

Graduate Program in
Environmental Science Student Handbook



Revised November 2024

Table of Contents

1.	Introduction	3
1.1	Purpose of this Handbook	3
1.2	Revisions to this Handbook – A Request	3
2.	Administrative Organization	4
2.1	Administrative Structure: Environmental Science Graduate Program	4
2.2	The Office of Graduate Studies	5
2.3	The Graduate Student Association	5
3.	General Academic Policies and Procedures	6
3.1	Admission and Conditional Status	6
3.2	Full-time vs. Part-time Status and Maximum Course Load.....	6
3.3	Academic Standing.....	6
3.4	The Seven Year Rule	7
3.5	Continuous Enrollment Policy	7
3.6	Taking 500-level Courses	7
3.7	Transferring Coursework	8
1.	Coursework Taken As a Non-Degree Student:	8
2.	Courses at other University System of Maryland Institutions:.....	8
3.	Coursework from Other Institutions:.....	8
3.8	Dropping a Course and Withdrawing from a Course	8
3.9	Repeating Courses	9
3.10	Code of Conduct/Academic Honesty	9
4.	Policies and Procedures Relating to the Environmental Science Graduate Program	10
4.1	Program of Study: Coursework Requirements for Environmental Science MS	10
4.2	Program of Study: Coursework Requirements for Graduate Certificate in Environmental Science	10
4.3	Approved Electives	10
4.4	Environmental Science, Independent Studies Course	11
4.5	Suggested Courses of Study	12
4.6	Completing your MS Degree.....	12
4.7	Thesis or Practicum, which is best for you?	13
4.8	ENVS 798 – Research Practicum	13
4.9	ENVS 896 - Thesis Research	13

1.	Thesis Research.....	14
2.	Why complete a research thesis?	14
3.	Identifying a Research Project	15
4.	Forming a Thesis Committee.....	16
5.	The Thesis Research Proposal.....	16
6.	Need for collecting/research permits.....	17
7.	Responsibilities of Thesis Research Advisor	17
8.	Responsibilities of the Thesis Committee Members.....	18
9.	Responsibilities of the Proposal Moderator or Thesis Defense Chair.....	18
10.	Responsibilities of the Student.....	19
11.	Research Permits/Permission to Use Human Subjects in Your Research	19
12.	Financial Support for Thesis Research	19
13.	Completing the Thesis Document.....	20
14.	Official Thesis Guidelines:	20
5.	GRADUATION.....	24
6.	APPENDICES	25
6.1	Appendix 1. Forms for Thesis Students	25
6.2	Appendix 2. The Environmental Science Course Approval Form for Off-List Courses	26
6.3	Appendix 3. Environmental Science Independent Study Approval Form.....	27
6.4	Appendix 4. Recommended course of study for part-time non-thesis track students .	28
6.5	Appendix 5: Recommended course of study for full-time thesis track students Fall Semester 1:.....	29
6.6	Appendix 6. Prototype Thesis Research Calendar.....	30
6.7	Fall Semester 1	30
6.8	Error! Bookmark not defined.	

1 Introduction

2 Purpose of this Handbook

3 The purpose of this handbook is to answer those questions which we anticipate you will need
4 answered as you enter and progress towards your MS degree or Graduate Certificate. It will not
5 necessarily address every issue that will arise, but we hope it is a good start. It also presents
6 the policies that affect your progress and success in our graduate program. We expect you to
7 be familiar with these policies and abide by them.

8
9 There are two other publications that you can and should turn to for assistance. The [Graduate](#)
10 [Catalog](#) describes policies and procedures applicable to all graduate students at TU, regardless
11 of their program of study. A new catalog is produced each year and you should download the
12 PDF version of the edition that comes out the year you begin your program of study. In general,
13 you are only required to meet the graduation requirements stated in that edition of the graduate
14 catalog to obtain your degree. If changes in the program are implemented during your tenure in
15 the program and you should wish to “adopt” a new catalog relative to the requirements, you
16 must have this change approved by the graduate program director and notify the graduate
17 school of the change. You should not assume that you can adopt new requirements; permission
18 is required.

19
20 This handbook reiterates some of the policies and procedures described in the *Graduate*
21 *Catalog* and discusses how these policies and procedures affect Environmental Science
22 Graduate students. The handbook also outlines policies and procedures regarding coursework,
23 thesis research and the research practicum that are specific to our program.
24 The other publication is the “[Graduate Student Resource Guide](#)” published by the Graduate
25 Student Association which is full of helpful information which will enhance your quality of life as
26 a graduate student. It is recommended that you refer to it for information on general campus life,
27 such as library, health & wellness, One Card, how to register for courses, and parking
28 information. The Office of Graduate Studies also maintains “[Guidelines for Preparing Theses](#)
29 [and Dissertations](#)” which will be very important for those students in our program wishing to
30 complete a research thesis Masters.

31 Revisions to this Handbook – A Request

32 It is our goal that this handbook will be useful to students (and their advisors). We anticipate
33 regular updates. If you detect errors, omissions or find certain sections unclear, please let Sarah
34 Lajeunesse, Academic Program Specialist for the Environmental Science and Studies Program,
35 know, by emailing slajeunesse@towson.edu.

36 Administrative Organization

37 Administrative Structure: Environmental Science Graduate Program

38 The Environmental Sciences Graduate Programs is offered through the Environmental Science
39 and Studies (ENVS) Program at Towson University.

40
41 Director: The Director is Dr. Joel Moore (moore@towson.edu).

42
43 Graduate Program Director: The Environmental Science Graduate Program Director (GPD) is
44 Dr. Joel Moore (moore@towson.edu). In consultation with other faculty members, Dr. Moore is
45 responsible for:

- 46 • Assigning academic advisors
- 47 • Keeping graduate students informed about changes in policies and procedures (usually
48 via email)
- 49 • Scheduling graduate level courses
- 50 • Reviewing proposals for new courses and changes to existing courses
- 51 • Approving/disapproving requests for courses to be transferred from other institutions
- 52 • Monitoring progress of students towards their degree and assisting as necessary
- 53 • Mediating in conflicts and disputes between thesis research advisors and their
54 advisees
- 55 • Assisting students in identifying thesis defense moderators
- 56 • Approving/disapproving requests for exceptions to stated requirements, policies and
57 procedures in unusual circumstances (or, where appropriate, petition the Dean of
58 Graduate Studies to grant certain exceptions)
- 59 • Reviewing transcripts of students applying for graduation to ensure degree
60 requirements are met

61
62 In general, if students have questions relating to completion of degree requirements, they
63 should contact the GPD. The GPD should be able to answer their question or obtain an answer
64 from the appropriate authority. The GPD reports directly to the Director of the ENVS Program.
65 The director works closely with the departments whose course offerings are part of the
66 Environmental Science graduate program curriculum (Geography and Environmental Planning,
67 Biological Sciences, Chemistry, Mathematics, and Physics, Astronomy and Geosciences) to
68 ensure that the interests of Environmental Science graduate students are represented as
69 course scheduling decisions are made.

70
71 Support Staff: Sarah Lajeunesse is the Academic Program Specialist (Science Complex –
72 Room 5301/ 410-704-4920, slajeunesse@towson.edu).

73 Ms. Lajeunesse is key to our continued growth and success. She will assist you as best she can
74 when the need arises but be mindful of her many responsibilities. She is the sole staff member
75 for the entire Environmental Science and Studies Program.

76 The Office of Graduate Studies

77 The Office of Graduate Studies (OGS) is located on the third floor of the Administration Bldg.,
78 Room 301, and can be reached at gradstudies@towson.edu or 410-704-GRAD (4723). The
79 head of the Graduate School is the Dean of Graduate Studies.

80 The OGS maintains a [website](#) with information on subjects such as graduation requirements,
81 thesis preparation guidelines, records and transcripts, how to register and services available to
82 you as a graduate student.

83

84 After admission to the Environmental Science Graduate Program, students normally will not
85 have much contact with the OGS. If questions or problems arise while you are trying to
86 complete your degree, you should first contact your faculty advisor, and then, if necessary, the
87 Environmental Science Graduate Program Director or the program assistant, Sarah Lajeunesse
88 (slajeunesse@towson.edu) who will then contact OGS, if need be.

89 The Graduate Student Association

90 All graduate students are automatically members of the "GSA." Offices of the GSA are in the
91 Psychology, Room 204 (410-704-3967). The GSA holds an orientation a few days before the
92 beginning of the fall and spring semesters. We urge you to take advantage of these orientations
93 which can ease your entry into the TU community. For information on this group and to register
94 for the orientation, go to their [web site](#) and follow them on Twitter, Facebook and Instagram.

95 The GSA provides students with some funds for research and for travel to meetings to present
96 papers (see [Financial Support for Research](#), below).

97 General Academic Policies and Procedures

98 The Environmental Science graduate program follows the policies and procedures described in
99 the most recent version of the [Graduate Catalog](#). Below are brief summaries of the relevant
100 sections from the catalog along with links to the corresponding page.

101 Admission and Conditional Status

102 At the time of application, admitted students are granted either a full admission or conditional
103 admission. Students who are admitted conditionally must complete the stipulations presented in
104 their admission letter to have their status changed from conditional to full. Students who are
105 conditionally admitted pending receipt of their undergraduate degree are responsible for having
106 an official copy of their final transcript sent to the graduate school as soon as possible after their
107 graduation. Information regarding this can be found [here](#).

108 Full-time vs. Part-time Status and Maximum Course Load

109 Students registering for 9 or more graduate units in a semester are considered full-time
110 students; those students taking 6 to 8 units are half-time and students with <6 units are less
111 than half-time and therefore ineligible for financial aid. Students cannot register for more than 12
112 unit hours per semester. [https://catalog.towson.edu/graduate/procedures-
113 policies/registration-
114 fees/](https://catalog.towson.edu/graduate/procedures-policies/registration-fees/). Suggested courses of study for full-time and part-time students are presented along with
the discussion of program requirements in [Appendix 8](#) & [9](#)

115 Academic Standing

116 “[Good academic standing](#)” requires a grade point average of ≥ 3.0 in all graduate courses.
117 Students whose GPA falls below 3.0 are placed on academic probation (they receive a warning
118 letter). Students on probation must raise their GPA to 3.0 or above within the next 9 units.
119 Students who do not raise their GPA in this manner will be dismissed from the graduate
120 program.

121
122 *Note:* Graduate courses taken at Towson prior to your admission to our program count as part
123 of your graduate GPA even though these courses do not necessarily count towards your
124 graduate degree.

125
126 Students cannot graduate with more than two C grades in all the courses being counted
127 towards their program of study. If a student should receive more than two C grades among their
128 electives, they must either repeat these courses (to raise the grade) or take an additional
129 elective which can substitute for an elective in which a C grade was received. Taking (and
130 receiving a grade of B or better) in an additional course that can count towards your degree
131 does not replace one of the courses in which you received a C on your record. Rather, the new
132 course and grade is counted towards the degree and one of the courses in which you received
133 a C is not. Unlike the electives for which another elective can be substituted, all four core
134 courses are required to graduate from the program.

135 <https://catalog.towson.edu/graduate/procedures-policies/graduation-requirements/>

136 The Seven Year Rule

137 All requirements for the degree must be completed within seven years of initial entry into the
138 program. This time limit includes all coursework and thesis completion. The 'count' towards the
139 seven years begins with the date of registration for the earliest course which is applied towards
140 the degree. That is, if you take graduate courses prior to entering our program and wish to apply
141 these units towards your degree (either because you took these courses at Towson as a non-
142 degree student or you wish to transfer these courses to Towson from another institution), the
143 start of the seven year period begins with the date you enrolled in these courses (even though
144 you were not yet part of this graduate program).

145 <https://catalog.towson.edu/graduate/procedures-policies/graduation-requirements/>

146 Continuous Enrollment Policy

147 Students are expected to register for courses on a regular basis throughout their tenure in the
148 program. If, during the early stages of your graduate career, two consecutive semesters are
149 missed, students must be reactivated for enrollment. If two academic years elapse during which
150 a student does not enroll in courses for graduate credit, the student is considered to have
151 abandoned work on their degree and they must reapply for admission to the program if they
152 wish to continue work on their degree. [https://catalog.towson.edu/graduate/procedures-](https://catalog.towson.edu/graduate/procedures-policies/registration-fees/)

153 [policies/registration-fees/](https://catalog.towson.edu/graduate/procedures-policies/registration-fees/)

154

155 Should a student reactivate their status after a lapse in enrollment, they need to be aware that
156 their seven-year rule "clock" was not suspended during the inactive semesters.

157 Students who are involved in completing a research thesis must remain actively enrolled every
158 semester (except summer and minimester) after they enroll for thesis units until the work is
159 completed, submitted and approved by registering for at minimum one unit of Thesis Continuum
160 (ENVS 899) every semester until the project is completed. Should a student miss a semester of
161 registration he/she will have register for the missed semesters after the fact.

162 <https://catalog.towson.edu/graduate/procedures-policies/thesis-dissertation/>

163 Taking 500-level Courses

164 Graduate students are permitted to take three 500 level courses towards completion of their
165 degree requirements. Some upper level (i.e., 300 and 400-level) undergraduate courses are
166 cross-listed in the *Graduate Catalog* as 500-level courses that may be taken by a graduate
167 student (e.g., BIOL 456, Ornithology, a senior level undergraduate elective is also listed in the
168 *Graduate Catalog* as BIOL 556, Ornithology). Although they attend class with upper-class
169 undergraduates, graduate students are given course requirements that exceed those for
170 undergraduates. These additional requirements are determined by the instructor and will vary,
171 depending on the course and the instructor. The additional requirements of graduate students
172 should involve a deeper exploration of the science of the subject. In contrast, courses at the
173 600-level and above are designed for and taken almost exclusively by graduate students.

174 <https://catalog.towson.edu/graduate/procedures-policies/graduation-requirements/>

175 Students should not take a course at the 500-level which repeats a course taken as an
176 undergraduate at the 300 or 400-level at TU or elsewhere. An exception may be made if the

177 student obtained a D or F or W grade as an undergraduate student if the repeated course is
178 required by the graduate program. Note, however, that the repeated course, when taken at the
179 500-level will not normally count towards graduate degree requirements. Note also that for TU
180 undergraduate students, the grade at the 500-level will *not* replace the grade obtained as an
181 undergraduate. Any student wishing to take a course at the 500 level which they took at the
182 300-400 level as an undergrad must first obtain the consent of their advisor and written
183 permission of the Graduate Program Director.

184 Transferring Coursework

185 Coursework Taken As a Non-Degree Student:

186 On occasion, students begin their graduate work as “non-degree” students. If a non-degree
187 student eventually decides to obtain a degree, it is Graduate School policy that only 12 units
188 worth of courses taken as a non-degree student can count towards the degree. It is important to
189 remember that the “seven year rule,” the amount of time available to complete a degree, will
190 “run” from the date of the “earliest taken” course that you wish to apply towards your degree.
191 For example, if you take a graduate Math course in 2015 and wish to apply it towards your
192 degree which you started in 2019, you will have to complete your degree requirements by 2022
193 (the “clock” started in 2015 with the Math course).

194 <https://catalog.towson.edu/graduate/procedures-policies/graduation-requirements/>

195 Courses at other University System of Maryland Institutions:

196 Students are eligible to take courses at other University System of Maryland schools, including
197 the University of Maryland at College Park and the University of Maryland – Baltimore County,
198 both of which are nearby. If the course is approved, by your Advisor and the Environmental
199 Science Graduate Program Director, to count towards your degree, both the units and the
200 grades will transfer to your TU record (i.e., your grades will figure into your TU GPA). Before
201 registering for a course at another USM institution, students should visit the Graduate School
202 office and have their staff review both the regulations regarding this type of enrollment and
203 registration procedures. Your advisor and the program director will want to review course
204 descriptions and the syllabus.

205 Coursework from Other Institutions:

206 The Graduate Catalog states that “a maximum of up to 50 percent of the units required for a
207 degree program may be transferred [from other institutions], subject to approval by the program
208 director.” Units can be awarded for courses similar to those courses we offer. How many units
209 will be approved for transfer is at the discretion of the Graduate Program Director and will
210 depend on the nature of the courses involved, where the course was completed obtained, and
211 how recently the course was completed. [https://catalog.towson.edu/graduate/procedures-
212 policies/policies-academic-progress/transfer-credit/](https://catalog.towson.edu/graduate/procedures-policies/policies-academic-progress/transfer-credit/)

213 Dropping a Course and Withdrawing from a Course

214 At the start of the semester, there is a brief “change of schedule” period, usually encompassing
215 the first 7-10 days of classes. If a student drops a course during this period, the course will not

216 appear on the student's transcript. To drop a course, students can simply use Towson Online
217 Services (registration site).
218 After the change of schedule periods ends, there is a several week period during which time a
219 student can "withdraw" from a course. The last date to do so is listed on the academic calendar.
220 The course will appear on the student's record with a grade of "W." A student can withdraw from
221 a course through your Student Center before the term deadline. Students who receive financial
222 aid should review the policy on [Drops and Withdrawals](#).

223
224 Students with documented medical problems, family emergencies or verified circumstances
225 beyond their control may petition the Dean of the Graduate School to withdraw and take a grade
226 of W after the normal withdrawal deadline date. A letter must be sent to the Dean of the
227 Graduate School in which the student details the request, provides the justification, and submits
228 supporting documentation (e.g., letter from physician).
229 [https://catalog.towson.edu/graduate/procedures-
230 policies/policies-academic-progress/course-
withdrawal/](https://catalog.towson.edu/graduate/procedures-policies/policies-academic-progress/course-withdrawal/)

231 Repeating Courses

232 Courses for which a grade has been awarded can be repeated once (unless special
233 circumstances, i.e., conditional admission or the course description precludes this option). If a
234 student repeats a course, the higher of the two grades obtained is included in the GPA but both
235 grades appear on the transcript. The student gets only one set of units for the course, assuming
236 the course is passed.

237
238 Courses that conditionally admitted students take in order to change their status to full
239 admission cannot be repeated in order to meet the minimum GPA requirement for a change of
240 status from conditional to full admission. Grades from similar or identical courses at other
241 institutions will not replace grades for courses taken at TU.
242 [https://catalog.towson.edu/graduate/procedures-
243 policies/policies-academic-progress/repeating-
courses/](https://catalog.towson.edu/graduate/procedures-policies/policies-academic-progress/repeating-courses/)

244 Code of Conduct/Academic Honesty

245 Towson University has a Code of Conduct to which all members of the community are expected
246 to comply. <https://catalog.towson.edu/graduate/appendices/appendix-e-code-student-conduct/>
247 The Towson University Code of Conduct prohibits all forms of dishonesty, including cheating
248 and plagiarism. Plagiarism is the unacknowledged use of another's words or ideas. The most
249 flagrant type of plagiarism is turning in someone else's work as one's own. But plagiarism also
250 includes borrowing another author's ideas, as part of an argument you are developing in your
251 written work, without documenting the source properly. Cheating on a test or plagiarism in any
252 assignment will result in a failing grade for the course and could result in expulsion from the
253 program.

254 Policies and Procedures Relating to the Environmental 255 Science Graduate Program

256 Program of Study: Coursework Requirements for Environmental Science 257 MS

258 The official requirements for the program are in the *Graduate Catalog* and may be updated
259 more often than this handbook. [https://catalog.towson.edu/graduate/degree-certificate-
260 programs/jess-mildred-fisher-science-mathematics/environmental-science-ms/](https://catalog.towson.edu/graduate/degree-certificate-programs/jess-mildred-fisher-science-mathematics/environmental-science-ms/). Students must
261 complete thirty (30) units worth of coursework consisting mostly of 600 level and higher courses;
262 no more than three courses at the 500 level can apply towards the degree. Thesis students earn
263 6 units across multiple semesters (as determined by their advisor) upon completion and
264 successful defense of their thesis. Non-thesis M.S. students earn 3 units from completing their
265 Research Practicum. All students must successfully complete one of these two capstone
266 experiences before a degree can be awarded.

267 Program of Study: Coursework Requirements for Graduate Certificate in 268 Environmental Science

269 The official requirements for the program are in the *Graduate Catalog* and may be updated
270 more often than this handbook. [https://catalog.towson.edu/graduate/degree-certificate-
271 programs/jess-mildred-fisher-science-mathematics/environmental-science-certificate/
272 Students pursuing a Graduate Certificate must complete 18 units. Two of the core courses \(see
273 above\) must be completed and additional electives, selected in consultation with an advisor,
274 from one concentration \(see \[Table 1\]\(#\)\). No more than three 500 level courses can be counted
275 towards the certificate.
276 Additional Electives: Additional electives may be developed and added to the curriculum during
277 a student's tenure in the program. All students in the program are permitted to take any ENVS
278 coded elective and count it towards their degree.
279 Should a student wish to use a graduate course from another Towson graduate program that is
280 not on the list of electives, s/he should apply for permission to include it using the "Course
281 approval for off-list courses" form found in \[Appendix 6\]\(#\) or \[online\]\(#\).](https://catalog.towson.edu/graduate/degree-certificate-programs/jess-mildred-fisher-science-mathematics/environmental-science-certificate/)

282 Approved Electives

283 The courses listed in table 1 below are pre-approved as electives for your certificate or degree.
284 Should a student wish to take an elective which is not listed among those accepted for their
285 concentration and have it count towards the degree, they must request permission to do so from
286 the Graduate Program Director before they take the class using the "Course approval for off-list
287 courses" form found in [Appendix 6](#) or [online](#). There is no guarantee that requests for permission
288 will be granted.

289 **Required courses for both the thesis and non-thesis track can be found in the [graduate catalog](#)
290 or [here](#). For students in the non-thesis track; 9 units are required for students in the thesis track.
291 The elective courses must be appropriate for the area of concentration and should be approved
292 by the academic advisor. These courses are presented in Table 1.**

293
294
295

Table 1: Approved electives

Course #	Topic
BIOL 506	Limnology (4)
BIOL 510	Conservation Biology (4)
BIOL 518	Microbiology (4)
BIOL 532	Vascular Plant Taxonomy (4)
BIOL 535	Plant Ecology (4)
BIOL 555	Fish Biology (4)
BIOL 556	Ornithology (4)
BIOL 561	Entomology (4)
BIOL 567	Herpetology (4)
BIOL 601*	Current Topics in Biology (1-4)
BIOL 603	Data Analysis and Interpretation for Biologists (3)
BIOL 609	Community Analysis and Bioassessment (3)
BIOL 610	Population and Community Biology (3)
BIOL 611	Global Change Biology (3)
BIOL 619	Environmental Microbiology (3)
GEOG 503	Soils and Vegetation (3)
GEOG 516	Quantitative Methods in Geography (3)
GEOG 523	GIS Applications (3)
GEOG 557	Studies in Natural Hazards (3)
GEOG 587	Environmental Impact Analysis (3)
GEOG 631	Advanced Remote Sensing: Digital Image Processing and Analysis (3)
GEOG 654	Climate Change: Science to Policy (3)
GEOG 672-9*	Special Topics [i.e., Water Resources Management] (3)
GEOL 515	Hydrogeology (4)
ENVS	All 500 and 600 level ENVS courses
MATH 575	Mathematical Models (3)
MATH 630	Statistics Theory and Applications for Teachers (3)
MATH 632	Computational Stochastic Modeling (3)
SCIE 652	Earth-Space & Physical Science in Integrated STEM Education (3)

296 Note: Some of these specialized courses have specific prerequisites that are not required for admission to the program. Students
297 are expected to complete the prerequisites prior to enrolling in these courses.

298 *Courses offered under this number might be appropriate for this concentration. Check with the director or your advisor.

299 ♦ An independent study course is designed with a member of the faculty to serve a particular curricular need. See below for details.

300 Environmental Science, Independent Studies Course

301 A student wishing to undertake an independent study course must identify an appropriate
302 faculty member with whom to take the course and obtain the faculty members commitment to
303 teach the course. Courses can be for 1-4 units. Each independent study course must be
304 approved by the Graduate Program Director ([Appendix 7](#)) and registered with the Registrar prior
305 to the start of the semester. Be aware that some faculty members will request development of a
306 formal proposal for an independent study course before agreeing to one.

307 Suggested Courses of Study

308 Students come to the program as either full-time or part-time students, with an interest in either
309 completing a research thesis or completing their degree without completing a thesis. Students
310 can move between these categories, although students who decide to become thesis students
311 must find and be accepted by a thesis advisor. Suggested plans of study for part-time, non-
312 thesis students and full-time thesis students are presented in [Appendix 4](#) and [5](#). *These are to*
313 *serve as guidelines only*. Our suggestions are based on the challenging nature of the material,
314 the demanding nature of laboratory courses and the need for weekend field trips in many of the
315 courses. Students who choose to follow a different program of study are advised to discuss their
316 plans with the Graduate Program Director.

317 Completing your MS Degree

318 All MS students must register for and successfully complete either ENV5 798 Research
319 Practicum or ENV5 896 Thesis Research prior to receiving their MS degree. It is critical that
320 each student wishing to pursue a research thesis identify a thesis advisor among the graduate
321 faculty early in their tenure in the program. Thesis advisors might want a student to complete
322 specific courses before undertaking their research. Note that an *academic advisor* is not the
323 same as a *thesis advisor*.

324
325 The research thesis and research practicum have similar objectives; to demonstrate to the
326 faculty and the scientific community the ability of the student to formulate, investigate, assess,
327 and analyze current environmental problems/questions. They differ in the complexity of the
328 problem addressed and the route of assessment (the research thesis assumes collection of
329 original data).

330
331 Students who are currently employed in the environmental field are encouraged to consider
332 questions/problems associated with their current work as appropriate for their thesis/practicum if
333 their employer agrees that it would be appropriate. The selection of topics for the research
334 projects (theses and practica) will be carefully reviewed to minimize the potential for conflict
335 between a student's academic success and his/her professional position. While the potential for
336 conflict does arise when utilizing work-related problems, undertaking a major project that is
337 relevant to the workplace (and supported by the employer) will facilitate the student's academic
338 progress and success.

339
340 Students are permitted to switch from the thesis to the non-thesis track at any time by informing
341 the Graduate Program Director of their decision. If at the time of this decision, they have a
342 thesis research advisor and a research committee, they must be informed simultaneously in
343 writing. To obtain a degree, such students switching to the non-thesis track must complete 30
344 hours of "regular" coursework; ENV5 896 – Thesis Research can no longer count towards their
345 degree and they will have to complete ENV5 798 – Research Practicum.

346
347 Students can also request a switch from the non-thesis to the thesis track via a letter (e-mail) to
348 the Graduate Program Director. The student's letter must be accompanied by notice from a

349 professor who agrees to serve as the student's thesis advisor. *It is the student's responsibility to*
350 *secure a thesis advisor.*

351 Thesis or Practicum, which is best for you?

352 Many students entering the program know that they want to complete a research thesis or that
353 they do not want to undertake such a project. Others want to know which option is best suited to
354 them. A thesis project is an opportunity to discover whether you wish to enter a career of
355 research, either in academia, business, governmental agencies or with non-governmental
356 agencies. While neither the research thesis nor the research practicum are 'easy' to complete,
357 the research thesis demands a greater commitment of time and effort. A research thesis can be
358 expected to occupy almost all of your non-classroom, non-sleeping hours during the time you
359 are involved in developing your research proposal, collecting and analyzing your data. You must
360 be willing to make that commitment. A research practicum will help you develop different types
361 of analytical and investigative skills. You will be reviewing an important topic/issue and will have
362 to search the literature, both published, gray, and web-based, to gather relevant information.
363 You will need to be able to digest, organize, assess and present this information in a well-
364 structured document. These skills are also very valuable in the marketplace and demonstrate
365 your mastery of the field.

366 ENVS 798 – Research Practicum

367 Developing and writing a research practicum paper involves synthesis of current thought from a
368 variety of disciplines on an important environmental issue/problem. All students seeking a non-
369 thesis MS degree need to demonstrate that they are able to develop such a document.

370 The most common model for this course involves a cohort of students working together, as a
371 class, with each student working independently (but with the support of colleagues) developing
372 his/her own paper. An alternative model involves working with a governmental agency and
373 taking on specific projects the agency would like addressed. Developing a paper to address the
374 needs of a governmental agency will also provide a valuable learning opportunity for students.
375 Both models involve a scheduled class. Only one of the models will be offered in a given year,
376 generally in the spring semester. Regardless of the format for the practicum, students are
377 expected to present their work to the community at large in a publicly announced forum. In each
378 model, the responsible faculty member will determine the student's grade. Should a student
379 wish to appeal his/her grade s/he can do so. Within 10 days of receiving a grade s/he must
380 present a letter to the graduate program director requesting that two other members of the
381 faculty read and evaluate their work.

382
383 Students will receive letter grades in this course. A student who receives a grade below a B in
384 this course will be considered unqualified for a Master's degree. Such a student will receive
385 credit for the course and it could, potentially, transfer to another institution, but only grades of B
386 or better will be acceptable to graduate from our program. Note: This course cannot be
387 repeated.

388 ENVS 896 - Thesis Research

389 A total of six thesis research units are required for the degree. Any combination of units across

390 semesters may be used towards your degree. Please consult with your thesis advisor for how
391 many units to register for in a given term. Students can register for these units any time after
392 successfully defending their research proposal (see below), but note that until the thesis is
393 completed, defended and approved by the Graduate School, your “grade” for thesis units on any
394 transcript you get will be “IP” or “In Progress”.

395

396 You must obtain permission from the Graduate Program Director to register for ENVS 896.
397 Should your thesis take longer than expected, students who have completed 6 units of ENVS
398 896 must register for ENVS 899, Thesis continuum, until their thesis is completed, defended
399 and they have graduated. See the section [3.5 on “Continuous Enrollment Policy.”](#) above, for
400 details.

401 Thesis Research

402 Many students enter a program thinking they want to complete a Thesis. Indicating on your
403 application that this is your intent does not obligate the program to assign a research thesis
404 advisor to you nor does it commit you to completing a research thesis. If you are certain you
405 wish to complete a research thesis it is to your benefit to contact members of the faculty prior to
406 coming to campus and discussing research opportunities with them. A student can come to the
407 program with an interest in research but not having identified a research advisor. The student is
408 responsible for finding an interested/willing thesis advisor among the Graduate Faculty. If a
409 student’s interest changes, or s/he decides they no longer wish to complete a research thesis,
410 or if s/he cannot locate a Research Thesis Advisor to work with him/her, s/he can complete their
411 degree by completing the Research Practicum (see above).

412 Why complete a research thesis?

413 For most students, the thesis will be their first attempt at designing a major, long-term research
414 project, collecting, analyzing and interpreting a substantial amount of data, and describing the
415 results in a manuscript or manuscripts that could be submitted for publication in a scientific
416 journal (i.e., the research is of publishable quality). The thesis research experience will give you
417 a chance to know, firsthand, the pleasure of discovering something new, or analyzing
418 information in a way that no one else has. It undoubtedly will also give you an opportunity to
419 experience, firsthand, the fact that research is time consuming, sometimes tedious, and often
420 very frustrating and difficult as one works the “bugs” out of the methodology. At the same time it
421 is a phenomenal learning experience.

422

423 You must be prepared both for the thrill of discovery and the agony of equipment failures,
424 uncooperative subjects, unpredictable weather, etc. You need to recognize before you start that
425 research is hard work and very time-consuming. It will require a major commitment on your part
426 of time, energy and patience. However, when it finally all comes together, there is nothing quite
427 like it.

428

429 The procedures outlined below are intended to minimize delays and disappointments. The
430 sooner a student begins the process the better. There are several steps you must complete
431 along the route, which are described below. They are presented in the order they need to be

432 completed. Note: You cannot register for your thesis research course until your thesis proposal
433 is defended.

434 Identifying a Research Project

435 One of the things M.S. thesis students most agonize over is identifying a good thesis research
436 project. A “good” research project is one that:

- 437 • is of interest to you, something to which you would be willing to devote a lot of time and
438 energy to see the end result.
- 439 • is “doable” given the equipment on hand, funds available for consumable supplies, your
440 time limitations, etc.
- 441 • is of publishable quality. This is important to both you and your research advisor. One
442 can argue that it is hardly worth investing blood, sweat and tears and substantial money
443 into a research project if the results are forever condemned to lie buried on your
444 bookshelf unread by others. There is one currency by which your qualities and abilities
445 as a research scientist will be measured away from TU and that is the quality of your
446 *publications*.

447 While a strong desire to produce a good, solid piece of original research is, from a professor’s
448 standpoint, a highly desirable trait in a new graduate student, professors do not expect
449 beginning thesis students to be able to walk into their office the first week and lay out, in detail,
450 the hypotheses they wish to test, the methodological procedures, statistical analyses, etc.
451 Professors do not expect beginning students to be up-to-date on the latest advances and
452 unanswered questions in a particular field of study. Indeed, one of the primary functions of your
453 research advisor is to assist you in identifying a good research project.

454
455 Different professors will approach this in different ways. While it is fair to say that professors
456 don’t expect beginning students to have their project all sorted out before they arrive at TU,
457 professors *do* expect students to be able to describe what specific areas in a major field of study
458 are of most interest to them, given their coursework and other experiences either academic or
459 professional. It is possible that your research interest derives from a particular problem you
460 have been addressing at your workplace. That is certainly an appropriate source for a research
461 question, but the research question you wish to address should be applicable beyond the
462 specific confines of the stream or the watershed (for example) you are working in. The student
463 should be able to describe specific areas of interest and this will help the professor guide the
464 student to possible projects. In some cases, professors will listen to your interests, then send
465 you off to the library with a list of references related to your interests to allow you to become
466 more familiar with what has been done within your area(s) and what still needs to be
467 investigated. Sometimes you know what needs to be investigated and the library research will
468 expose you to a variety of tools that can be used to address your question.

469
470 At some point, the professor will help combine your interests and preliminary proposals for a
471 project with his or her knowledge of the field, and the two of you will settle on a potential project
472 that you both think can be done given the time and resources at hand. In some cases, the idea
473 for the project will be largely the student’s with only minor modifications suggested by the
474 professor. In other cases, the professor will listen to your interests and suggest a project that fits

475 into your interests.

476 Forming a Thesis Committee

477 After (sometimes before or during) the time that you are identifying a project, you and your
478 advisor will pick two or more other individuals, either faculty members or environmental
479 professionals, who are knowledgeable about your area of research, to serve on your research
480 advisory committee. There must be a minimum of two Graduate Faculty members on your
481 committee in addition to your advisor. These people should have certain skills or an expertise
482 that would be helpful to you in designing and completing your research project. Consult with the
483 Graduate Program Director if in doubt about who can and cannot sit on your committee.
484 Members of your committee can also come from academic institutions outside the university,
485 governmental agencies and the private sector.

486
487 When you have formed your committee, you need to start routing in DocuSign for the “Thesis
488 Research Committee” approval form. Links to this form are found on the OGS webpage [for](#)
489 [Thesis & Dissertations](#) or and in the appendix of the “[OGS Guidelines for Preparing Theses and](#)
490 [Dissertations](#).”

491
492 *Note:* If you do want to have someone from outside the university on your committee (1) The
493 outside person’s affiliation (home institution or company) and credentials (degrees) have to be
494 put on the committee approval form, (2) attached to the form must be a copy of the outside
495 member’s curriculum vitae (i.e., professional resume) and (3) the individual must also provide a
496 letter to the program director indicating that they are willing to serve in this capacity. This person
497 must apply and be approved for Graduate Faculty Status at TU.

498
499 As discussed above, when the Thesis Committee form has been submitted to the Graduate
500 School, and after the student successfully presents his/her research proposal to the committee
501 (i.e., completes the thesis proposal defense), the student will be able to register in a subsequent
502 semester for ENV5 896 – Thesis Research. A student should submit the approval form as soon
503 as the committee has been developed. This moves the process along and prevents a lack of
504 signature from preventing enrollment in the thesis research course when appropriate.

505 The Thesis Research Proposal

506 One of your first tasks as a thesis student is to prepare your Thesis Research Proposal. This
507 proposal states your research objective(s), provides some background information to place your
508 research in context, discusses the methods and materials that you will use, and describes the
509 significance of your research. Your research advisor will go over the details of preparing your
510 proposal with you. While most of the input on your research proposal will come from your
511 advisor, you should discuss your thoughts with as many people as you think can give you
512 valuable insight and suggestions. Assume that like everything else associated with research, it
513 will take 2-3 times longer to complete your proposal than you might expect.

514
515 There is no specific format required for a thesis research proposal. They generally contain an
516 introduction, a literature review, a statement of the hypothesis that will be evaluated, methods

517 and materials, and references cited section. Many proposals are 15–25 pages (with lines
518 spaced 1.5–2) but the length will vary based on your project. Ask your advisor for guidance as
519 you develop your proposal. Your advisor will review your draft proposal and will undoubtedly
520 have many suggestions for improvement. The first time you get it back, it may look like it was
521 simply dipped in red ink! The revisions your advisor requests may be numerous and involved!
522 Do not be aghast and don't be insulted – this happens to *everybody*. Putting together a succinct,
523 clear-cut proposal is not an easy task. After one or more revisions, your advisor will tell you that
524 your proposal is ready to go to your committee. At this point, you will give drafts to your
525 committee members and contact the graduate director to select a moderator for your “proposal
526 defense.”

527

528 The proposal defense consists of two parts.

- 529 • The first part, which is open to the public, involves a short presentation (commonly
530 20–30 minutes in length) about your proposed research. The public then asks you
531 questions specifically about your project and after they are addressed, the public is
532 asked to leave by the moderator.
- 533 • Subsequently, the moderator of your proposal defense and your committee then
534 continue the discussion with you in private. At this time you will be asked for details
535 and clarification about parts of your proposal and you will probably be given lots and
536 lots of advice. The meeting will usually last 1-1½ hours. Your committee might
537 suggest additional changes to your proposal which you should complete in a week or
538 so.

539 Your proposal must have a proper title page that includes your proposed thesis and name.
540 Once you successfully defend your proposal, your committee will submit their approval of the
541 proposal via DocuSign (see Appendix 2). Additionally, you must submit the text of your
542 approved proposal to the Graduate Program Director.

543 [Need for collecting/research permits](#)

544 Along with the above material, students must also submit confirmation that approvals and
545 permits have been obtained or applied for as described in Appendix 3 if such permits and
546 approvals are necessary. If the student is working with vertebrate animals it is necessary that
547 the student and/or faculty supervisor has applied for approval of the research protocol either
548 through the [Institutional Animal Care and Use Committee \(IACUC\)](#). If the student is working with
549 humans it is necessary to get permission from the [Institutional Review Board for the Protection
550 of Human Subjects \(IRB\)](#). Students working with animals or plants that are regulated by state or
551 federal agencies may require collection permits which must be obtained from state/federal
552 agencies. See below for more information on approvals.

553 [Responsibilities of Thesis Research Advisor](#)

554 The thesis research advisor is not necessarily the student's originally assigned academic
555 advisor. Once a Thesis Research Advisor is identified, this person assumes the role of
556 academic advisor. The Thesis Research Advisor is expected to:

- 557 • Spend an adequate amount of one-on-one time advising student on coursework and
558 research

- 559 • Advise student on what coursework to take to complete degree
- 560 • Assist student in choosing a research topic
- 561 • Assist student in identifying new, critical research papers in their field
- 562 • Assist student in identifying sources of funding for research
- 563 • Prepare letters of reference/recommendation for student in a timely fashion
- 564 • Review thesis proposal thoroughly and in a timely fashion
- 565 • Review drafts of thesis thoroughly and in a timely fashion
- 566 • Assist in preparation of thesis or thesis chapters in a ready-to-publish manner if
- 567 appropriate

568 Graduate students have every right to hold their advisor to the above responsibilities. If students
 569 feel that their advisors are not meeting these responsibilities and cannot resolve the problem
 570 through discussions with their advisor, they should discuss the problem with the Graduate
 571 Program Director.

572 Responsibilities of the Thesis Committee Members

- 573 • Respond promptly to student inquiries regarding committee meeting times and make
- 574 time for meetings to avoid excessive delay
- 575 • Be available, on occasion, to meet one-on-one with students regarding research
- 576 • Prepare letters of reference/recommendation in a timely fashion
- 577 • Review thesis proposal thoroughly and in a timely fashion
- 578 • Review drafts of thesis thoroughly and in a timely fashion

579 A student has every right to hold their committee members to the above responsibilities. In the
 580 event that committee members are failing to meet these responsibilities, and students cannot
 581 resolve the problem through discussions with their advisor, they should not hesitate to discuss
 582 the problem with the Graduate Program Director.

583 Responsibilities of the Proposal Moderator or Thesis Defense Chair

- 584 • Respond promptly to student inquiries regarding defense times and make time for
- 585 meetings to avoid excessive delay
- 586 • Bring required ENV5 assessment forms to the proposal or thesis defense, distribute
- 587 them to committee members, collect them at the end of the defense and return them
- 588 to the Graduate Program Director
- 589 • Keeps the defense moving, limits the discussion between committee members that
- 590 may go off topic, refocuses discussion to the proposal or thesis at hand.
- 591 • Keep notes during the defense on changes suggested by the committee members;
- 592 provide a copy of these notes to the student in a timely manner after the defense.
- 593 • It is the moderator's responsibility to maintain an exam atmosphere. The moderator
- 594 should ensure that the student (and not a committee member) answers each
- 595 question. Committee members will have an opportunity for discussion after the
- 596 exam.
- 597 • The moderator may call for an intermission during the course of questioning to
- 598 provide the student or committee and opportunity to regroup.
- 599 • The moderator facilitates discussion towards a consensus decision on pass/fail of
- 600 the defense. Once the decision has been reached, it is generally the major advisor's

601 prerogative to recall the student and explain the outcome of the exam.

602 Responsibilities of the Student

- 603 • Investigate coursework options before consulting advisor on which courses to take.
- 604 • Do a substantial amount of reading, on her/his own, to keep abreast of critical and
- 605 current research in their chosen field; this will assist in preparation of research
- 606 proposal and thesis.
- 607 • Meet deadlines, mutually agreed to by student and professor, for completion of
- 608 various stages of research; in the event that a deadline cannot be met, you should
- 609 notify your advisor in a timely fashion and explain the nature of the problem
- 610 • Accept full responsibility for the quality of the data collected. Others can help you
- 611 collect data but you are responsible for the accuracy and quality of the data that goes
- 612 into your thesis.
- 613 • Apply to appropriate sources of research funds as necessary
- 614 • Realize that the research project is theirs and only they can make it successful

615 The thesis research advisor has every right to hold students to the above responsibilities. In the
616 event that students are failing to meet these responsibilities, and discussions with the student
617 do not seem to alleviate the problem, the thesis research advisor can petition the Graduate
618 Program Director, in writing, that the advising relationship be terminated. If it is clear that the
619 advisor has made an effort to remedy problems, without success, the relationship will be
620 terminated.

621 Research Permits/Permission to Use Human Subjects in Your Research

622 Permission to Use Human Subjects In Your Research: Thesis research that involves the use of
623 human subjects must be approved by the [Towson University Institutional Review Board](#) for the
624 Protection of Human Subjects. Contact the Office of Sponsored Programs & Research (410-
625 704- 2236) or irb@towson.edu for forms to apply for approval to use human subjects and to
626 obtain information on where to submit paperwork and the number of copies required. Your
627 advisor may prepare the paperwork or you may complete it together. Research cannot
628 commence until the permit is in hand or waived by the IRB.

629

630 Permission to Use Vertebrate Animals in Your Research: Any research involving vertebrate
631 animals, including simple observation, requires permission from the Institutional Animal Care
632 and Use Committee. The IACUC approval form is found on the [IACUC webpage](#). Your advisor
633 may prepare the paperwork or you may complete it together.

634

635 Permits/Permission to Collect Samples (public lands, private lands): The student is responsible
636 for obtaining permission for field investigation and sampling if necessary. Written permission
637 should always be obtained to access and sample on private lands. Specific questions regarding
638 the permit requirements should be addressed to the research advisor.

639 Financial Support for Thesis Research

640 Research can incur expenses. We list below some potential sources of financial support but if
641 the anticipated expenses are substantial, a student is wise to apply for as many sources of

642 support as possible. This list is not extensive and different professional societies might offer
643 other research support programs. You should never assume that your research advisor can
644 financially support your research project.

- 645 • Departmental Support: The Environmental Science program sets aside a certain portion
646 of its budget each year to support graduate student research. There are enough funds to
647 provide some students with \$200-\$500 worth of funds once in a given academic year.
648 Guidelines and the format for application for departmental funds appear in Appendix 3.
- 649 • Workplace Support: Projects with direct applicability to the workplace can, potentially,
650 benefit from workplace support. It is critical to minimize potential conflict of interest
651 between the research project, financial support, and the student's professional position.
652 Students should always consult their research advisor before accepting workplace
653 funding for their research.
- 654 • Towson University Graduate Student Association: The TU GSA provides small grants
655 (i.e., up to \$500) that can be used to offset research expenses. All thesis track students
656 in the Environmental Science program are expected to apply for GSA funds if funds are
657 necessary. For details on applications, deadlines, etc., check out the following web site:
658 [https://www.towson.edu/academics/graduate/resources-current/graduate-student-](https://www.towson.edu/academics/graduate/resources-current/graduate-student-association/awards.html)
659 [association/awards.html](https://www.towson.edu/academics/graduate/resources-current/graduate-student-association/awards.html)
- 660 • Grants-in-Aid-of-Research: Sigma Xi Scientific Research Society: Sigma Xi provides
661 hundreds if not thousands of small grants (\$500-\$1500) each year to graduate students.
662 Information on deadlines, applications, etc. can be found at the following web site:
663 [https://www.sigmaxi.org/programs/grants- in-aid](https://www.sigmaxi.org/programs/grants-in-aid).
- 664 • Other External Funding Sources: Depending on the nature of the project, there may be
665 sources of funding other than those listed above (i.e., EPA, USGS). Students are
666 encouraged to seek out sources of funding using the Web or other tools. A student's
667 advisor can often identify other external funding sources but the burden of applying falls
668 onto the student.

669 **Completing the Thesis Document**

670 Putting together a coherent, concise synopsis of a scientific research project with background
671 information, objectives, methods and materials, results, interpretation and discussion of results,
672 is very demanding. It takes years of practice to properly write scientific papers. And, as many
673 professors can tell you, even after you have been doing this for decades, manuscripts still come
674 back from the peer review process with many suggestions for improvement and revision.
675 In short, be prepared to turn in your first draft to your advisor and have it come back with dozens
676 of suggestions for improvement and requests for major modifications. Be prepared to revise and
677 resubmit your thesis to your advisor several times before it is ready to go to the rest of the
678 committee. Extensive and multiple revisions are to be expected. Be patient with yourself and try
679 to learn from the revisions suggested. These revisions will aid in future publication.

680 **Official Thesis Guidelines:**

681 Like graduate schools at all universities, TU's Graduate School has *very strict* regulations about
682 the format of your thesis, governing everything from the fonts you use, to where you put page
683 numbers to the type of paper you print on. Guidelines are found at

684 <https://www.towson.edu/academics/graduate/office/documents/guidelines.pdf>

685 *The Thesis Defense -- Preparation*

686 After you have a draft of your thesis that is acceptable to your research advisor, you need to:

- 687 1. Inform the Graduate Program Director that you are about ready to defend your thesis.
688 The graduate director will assist you in finding a "Thesis Defense Chair" (another
689 professor, not on your committee) who will oversee the proceedings.
- 690 2. Prepare and give copies of your thesis to your committee members. As a courtesy, you
691 can ask the Thesis Defense Chair if he/she would like a copy. Remember this person
692 moderates your defense; he/she is not a member of the committee.
- 693 3. Find a time, at least two weeks in the future (giving committee members enough time to
694 read your thesis) that you, your advisor, your committee members and the Thesis
695 Defense Chair can all get together for ~2 hours.
- 696 4. Work with the ENVS Academic Program Specialist to locate a room in which to hold your
697 defense. When you have a room, inform your Thesis Defense Chair and your committee
698 as to final date, time and location for the defense AND immediately complete the "[Thesis
699 Defense Announcement](#)" form and send it by e-mail to slajeunesse@towson.edu. This
700 should be done at least 10 working days before the defense. The thesis defense should
701 publicly advertised.
- 702 5. Prepare a "Report of Results of Thesis Defense to Graduate Program Director" form.
703 This [form](#) will be submitted by your Thesis Defense Chair to the Graduate Program
704 Director after the defense.
- 705 6. The Thesis Approval page which will be inserted into your thesis is now a DocuSign
706 form. After your defense, complete the appropriate form for the number of committee
707 members and it will route for their signatures.

708 [Post- defense Thesis Approval Page Form for Chair and 2 Members](#)

709

710 [Post- defense Thesis Approval Page Form for Chair and 3 Members](#)

711

712 [Post- defense Thesis Approval Page Form for Chair and 4 Members](#)

713

714

715 *Thesis Defense -- Format*

716 You may begin by making a short public presentation (25-40 minutes). Typically your
717 presentation will be a short review of your objective, methods, major results and their
718 interpretation; i.e., the high points. Presentations should also be used to provide visual
719 illustrations (e.g., slides, computer simulations) of various aspects of your research such as your
720 study species, your research site, procedures that you used, computational methods, etc. For
721 example, if you were studying the endangered purple-snouted mugwump living in the marshes
722 of Upper Slobovia, your committee and the public would probably appreciate seeing pictures of
723 the mugwump, the marshes of Upper Slobovia, life history models, maps of seasonal
724 distribution of the different age classes, etc. Alternatively, if you were doing chemical research
725 and your research results relied heavily on interpreting print-outs from analytical equipment, a
726 picture of a print-out and a walk-through of the interpretation would be helpful to your
727 committee. The presentation is open to other faculty, your fellow graduate students, co-workers,

728 friends and family, etc.

729

730 After your presentation, people not on your thesis committee will depart and your committee
731 members will remain. The thesis defense chair will lead this part of the defense. Your committee
732 members will ask you questions, make suggestions, etc. Questions may be about anything
733 regarding your research and thesis. You may be asked about the methods that you used, the
734 analyses you did, or how you interpreted specific results. You may also be asked about
735 previous research in the area, the significance of your contribution, what you would do
736 differently if you could start over, or what you might do next, given the current results. *It is not*
737 *uncommon to have professors keep asking questions until you run out of answers; they are*
738 *trying to discover the extent of your knowledge.* Is this nerve-racking? You bet. But hang in
739 there. It may not seem like it at times but each professor will be pulling for you to successfully
740 answer all the questions that you are asked.

741

742 When there are no more questions, you will be asked to step out of the room. A discussion will
743 ensue and committee members will come to a consensus as to whether your research efforts
744 and thesis merit a “passing grade.” They will be considering two things. First, they will be
745 looking at the quality of the research and the significance of the contribution that your thesis
746 research makes. Second, they will be asking whether you, despite the results that you obtained,
747 learned a substantial amount about the process of doing research (recall that one purpose of
748 the M.S. thesis experience is to *teach* you about doing research). Your advisor and all
749 committee members must vote to pass you for your defense to have been deemed “successful.”
750 If one or more committee members do not pass you, the defense is deemed “unsuccessful.”
751 You will then be called back into the room to be informed of the results by your advisor.
752 Following the defense, each committee member will submit their votes via DocuSign electronic
753 signature form (Appendix 5).

754

755 If you are successful and only need to make either no revisions or minor to moderate revisions
756 of your thesis, your committee will probably sign your approval page. Your research advisor will
757 then be responsible for overseeing any revisions. Once you have your advisor’s final approval,
758 you can turn your thesis into the Graduate School for final approval (see below).

759

760 If you are not successful, i.e., if you are not passed by one or more of your committee members,
761 you will be informed as to what changes are recommended in the content of your thesis before
762 you should attempt a second defense. You are allowed one more defense, which must come
763 within one year of the first defense. If the second defense is not successful, you and your
764 advisor should schedule a meeting with the Graduate Program Director to discuss your options
765 (e.g., additional coursework for a non-thesis degree).

766

767 *Final Approval of the Thesis*

768 Following a successful defense, meet with your research advisor to agree on any minor
769 revisions necessary to the document. Make those revisions. Carefully check for errors. The
770 student is to submit the final approved thesis/dissertation, signed Thesis/Dissertation Approval
771 Page, Thesis/Dissertation Format Review Page and the Internet Release Page in electronic

772 form to the Office of Graduate Studies at gradstudies@towson.edu at least 10 working days
773 prior to the official end of the term in which the student intends to graduate. The Office of
774 Graduate Studies evaluates an electronic copy of the thesis, after it has been approved by the
775 committee, to ensure compliance with the procedural and formatting requirements stipulated in
776 the “Guidelines for Preparing Theses and Dissertations”. Theses that do not follow the
777 guidelines will need to be corrected by the student before receiving final approval from the
778 Office of Graduate Studies.

779
780 Once approved, the Office of Graduate Studies will forward the electronic copy to Cook Library
781 (See Section VI of the Guidelines for Preparing Theses for more details). Students are welcome
782 to produce paper copies and have them bound for themselves, their committee chairperson,
783 committee members and others. Neither the Office of Graduate Studies nor Cook Library
784 requires a hard bound copy. Students may request binding of personal copies on a paper of
785 their choice through Cook Library for a nominal fee. Even though paper copies are not being
786 submitted, the formatting requirements of a paper copy must be followed.

787
788 *Prototype Thesis Schedule:*

789 A prototype thesis research schedule is presented in [Appendix 10](#).

790 GRADUATION

791 Students apply for graduation online through their student center (Towson Online
792 Services/PeopleSoft). Deadlines for submission of applications are published in the Academic
793 Calendar of the *Graduate Catalog* and are typically Jan 15 for spring, July 4 for summer, and
794 Aug 15 for fall graduation. Applications for graduation are generally due about 4 months before
795 the scheduled graduation date. When you submit an application for graduation, both the
796 Graduate School and the Graduate Program Director examine your record to determine whether
797 you meet all requirements for graduation and notify you if there are any deficiencies.

798 APPENDICES

799 Appendix 1. Forms for Thesis Students

800 These forms also can be found on the Office of Graduate Studies page for [Theses and](#)
801 [Dissertations](#) as well as in the [Guidelines for Preparing Theses and Dissertations \(PDF at link\)](#)

802

803 Forms for final approval of thesis

804 Links to these forms and program-specific thesis-related forms below also can be found on the
805 [Environmental Science program page](#)

806 [DocuSign form for Report of Thesis Proposal Defense](#)

807 *Appendix 2. The Environmental Science Course Approval Form for Off-*
808 *List Courses*

809 The link to the PDF form can be found on the [Environmental Science program](#)
810 [page](#) under *Approval for Off-List Courses*.

811 This form **must be completed and submitted** to the Director BEFORE a student registers for a
812 graduate course NOT listed as an acceptable elective within their selected concentration.

813 *Appendix 3. Environmental Science Independent Study Approval Form*

814 This form must be completed and submitted to the Graduate Program Director BEFORE a
815 student takes part in an independent study course/project.

816 Environmental Science Independent Study Approval Form

817 Name:

818

819 Independent Study Faculty Instructor:

820

821 Number of Units (1 - 4):

822 Semester/Year:

823 Brief Project/Course Description:

824

825

826

827

828

829 Expected Outcomes (e.g. research paper, presentation):

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Student Signature

Date

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Faculty Signature

Date

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Program Director Signature

Date

849 *Appendix 4. Recommended course of study for part-time non-thesis track students*

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Fall semester 1	Spring Semester 1	Summer Semester 1 (optional)
ENVS 600 Environmental Science & Sustainability Colloquium (1) At least one of the following: 1. Core Area 1 (4) 2. Core Area 2 (4)	At least one of the following: 1. Core Area 3 (4) 2. Core Area 4 (3)	Any elective approved for your concentration
Fall Semester 2	Spring Semester 2	Summer Semester 2 (optional)
3 rd required core course (4) OR 3 rd required core course and one approved elective (7-8) OR At least one but no more than 2 approved electives (3-8)	4 th required core course (3-4) OR 4 th required core course and one approved elective (7-8) OR ENVS 798 Research Practicum (3) (only if you are in your last or second to last semester) OR No more than 2 approved electives (3-8)	Any elective approved for your concentration
Fall Semester 3 (if needed)	Spring Semester 3 (if needed)	
At least one but no more than 2 electives approved for your concentration (3-8)	ENVS 798 Research Practicum	

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Full requirements: at least 30 units including:

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- Environmental Science & Sustainability Colloquium ENVS 600

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- Core Area 1 Environmental Geology: ENVS 601 OR ENVS 650

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- Core Area 2 Ecosystem Science: ENVS 604

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- Core Area 3 Environmental Chemistry: ENVS 605

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- Core Area 4 Environmental Law, Policy, and Education: BIOL 651, ENVS 582, ENVS 603, ENVS 611, ENVS 620 OR ENVS 625

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- Electives (12 units)

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- Research Practicum ENVS 798

860 *Appendix 5: Recommended course of study for full-time thesis track students*

Fall semester 1	Spring Semester 1	Summer Semester 1
ENVS 600 Environmental Science & Sustainability Colloquium (1) Core Area 2 (4)	At least one of the following: 3. Core Area 3 (4) 4. Core Area 4 (3)	Any elective approved for your concentration
Fall Semester 2	Spring Semester 2	Summer Semester 2 (if needed)
ENVS 896 Research Thesis (3) One elective approved for your concentration (2-4)	ENVS 896 Research Thesis (3) Once elective approved for your concentration (2-4)	ENVS Research Continuum

- 861
862 Full requirements: at least 30 units including:
- 863 • Environmental Science & Sustainability Colloquium ENVS 600
 - 864 • Core Area 1 Environmental Geology: ENVS 601 OR ENVS 650
 - 865 • Core Area 2 Ecosystem Science: ENVS 604
 - 866 • Core Area 3 Environmental Chemistry: ENVS 605
 - 867 • Core Area 4 Environmental Law, Policy, and Education: BIOL 651, ENVS 582, ENVS 603, ENVS 611, ENVS 620 OR ENVS 625
 - 868 • Thesis Research ENVS 896 (6)
- 869

870 *Appendix 6. Prototype Thesis Research Calendar*

Fall semester 1	Spring Semester 1	Summer Semester 1
ENVS 600 Environmental Science & Sustainability Colloquium (1) Core Area 2 (4)	At least one of the following: 5. Core Area 3 (4) 6. Core Area 4 (3)	Any elective approved for your concentration
Fall Semester 2	Spring Semester 2	Summer Semester 2 (if needed)
ENVS 896 Research Thesis (3) One elective approved for your concentration (2-4)	ENVS 896 Research Thesis (3) Once elective approved for your concentration (2-4)	ENVS Research Continuum

- 871
872 Full requirements: at least 30 units including:
873 • Environmental Science & Sustainability Colloquium ENVS 600
874 • Core Area 1 Environmental Geology: ENVS 601 OR ENVS 650
875 • Core Area 2 Ecosystem Science: ENVS 604
876 • Core Area 3 Environmental Chemistry: ENVS 605
877 • Core Area 4 Environmental Law, Policy, and Education: BIOL 651, ENVS 582, ENVS 603, ENVS 611, ENVS 620 OR ENVS 625
878 • Thesis Research ENVS 896 (6)
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