. Final Thesis Cleared (If applicable)

- Original submission for review by graduate office about four weeks before end of semester (See Graduate Office Thesis page for exact date)
- Final submission during Final Exam Week (See Graduate Office Thesis page for exact date).

All degree requirements must be completed within 5 years of the beginning of the master's degree.

Graduate Advisory Committee

Each student will have an advisory committee that will design a degree plan in consultation with the student; prepare and evaluate the comprehensive examination for a non-thesis student; assist with the thesis and research; reading and evaluating the thesis and review paper; and preparing, administering and evaluating the defense of the thesis and review paper. The committee will consist of three members of the biology graduate faculty and a fourth from another discipline chosen by the student with advice from the student's advisor and/or department chair. All committee members can be in the Department of Biology and Chemistry but the fourth member can be from another department within the university. Another member of the committee from another department or university can be added by the thesis student's request, if the committee agrees that the additional member can contribute to the student's thesis research. The chair of the advisory committee will be the student's major professor for the thesis research.

Advice to Graduate Students Following the Thesis Program

You choose your own faculty advisor for a thesis-based degree plan. Some students enter the university with the intention of working with a particular member of the faculty; others are not as certain about their specific interests, or have a thesis topic in mind. Upon entering, you will be assigned a temporary advisor to guide you in planning your course work and in selecting a possible thesis topic. You are under no obligation to conduct thesis research with your temporary advisor, and many students decide to work with another faculty member. The faculty has your best interests in mind, and will help you make the best choice of advisor and thesis topic.

The overall timetable for completion of the MS-degree requirements usually spans two to two and a half calendar years. Some students are able to finish earlier, while others require more time. During the first semester, your temporary advisor will advise you in planning your course of study. During the second semester, the student chooses a thesis advisor and establishes a thesis committee. Field and analytical work on the thesis are ordinarily conducted during the summer semester, although course work may be arranged so that fieldwork is conducted during the winter and early spring. During the third semester, the student generally completes necessary course work while continuing thesis research, and the fourth semester is generally devoted to completion of the thesis research, writing, and defense of the thesis.

Many students find it necessary to complete the thesis during the second summer. Others require more time to complete the degree requirements because of the nature of the research, financial needs, or other factors. The Graduate School has established a time limit of 5 calendar years for completion of the MS degree.

Thesis

Office of Graduate Studies and Research has a thesis manual available online. However, consult with your advisor and committee on the format of your thesis.

IV Curriculum

Courses

BIOL 5197-5697 Biology Research. One to six semester hours. Continuation of thesis or non-thesis research by the students under the supervision of the student's advisor. May be repeated. Cannot be substituted for required or elective graduate biology courses. Evaluation of performance in this course is on CR/NC basis. Prerequisite: Graduate standing and permission of the instructor.

BIOL 5290 Graduate Seminar in Biology. Two semester hours. A seminar on current topics in biology. Emphasis will be on recent research in a field of biology. May be repeated once when topic changes. Prerequisite: Graduate standing and permission of the instructor.

BIOL 5371-5471 Special Topics in Biology. Three-four semester hours. A seminar course on topics of interest in biology. Laboratory section at discretion of instructor. May be repeated when topic changes. Prerequisite: Graduate standing and permission of the instructor. Laboratory fee: \$30, if appropriate.

BIOL 5398 Thesis. Three semester hours. Includes thesis and research. To be scheduled by the student in consultation with student's major professor. Prerequisite: Approval of the major professor and the Department Chair. If grade of IP is received, student must enroll again for credit. Evaluation of performance in this course is on CR/NC basis. Laboratory fee: \$30.

BIOL 5399 Thesis. Three semester hours. Includes thesis, research, seminar, and defense. To be scheduled by the student in consultation with student's major professor. Prerequisite: Approval of the major professor and the Department Chair. If grade of IP is received, student must enroll again for credit. Evaluation of performance in this course is on CR/NC basis. Laboratory fee: \$30. BIOL 5401 Biometry. Four semester hours. A course in experimental design and statistical analysis. The course will include techniques used in different fields of biological research and the application of these techniques for the student's own research. Prerequisite: Graduate standing and permission of the instructor.

BIOL 5402 Advanced Mammalogy. Four semester hours. A study of anatomy, evolution, distribution, systematics, ecology, and physiology of mammals – with special emphasis on local representatives. Prerequisite: Graduate standing and permission of the instructor. Saturday field trips required. Laboratory fee: \$30.

BIOL 5404 Advanced Herpetology. Four semester hours. A study of anatomy, evolution, distribution, systematics, ecology, and physiology of amphibians and reptiles; primarily North American species with special emphasis on local representatives. Prerequisite: Graduate standing and permission of the instructor. Saturday field trips required. Laboratory fee: \$30.

BIOL 5407 Behavioral Ecology. Four semester hours. A course in the function of behavior in the context of ecology and evolution. Topics will include foraging behavior, habitat selection, mating behavior, parental care, and social behavior. Prerequisite: Graduate standing and permission of the instructor.

BIOL 5408 Advanced Entomology. Four semester hours. An advanced study of insects (and arachnids). Topics will include anatomy and physiology, evolution, ecology, and behavior. Special emphasis will be placed on insect diversity and identification of local families of insects (and arachnids). A collection of local representatives is required. Prerequisite: Graduate standing and permission of the instructor. Saturday field trips required. Laboratory fee: \$30.

BIOL 5409 Molecular Systems Biology and Chemical Genetics. Four semester hours. A course dedicated to the discussion of current approaches to study "Omics" or systems biology, and the impact of chemical genetics in understanding how to activate or inactivate gene products as a way to determine the cellular function of proteins. Molecular Systems Biology and Chemical Genetics covers topics at the molecular level, including research in the evolving areas of genomics, proteomics, metabolomics, bioinformatics, microbial systems, and the integration of cell signaling and regulatory networks. Prerequisite: Graduate standing and permission of instructor. Lab fee: \$30.

BIOL 5410 Advanced Ecology-- Populations and Communities. Four semester hours. An advanced study of biotic and abiotic ecosystem interactions emphasizing field measurements, statistical procedures, and computer simulations of the growth of populations. Topics will include social and species interactions within populations, analysis of population composition and change, the distribution of communities, and functioning of ecosystems. Independent study of a selected ecological topic required.

BIOL 5415 Population Genetics. Four semester hours. A study of population genetics models, including genetic variation, selection, inbreeding, genetic drift, mutation, gene flow, linkage disequilibrium and recombination. Prerequisite: Graduate standing and permission of instructor. Lecture/laboratory.

BIOL 5420 Advanced Environmental Microbiology. Four semester hours. An overview of the relationship between microbial metabolism, physiology, and the environment with a discussion of the primary literature. The application of modern microbiological concepts to address and solve current environmental problems is emphasized. Topics include air, water and soil microbiology, geochemical activities of microbes, biotransformations, pollution, and pollution abatement using microbes. Prerequisite: Graduate standing and permission of instructor. Laboratory fee: \$30.

BIOL 5425 Advanced Immunology. Four semester hours. A detailed study of the immune response and related events, with a discussion of primary literature. Emphasis is placed on cellular and humoral branches of immunity, including the study of blood (serology) as a diagnostic tool. Prerequisite: Graduate standing and permission of instructor. Laboratory fee: \$30.

BIOL 5440 Advanced Plant Systematics. Four semester hours. An introduction to plant systematics with an emphasis on flowering plants. Topics will include principles of classification, rules of nomenclature, plant identification and the use of keys, the evolutionary relationships among plant groups, species concepts, and experimental approaches to systematics. Prerequisite: Graduate standing and permission of the instructor. Laboratory fee: \$30.

BIOL 5441 Advanced Plant Physiological Ecology. Four semester hours. This course will examine plant physiological mechanisms that explain ecological patterns. Topics will include the physiological characteristics of plants (photosynthesis, energy balance, water relations, mineral nutrition, growth, and development) and how those characteristics are adaptive to various environments. Prerequisite: graduate standing and permission of the instructor.

BIOL 5450 Molecular Genetics and Regulation of Gene Expression. Four semester hours. An advanced course on the molecular mechanisms by which genes are controlled and regulated. Topics include induction, activation, repression and RNA interference of gene function. Prerequisite: Graduate standing and permission of the instructor.

BIOL 5452 Advanced Biochemistry. Four semester hours. (SP) A detailed study, using primary literature sources, of carbohydrate, amino acids, nucleic acids, and lipid metabolic pathways. Special attention is given to human metabolism in health and disease. Prerequisite: one semester (3 SCH or more) of biochemistry for majors or permission of instructor.

BIOL 5460 Advanced Geographic Information Systems. Four semester hours. This course will explore fundamental concepts of geographic information technologies with a focus on

applications within the geosciences and natural sciences in general. Students will be exposed to the power of geographic information systems to elucidate complex problems. Prerequisite: Graduate standing.

BIOL 5470 Advanced Developmental Biology. 4 semester hours. A study of the molecular and cellular events that lead to the generation of a multicellular organism from a fertilized egg. Emphasis on cell differentiation, development of an entire organism from a single cell involving several stages of differentiation and cell interaction, and cellular and molecular processes involved in generating an embryo and various tissues and organs. Prerequisite: BIOL 3413. Lab Fee: \$30.

BIOL 5475 Advanced Evo-Devo (Evolutionary Developmental Biology). 4 semester hours. The objective of this course is to integrate two disciplines, evolutionary biology and developmental biology into a common framework of genetics. The focus will be on the evolution of developmental genetic pathways in order to explain the evolution of animal development. This course will explore how our growing knowledge of developmental circuits, and their variation, affects our understanding of how organisms evolve. Prerequisite: BIOL 3413.

BIOL 5480 Field Biology. Four semester hours. A field course on the diversity and ecology of populations and communities along the Rio Grande. A field trip of two to three weeks will be required. Prerequisite: Graduate standing and permission of the instructor. Laboratory fee: \$30.

Courses for Majors	F17	S18	SS1	SS2	F18	S19	SS1	SS2
Courses for majors	117	510	or	552	110	517	or	552
			SS3				SS3	
BIOL 5401 Biometry	Х				Х			
BIOL 5402 Advanced								
Mammalogy								
BIOL 5404 Advanced								
Herpetology								
BIOL 5407 Behavioral Ecology		Х						
BIOL 5408 Advanced	Х							
Entomology								
BIOL 5409 Molecular Systems						Х		
Biology and Chemical Genetics								
BIOL 5410 Advanced Ecology							SS3	
BIOL 5415 Population Genetics		Х						
BIOL 5420 Advanced	X							
Environmental Microbiology								
BIOL 5425 Advanced								
Immunology								

<u>Two-Year Cycle for Graduate Courses</u> (subject to change)

	1	1	, i				
BIOL 54xx Environmental							
Remediation (not in catalog)							
BIOL 5440 Advanced Plant							
Systematics							
BIOL 5441 Advanced Plant							
Physiological Ecology							
BIOL 5450 Molecular Genetics	Х						
and Regulation of Gene							
Expression							
BIOL 5452 Advanced		Х			Х		
Biochemistry							
BIOL 5470 Advanced	Х			Х			
Developmental Biology							
BIOL 5475 Advanced Evo-Devo		Х			Х		
BIOL 5480 Field Biology							
BIOL 5290 Graduate Seminar	Х	Х		Х	Х		
BIOL 5398 and 5399 Thesis	Х	Х		Х	Х		
BIOL 5371-5471 Special Topics	Х	Х		Х	Х		
					•	•	

For courses concurrent as undergraduate (4000 level) and graduate (5000 level), graduate students will be required to do one of the following:

- Attain a higher percentage score.
- Write a research paper.
- Make a research presentation at the departmental or college level.
- Show evidence of a more detailed study in some aspect of the course.

V. Graduate Faculty

Faculty Member	Degree & Institution	Field of Study	Teaching & Research
Dr. Fesha	Ph.D. University	Genetics,	Genetics,
Abebe-Akele	of New Hampshire	Molecular	Bioinformatics,
		Biology,	Metagenomics,
		Bioinformatics	Immunology,
			Evolution,
			Biostatistics
Dr. Michael	Ph.D. University	Zoology	Genetics,
Kidd	of New Hampshire		Phylogenetics,
	_		Genetic Basis of
			Behavior,
			Reproductive
			Physiology and

			Neurobiology
Dr. C. Neal McReynolds	Ph.D. Vanderbilt University	Behavioral Ecology, Arthropod Biology	Ecology, Evolution, Zoology, Behaviora Ecology
Dr. Monica Mendez	Ph.D. University of Arizona	Environmental Science	Environmental Science, Environmental Microbiology, Plant Ecology
Dr. Daniel Mott	Ph.D. Southern Illinois University	Systematics of Spiders	General Zoology, Human Anatomy
Dr. Sang-Chul Nam	Ph.D. Korea Adv Inst of Sci & Tech	Developmental Genetics	Developmental Biology Evo-Devo
Dr. Catalina I. Pislariu	Ph.D. University of North Texas	Molecular Biology	Botany, Plant Genetics, Molecula and Cell Biology, Plant-Microbe Interactions, Functional Genomics of Symbiotic Nitrogen Fixation
Dr. Fernando Quintana	Ph.D. North Carolina State University	Applied Statistics	Population Genetics, Biometry
Dr. Sebastian Schmidl	Dr. rer. nat., University of Göttingen	Microbiology and Bioengineering	Bacteriology, Microbial Genetics, Molecular Biology, Infectious Diseases and Synthetic Biology
Dr. Kenneth Tobin	Ph.D. University of Tennessee	Geology	Geomicrobiology, Watershed Hydrology
Dr. Thomas Vaughan	Ph.D. University of Arizona	Water quality in Rio Grande Valley	Ecology, Vertebrate Biology
Dr. Ruby Ynalvez	Ph.D. Louisiana State University	Cell Biology, Molecular Biology, Biochemistry	Molecular Biology Techniques, Biochemical Techniques, Advanced Biochemistry

TEXAS A&M INTERNATIONAL UNIVERSITY

COLLEGE OF ARTS AND SCIENCES

CHECKLIST FOR GRADUATE STUDENTS AND FACULTY ADVISORS

Student's Name:	Major:
Advisory Committee Chair:	Dept.:

This checklist is provided to help you and your Advisory Committee keep track of your progress through the various stages of graduate study.

ACTIVITY	COMPLETION DATE	EXPECTED COMPLETION DATE
1. Univ. & Dept. Applications Filed		
2. GRE & Transcripts in Admissions Office		
3. Dean's Acceptance Letter		
4. Approved Degree Plan		
5. Completion of Course Work		
6. Comprehensive Exam for Major (If applicable)		
7. Comprehensive Exam for Minor (If applicable)		
8. Thesis Proposal Submitted (If applicable)		
9. Thesis Proposal Approved (If applicable)		
10.Oral Defense (If applicable)		
11.Final Thesis Cleared (If applicable)		
12.Application for Graduation		

TEXAS A&M INTERNATIONAL UNIVERSITY A Member of the Texas A&M University System Graduate School

Student Name:		Student ID:
College:	Degree: 🗆 Master's 🗆 Doctoral	Major:
this committee requires that I be	d that I serve on his/her Graduate Advisory C e reasonably available to this student for cons e other members of the committee, have a pa	sultation and guidance. Additionally, I
 Comprehensive Examina Designing a degree plan in co Preparing and evaluating the comprehensive evaluation of the comprehensive eval	nsultation with the student	
	agentation	
 Designing a degree plan in co Assisting with the thesis/disse Reading and evaluating the th 	nsultation with the student ertation	m
 Designing a degree plan in co Assisting with the thesis/disse Reading and evaluating the th Preparing, administering and of Cognizant of the above response student. 	nsultation with the student ertation esis/dissertation evaluating the defense of the thesis/dissertation ibilities, I agree to serve on the Graduate Adv	
 Designing a degree plan in co Assisting with the thesis/disse Reading and evaluating the th Preparing, administering and evaluating the th 	nsultation with the student ertation esis/dissertation evaluating the defense of the thesis/dissertation ibilities, I agree to serve on the Graduate Adv	
 Designing a degree plan in co Assisting with the thesis/disse Reading and evaluating the th Preparing, administering and o Cognizant of the above response student. Approval / Required Signatures 	nsultation with the student ertation esis/dissertation evaluating the defense of the thesis/dissertation ibilities, I agree to serve on the Graduate Adv ::	visory Committee of the above named
 Designing a degree plan in co Assisting with the thesis/disse Reading and evaluating the th Preparing, administering and of Cognizant of the above response student. Approval / Required Signatures Committee Chair 	Insultation with the student ertation esis/dissertation evaluating the defense of the thesis/dissertation ibilities, I agree to serve on the Graduate Adr :: 	Date

Website: www.tamiu.edu/gradschool

TEXAS A&M INTERNATIONAL UNIVERSITY A Member of the Texas A&M University System **Graduate School**

Thesis or Dissertation Proposal Cover Sheet

College: _____ Degree: Degree: Doctoral Major: _____

Tentative Title: (Title should be concise)

Article/Journal Model:

This proposal includes _____ attached sheets. (Proposals should be at least ten pages in length.)

The proposal should present concise information covering the following:

- 1. Objectives: Make a clear statement of the results you hope to accomplish through the proposed research.
- 2. Present status of the question: Summarize the previous research in this area, especially citing any gaps which the study may help to fill. Include definite citations in your summary.
- 3. Procedure: Indicate clearly the methods you will use in gathering and analyzing data to accomplish the objectives.

For further instructions refer to the Thesis or Dissertation Manual.

Approval/Required Signatures:

Student's Name	Committee Chair	Date
Student ID Number	Committee Member	Date
Mailing Address	Committee Member	Date
Student's Email Address	Committee Member	Date
Student's Signature Date	Department Chair	Date
	College Dean	Date
Submit original signed approval form to Gradua	Graduate School Dean	Date
Senator Judith Z Phone: 956.326	Graduate School affirini Student Success Center 206 5.3020 ~ Email: thesis@tamiu.edu www.tamiu.edu/gradschool	

TEXAS A&M INTERNATIONAL UNIVERSITY A Member of the Texas A&M University System

Graduate School

Written Thesis (M.S. / M.A.) Approval Form

Student Name:			Student ID:
Student Email Address:			
College:	Masters of: Generation Science	e 🗆 Arts	Major:
Date of Defense (mm/dd/yy):		Today's	Date (mm/dd/yy):
Anticipated Date of Graduation (M	onth/Year):		
Thesis Title:			

We the undersigned duly appointed committee have read and examined this manuscript and certify it is adequate in scope and quality as a thesis for this master's degree. We approve the content of the thesis to be submitted to the Graduate School for processing and approval.

Approval/Required Signatures:

Committee Chair	Date	Department Chair	Date
Committee Member	Date	College Dean	Date
Committee Member	Date	Graduate School Dean	Date
Committee Member	Date		

The student must submit the Written Thesis Approval Form with all required original signatures to the Graduate School. Student must submit a PDF and word version of their thesis to <u>thesis@tamiu.edu</u>. Students must clear the Graduate School formatting requirements within a year of their final defense. To graduate in a given semester, a student must meet the Graduate School scheduled deadline for submittal of the signed approval form and the thesis in final form.

Graduate School Senator Judith Zaffirini Student Success Center 206 Phone: 956.326.3020 ~ Email: thesis@tamiu.edu Website: www.tamiu.edu/gradschool

Texas A&M International University A Member of the Texas A&M University System Graduate School

Comprehensive Examination Form

Student Name:	Student ID:
College:	Degree: Master's 🗆 Doctoral 🗆 Major:
be VALID FOR ONE YEAR. Exams wil	be passed by the candidate covering the major and minor fields, and each will I be given each long semester. A student who fails to pass one or more ed one opportunity to repeat and pass the exam. Oral exams must be d-April.
•	e completed the prescribed graduate comprehensive examination in the

Master's/doctoral program, and results of the examination were evaluated by the student's Graduate Advisory Committee on the dates indicated below.

Check (\checkmark) the appropriate box(es):		
Semester: Fall 🗌 Spring 🗌	Summer 🗌 Year	: 20
Written Examination	Date of Written Examir	nation:
	Pass 🗌 🛛 Fail 🗌	
Oral Examination	Date of Oral Examination	on:
	Pass 🗌 🛛 Fail 🗌	
Approval/Required Signatures:		
Committee Chair		Department Chair
Committee Member		College Dean
Committee Member		Graduate School Dean
Committee Member		
Submit complete Comprehe		with all required original signatures to:
Senato	Graduate Scho r Judith Zaffirini Student	
Schato	Ph: 956.326.30	
		Povisod: 02/12/17

Revised: 02/13/17

TEXAS A&M INTERNATIONAL UNIVERSITY A Member of the Texas A&M University System

Graduate School

Copyright and Availability Form

Student Name:	Student ID:
College:	Degree: Master's Doctoral Major:
Date of Graduation (Month/Year):	Student Email Address:

TAMIU COPYRIGHT AGREEMENT

I hereby certify that, if appropriate, I have obtained and attached hereto a written permission statement from the owner(s) of each third party copyrighted matter to be included in my thesis/dissertation allowing distribution as specified below.

I certify that the version I submitted is the same as that approved by my committee chair.

I hereby grant to Texas A&M International University and its agents the non-exclusive license to archive and make accessible, under the conditions specified below, my thesis/dissertation in whole or in part in all forms of media, now or hereafter known.

To the extent this thesis/dissertation is an educational record as defined in the Family Educational Rights and Privacy Act (FERPA – 20 USC 1232g), I consent to disclosure of it to anyone who requests a copy.

I retain all other ownership rights to the copyright of the thesis/dissertation. I also retain the right to use in future works (such as articles or books) all or part of this thesis/dissertation.

AVAILBILITY OPTIONS (check one)

- □ Release the work immediately for worldwide access on the Internet.
- □ (Patent Hold) Secure the work temporarily for patent and/or proprietary purposes and then release the work for worldwide access on the Internet.
- □ (Journal Hold) Hold the work for one year and then release the work for worldwide access on the Internet (one-year extension on request, if needed).

COMMITTEE CHAIR

I have discussed the availability choices with my student, and I am aware of the choice my student has made.

Committee Chair: _____ Signature: _____ Date: _____

STUDENT AGREEMENT

I have read and fully agree to the TAMIU copyright agreement regarding my thesis or dissertation. I agree to the thesis/dissertation availability option I selected above. I understand that the option is my choice and that there may be publishing consequences to my selection.

Student's Signature: Date:

Graduate School Senator Judith Zaffirini Student Success Center 206 Phone: 956.326.3020 ~ Email: thesis@tamiu.edu Website: www.tamiu.edu/gradschool