

**LSU**

— College of the —  
**Coast & Environment**

# Environmental Sciences Graduate Student Handbook 2020-2021 (Fall Edition)



**Graduate Programs Office  
1269 Energy, Coast, and  
Environment Building**

**(225) 578-8522**

**[www.environmental.lsu.edu](http://www.environmental.lsu.edu)**

# DEPARTMENT OF ENVIRONMENTAL SCIENCES

## GRADUATE STUDENT HANDBOOK

### Table of Contents

Timelines and Responsibilities .....	3
Welcome.....	5
Program Overview .....	6
Table 1. Department of Environmental Sciences Graduate Courses .....	7
Degree Programs .....	8
Department of Environmental Sciences Requirements .....	8
Master of Science (MS) in Environmental Sciences (SENVS) .....	11
MS – Thesis Option.....	11
MS – Professional Option.....	13
Suggested sequence of courses for the MS degree.....	15
Doctor of Philosophy (PhD) in Environmental Sciences.....	16
Minor in Wetland Science and Management (under revision).....	19
Graduate School Regulations.....	20
Graduation.....	21
Useful Information .....	22
Final Notes.....	23
Faculty.....	24
Current Courses Offered by Environmental Sciences .....	27
2020-2021 Academic Calendar .....	32
Required Forms.....	36
Department of Environmental Sciences Committee Form.....	37
Program of Study for the MS Degree-Thesis Option .....	38
Program of Study for the MS Degree-Professional Option .....	39
Programs of Study for the PhD program.....	40
Graduate Student Annual Report.....	42
Graduate Assistant Evaluation Form.....	44
Current Students.....	45

## ENVS Masters Timelines and Responsibilities

Requirement	Person(s) Responsible	Completion Date
Read Graduate Student Handbook	Students & Faculty	Ongoing
Select a Major Professor & Supervisory Committee	MS Students	End of second semester [Or after completing 12 hrs -> if part time]
Complete Program of Study and file in Academic Office	Students & Major Professor	End of second semester
Submit Research Project Prospectus To Major Professor and Academic Office	MS Students	End of second semester
Complete any remaining pre-requisites with a grade of C or higher	Students with Deficiencies	End of second semester
Contact Academic Coordinator/Major Professor to complete Application for Degree Forms	MS Students	Semester prior to Graduation
Meet with Committee Members to Schedule Defense/Presentation Date(s)	ALL STUDENTS	Semester prior to graduation (At least 3 weeks before deadline)
Contact major professor to complete Request for Master's Examination	MS Students	Defense date (or before set by Graduate School)
Make arrangements (room, equipment) for Thesis/Professional presentation to all Committee Members	Student & Academic Coordinator	At beginning of semester you plan to graduate
Submit complete copy of final draft of Thesis/Professional document to all Committee members	MS Students	At least two weeks prior to the public defense date
Make appointment with Grad School Thesis editor to review your Thesis	MS Thesis Students	At least two weeks prior to the public defense date
Defend Thesis/Professional Project Prior to Graduate School deadline	MS Students	Date stated on Request for Master's Exam
Sign MS Degree Exam Pass/Fail and Approval Sheets (Thesis Only)	Student's Committee	Day of public defense
Make Corrections to Professional document submit copy to Academic Coordinator	Professional student	Prior to published semester deadline
Scan signed Degree Exam Cards to Graduate School	Academic Coordinator	Immediately after defense
Make corrections to Thesis & obtain final approval from committee	Student & Committee	Prior to published deadline
Submit Thesis electronically	Student	Prior to published deadline
Return departmental keys & equipment	Students	PRIOR to graduation

## ENVS PhD Timelines and Responsibilities

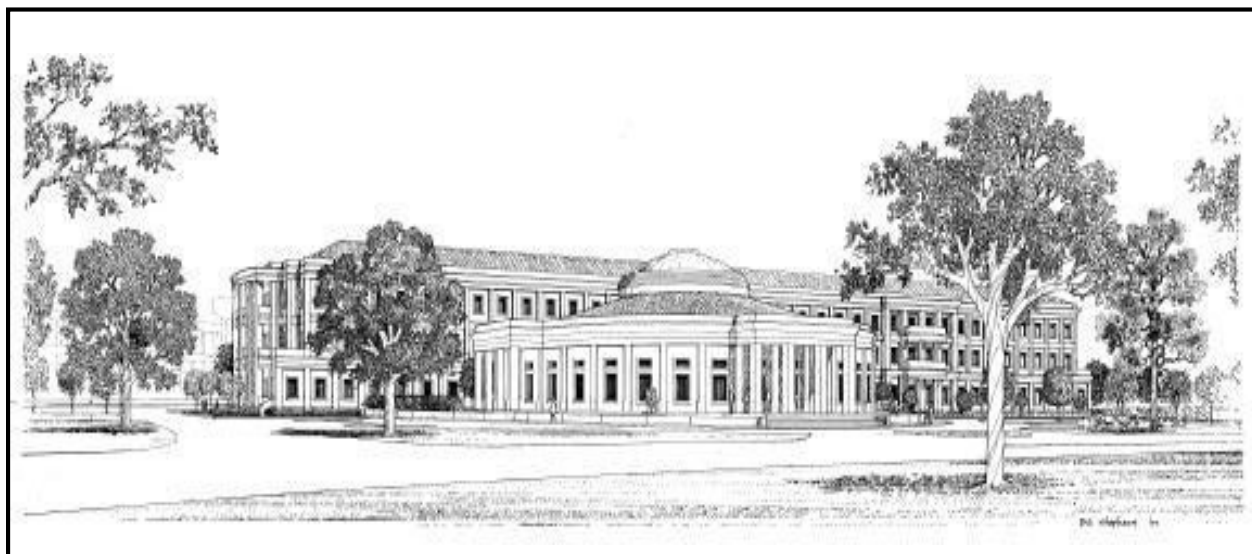
Requirement	Person(s) Responsible	Completion Date
Read Graduate Student Handbook	Students & Faculty	Ongoing
Select Graduate Committee	PhD Students	End of first semester [Or after completing 9 hrs -> if part time]
Complete Program of Study, presentation of Diagnostic/Qualifying exam and file in Academic Office	PhD students and Committee	During first or second semester
Submit Research Prospectus To Major Professor and Academic Coordinator	PhD students and Committee	End of second semester
Complete any remaining pre-requisites with a grade of C or higher	Students with Deficiencies	End of second semester
Schedule General Exam Date with Committee Members	PhD students and Committee	After completion of all required courses
Submit Doctoral Degree Audit Form with General Exam Request to Grad School	PhD students	After completion of all required credit hours
Graduate School will appoint a Dean's Representative	Graduate School	After receipt of General Exam Request Form
Contact Major Professor/Academic Coordinator to complete Application for Degree Forms	PhD Students	At least 3 weeks prior to General Defense date
(Suggested) Set up committee meeting including Dean's rep. to assure all is in order	PhD students and Committee	About one week before General defense
Contact major professor and Academic Coordinator to complete Request for Doctoral Final Examination	PhD Students	At least three calendar months after passing general examination and prior to LSU Grad school deadline
Make arrangements (room, equipment) for PhD final examination with all Committee Members and Dean's Representative	PhD Students & Academic Coordinator	At beginning of semester of planned graduation
Submit complete copy of final draft of dissertation document to all Committee members	PhD Students	At least two weeks prior to the public defense date
Make appointment with Grad School dissertation editor to review your document	PhD Students	The sooner the better! Will save time with edits
Defend Dissertation Prior to Graduate School deadline	PhD Students	Date stated on Request for Final PhD Exam
Sign PhD Degree Exam Pass/Fail and Approval Sheets	Student's Committee	Day of public defense
Make Corrections to dissertation	PhD Students	Prior to published semester deadline
Scan signed Degree Exam Cards to Graduate School	Academic Coordinator	Immediately after defense
Submit Dissertation electronically	PhD Students	Prior to published deadline
Return departmental keys & equipment	PhD Students	PRIOR to graduation

## **WELCOME TO THE DEPARTMENT OF ENVIRONMENTAL SCIENCES**

This handbook is designed to help incoming and resident graduate students fulfill their graduate degree requirements. The handbook is your guide to the policies and procedures set forth by the LSU Graduate School and the Department of Environmental Sciences. Please refer to this document and use it in conjunction with the LSU Graduate Bulletin. It is your responsibility to keep current of any changes in the requirements that the Graduate School may implement after your admission and to be certain to adhere to any new policies.

The information included in this handbook should make your life somewhat easier. We hope this material will inform and assist you in accomplishing your career goals.

Dr. Kevin Armbrust, Chair  
Dr. Brian Snyder, Graduate Advisor  
Dr. Vince Wilson, Graduate Advisor, Online Program  
Katherine Grimes, Academic Coordinator  
Rachel Lau, Assistant to the Chair



If you have any questions about Graduate School or departmental regulations or requirements, do not hesitate to contact Ms. Grimes in the Academic Office, 1269 Energy, Coast, and Environment Building (578-8522 or [kgrimes1@lsu.edu](mailto:kgrimes1@lsu.edu)) or Dr. Snyder (578-4559 or [snyderb@lsu.edu](mailto:snyderb@lsu.edu)).

Note that this Handbook does not overrule, substitute, or amend in any way the requirements of the LSU Graduate School (<https://sites01.lsu.edu/wp/graduateschool/>).

Refer to the Graduate Bulletin (<http://catalog.lsu.edu/content.php?catoid=2&navoid=196>) for all the rules and regulations of the Graduate School.

## PROGRAM OVERVIEW

The Department of Environmental Sciences is a multidisciplinary research and academic unit whose mission is to provide the academic talents and knowledge needed to solve environmental problems that are important to Louisiana, the Gulf of Mexico region, and comparable areas throughout the nation and the world. The department offers a variety of courses relating to the environment – from Environmental Toxicology to Environmental Planning and Management.

The Department offers graduate students a wide range of classroom experiences, field research opportunities, and interactions with decision makers facing real-world environmental challenges. The faculty are committed to the wholistic development of the next generation of environmental leaders in academia, business, public agencies, and non-governmental organizations (NGOs).

In order to provide students with a wholistic understanding of environmental sciences and environmental challenges, the Department's curriculum reflects the three priority areas identified by the 2003 National Science Foundation report on Environmental Research and Education (*Complex Environmental Systems: Synthesis for Earth, Life, and Society in the 21<sup>st</sup> Century*). The Department adapted and renamed the three priority areas as:

- A. Biophysical Systems (Coupled Biological and Physical Systems)
- B. Environmental Planning and Management (Coupled Human and Natural Systems)
- C. Environmental Assessment and Analysis (Coupled People and Technology)

**A. Biophysical Systems** focuses on the processes, dynamics, and interactions between the physical, chemical, and biological aspects of the environment. The biophysical and geochemical bases of current environmental issues such as air, water, and soil pollution, biodiversity, energy, natural and chemical hazards. The effects of global change on humans and ecosystems are emphasized.

**B. Environmental Planning and Management** focuses on the application of scientific principles to support decision-making, occurring within the public and private sectors, that determines human interaction with and use of the natural environment. Major areas of teaching and research include land-use planning, natural hazards mitigation, policy analysis and evaluation and environmental law and regulations. The field is proactive in orientation, providing both theory and applied techniques, including methods for environmental impact analysis and comprehensive planning. These skill sets support more sustainable uses of natural resources and environmental services so that the resilience of linked social-ecological systems may be enhanced.

**C. Environmental Assessment and Analysis** provides research and training in the area of development and application of technology for evaluation of environmental conditions and supports development of strategies to improve or restore degraded areas. This includes a focus on research methods including principles of data collection and analysis, analytical lab techniques, spatial modeling, remote sensing, GIS, and statistics.

All the graduate courses offered by the Department are categorized into one of these three areas and are listed in Table 1.

**Table 1. Department of Environmental Sciences Graduate Courses**

<b>Priority Area</b>	<b>Course name</b>
Core Courses	ENVS 7700 Integrated Environmental Issues (3 credit hours) ENVS 7995 Environmental Seminar (1 credit hour) ENVS 7997 Environmental Practicum (3 credit hours- MS professional option students- <b>to be taken during final semester</b> ) ENVS 8000 Thesis credits (6 credit hours- MS thesis students) ENVS 9000 Dissertation credits (9 credit hours – PhD students)
A: Biophysical Systems (Coupled Biological and Physical Systems)	ENVS 4007 Cancer: A Family of Environmental Diseases ENVS 4010 Applied Ecology ENVS 4015 Physical Climatology ENVS 4035 Aquatic Pollution ENVS 4045 Air Pollution and Society ENVS 4101 Environmental Chemistry ENVS 4102 Environmental Fate of Pollutants ENVS 4477 Environmental Toxicology – Introduction and Application ENVS 4500 Health Effects of Environmental Pollutants ENVS 4600 Global Environmental Change ENVS 7112 Concepts in Marine Ecotoxicology ENVS 7623 Toxicology I ENVS 7626 Genetic Toxicology
B: Environmental Planning and Management (Coupled Human and Natural Systems)	ENVS 4004 Environmental Campaigns ENVS 4261 Energy and the Environment ENVS 4262 Environmental Hazard Analysis ENVS 4264 Regulation of Environmental Hazards ENVS 4266 Ocean Policy ENVS 4268 Environmental and Natural Resources Policy ENVS 7040 Environmental Planning/Management ENVS 7041 Environmental Policy Analysis ENVS 7042 Environmental Conflict Resolution ENVS 7043 Environmental Law and Regulation ENVS 7044 Regulation of Toxic Substances ENVS 7045 Land Use Law and Regulation ENVS 7046 International Environmental Law ENVS 7047 Environmental Economics and Policy ENVS 7048 Natural Resources Law and Policy Seminar
C: Environmental Assessment and Analysis (People and Technology)	ENVS 4113 Multi-Media Chemical Behavior for Risk Assessment ENVS 4145 Remote Sensing Fundamentals for Environmental Scientists ENVS 4149 Design of Environmental Management Systems ENVS 4900 Watershed Hydrology ENVS 7007 Qualitative Research Methods for Environ. Decision Making ENVS 7050 Spatial Modeling of Environmental Data EXST 7003; 7004; or 7005 Introduction to Statistical Methods (or equivalent statistics course offered by ENVS or DOCS)
Electives	ENVS 7900 Special Problems (Consent of instructor)

## DEGREE PROGRAMS

The Department offers the following graduate degrees:

Master of Science (MS) degree in Environmental Sciences

Doctorate (PhD) degree in Environmental Sciences

PhD minor in Environmental Sciences (coupled with other major doctorate degree)

Collaborative graduate programs with Southern University and LSU-Shreveport are also available.

In order to provide students with a wholistic training to meet today's environmental challenges, the graduate curriculum is organized according to three priority areas:

Priority area A - **Biophysical Systems** (coupled biological and physical systems);

Priority area B - **Environmental Planning and Management** (coupled human and natural systems);

Priority area C - **Environmental Assessment and Analysis** (coupled people and technology).

Research activities within the department include environmental assessment and resource sustainability, environmental microbial ecology, molecular phylogenetics, water quality, air quality and air transport modeling, bioremediation, environmental management, environmental toxicology, genetic toxicology, environmental regulations, policy development, hazardous waste management, the environmental impact of toxic chemicals, remote sensing, geographic information science, environmental health, and environmental decision making.

Individualized programs of study for each student are developed in consultation with and approved by the student's graduate advisory committee. The committee includes the student's major advisor and at least two additional members of the graduate faculty such that the LSU Graduate School's requirements for graduate committees are satisfied.

### DEPARTMENT OF ENVIRONMENTAL SCIENCES REQUIREMENTS

#### MAJOR PROFESSOR

If you are a new MS student, you have been assigned an initial faculty advisor for the first semester. The initial advisor will help you select the appropriate courses and provide advice about research opportunities in the department. During the first semester of residence, you must select a research advisor (Major Professor) from the graduate faculty of the department. The choice of major professor should be the result of exploration and mutual agreement between you and the faculty member. Once your major professor is selected, you should inform the Academic Office.

For PhD students, admission to the Department is on a sponsorship basis, and your major professor is the faculty member who has agreed to serve as your mentor. She or he has agreed to provide funding (if available) and guidance during your stay here. Your fate and future are in the hands of your major professor. She or he will serve as chair of your graduate advisory committee and will supervise your research.



## GRADUATE COMMITTEE

Your committee is the group of graduate faculty who approves your work and recommends awarding the degree. It is an extension of your major professor and can be an enormous help to you. Choose individuals with specific specializations that can strengthen your work. Your committee must include at least three members of the Graduate Faculty, one of whom must be a full member; two must be from ENVS. If there is an external minor, one committee member must represent the minor department

Your committee is a resource. Use them and seek their advice during all aspects of your program.

- During your first semester meet with your advisor and select a committee (Turn in Committee Form Sheet to the Academic Office as soon as it is formed).
- Get the committee together for a short meeting to establish the general direction of your work, appropriate courses, and guidelines they have; then meet at least once per year.
- Keep them informed of progress through regular meetings and/or individual contact. Find out what they expect in your thesis or dissertation (When you have completed your research, it is too late for anything but "cosmetic" changes--use your committee early and often).
- They examine your work and approve your research plans. Therefore, get to know them, what research they do, what they have published. Many of them have pet theories and questions that crop up in every exam. Find out what they are!

It is important to note that student advising and academic counseling should come first and foremost from a student's major professor and advisory committee.

Responsibilities of the student's major professor and committee include the following:

- 1) to guide, inform, and counsel the student;
- 2) to discuss and approve a **Program of Study and a research or professional option topic**;
- 3) to review progress during each and every semester and provide advice during the student's research; and
- 4) to complete a Graduate Student Annual Report for each student advisee.

## PROGRAM OF STUDY

An effective graduate degree program requires that course work, research and assistantship duties all reinforce the student's educational objectives. To facilitate this coordination, the Department requires that a comprehensive Program of Study be formulated as soon as is practical. You and your major professor are expected to develop a program of study **during your second semester** in the graduate program. The program of study should include a comprehensive listing of courses you expect to take during your stay in the Department of Environmental Sciences and, where practical, when you plan to take those courses. You must complete any remaining pre-requisite courses with a grade of C or higher before the end of your second semester. Your Advisory Committee must approve the Program of Study and the form must be submitted to the Academic Office before the end of your second semester in the graduate program. (See Forms section). If any changes are made to the original Program of Study, you must file those updates as they occur.

## GRADUATE STUDENT ANNUAL REPORT

You should meet with your committee as a group at least once each year to have your progress reviewed; once a semester is even better. The review is primarily concerned with your academic progress and the significance of the results you have obtained so far. If you are on an assistantship, the **Graduate Assistant Review Form** (See Forms section) also requires that your major professor attest to the proficiency of the work for which you are being paid (ordinarily this is your thesis/dissertation effort). Louisiana law requires such a work statement for all persons receiving state funds regardless of the source of the monies. The annual review is generally conducted at the end of the month of April when the committee will meet with you to complete and turn in a *Graduate Student Annual Report* to the Academic Office. It is your responsibility to see that the review is scheduled and held. Failure to provide the Department with a completed review form may prevent you from registering and/or receiving any further financial support. If you are supported on a Graduate Assistantship or Teaching Assistantship, you will also be evaluated using the **Graduate Assistant Evaluation Form** (See Forms section).

## ACADEMIC REQUIREMENTS

Formal academic requirements are outlined in the LSU Graduate Bulletin. Nothing in this document is intended to supersede the Graduate Bulletin; nor is it our intention to supersede it. It contains details you need to know. Do not rely on your fellow students or your major professor. If you have any questions, check with the Academic Office or the Graduate Advisor.

## CORE COURSES

All students pursuing a graduate degree in the Department of Environmental Sciences are required to take and pass ENVS 7700 and ENVS 7995 as described below.

### **7700 INTEGRATED ENVIRONMENTAL ISSUES (3)**

Multidisciplinary analysis of current environmental issues. Discussion of topics from the perspective of natural science, economics, social science, and political science. Integration and syntheses of information to develop a science-based approach to environmental decision-making.

### **7995 ENVIRONMENTAL SEMINAR (1)**

Reports and discussions of student/faculty activities in environmental sciences.

## Master of Science (MS) in Environmental Sciences (SENVS)

The MS degree can be pursued on either a thesis or a professional track. Each requires 36 hours of graduate credits. Thesis option is focused on environmental research that ends with a research-based thesis, while the professional option is focused on applied environmental science requiring an external internship with a written report and comprehensive exam.

### MS – Thesis Option

#### Curriculum requirements

- 36 credit hours beyond the bachelor degree level; at least half at the 7000 level
- ENVS 7700 – Integrated Environmental Issues (3 hours)
- ENVS 7995 – Environmental Seminar (1 hour)
- Six hours from each of the three priority areas (18 hours)
- An additional three-hour course from a priority area of choice (3 hours)
- Five hours of elective course work, which can be additional course work taken within or outside the department (Note: courses taken outside of the department must have the approval of the student's advisory committee)
- ENVS 8000 – thesis research (6 hours)

#### Degree Completion Milestones:

1. Program of Study after selection of Advisory Committee – before end of second semester
2. Thesis Proposal – before end of second semester
3. Research Thesis
4. Final Examination/Thesis Defense

#### **1. Program of Study**

You and your major professor are expected to develop a program of study **during your second semester** in the graduate program. The program of study should include a comprehensive listing of courses you expect to take during your stay in the Department of Environmental Sciences and, where practical, when you plan to take those courses. Your Advisory Committee must approve the Program of Study and the form must be submitted to the Academic Office before the end of your second semester in the graduate program. (See Forms section). If any changes are made to the original Program of Study, you must file those updates as they occur.

#### **2. Thesis Proposal**

Each Master's student must complete and present to his/her Advisory Committee a research project proposal. The proposal should be submitted to the Committee **before the end of the student's second semester**. Refer to the "Thesis Proposal Guidelines" for the instructions on how to prepare the proposal. The approved proposal will serve as the basis for the initiation of the student's research. The proposal may be revised if necessary following approval of the Advisory Committee. A signed copy of the approved proposal is to be placed in the student's file in the Academic Coordinator's Office.

#### **3. Research Thesis**

At least six semester hours of thesis credit are required for the master's degree with the thesis option. For additional information concerning thesis preparation, consult the booklet, *Guidelines*

*for the Preparation of Theses and Dissertation. At least one credit of ENVS 8000 must be taken the semester the student is planning to graduate.*

Final acceptance of the master's thesis rests with a committee of three or more members of the graduate faculty, nominated by the chair of the major department and appointed by the dean of the Graduate School. See the "Graduate Faculty" chapter of this bulletin for definitions of full, associate, and affiliate members of the graduate faculty. The major professor, who must be from the major department, is designated as chair of this committee. Other committee members may be from the major department or from other pertinent departments.

#### **4. Final Examination/Thesis defense:**

The student must complete a thesis and successfully defend the thesis in an oral examination. The thesis must be acceptable in subject matter and exhibit creditable literary workmanship to the satisfaction of the thesis committee and meet with the approval of The Graduate School. Final examination includes oral presentation of your thesis and **covers both thesis and course work**. All students are expected to be competent in all three core areas of environmental sciences.

Completion of a thesis must demonstrate the candidate's capacity for research, proficiency in the studied field, originality of thought, and facility in organizing materials. It must be acceptable in subject matter and exhibit creditable literary workmanship to the satisfaction of the thesis committee and meet with the approval of the Graduate School.

The student should contact the Academic Coordinator for help with the logistics of his or her defense. Once a date is set, the Academic Coordinator will reserve a room and the necessary equipment.

*"Request for Master's Examination"* (must be typed) **must be submitted no later than three weeks prior to the time examination is to be given** (or by the current semester deadline, if the student is a degree candidate), to the Graduate School for approval. Once the date of the student defense is confirmed by all of the committee members, students must contact the academic coordinator to complete the final examination paperwork.

All defenses must take place while the University is in session (i.e. during the regular school semester).

**Public notice** - A public notice prior to the defense is required (see the Environmental Sciences Academic Programs office). A public defense of the thesis is required once the thesis committee has approved a final draft. **Academic office prepares defense flyers.**

**Defense** - This consists of an oral presentation on all aspects of the thesis work accomplished by the student, after which questions may be asked from members of the attending audience. This is followed by a closed session in which only the thesis committee and the student are present. Each member of the committee will ask questions related to the thesis research that must be answered to the satisfaction of the committee. **All committee members MUST be in attendance at the examination in order to vote.**

**No vote by proxy is allowed.** Since committees are approved prior to the examination, any changes in composition whether substitutions, deletions or additions must be approved in advance of the scheduled exam.

Each committee member must sign all examination report “cards” and approval sheets. In order for a student to pass the examination, there may not be more than one dissenting vote. Dissenting votes must be indicated on the approval sheets with the term “dissent” in parentheses by the signature and on the report cards by circling “F” by the signature of the dissenting committee member. Should a student fail the exam, exam cards must be submitted with a memo indicating whether another exam will be given.

**Schedule** - A complete copy of the thesis, as it is to be defended, must be given to each committee member **at least two weeks** prior to the public defense. Students should notify the Academic Coordinator and Graduate School if there have been any changes in the thesis title or defense date.

### **LSU Department of Environmental Sciences policy for existing MS students who wish to switch to the PhD program**

1. For students currently in the Environmental Sciences MS program who wish to switch to the PhD program without first defending their MS thesis, the following policy will be used:
2. Student will have to have an established master's thesis committee.
3. Student's master's thesis committee and the graduate advisor will work to ensure the student has all of the following:
  - a. Signatures and support of the major professor and all members of the thesis committee
  - b. An up-to-date and complete MS Program of Study signed and on file with the department
  - c. A new PhD Program of Study signed and on file with the department
  - d. Satisfactory annual report(s)
  - e. A completed and signed Request for Change of Department form (this is the standard form used in this scenario as there is no specific Intra-Departmental Request to Change from MS to PhD form)
  - f. A checklist ("MS to PhD Program Change Checklist") signed by all of the following: the student's major professor, all members of the student's thesis committee including any new members, the admissions committee chair, and the department chair
  - g. Letter from the department chair to the student confirming the switch from the ENVS MS program to the ENVS PhD program
  - h. An approved PhD dissertation proposal
4. For students interested in transferring from another graduate program at LSU:
  - a. Student will follow the same format as for new applicants, including the submission of a full application and evaluation by the Admissions Committee.
  - b. Student will fill out Request for Change of Department.
5. For students interested in transferring from a graduate program at another university:
  - a. Student will submit a full application; a maximum of 12 credits can be transferred.
  - b. No transferred courses can be used to count as 7000-level courses at LSU.

### **MS – Professional Option**

#### **Curriculum requirements**

The professional MS option aims to provide students with the requisite skills and knowledge to assume professional research and/or managerial positions within public, private, and non-profit organizations facing increasingly complex environmental challenges. The program is designed to

emphasize interdisciplinary team research experience and to master skills in data analysis and oral and written communication.

The following are the minimum course requirements for the professional MS degree in environmental sciences.

1. 36 credit hours beyond the bachelor degree level; at least half at the 7000 level.
2. ENVS 7700 – Integrated Environmental Issues (3 hours)
3. ENVS 7995 – Environmental Seminar (1 hour)
4. 6 hours from each of the three groups (18 hours)
5. 3 hours from priority group of choice (3 hours)
6. 5-8 hours of elective coursework, which can be additional coursework taken within or outside the department (5-8 hours)\*;
7. Three hours of research based on an internship or a team project (e.g. ENVS 7900)
8. ENVS 7997 (Environmental Practicum) – “Team Project”, Internship or research (3 hours)  
**to be completed the last semester the student is enrolled in the program**
9. Written Exit examination **to be completed the last semester the student is enrolled in the program**

Courses taken outside of the department must have the approval of the student’s advisory committee.

#### **Degree Completion Milestones:**

1. Program of Study - after selection of Advisory Committee – before end of second semester
2. Research Proposal – before end of second semester
3. External Internship next to last semester; and Research Report – last semester
4. Final Examination – last semester

#### **1. Program of Study**

You and your major professor are expected to develop a program of study **during your second semester** in the graduate program. The program of study should include a comprehensive listing of courses you expect to take during your stay in the Department of Environmental Sciences and, where practical, when you plan to take those courses. Your Advisory Committee must approve the Program of Study and the form must be submitted to the Academic Office before the end of your second semester in the graduate program. (See Forms section). If any changes are made to the original Program of Study, you must file those updates as they occur.

#### **2. Research Proposal**

The Department requires approval by your committee of a research prospectus which describes the work you intend to do. This prospectus takes many forms and can be of enormous help to you and your committee (This should be standardized – one format for all). It outlines for your committee what you want to do and why. It should show your grasp of the literature on the subject. It also should show the extent of the work you propose, with some estimate of 1) the time involved; 2) labor, logistic support, and cost; and 3) the content of the final products. Students should have an approved research prospectus submitted to the department by the end of **their second semester**. A well-developed prospectus informs the committee on your need for course work.

When your prospectus is complete, get your committee's approval. Among other things this gives you some measure of security against the vagaries of your committee. Your prospectus is a

working document and can be modified with committee approval. Your prospectus should be on file in the Academic Office.

### 3. External Internship and Research Report

At least 3 credit hours of the research internship is required in the last semester of the studies. The internship program has to be approved by the committee. Internships have to be oriented towards environmental problems within the scope of the Department of Environmental Sciences program.

During the last semester, professional MS students must successfully complete a written comprehensive exam and deliver an oral presentation of a written research report from the internship or team project, one copy of which must be turned into the Academic Office prior to graduation.

#### 4. Final Examination:

This exam is composed of the oral presentation of your internship project and a **written examination**. This examination covers both project and all course work. All students are expected to be competent in all three core areas of environmental sciences.

### Suggested sequence of courses for the MS degree

	<b>MS – Thesis</b>	<b>MS – Professional</b>
Year 1	ENVS 7700 (3 hours) ENVS 7995 (1 hour) Priority area A (3 hours) Priority area B (3 hours) Priority area C (3 hours) Chosen Priority area (3 hours) Electives (ENVS/outside) (3 hours)	ENVS 7700 (3 hours) ENVS 7995 (1 hour) Priority area A (3 hours) Priority area B (3 hours) Priority area C (3 hours) Chosen Priority area (3 hours) Electives (ENVS/outside) (3 hours)
Year 2	Priority area A (3 hours) Priority area B (3 hours) Priority area C (3 hours) Electives (ENVS/outside) (3 hours) ENVS 8000–Thesis research (6 hours) Thesis Defense	Priority area A (3 hours) Priority area B (3 hours) Priority area C (3 hours) Electives (ENVS/outside) (5 hours) ENVS 7997–Team/Research Project (3 hours- <b>last semester enrolled in</b> program) Exit Examination

## Doctor of Philosophy (PhD) in Environmental Sciences (PENVS)

The PhD curriculum in Environmental Sciences is designed so that students will acquire substantial knowledge in a primary specialization area, develop breadth in the three priority areas, and conduct original research on an important environmental topic culminating in a publishable dissertation.

Students entering with a Bachelor's Degree are required to take a total of 60 credit hours, at least half of which are at or above the 7000 level. Of the 60 hours, nine are for dissertation research (ENVS 9000). The curricular requirements for these students include:

- ENVS 7700 – Integrated Environmental Issues (3 hours)
- ENVS 7995 – Environmental Seminar (1 hour)
- Six hours from each of the three priority areas (18 hours)
- Three hours from a priority area of choice (3 hours)
- The remaining hours will be chosen in consultation with the student's major advisor

Students entering with a Master's Degree are required to take a total of 30 credit hours, at least half of which are at or above the 7000 level. Students who earned an MS from the Department of Environmental Sciences and who have already taken ENVS 7700 and ENVS 7995 will not be required or allowed to take these 2 classes again. Substituted courses equivalent (or greater) in credit hours and equivalent (or greater) in course level are to be selected by the student in cooperation with his/her dissertation committee members. Of the 30 hours, nine are for dissertation research (ENVS 9000). The curricular requirements for these students include:

- ENVS 7700 – Integrated Environmental Issues (3 hours)
- ENVS 7995 – Environmental Seminar (1 hour)
- Three hours from each of the three priority areas (9 hours)
- Three hours from a priority area of choice (3 hours)
- The remaining hours will be chosen in consultation with the student's major advisor

All PhD students will take a minimum of nine hours of graduate course work outside the Department to establish an informal minor area of study. The minor area of study will be developed in consultation with the student's advisory committee.

Students who have received an MS degree in Environmental Sciences from LSU will likely have taken the requisite ENVS courses described above. For those students, the student's advisory committee will develop an appropriate program of courses selected from courses offered by the Department of Environmental Sciences and other departments on the LSU campus or the LSU School of Public Health.

### **Degree Completion Milestones:**

1. Diagnostic/Qualifying Examination- during first semester enrolled
2. Program of Study
3. Research Prospectus
4. General Examination
5. Final Examination and dissertation defense



### **1. Diagnostic/Qualifying Examination:**

The purpose of this examination is to determine whether the student is qualified to pursue a doctoral degree in the department. The purpose of this examination will be to answer two questions.

a) Is your background sufficient to give you the tools you need? You can expect substantive questions to test your understanding of basic concepts in your field and identify weaknesses which should receive attention through coursework.

b) Regardless of your mastery of subject matter, can you devise and carry out independent research? This is a tough one to answer and may include a number of questions that seem to have no relationship to your research. The result of this exam is your Program of Study which will list the coursework you agree to take to complete the instructional/internal part of your degree.

Though this exam can include written questions, it is generally an oral exam and will most likely be in the form of a formal interview. Be ready to recommend your own outline of course work. Consult with your major professor and committee members several weeks before the examination! Prepare a listing of all courses completed for graduate credit, credit hours, grades, etc., before the exam and give it to the committee. This listing provides each committee member a basis for analyzing your background. **During the first or second semester following the student's formal admission to the doctoral program**, the advisory committee will be required to approve the internal Program of Study plan. If the student already has a master's degree, the internal Program of Study plan should be formulated **during the first semester**; if the student is bypassing the master's degree, formulation may be delayed until the second semester.

### **2. Program of Study**

You and your major professor are expected to develop a program of study **during your second semester** in the graduate program. The program of study should include a comprehensive listing of courses you expect to take during your stay in the Department of Environmental Sciences and, where practical, when you plan to take those courses. Your Advisory Committee must approve and sign the Program of Study and the form must be submitted to the Academic Office before the end of your second semester in the graduate program. (See Forms section). If any changes are made to the original Program of Study, you must file those updates as they occur.

### **3. Research Prospectus**

The Department requires approval of a research prospectus by your committee that describes the work you intend to do. This prospectus takes many forms and can be of enormous help to you and your committee. It outlines for your committee what you want to do and why. It should show your grasp of the literature on the subject. It also should show the extent of the work you propose, with some estimate of 1) the time involved; 2) labor, logistic support, and cost; and 3) the content of the final products. You should have an approved research prospectus submitted to the department by the end of **your second semester**. A well-developed prospectus informs the committee on your need for course work.

### **4. General Examination:** (usually after completion of at least 4 semesters including all required credit hours).

The examination will be written and oral and will be comprehensive enough to demonstrate expert competence over broad segments of environmental sciences and a high degree of familiarity with the content of and current progress in your minor field. In the department of Environmental Sciences, committee members are expected to include written exams before the oral portion. A written exam is required of all students, and should be scheduled prior to the orals. Be sure to provide each committee member with a listing of courses you have completed for graduate credit (major, minor and other)--department, course #, title, credit hours, grade, semester, etc.

To take the general exam, use the special form called “Request for General Doctoral Examination and Degree Audit” requesting permission from the Graduate School. The Graduate Dean will then assign a Graduate Dean’s Representative from the pool of Graduate Faculty of the University who will also serve as a voting committee member. There is a time limit for the submission of this form prior to the date scheduled for the exam. See the Graduate Calendar for details.

The report of the exam is a form prepared by the ENVS Academic Office, signed by the examining committee, and submitted to the Graduate School along with a possible "Change in Doctoral Degree Audit" form.

#### 5. **Final Doctoral Examination:**

This examination focuses on your dissertation research and can be a stimulating, even exhilarating discussion among peers, with you in the position of expert. How closely you attain this goal depends almost entirely on how well you communicate with the committee throughout your tenure as graduate student. The dissertation is emphatically your work, but it should also reflect the expertise and experience of your committee.

This final examination also requires a special form called “Request for Final Doctoral Exam” in order to request permission from the Graduate School. See the Graduate Calendar for details pertaining to submission deadlines. The ENVS Academic Office prepares official forms required for final departmental submission of the results of the Doctoral Exams.

Students, at the discretion of their committee, may be allowed to take the exam a second time (if failed the first time). However, all of the university limits on time deadlines must be met in scheduling exams, if allowed.

### **Quick Guide for PhD Examinations**

<b>Procedure</b>	<b>Time Period</b>
Prepare Departmental Level Academic Course Plan (use PhD Internal Program of Study form)	During the <u>first semester</u> after the master’s degree is awarded or during the first full year of full-time graduate study for a student not taking the master’s degree. Committee members must be selected during this time frame.
Doctoral Degree Audit Form	Must be submitted with General Exam Request
Request <b>General</b> Examination. Exam may be taken anytime the university is open for business	After completing most course work. Request for the general examination must be submitted to the Graduate School by the student’s department chair as least three weeks prior to the proposed examination date.
Request <b>Final</b> Examination. Exam may be taken anytime the university is open for business	No less than three (3) calendar months after passing the general examination. Request for the final examination must be submitted to the Graduate School by the student’s department chair at least three weeks prior to the proposed examination date and by the current semester deadline, if the student is a candidate for the doctoral degree.

## Minor in Wetland Science and Management

The Department of Environmental Sciences and the department of Oceanography and Coastal Sciences jointly offer a graduate minor in Wetland Science and Management. The minor requirement is designed to provide students with a strong background in wetland science and policy by enhancing their understanding of ecosystem processes in wetland resource management. The Minor in Wetland Science and Management is also available to students outside the two departments. If there is an external minor, one committee member must represent the minor department; in this case (OCS).

### **Course requirements for *ENVS students*:**

Students must take one course from Group A, one from Group B, and two additional courses from any group for a total of at least 12 credit hours. ENVS courses taken to meet the department's core course requirement may not be counted toward the minor.

### **Course requirements for students in other departments:**

Students must take one course each from Group A, Group B, and Group C and at least three additional elective credit hours from Groups A, B, or D for a total of at least 12 credit hours.

Group A	OCS 4308 Plants in Coastal Environment OCS 4560 Wetland Loss, Restoration, and Management <u>OCS 7129 Global Climate Change and Wetlands</u> (Just added in 2014)
Group B	OCS 4128 Wetland Hydrology and Hydrodynamics OCS 4165 Environmental Chemistry of Wetlands OCS 7165 Biogeochemistry of Wetland Soils and Sediment <u>OCS 4565 Restoration Ecology/Ecological Restoration</u>
Group C	OCS 4465 Seminar in Coastal Zone Management ENVS 4149 Design of Environmental Management Systems ENVS 7040 Environmental Planning/Management ENVS 7041 Environmental Policy Analysis ENVS 7042 Environmental Conflict Resolution ENVS 7045 Land Use Law and Regulation ENVS 7050 Spatial Modeling of Environmental Data ENVS 7061 Water Quality Management and Policy
Group D	OCS 4040 Environmental Pollution and Transport Processes OCS 4164 Deltaic Processes and Products OCS 4372 Estuarine Ecology OCS 4410 Ecosystem Modeling and Analysis OCS 7124 Applied Coastal Plant Ecology OCS 7130 Marine Isotope Biogeochemistry

In addition, all students must:

- Must include at least one 7000 level courses
- May not apply courses taken on a pass/fail basis to the minor

New or existing courses may be substituted after approval by both the student's committee and

both departments.

Degree Recognition: n/a

Thesis: Line on cover page denoting MS/PhD degree with a "Minor in Wetland Science and Management".

#### Degree Transcripts

Line denoting the completion of degree requirements for the "Minor in Wetland Science and Management".

#### Points of Contact

Mark Benfield,  
Professor and Graduate Advisor  
Department of Oceanography  
and Coastal Sciences  
Phone 225-578-6372  
[mbenfie@lsu.edu](mailto:mbenfie@lsu.edu)

Brian Snyder  
Assistant Professor and  
Graduate Advisor  
Department of Environmental  
Sciences  
225-578-4559  
[snyderb@lsu.edu](mailto:snyderb@lsu.edu)

Vince Wilson  
Professor and Online Program  
Graduate Advisor  
Department of Environmental  
Sciences  
225-578-1753  
[vwilson@lsu.edu](mailto:vwilson@lsu.edu)

# IMPORTANT GRADUATE SCHOOL REGULATIONS

## COURSE LOADS

Any graduate student who is using University facilities and/or faculty time must register for an appropriate course load. Graduate students engaged in writing or defending theses or dissertations are expected to register for research hours commensurate with the amount of University resources (faculty time, equipment, library facilities, and/or office space) to be used that semester. **There is a continuous registration requirement for doctoral students who have passed the general examination.**

### Full-time Study in Graduate School

Full-time graduate students are expected to register for at least nine semester hours of work in the fall and spring semesters and six hours in the summer term.

### Course Loads of Graduate Assistants

Graduate students holding graduate assistantship appointments must meet certain minimum registration requirements. Such students are expected to register for a full load—nine hours in the spring and fall, at least six of which must be at the graduate level, and six hours in the summer, at least three of which must be at the graduate level—each semester until all degree requirements are completed.

### Course Loads of Graduate Students Taking Examinations (Oral defense)

Students must be registered for a minimum of one to three semester hours of ENVS 8000 or ENVS 9000 credit during any semester in which they are taking the master's final examination or doctoral general examination, including the qualifying examinations required by some departments. Doctoral students who have completed the general examination should see the "Continuous Registration Requirement" section in the "Requirements for Advanced Degrees" section of the Graduate School bulletin.

### "Degree Only" Registration

Students, who have completed all degree requirements, including final examinations taken in a previous semester, may register for "degree only" and pay only the graduation fee. "Degree only" registration is only allowed for students whose theses or dissertations are submitted to The Graduate School on or before the last day to add courses for credit. Eligible students must submit an application for degree and inform The Graduate School of their intent to register for "degree only." Professional MS students may also register "degree only," provided all degree requirements are met in a previous semester.

### Registration of Candidates for Degrees

Students expecting to receive their degrees in the current semester must be registered for course work or research hours unless they qualify to be registered "degree only" (see "'Degree Only' Registration"). Eligible students must submit an "Application for Degree" by the published deadline ([https://www.lsu.edu/graduateschool/currentstudents/enrolled\\_student\\_forms.php](https://www.lsu.edu/graduateschool/currentstudents/enrolled_student_forms.php)).

## Deadlines

Each semester the Graduate School sets deadlines for the submission of forms to authorize dates for thesis, non-thesis, and dissertation defenses and general examinations for PhD students and to apply for graduation. **The Academic Office will notify students of these and other important dates, but it is your responsibility to meet them.** Forms are available from Ms. St. Romain in the Academic Office and must be typed. Copies of all forms submitted to the Graduate School must be given to the department's Academic Office for your file. It is in your best interest to work with Ms. St. Romain. She can ensure that forms are correctly completed and provided to the correct people in the Graduate School.

## GRADUATION

Your goal for the journey you are starting is to successfully complete the requirements listed above and graduate with a Master of Science or Doctor of Philosophy degree. As in other steps along the way, there are deadlines and forms to fill out and submit to the Graduate School. **Near the end of the semester before the semester you expect or hope to graduate, you should check with the Academic Coordinator to pick up a packet with important information about the process and a list of deadlines.**

## USEFUL INFORMATION

**ENVS Graduate school contact: (gradofficer2@lsu.edu)**

### **ENVS/ DOCS Computer Lab:**

As a Department of Environmental Sciences student, you are allowed access to the computer lab in room 1280 in the ECE Building. Your LSU student ID is your passkey to allow you access to the room. You must allow the Academic Coordinator to photocopy your LSU ID so that she can have you added to the access list.

### **Bulletin Boards:**

The "Bulletin Boards" located in the hallways on floors one and two of the Energy, Coast and Environment Building should be checked periodically for events and activities within the Department as well as around campus. These bulletin boards contain information such as important deadlines, job opportunities, conferences, campus events, and financial aid opportunities.

### **CEGO:**

The Coastal Environmental Graduate Organization (CEGO) is the student organization that provides for the interaction of graduate students in the Environmental Sciences and Oceanography and Coastal Sciences. CEGO works to improve both the academic and social experience for all SC&E graduate students. Membership and active participation in CEGO is strongly encouraged. If you are interested in becoming a member, contact Vince Wilson, faculty sponsor.

### **EnvironMentors:**

EnvironMentors is a science and environmental science-based mentoring program, which works to support and strengthen high school student success in science and environmental fields. A select group of students from Scotlandville Magnet High School will work one-on-one with a mentor to develop and conduct an environmental research project over the course of the academic year. Mentors guide their student through all stages of the scientific method including posing a question, completing background research, designing and conducting an experiment, and presenting the

Findings at the EnvironMentors Science Fair. Contact Dr. Malinda Sutor (msutor1@lsu.edu) to get involved.

### **Graduate Student Association:**

The Graduate Student Association of LSU is a campus wide organization of graduate students that serves to voice graduate student concerns and work collectively towards improving the quality of graduate student life at LSU. Watch the "Bulletin Board" for date and time of meetings. Contact the Graduate Student Association of LSU for further information: 136 Coates Hall, 578-6862.

### **Health Center:**

All full-time students have free access to the Student Health Center, having paid for the service in their fee bill. The Health Center is staffed and equipped for treating minor illnesses and minor accidents. Facilities include an out-patient medical clinic, a pharmacy, a laboratory, and an x-ray department.

### **Keys:**

If a student is locked out of her/his office after Departmental Office hours, Campus Police should be called at 578-3231. Please be certain that all office and laboratory doors are locked when not in use, and that the outside doors are securely locked on entering and leaving outside of normal building hours. **Do not leave valuables unattended in offices or labs, and especially in the library or in plain sight in a car.**

### **Photocopies:**

If your major professor asks you to make photocopies you may do so on the photocopier in Room 1273 Energy, Coast and Environment Building (using the appropriate code given to you by your professor). Personal copies may be made at Middleton Library or Coates Hall or the Union Copy Shop.

### **Recycling:**

The University recycles aluminum cans, plastic bottles, white paper, newspaper, magazines, post-it notes and a long list of other types of paper. There are recycling bins throughout the building for aluminum cans, plastic bottles, and paper products. Paper is picked up for recycling every day by the custodial staff.

### **Field Trips and Conference Travel:**

Are you planning a field trip for data collection? Care to attend any conferences? Then you should know about travel approval and reimbursement. The first thing you need to do is fill out an Authorization to Travel form through Workday (<https://www.myworkday.com/lsu/d/home.html>). If your major professor has funds to cover some or all of your travel expenses, the university will reimburse allowed expenses. If you are presenting at a conference, you may request additional funds from the Graduate School (up to \$250). You must submit to the Graduate School a copy of the Authorization to Travel form, a memo through your major professor indicating his approval, the budget code from which the travel will be paid, and proof that you will be presenting a paper or poster. In addition, if you submit a copy to the department, it is possible that you may be approved for additional funds.

### **Code of Student Conduct**

Like most universities, LSU has a document that establishes standards for academic and personal conduct, for membership and continued membership in the University community, to deny membership to those applicants who do not meet these standards, and to impose sanctions on students who are found in violation of these standards. This document is the Code of Student Conduct (<https://www.lsu.edu/saa/students/codeofconduct.php>). The code describes the rights and

responsibilities of students as members of the University community. You should become familiar with the code, especially the section on Academic Misconduct.

**Safety:**

The LSU campus is a relatively safe area, but you should be aware of your surroundings at all times. Students should not walk by themselves at night. Any person on campus who needs a ride at night can call the Campus Transit System at 578-5555. The service is free, but it is limited to the LSU campus only. For tips on personal safety go to <https://www.lsu.edu/police/>

**If You See Something, Say Something!**

If you see something suspicious, tell someone! The safety of all members of the LSU community is of utmost importance to us, and for that reason we are asking everyone to come together and look out for each other.

**CAMPUS POLICE: 578-3231**

**OFF CAMPUS POLICE/EMERGENCY: 911; on campus, dial 911**

If you witness any suspicious behavior, we ask that you report it immediately to a supervisor, a University official, or the LSU Police Department at 225-578-3231. We also recommend that you program this number into your mobile phone for easy access in case of an emergency.

**Final Notes**

All Graduate School forms are available on-line at <http://gradlsu.gs.lsu.edu>. Look to the left under Enrolled Student Forms.

Any form or document that is submitted to the Graduate School should be checked by the Academic Coordinator and a copy placed in your folder in the Academic Office. The Academic Coordinator can catch errors that could result in your form being rejected by the Graduate School and a deadline being missed.

Graduate students must assume full responsibility for knowledge of Graduate School policies and departmental requirements concerning their individual degree programs. The department will notify you of any changes in Graduate School or ENVs regulations and deadlines, but it is your responsibility to keep current regarding any changes made during the course of your program.



## ENVIRONMENTAL SCIENCES FACULTY

**KEVIN L. ARMBRUST, Ph.D.**, University of California, Davis (Agricultural and Environmental Chemistry) 1992: Professor and Claiborne Chair. **Research Interests:** Transport of pesticides and pollutants in soil and water; influence of sunlight on chemical degradation in soil and water; environmental processes (biotic and abiotic) influencing chemical degradation; environmental impact of pesticides, pharmaceuticals and other chemical contaminants; risk assessment; regulatory policy and regulation of chemical contaminants in food, soil, water, air and biota; analysis of chemicals in environmental media.  
(225) 578-4281 [armbrust@lsu.edu](mailto:armbrust@lsu.edu) Office 1259

**CHRISTOPHER F. D'ELIA, Ph.D.**, The University of Georgia (Zoology) 1974: Professor and Dean of the School of the Coast and Environment. **Research Interests:** Nutrient dynamics in aquatic systems; estuarine ecology; coral reef ecology; algal/invertebrate symbiosis; science policy; math and science education; marine pollution; global climate change; analytical chemistry; energy policy. (225) 578-8574 [cdelia@lsu.edu](mailto:cdelia@lsu.edu)

**REBECCA De JESUS CRESPO, Ph.D.**, University of Georgia (Integrative Conservation and Ecology), 2015: Assistant Professor. **Research Interests:** Environmental conservation in human dominated landscapes, particularly linking ecosystem services to human health, environmental hazard mitigation, watershed management and the effectiveness of sustainability certification programs.  
(225) 578-4293 [rdejesuscrespo1@lsu.edu](mailto:rdejesuscrespo1@lsu.edu) Office 1263

**DENISE E. DELORME, Ph.D.**, University of Georgia (Advertising) 1995: Professor. **Research Interests:** Qualitative social science research methods, especially focus groups and in-depth interviews; stakeholder analysis and engagement; strategic environmental communication; health communication, including pharmaceutical and dietary supplement advertising.  
(225) 578-8832 [ddelorme@lsu.edu](mailto:ddelorme@lsu.edu) Office 3181

**DAVID E. DISMUKES, Ph.D.**, Florida State University (Economics) 1995: Professor. **Research interests:** Economics, statistical, and public policy issues related to energy and the environment.  
(225) 578-4343 [dismukes@lsu.edu](mailto:dismukes@lsu.edu) Office 1069

**THOMAS H. DOUTHAT, J.D., Ph.D.** Georgia Institute of Technology (City and Regional Planning) 2017, University of Puerto Rico (Law) 2008. Assistant Professor. **Research Interests:** planning, land use change, sustainable transportation, transit, space and policy, economic geography, economic development, environmental governance, environmental policy, hazards, environmental law, law and planning, geographic information systems, social network analysis.  
**Phone:** (225) 578-4304 [tdouthat1@lsu.edu](mailto:tdouthat1@lsu.edu) Office 2111

**LINDA HOOPER-BUI, Ph.D.**, University of California, Riverside (Entomology) 1998. Professor. **Research interests:** Ecology of ants and other insects and spiders in wetlands. Effect of stress, disturbance, and natural and technological disasters on ecosystem processes and food webs. Effect of sea-level rise and climate change on coastal food webs and ecosystem processes that involve terrestrial invertebrates.  
(225) 578-6805 [lindabui@lsu.edu](mailto:lindabui@lsu.edu) Office 1249

**AIXIN HOU, Ph.D.**, Chinese Academy of Sciences (Microbial Ecology) 1997: Professor. **Research Interests:** Microbial ecology of natural systems, especially microbial communities, processes and controlling factors of carbon and nitrogen cycling; heavy metals toxicology in aquatic environments; microbial ecology of extreme environments.  
(225) 578-4294 [ahou@lsu.edu](mailto:ahou@lsu.edu) Office 1255

**CRYSTAL N. JOHNSON, Ph.D.**, The University of Alabama at Birmingham (Microbiology) 2004: Associate Professor. **Research Interests:** Environmental microbiology; microbial ecology, molecular phylogenetics, bacterial pathogenesis, type III secretion systems.  
(225) 578-9422 [cnjohnson@lsu.edu](mailto:cnjohnson@lsu.edu) Office 2283

**YONG-HA KIM, Ph.D.**, Georgia Tech (Environmental Engineering) 2016: **Research Interests:** Health Physics & Radioactivity Transport - Fundamentals of colloid and surface science as applied to environmental situations, such as short and long-range transport of aerosols containing radionuclides for the predictive modeling and subsequent reduction in uncertainty in the assessment of environmental and health risks from exposure to radioactive isotopes.  
(225) 578-4295 [yonghakim1@lsu.edu](mailto:yonghakim1@lsu.edu) Office 1261

**NINA LAM, Ph.D.**, University of Western Ontario (Geography) 1980: Professor. **Research interests:** Geographic information science, remote sensing, spatial analysis, environmental and public health; especially spatial interpolation, fractals, HIV/AIDS diffusion, data mining of cancer mortality patterns, decision making in post-catastrophe uncertainty, and environmental assessment and change detection via remote sensing.  
(225) 578-6197 [nlam@lsu.edu](mailto:nlam@lsu.edu) Office 2275

**EDWARD LAWS, Ph.D.**, Harvard University (Chemical Physics) 1972: Professor. **Research Interests:** Phytoplankton ecology, water pollution, oceans and human health  
(225) 578-8800 [edlaws@lsu.edu](mailto:edlaws@lsu.edu) Office 3141

**SLAWO LOMNICKI, Ph.D.**, A. Mickiewicz University, Poland (Physical Chemistry) 1997: Assistant Professor. Research interests: Ambient air particulates, combustion borne pollutants, environmental fate of the pollutants, health effects of particulate matter, thermal treatment of wastes, catalysis, interactions on metal oxide-gas and metal oxide-liquid interface.  
(225) 578-8147 [slomni1@lsu.edu](mailto:slomni1@lsu.edu) Office 1251

**MARGARET A. REAMS, Ph.D.**, University of Georgia (Political Science/ Environmental Policy Analysis) 1990: Professor. **Research interests:** Evaluation of environmental policies; policy analysis and implementation; and environmental equity.  
(225) 578-4299 [mreams@lsu.edu](mailto:mreams@lsu.edu) Office 2115

**BRIAN SNYDER, Ph.D.**, University of Georgia (Ecology) 2013: Assistant Professor. **Research interests:** Renewable energy systems, climate policy, energy flow through human systems  
(225) 578-4559 [snyderb@lsu.edu](mailto:snyderb@lsu.edu) Office 1109

**VINCENT L. WILSON, Ph.D.**, Oregon State University (Pharmacology and Toxicology) 1980: Professor and Director of CES undergraduate program. **Research interests:** Genetic toxicology with emphasis in mechanisms of mutagenesis and carcinogenesis; and molecular genetics of environmental exposures and human disease.  
(225) 578-1753 [monster77@aol.com](mailto:monster77@aol.com) Office 1253

### **Emeritus and Retired Faculty**

**MARTIN E. HUGH-JONES, Ph.D., Fellow Royal College of Veterinary Surgeons.** Cambridge University: (1997) Professor Emeritus. **Research Interests:** Veterinary epidemiologist; noted global authority on anthrax; moderator for ProMEDmail.org, a global watch for emerging infectious diseases of humans, animals, & food plants with some 87,000 members in 182 countries; presently researching Parkinson's disease in Louisiana. (225) 578-5599

[mhughj1@lsu.edu](mailto:mhughj1@lsu.edu)

Office 2279

**EDWARD B. OVERTON, Ph.D.,** University of Alabama (Chemistry) 1970: Professor Emeritus. **Research interests:** Development of field deployable analytical instrumentation; development of ultra-fast and small GC instruments and applications; technology transfer and commercialization; evaluation and interpretation of analytical, chemical, physical and toxicological data; and evaluation of data from chemical spills and remediation recommendations. (225) 578-8634

[ebovert@lsu.edu](mailto:ebovert@lsu.edu)

Office 1265

**RALPH J. PORTIER, Ph.D.,** Louisiana State University (Oceanography and Coastal Sciences) 1982: Professor Emeritus. **Research interests:** Fate and effect of carcinogens in fresh water and marine environments; bioremediation; genetic engineering of marine microorganisms; and design of immobilized microbe bioreactors. (225) 578-4287

[rportie@lsu.edu](mailto:rportie@lsu.edu)

Office 1165

## **CURRENT COURSES OFFERED BY ENVIRONMENTAL SCIENCES**

**1000 ENVIRONMENT AND TECHNOLOGY: PERSPECTIVE ON ENVIRONMENTAL PROBLEMS (3)** *Also offered as EMS 1011.* Environmental quality problems involving water, air and land; analysis of the interrelationships and nature of ecological stresses.

### **1010 INTRODUCTION TO COASTAL ENVIRONMENTAL SCIENCE (1)**

Global views of coastal issues with a focus on the Gulf of Mexico and deltaic areas around the world.

### **1051 SOILS AND THE ENVIRONMENT (3)**

Complexity and diversity of the earth's land surface; soils and land use management, reclamation of mismanaged soils, and use of recyclable waste materials as soil amendments.

### **1126 INTRODUCTION TO ENVIRONMENTAL SCIENCES (3)**

Essential principles of environmental sciences; comprehensive and fundamental understanding of sound science, stewardship, and sustainability in environmental sciences; interactions and relations between humans and earth; an up-to-date look at today's global, national, and regional environmental issues.

### **1127 HONORS: INTRODUCTION TO ENVIRONMENTAL SCIENCES (3)**

*This is a General Education course. Similar to ENVS 1126 with special honors emphasis for qualified students*

### **2126 ENVIRONMENTAL AND ANTHROPOGENIC IMPACTS OF MICROBES (3)**

*Prereq: ENVS 1126 or ENVS 1127, or equivalent.* Application of basic principles of environmental science to the fundamental understanding of the relationship of microbes with the environment and humans with emphasis on the impacts and importance of microbial communities; introduction to cutting edge research through peer-reviewed literature; critique, formulation, and testing of hypotheses.

### **3102 MATHEMATICAL METHODS IN SCIENCE (3)**

*Prereq: MATH 1550, 1552, and EXST 2201 or equivalent.* Introduction to numerical methods, data analysis, error propagation, box models, linear and nonlinear least squares, perturbation theory, numerical integration.

### **3999 UNDERGRADUATE RESEARCH (1-4)**

*Grade: F, S, or Su. Prereq.: Permission of instructor. May be taken for a max of 4 hrs. of credit.* Individual study of a specific environmental problem or individual laboratory research.

### **4004 ENVIRONMENTAL CAMPAIGNS (3)**

Application of social marketing and strategic communication campaign planning to address environmental issues.

**4007 CANCER: A FAMILY OF ENVIRONMENTAL DISEASES (3)** **Prereq: ENVS 4477 BIOL 2153, BIOL 4087 or BIOL 4160, or consent of instructor.** Introduction and characterization of the basic components of cancer including causes and molecular disease processes, environmental and genetic etiological factors, biomarkers and therapeutic approaches.

### **4010 APPLIED ECOLOGY (3)**

*Prereq.: minimum of 10 sem. hrs. of biological and/or physical science. Also offered as EMS 4010.* The biosphere; air, land, and aquatic environments; development of alternative techniques for correcting environmental pollution; environmental risk assessment analysis and management.

**4015 PHYSICAL CLIMATOLOGY (3)**

Prereq.: GEOG 4013 or GEOG 4014 or equivalent and MATH 1552 or equivalent. May be taken for elective geology credit. Exchanges of radiation, energy, matter and momentum between the earth's surface and the atmosphere that produce characteristic environmental conditions near the ground important to both rural and urban land uses.

**4035 AQUATIC POLLUTION (3)**

Prereq.: ENVS 1126 or OCS 1005 or OCS 1006; or OCS 2008 and 2009 or equivalent. Credit will not be given for this course and ENVS 4036. Interdisciplinary study of the interaction between man and the aquatic environment and human impacts on marine and freshwater biological systems; biological, ecological, social, legal, and managerial aspects of water pollution are examined through a series of case studies.

**4036 HONORS: AQUATIC POLLUTION (3)**

Prereq.: ENVS 1126 or OCS 1005 or OCS 1006; or OCS 2008 and 2009 or equivalent. Same as ENVS 4035 with special honors emphasis.

**4045 AIR POLLUTION AND SOCIETY (3)**

Foundations of the science of air pollution. Fundamentals of sources, measurements, standards and societal impacts of air pollution.

**4101 ENVIRONMENTAL CHEMISTRY (3)**

Prereq.: One course each in quantitative analysis and organic chemistry. Also offered as CHEM 4150. Air and water environmental pollution.

**4102 ENVIRONMENTAL FATE OF POLLUTANTS (3)****4145 REMOTE SENSING FUNDAMENTALS FOR ENVIRONMENTAL SCIENTISTS (3)**

Basic principles and concepts in remote sensing and its applications to environmental sciences. Emphasis is placed on remote sensing instrumentation and the acquisition of remote sensing data.

**4149 DESIGN OF ENVIRONMENTAL MANAGEMENT SYSTEMS (3)**

Environmental systems planning at local, national, and international levels; identification of system requirements and available resources; definition of constraints, establishment of evaluation criteria; evaluation of alternative concepts and plans for subsystems; implementation using qualitative tradeoffs, mathematical models, and computer simulations.

**4261 ENERGY AND THE ENVIRONMENT (3)**

Methods of stationary power generation; pollution related to fuel production, transportation, and use; energy use and pollution problems related to transportation; energy resources, regulatory aspects, and control technology related to stationary and moving sources of air pollution.

**4262 ENVIRONMENTAL HAZARDS ANALYSIS (3)**

Systematic framework for examining the nature and consequences of natural and man-made hazards; strategies that may be taken to plan, respond, recover, prevent, or mitigate hazards.

**4264 REGULATION OF ENVIRONMENTAL HAZARDS (3)**

Federal, state, and local regulation for mitigating the occurrence and effects of hazardous events, including the National Flood Insurance Act; Emergency Planning and Community Right to Know Act, and government planning and zoning authority.

**4266 OCEAN POLICY (3)** National and state ocean policy; Law of the Sea; regulation of the high seas; marine pollution, marine resources and marine scientific research. Other related topics.

**4268 ENVIRONMENTAL AND NATURAL RESOURCE POLICY (3)**

Environmental and natural resources policy across scales. The course emphasizes environmental policy-making through land use law at the local level, federal regulations of natural resources at the national level, and environmental treaties at the international level.

**4477 ENVIRONMENTAL TOXICOLOGY: INTRODUCTION AND APPLICATIONS (3)**

*Prereq.: 6 hrs. of chemistry, 6 hrs. of life sciences, and permission of instructor.* Introduction to the basic principles of environmental toxicology; applications of these principles in industrial and other job related environments; regulatory perspectives; spills, anthropogenic pollution problems; human risk management; overview of classes of toxic agents, routes of exposure, target tissues (human mammalian), and toxicological testing.

**4500 HEALTH EFFECTS OF ENVIRONMENTAL POLLUTANTS (3)**

*Prereq.: Minimum of 6 sem. hours of chemistry and 6 sem. hours of either biology or zoology.* Effects of environmental pollutants on human health and quality of life.

**4600 GLOBAL ENVIRONMENTAL CHANGE: PAST, PRESENT, & FUTURE (3)**

*Also offered as OCS 4600.* Patterns and processes of global climate changes during the Quaternary and their links to the biosphere, cryosphere, and ocean; proxies and archives; climate forcing and biotic responses; current warming and future impacts; human ecology of climate change; energy supply and human health; sustainability and policy.

**4900 - WATERSHED HYDROLOGY (3)**

*Prereq.: An introductory statistics course. 1 1/2 hrs. lecture; 1 1/2 hrs. lab. Also offered as RNR 4900.*

The principles of hydrology with emphasis on how natural systems are analyzed, modeled, and used in management decisions; laboratory exercises involve hands-on experience with hydrologic data analysis, use of geographic information systems (GIS), and spatial modeling.

**4950 SPECIAL TOPICS IN ENVIRONMENTAL SCIENCES (1-3)**

*Prereq.: permission of the department. May be taken for a maximum of 6 hours of credit. More than one section may be taken for credit concurrently when topics differ.* Special topics in environmental issues, problems, techniques, and/or methods.

**4999 CAPSTONE IN COASTAL ENVIRONMENTAL SCIENCE (1)**

*Also offered as OCS 4999. Prereq.: Senior standing as a declared Coastal Environmental Science Major and consent of instructor. May be taken for a maximum of 2 hours of credit, but only one hour will count towards the Coastal Environmental Science BS degree. Required of all students in the Coastal Environmental Science BS degree program.* Written paper, poster and oral presentation of an analysis of a chosen environmental issue as selected by the student and the instructor.

**7007 QUALITATIVE RESEARCH METHODS FOR ENVIRONMENTAL DECISION MAKING (3)**

Application of qualitative methods in social science research to complex environmental issues; qualitative study design, data collection, analyses, and interpretation.

**7010 MATHEMATICAL MODELING IN ENERGY AND ENVIRONMENTAL MANAGEMENT (3) Grade: S**

*Prereq.: OCS 4410 or equivalent.* Advanced studies in the development of models of energy and environmental systems.

**7040 ENVIRONMENTAL PLANNING AND MANAGEMENT (3)**

*Prereq.: ENVS 4149.* Environmental systems planning and management at local, state, and federal government levels using problem identification; design of alternative solutions, evaluation of alternatives, political action decision processes, and implementation and monitoring.

**7041 ENVIRONMENTAL POLICY ANALYSIS (3)**

*Prereq.: EXST 7003 or 7004 or 7005; ENVS 7040 .* Management-oriented approach to major phases of environmental policy; formulation, implementation, evaluation; theoretical bases and analytical techniques.

**7042 ENVIRONMENTAL CONFLICT RESOLUTION (3)**

Practical approaches and techniques commonly used to mediate environmental conflicts and facilitate participatory group decision making among stakeholders.

**7043 ENVIRONMENTAL LAW AND REGULATION (3)**

Introduction to basic principles of federal and state laws, regulations, and court decisions involving pollution of the environment, including the National Environmental Policy Act, Clean Water Act, Clean Air Act, Resource Conservation and Recovery Act, Oil Pollution Act; current topical legal developments.

**7044 REGULATION OF TOXIC SUBSTANCES (3)**

Federal laws, regulations, judicial decisions, and policies regarding the development, production, use and disposal of toxic substances, including the Toxic Substances Control Act, Federal Insecticide, Rodenticide, and Fungicide Act, and the Food, Drug, and Cosmetic Act; toxic tort lawsuits will be reviewed.

**7046 INTERNATIONAL ENVIRONMENTAL LAW (3)**

International and multilateral agreements and practices for controlling pollution and depletion of natural resources; relationship between international trade agreements and environmental quality; other international environmental issues.

**7047 ENVIRONMENTAL ECONOMICS AND POLICY (3)**

*Grade: S Prereq.: ECON 4720 or equivalent or consent of instructor.*

Economic concepts applied to the development of appropriate policies to achieve environmental protection goals; emphasis given to linkages between economics and the environment, the role of market failure, and economic instruments that can be used to address environmental concerns.

**7048 NATURAL RESOURCES LAW AND POLICY (3)**

Legal frameworks and resultant policy debates surrounding natural resources management. Mechanisms by which law and policy facilitate resource management in the U.S. and worldwide. Assessment of the science supporting such management.

**7050 SPATIAL MODELING OF ENVIRONMENTAL DATA (3)**

*Prereq.: EXST 7003 or 7004 or 7005.* Development of an approach to analyze spatial and temporal processes for environmental data modeling.

**7061 WATER QUALITY MANAGEMENT AND POLICY (3)**

*Also offered as RNR 7061.* Physical, chemical, and biological characteristics of surface water in natural systems; sources and effects of water pollutants; water quality standards and criteria; approaches to water quality management; total maximum daily loads; federal water quality regulations; watershed approach and application of mathematical models to water quality management.

**7112 CONCEPTS IN MARINE ECOTOXICOLOGY (3)** *Prereq.: ENVS 7100 and 7110 or permission of instructor. Also offered as OCS 7112.* Marine pollution and toxicology of industrial and non-point sources materials related to ecological risk assessment in coastal and marine areas; biological processes and wastes in the ocean; physicochemical processes and wastes in the ocean; laboratory and field technique in epibiotic, endobiotic and fecal-sediment habitats; benthic habitats and metals/chemical specification/geoavailability; fish as a biological model; microcosm theory and design for littoral and neritic habitats; approaches to ecological risk assessment in marine habitats.

**7151 WATERSHED HYDROLOGY AND FLOODPLAIN ANALYSIS (3)**

*See RNR 7151.*

**7623 TOXICOLOGY I (3)**

*See VPT 7623. Prereq: One year organic chemistry, BIOL 4087 or equivalent; mammalian physiology recommended. Also offered as VPT 7623.* Fundamental principles of toxicology, dose response relationship, design and conduct of acute and chronic toxicity tests, basic analytical toxicology, biochemical markers, basic principles of hazard evaluation and risk assessment, industrial toxicology, principles of toxicology applied to the environment and ecosystems.

**7626 TOXICOLOGY IV: GENETIC TOXICOLOGY (3)**

Evaluation of induced heritable and/or phenotypic changes in the organism and individual cell; emphasize on human and mammalian species; reproductive toxicology and teratogenesis; testing and screening agents for genotoxic activities; molecular genetic approaches to human and environmental biomonitoring.

**7700 INTEGRATED ENVIRONMENTAL ISSUES (3)**

Multidisciplinary analysis of current environmental issue. Discussion of topics from the perspective of natural science, economics, social science, and political science. Integration and Syntheses of information to develop a science-based approach to environmental decision-making.

**7900 SPECIAL PROBLEMS IN ENVIRONMENTAL SCIENCES (1-4)**

*May be taken for a max. of 4 hrs. credit.* Individual study of a specific environmental problem.

**7950 SPECIAL TOPICS IN ENVIRONMENTAL SCIENCES (1-6)**

*May be repeated for a maximum of 6 hours credit.* Research and methodological review of current topics.

**7995 ENVIRONMENTAL SEMINAR (1)**

Reports and discussions of student/faculty activities in environmental sciences.

**7997 ENVIRONMENTAL PRACTICUM (1-6)** Prereq: Graduate standing in Environmental Sciences and consent of the instructor. Required of all students in the ENVS Professional Option program. Open to students accepted by an approved internship program, or accepted for an approved team research project. May be taken for a maximum of 12 credit hours, but no more than 3 hours may count toward the student's degree.

**8000 THESIS RESEARCH (1-12 per semester)** "S" or "U" grading.

**9000 DISSERTATION RESEARCH (1-12 per semester)** "S" or "U" grading



## LSU CALENDAR 2020-2021

### FALL SEMESTER 2020

#### AUGUST

17-18	Mon-Tues	International Student Orientation
19	Wed	New Graduate Student Orientation
24	Mon	Classes Begin, 7:30 a.m.

#### SEPTEMBER

1	Tues	Final date for dropping courses without receiving a grade of "W," 4:30 p.m., deadline
2	Wed	Final date for adding courses for credit and making section changes, 4:30 p.m., deadline
2	Wed	Final date to petition deans' offices to invoke the Grade Exclusion Policy, 4:30p.m., deadline
7	Mon	Labor Day Holiday begins, 7:30 a.m.
8	Tue	Classes resume, 7:30 a.m.

#### OCTOBER

25	Sun	Course scheduling for spring semester, Spring Intersession and summer term begins, 5:00 p.m.
28	Wed	Thesis and Dissertation Uploading deadline, 4:30p.m., deadline
28	Wed	Dissertation Title deadline

#### NOVEMBER

6	Fri	Final date for dropping courses, 4:30 p.m., deadline
6	Fri	Final date for resigning from the University, 4:30 p.m., deadline
18	Fri	Final Resolution of Editor's Requested Corrections to Theses and Dissertation, 4:30p.m., deadline
18	Fri	Final day to submit defense reports for non-thesis students, 4:30p.m., deadline
25	Wed	Thanksgiving Holiday begins, 12:30 p.m.
30	Mon	Classes resume, 7:30a.m., all remaining class meetings & final exams will be held online

#### DECEMBER

5	Sat	Classes end, 10:00 p.m.
7-12	M-Sat	Final examinations
15	Tue	Final grades due (degree candidate), 9:00 a.m., deadline
16	Wed	Final grades due (non-degree candidate), 9:00 a.m., deadline
20	Fri	Commencement Day

## **IMPORTANT REQUIRED FORMS**

Department of Environmental Sciences Committee Form

Program of Study for the MS Degree-Thesis Option

Program of Study for the MS Degree-Professional Option

Programs of Study for the PhD program

Graduate Student Annual Report

Graduate Assistant Annual Review Form

## Department of Environmental Sciences Committee Form

**Due: April 22, 2021**

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

**Degree Program:** \_\_\_\_\_

**Major Professor:** \_\_\_\_\_

### **Committee Members:**

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

**Concentration in Wetland Science:**    Yes    No    (circle one)

---

**ENVS Admissions Committee Chair**

**Department of Environmental Sciences**  
**Program of Study for the MS Degree 2020-2021**  
**Thesis Track**

Name \_\_\_\_\_

Priority Group \_\_\_\_\_

Advisory Panel:

Committee Members

Typed Names

Signatures


**REQUIRED COURSES (4 credits + 6 thesis + 18 priority + 3 additional priority = 31)**

COURSE NO.	CREDITS	SEM. ENROLLED	GRADE
ENVS 7700	3		
ENVS 7995	1		
ENVS 8000	6		
<b>A. Biophysical Systems</b>			
ENVS	3		
ENVS	3		
<b>B. Env Planning &amp; Management</b>			
ENVS	3		
ENVS	3		
<b>C. Env Assessment &amp; Analysis</b>			
ENVS	3		
ENVS	3		
<b>D. Additional Priority Course</b>			
	3		

**APPROVED ELECTIVES (Environmental Sciences or Outside department) (5 credits)**

COURSE NO.	CREDITS	SEM. ENROLLED	GRADE

All pre-requisite classes met by end of second semester?    Y   N

**Total Credits** \_\_\_\_\_

Proposed Thesis Title \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
 (Signature of Student)

\_\_\_\_\_  
 (Date)

\_\_\_\_\_  
 (Signature of Department Chair)

\_\_\_\_\_  
 (Date)

**Department of Environmental Sciences**  
**Program of Study for the MS Degree 2020-2021**  
**Professional Track**

Name \_\_\_\_\_

Priority Group \_\_\_\_\_

Advisory Panel:

Committee Members

Typed Names

Signatures

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

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

**REQUIRED COURSES (4 credits + 3 "project" + 18 priority + 3 additional priority=28)**

COURSE NO.	CREDITS	SEM. ENROLLED	GRADE
ENVS 7700	3		
ENVS 7995	1		
ENVS 7997	3		
<b>A. Biophysical Systems</b>			
ENVS	3		
ENVS	3		
<b>B. Env Planning &amp; Management</b>			
ENVS	3		
ENVS	3		
<b>C. Env Assessment &amp; Analysis</b>			
ENVS	3		
ENVS	3		
<b>D. Additional Priority Course</b>			
	3		

**APPROVED ELECTIVES (Environmental Sciences or Outside department) (8 credits)**

COURSE NO.	CREDITS	SEM. ENROLLED	GRADE

All pre-requisite classes met by end of second semester?    Y   N

**Total Credits** \_\_\_\_\_

Proposed Project Title \_\_\_\_\_  
 \_\_\_\_\_

\_\_\_\_\_  
 (Signature of Student)

\_\_\_\_\_  
 (Date)

\_\_\_\_\_  
 (Signature of Department Chair)

\_\_\_\_\_  
 (Date)

**Department of Environmental Sciences**  
**Program of Study for Doctor of Philosophy 2020-2021**  
**{Entering with BS or BA degree}**

Name \_\_\_\_\_

\_\_\_\_\_ **Priority Group**

Advisory Committee

Typed Names

Signatures

Major Professor:

\_\_\_\_\_

\_\_\_\_\_

Minor Professor:

\_\_\_\_\_

\_\_\_\_\_

Committee Members:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

***REQUIRED COURSES (4 credits + 9 dissertation + 18 priority + 3 additional priority + 26 additional approved credits = 60)***

COURSE NO.	CREDITS	SEM. ENROLLED	GRADE
ENVS 7700	3		
ENVS 7995	1		
ENVS 9000	9		
<b>A. Biophysical Systems</b>			
<b>B. Env Planning &amp; Management</b>			
<b>C. Env Assessment &amp; Analysis</b>			
<b>D. Additional Priority Course</b>			

***APPROVED CREDITS (ENVS or outside department, including 9 minor credits) (26 credits)***

MINOR COURSE NO.	CREDITS	SEM. ENROLLED	GRADE
APPROVED ELECT. COURSE NO.	CREDITS	SEM. ENROLLED	GRADE

All pre-requisite classes met by end of second semester? Y N

Total Credits \_\_\_\_\_

Dissertation Title \_\_\_\_\_

\_\_\_\_\_  
 (Signature of Student)

\_\_\_\_\_  
 (Date)

\_\_\_\_\_  
 (Signature of Department Chair)

\_\_\_\_\_  
 (Date)

**Department of Environmental Sciences**  
**Program of Study for Doctor of Philosophy 2020-2021**  
**{Entering with MS degree}**

Name \_\_\_\_\_

Priority Group \_\_\_\_\_

**\*If entering with MS degree, check off courses taken and semester completed**

Advisory Committee

Typed Names

Signatures

Major Professor:

\_\_\_\_\_

\_\_\_\_\_

Minor Professor:

\_\_\_\_\_

\_\_\_\_\_

Committee Members:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**REQUIRED COURSES (4 credits + 9 dissertation + 9 priority + 3 additional priority + variable additional approved credits = \_\_\_\_ total)**

COURSE NO.	CREDITS	SEM. ENROLLED	GRADE
ENVS 7700*	3		
ENVS 7995*	1		
ENVS 9000	9		
<b>A. Biophysical Systems</b>			
<b>B. Env Planning &amp; Management</b>			
<b>C. Env Assessment &amp; Analysis</b>			
<b>D. Additional Priority Course</b>			

**\*Or equivalent, if these courses were already taken while completing of MS degree from LSU**

**Department of Environmental Sciences**

**APPROVED CREDITS (ENVS or outside department, including 9 minor credits) (variable credits)**

MINOR COURSE NO.	CREDITS	SEM. ENROLLED	GRADE
APPROVED ELECT. COURSE NO.	CREDITS	SEM. ENROLLED	GRADE

All pre-requisite classes met by end of second semester? Y N

Total Credits \_\_\_\_\_

Dissertation Title \_\_\_\_\_

\_\_\_\_\_  
(Signature of Student)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Signature of Department Chair)

\_\_\_\_\_  
(Date)

## Graduate Student Annual Report 2020-2021

Name: \_\_\_\_\_ Today's Date: \_\_\_\_\_

Program Start Date: \_\_\_\_\_ Anticipated Graduation Date: \_\_\_\_\_

**Directions:** Please turn in this completed form to the ENVS Academic Coordinator by **April 22, 2021**. Decisions regarding assistantships, fellowships, travel, and research stipends will not be made until this time. Answer each question as best you can. Not all sections are applicable to all students. Include achievements and progress from the previous calendar year, or where asked, anticipated achievements and progress for the present calendar year. **The report must be signed by your graduate advisor and advisory committee members.**

### **1. Progress toward degree**

**1.1 Course work:** Briefly discuss your completed coursework, including deviations from your plan of study, and other assessment such as exit exam results.

**1.2 Thesis or team-project research:** Briefly discuss your progress in your thesis or team-project research, e.g. has a research topic been identified or a proposal been completed? What is the plan for next year if not completed?



## **2. Accomplishments and professional activities**

**2.1 Publications:** List all publications with a 2017-2018 date. Include a complete list of authors in the order listed in the publication, full title, journal, volume, beginning and ending page numbers. Also list publications that have been submitted.

**2.2 Presentations at professional meetings:** List all presentations including full authorship in order, title, meeting, and format (oral, poster, multimedia).

**2.3 Grants, awards, and honors received:** List project titles, all investigators in order, granting agency, dollars awarded, and funding period. Also list proposals that have been submitted.

**2.4 Service and outreach activities:** Please use this space to list any other relevant information to your degree program such as leadership in student organizations and outreach activities (e.g., mentoring K-12 or undergraduates, helping K-12 teachers, science fair judging).

**2.5 Other comments:**

**Name in Print & Signatures:**

Major Professor:\_\_\_\_\_ Date:\_\_\_\_\_

Committee Member:\_\_\_\_\_ Date:\_\_\_\_\_

Committee Member:\_\_\_\_\_ Date:\_\_\_\_\_

**Department of Environmental Sciences**  
1273 Energy, Coast, and Environment Building  
Baton Rouge, LA 70803-7503  
Telephone: (225)578-8522 Fax: (225)578-4286

### ENVS Graduate Assistant Evaluation

**DIRECTIONS:** This report must be filed in the student folder in the ENVS Academic Programs Office by the end of each academic year (April 22, 2021) that a graduate assistant is registered at LSU. **The student and Faculty Supervisor must sign to indicate they have read it.**

Name: \_\_\_\_\_ Appointment Period: 2020-2021 Academic year

Type and % of assignment: Teaching \_\_\_\_\_ Research \_\_\_\_\_ Service \_\_\_\_\_ (explain)

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

Key

U = Unsatisfactory, NI = Needs Improvement, S = Satisfactory

**Job Performance**

	<u><b>U</b></u>	<u><b>NI</b></u>	<u><b>S</b></u>
Quality of work	1	2	3
Timeliness of task completion	1	2	3
Focused on assignments	1	2	3
Takes initiative in getting things done	1	2	3
Makes suggestions for improvement	1	2	3
Works well with other staff	1	2	3
Punctuality for work/follows work schedule	1	2	3

**Overall**                      1                      2                      3

Comments:

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

This evaluation has been reviewed by the graduate assistant and supervisor.

\_\_\_\_\_  
Supervisor Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Graduate Signature

\_\_\_\_\_  
Date



**Current Students Fall 20 (Option: “T” = Thesis; “P” = Professional”; “D” Dissertation)  
7/23/2020 \*= new students; ^= non-ENVS student**

(Sorted by alphabet)

Last Name	First Name	Sem. Enrolled	Faculty Advisor	E-mail Address	Opt ion	Home	Office #
Abbas	Manzar	2s/19	Hou	mabbas6@lsu.edu	D	India	2109
Akintoye	Ruth	2s/19	Bui	rakint2@lsu.edu	D		1147
Argote	Jennifer	1s/15	Reams	jennifer.argote@gmail.com	D	Louisiana	3259
Cagle	Grace	1s/15	Hou	gcagle1@lsu.edu	D	Texas	3193
Correll	Rachel	1s/17	Lam	rcorre2@lsu.edu	D	New York	2285
Dangal	Prakash	1s/2021	Lomnicki	pdanga1@lsu.edu	D		1171
Dao	Viet	2s/2019	Johnson	vdao2@lsu.edu	D	Louisiana	3273
deNux*	Caitlin	1s/2021	Hou	caitlinwoodard@lsu.edu	D		3153
Divan	Gourav	1s/20	De Jesus Crespo	gouravdivan@gmail.com	T	Georgia	1147
Guo^	ChuQi		Lomnicki	cguo6@lsu.edu			3273
Irving	Jennifer	1s/20	Reams & Douthat	jirvin6@lsu.edu	D	Louisiana	2105
Lamana	Lindsey	1s/20	Douthat	llaman2@lsu.edu	T	Louisiana	2107
Martinez	Brenda	2s/2018	Armbrust	bjmartinez203@yahoo.com	D	Louisiana	1173
Matherne	Brian	1s/16	Hou	bmath27@lsu.edu	D	Mississippi	3259
Mayfield	Kristopher	1s/20	DeLorme & Snyder	kmayfieldone@gmail.com		Oklahoma	3153
McClellan^	Stuart (Alex)		Laws	<b>Post Doc</b>			2285
Mihunov^	Volodymyr		Lam	<b>Post Doc</b>			2281
Moon	Jessica	1s/20	DeLorme	jmoon15@lsu.edu	T	Louisiana	2109
Penton	John	1s/16	Wilson	jspentonjr@gmail.com	D	Florida	2105
Reagan	Sean	2s/17	Wilson	sean.reagan@reagan.com	D	Louisiana	1147
Rogers	Rachel	1s/20	De Jesus Crespo	rroge42@lsu.edu	T	Mississippi	1179
Salter	Corinne	1s/21	Douthat	csalte4@lsu.edu	D	Louisiana	1171
St. Romain*	Scott	1s/21	Armbrust	sstrom6@lsu.edu	D	Louisiana	1173
Wang	Kejin	1s/18	Lam	kwang27@lsu.edu	D	China	2107
Washburn	George	1s/17	Bui	gwasb1@lsu.com	D	Louisiana	204 SG
Won	Yusik	1s/20	Yong-ha Kim	cybercomm96@gmail.com	D	South Korea	1179