



**Hydrometeorology Program
Masters of Science (M.S.) DEGREE
Departmental REQUIREMENTS**

Valid for AY 2017-2020

(Updated 01/14/2020 L. Romero)

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NOTE: This document is meant to guide the student through the path of obtaining a graduate degree. It is not to be regarded as a legally binding contract. If you have any questions please ask.

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History & Purpose

HISTORY

The UA's Department of Hydrology and Atmospheric Sciences now offers the nation's first graduate degree program (MS, PHD), with a major in Hydrometeorology. The terrestrial water cycle includes both the atmospheric component--water vapor, clouds, and precipitation--and the land component--surface and subsurface runoff, infiltration, evapotranspiration, snowmelt, river flow--which play a major role in the weather and climate and strongly affects human activities.

Historically, the science of hydrology has focused on land-related processes and has relied on prescribed atmospheric inputs, generally from observations or atmospheric model outputs, or through empirical estimates derived from conventional meteorological measurements. In contrast, while the atmospheric sciences generate hydrologically-relevant forecasts, they tend to avoid dealing with the details of processes influencing feedbacks generated by the land surface. In establishing a firm linkage between the two, the program asks the following questions:

- What is the science involved with the interface of water in the atmosphere and water on the ground?
- What are the ramifications for predictive capabilities when these processes are incorporated into coupled numerical weather and climate models?
- What are the new applications in water quality, and how are water quality issues linked to precipitation and related runoff issues?
- How is the full understanding of the hydrologic cycle from "white water" to "blue water"--from precipitation to streams to oceans to water vapor to precipitation--related to the advancements in prediction and related societal benefits that link back to the water quality issue?

PURPOSE

- Educate students by providing them with (1) a well-rounded background in the fields of atmospheric, hydrologic, and systems sciences, (2) the tools and methods for numerical

modeling, prediction, and data assimilation (surface hydrology, weather and climate), and (3) the sensors, data sources, and data manipulation tools, including remote-sensing and geographic information systems (GIS)

- Partner with various national and international weather and climate forecasting agencies to identify critical hydrometeorological knowledge gaps, to support, encourage, and facilitate research in multidisciplinary hydrometeorological science, and to work towards improved forecasts and forecast support, particularly over arid and semiarid regions such as the Western US
- Serve the hydrometeorological science and operational communities by coordinating meetings and workshops seeking to build consensus related to hydrometeorological science and to assist in the transfer of advances in understanding into the decision-making arena

WHY HYDROMETEOROLOGY?

Hydrometeorologists mainly study both the atmospheric and terrestrial phases of the hydrological cycle, with emphasis on the interrelationship between them (i.e. the transfers of water and energy between the land surface and the lower atmosphere). Accordingly, the science of hydrometeorology bridges across both hydrology and meteorology. For example, hydrometeorologists are interested in the study of natural hazards of hydrometeorological origin and the mitigation of their effects. Among these hazards are the results of natural processes or phenomena of atmospheric, hydrological or oceanographic nature, such as floods, tropical cyclones, drought and desertification, and the potential impacts of land-cover change and changing climate. Major and important processes of interest to hydrometeorologists are precipitation and evapotranspiration, and also how the land surface partitions energy into different components (sensible, latent, ground heat flux) and how this then affects the overlying atmosphere. Only recently have academic degree programs dedicated to the study of hydrometeorology been formed, such as the program here at the Department of Hydrology and Atmospheric Sciences at the University of Arizona!

COURSE REQUIREMENTS

Students seeking a master's degree in hydrometeorology must complete a minimum of 34 units of graduate coursework. This program is prescribed, the courses listed below are the only approved courses for the program. There is no minor, hydrometeorology is considered the minor in your Plan of Student (POS). No course substitutions are permitted at this time.

30 units of graduate course work in their major field of study

1 unit of seminar

3 units minimum of thesis research

34 total units

CORE COURSES

ATMO 541A	Dynamic Meteorology I	3 units
ATMO 551A	Physical Meteorology I	3 units
HWRS 519	Fundamentals in Surface Water Hydrology	3 units
HWRS 524	Hydroclimatology	3 units

*ELECTIVE COURSES**

Students must take a minimum of 18 units from the elective course list. Students are required to **take two courses (6 units)** from **each of the three areas** listed below.

1) Numerical Weather and Climate Prediction (6 units)

ATMO 558	Mesoscale Meteorological Modeling	3 units
ATMO 579	Boundary Layer Met. & Surface Processes	3 units
ATMO 551B	Dynamic Meteorology II	3 units
ATMO 574A	Weather Analysis & Forecasting I	3 units
ATMO 574B	Weather Analysis & Forecasting II	3 units

2) Systems Science and Methods (6 units)

HWRS 505	Vadose Zone Hydrology	3 units
HWRS 528	Fund. Systems Approach to Hydrologic Modeling	3 units

ATMO 545	Intro to Data Assimilation	3 units
ATMO 555	Intro to Remote Sensing in Atmo. & Hydro	3 units

3) Data Sciences (6 units)

REM 590	Remote Sensing for the Study of Planet Earth	3 units
ATMO 529	Objective Analysis in Atmos. and Related Sciences	3 units
HWRS 513A	Field Hydrology Methods	2 units
HWRS 513B	Field Hydrology Synthesis	1 unit
HWRS 543A	Risk Assessment for Environmental Systems	3 units
CE 527	Computer Applications in Hydraulics	3 units

*Highlighted courses are in the process of being approved by the HAS Academic Committee

A Typical Master's Program:

Semester	Degree Requirements	Units
Fall: Year 1	ATMO 541A Dynamic Meteorology I	3
	ATMO 551A Physical Meteorology I	3
	HWRS 528 Fund. Systems Approach to Hydrologic Mod	3
	HWRS 595A Current Topics in HAS	1
Spring: Year 1	HWRS 519 Fundamentals in Surface Water Hydrology	3
	HWRS 524 Hydroclimatology	3
	ATMO 541B Dynamic Meteorology II *	3
Fall: Year 2	ATMO 529 Objective Analysis in the Atmos and Related	3
	REM 590 Remote Sensing of the Study of Planet Earth	3
	ATMO 545 Introduction to Data Assimilation	3
	<i>Qualifying Exam</i>	
Spring: Year 2	ATMO/HWRS 910 Thesis	3
	ATMO 579 Boundary Layer Met. and Surface Processes	3
	<i>Submit Written Thesis</i>	
	<i>Thesis Oral Defense</i>	
Total Units		34

* required for working at the NWS

GENERAL REQUIREMENTS

MAJOR ADVISOR

During the first semester, the student should select a Major Advisor to chair their committee. The student and Major Advisor then select the doctoral committee members for the student. At least three members must be tenure-track faculty. If one or more members is not a tenure-track UA faculty member, he or she must be approved by the Graduate College as a special member. A member who is not tenure-track will not be eligible to serve as sole chair of the committee but can serve as co-chair if approved to do so by the Graduate College. Students may change major professors with departmental approval, but are required to have a major professor in order to maintain Satisfactory Academic Progress.

ARIZONA RESIDENCY

Students must meet the following **minimum** residence/enrollment requirements:

- A. A minimum of 12 units must be completed in residence at The University of Arizona. The remaining credits required for the master's degree must be met by University credit, graduate-level courses, including on-campus courses, courses offered away from the main campus, and approved thesis credit *in absentia*.
 - a. **Without Assistantships:** Students must enroll with a minimum of nine (9) units of graduate credit each regular semester to maintain a full-time student status.
 - b. **With Assistantships:** Students must enroll with a minimum of six (6) units of graduate credit each regular semester. **However, GAs hired under the Department of Hydrology and Atmospheric Sciences must enroll with a minimum of nine (9) units of graduate credit each regular semester.**

CONTINUING STUDENT STATUS

After finishing all course requirements, students must continue to register each Fall and Spring for a minimum of 1 graduate unit until all degree requirements are met. If the degree program requirements are to be completed in the summer, the student must register for a minimum of 1

unit of graduate credit during that term. If all course work is completed, the student may enroll in ATMO/HWRS 910.

NOTE: If the student enrolls in **only** 900-leveled courses during his/her final semester, s/he may be entitled to a "900-Leveled Graduate Tuition Waiver" if living out of state and not using University resources. Waiver covers out-of-state tuition costs only. In-state tuition and mandatory fees are not covered by this waiver. Please see the Graduate Coordinator for more information.

QUALIFYING EXAMINATION

If students have successfully completed their MS degrees in HAS, received at least 2 A's and 2 B's in the core courses, and received an unanimous endorsement from their MS defense committee members [i.e. checked box on MS defense form], they may have the qualifying exam waived at the advisor's request. Failure to either take the exam or to pass the exam after two attempts means that students may not continue in the program (*Refer to the following section entitled "Qualifying Exam", page 16*).

RESEARCH

At the discretion of each student's committee, an original research topic, judged to be suitable by the committee members, is required. A student must submit a written thesis. (*Refer to the following section entitled "The Research Topic", page 23 and "The Thesis", page 24 for more detail*).

REQUIRED DEMONSTRATION OF COMPETENCE

A. All students must demonstrate, to the satisfaction of each student's Major Advisor, proficiency in both statistics and computer programming (e.g. FORTRAN, MatLab, GrADS, and NCL), numerical atmospheric models and specialized instrumentation Participation in laboratory or field work may be a component. This may be demonstrated by the successful completion of approved courses in these subjects, either as an undergraduate or graduate student.

AND

- B. All students, will be required to present the results of their research in a formal seminar or presentation at a scientific meeting in the form of an oral or poster presentation. Typically a student presents at the annual El Día de Agua y la Atmósfera (Spring), AGU (December) or AMS (January) meetings.

GRADPATH & DEPARTMENTAL FORMS

The Graduate College requires all graduate students to complete official forms in GradPath forms through the UAccess Student. The department may require internal forms to be completed in addition to GradPath forms. Please see the Graduate Coordinator for more information.

- Responsible Conduct of Research
- Evaluation of Transfer Credit
- Master's Plan of Study (POS)
- Master's/Specialist Committee Appointment
- Master's/Specialist Completion Confirmation

PLAN OF STUDY

By the end of the second semester, the student and their Major Advisor should have decided on the student's Master's Plan of Study (POS). You may use the departmental POS to help in your decision making with your major advisor. Please see the Graduate Coordinator for the internal form. The POS must have the approval of the student's Major Advisor and the Director of Graduate Studies before it is submitted to the Graduate College. Once the Graduate College approves the POS, a \$35 fee will be billed to your Bursar's Account. Credits from other institutions the student wishes to transfer should be discussed and may be approved by the Graduate Director and Major Advisor at this time. Any changes to the original POS must be re-submitted to Graduate College during the final semester. **The Responsible Conduct of Research and Evaluation of Transfer Credit forms must be completed before the Doctoral Plan of Study.**

1. **Responsible Conduct of Research Form:** "Fostering a culture and expectation of responsible and ethical conduct of research is a critical component in the advancement of knowledge through research and scholarship. It is a key element in the maintenance of public trust in the research enterprise." Source: UA Office of

- Research, Discovery, and Innovation. All students must complete the Responsible Conduct of Research (RCR) Statement form. Additionally, an RCR Workshop is required for any student who is financially supported by an NSF, NIH, or NIFA grant.
2. **Evaluation of Transfer Credit Form:** Submit this form during the first or second semester in residence to obtain approval for any potential Transfer Credit (graduate-level coursework already completed) for later use in the Plan of Study. Discuss details with the Director of Graduate Studies.
 3. **Master's Plan of Study Form:** All courses taken, future courses (major and minor), transfer courses, and thesis units must be included in the form.

MASTER'S DEFENSE

Upon completion of his/her thesis, the student will take an oral examination in defense of the thesis. The student must submit copies of the draft thesis to his/her Graduate Committee no less than one to two weeks before taking the Master's Defense Examination. At least seven (7) working days before the proposed examination date, the student must submit the exact time and place of the examination. The student must make all necessary arrangements to schedule the Oral Defense Examination with his/her examining committee. All committee members need to be present in person or via teleconference. The public defense consists of a short presentation by the student candidate (approximately 20min). Followed by questions by the committee on both the proposed research and hydrometeorology topics. The exam is not to exceed two hours.

1. **Master's/Specialist Committee Appointment Form:** Master's thesis committees must consist of three members; at least two must be current tenured, tenure-track, or approved tenure-equivalent UA faculty members. If the third member is not a current tenure-track UA faculty member, he or she must be approved by the Graduate College as a special member. A member who is not a current tenure-track faculty member will not be eligible to serve as sole chair of the committee but can serve as co-chair if approved to do so by the Graduate College.
2. **Master's/Specialist Completion Confirmation:** When the student's Advisor and committee members approve the student has completed all degree requirements, the Advisor must contact the Graduate Coordinator to process.

CONTINUING INTO THE DOCTORAL PROGRAM

Applying to the doctoral program: A student must have received a minimum average grade 2 As and 2 Bs in the four core courses at the master's level and passed the Qualifying Exam in order to advance into the doctoral program. A student with less than these requirements must have their advisor petition the faculty for a waiver before they can continue. Qualified students who have completed the master's degree in this Department and who wish to continue in the doctoral program must apply to the doctoral program during their 4th or final semester in the Spring to meet the admission deadline of January 15th. See your Major Advisor and the Graduate Coordinator for assistance.

The Qualifying Examination

PURPOSE

- To test the student's basic understanding of their general field of study, ability to communicate their research interests, and potential for doing PhD-level research.
- Provide feedback on graduate coursework that may help in student's research and/or career goals.
- Increase students and faculty exposure to each other's research interests.

WHEN

Beginning of the third semester if the student joins the program without a master's degree.
Possible retake the same semester.

LOGISTICS

The student is responsible for submitting the written component to the Graduate Coordinator no later than September 30th for Fall or February 28th for Spring. The student will receive a Qualifying Exam form to receive signatures from faculty after each meeting. The Graduate Coordinator will assign the four HAS core faculty, will notify each faculty, and send the student's written component to review. The student is responsible for contacting each faculty to arrange meetings. Please allow a minimum of two weeks for faculty to review your research proposal. You have until the last day of classes to complete the oral component of the exam and return the signature page to the Graduate Coordinator.

FORMAT

The qualifying exam is a combination of written and oral components.

Written Component: Graduate Fellowship Research Application (GFRA). Students must submit a short (typically 2-6 pages) research proposal in the format of one of the following graduate fellowship programs: NSF, EPA, NASA, or NOAA. Alternative fellowship formats may be used with prior approval by the HAS Graduate Committee. Proposals must be submitted no later than February 28th of the student's 2nd semester, if

starting in August; Proposals are due Sept. 30th if starting in January. Students are encouraged, but not required to submit the fellowship application to the funding agency.

*All written components for the PhD Qualifying or Comprehensive exams should have 1” margins, 12 point New Times Roman font (or similar), and be single-spaced.

Oral Component: Q&A with 4 Faculty following submission of GFRA. Two weeks after submission of the Graduate Fellowship Research Application, students must schedule 20-minute individual meetings with 4 tenured/tenure-track faculty members in the department (3 in their program of study, and 1 from another PhD program within HAS). The meetings should all take place within 1 week if at all possible. The Graduate Academic Advisor will assign the 4 faculty members to the PhD Qualifying Exam Committee. Those faculty members will evaluate the student’s research application prior to the meeting, and ask the student questions during the Q&A related to their research to test the breadth of their knowledge about their field of study and provide feedback on coursework potentially relevant for their PhD research and career goals.

GRADING

The written and oral exam will be graded Pass/Fail. Students must receive a “passing” grade from at least 3 of the 4 faculty members on both the written and oral components to pass the qualifying exam. If students fail the written exam, they may submit a revised research proposal within one month of receiving notice that they failed the first exam. If students fail the oral exam, they may retake the oral exam within one month of receiving notice that they failed the first oral exam.

The Research Topic

The choice of a research topic is one of the most important decisions confronting the student. The guidance and advice of the student's Major Advisor should help in making the decision. Although there are no specific rules, the following principles may be helpful:

- A. The problem should require the use of material covered in at least some part of the graduate course program.
- B. Although master's-level research is carried out under the close supervision of a faculty member. Some element of originality on the student's part should be involved. In other words, the problem itself may be new, or a new approach or new method of analysis may be applied to an old problem.
- C. The problem should be carefully limited in scope. A thorough piece of work on a small problem is generally satisfactory, while a sketchy development of a large problem is not generally acceptable.
- D. The research problem cannot be secret or classified in the military sense.
- E. Except in certain special cases, collaboration of two or more students on one thesis is not allowed.

The Thesis

Master's Thesis Formatting Guide Below can also be found on the Graduate College's website, <https://grad.arizona.edu/gsas/dissertations-theses/dissertation-and-thesis-formatting-guides>.

Thesis Formatting Guide

I. Introduction

Congratulations on reaching the final stage of your master's program! Your thesis is the culmination of your graduate work and deserves a professional presentation. There are a few specific requirements in this guide, but otherwise you are expected to present your work in the best form for your discipline and your intended audience, following the guidance of your committee.

The required elements of the thesis include specifically formatted front matter (the first few pages) and a few principles to follow. Please review the information below when you are preparing your thesis.

II. Required Pages and Organization of Front Matter

The first two pages of your thesis must be:

- Page 1: Title page
- Page 2: Thesis Committee Approval page

There are samples of these pages available on the Graduate College web site, showing their formatting. These samples are found at <https://grad.arizona.edu/gsas/dissertations-theses/sample-pages>. You may adapt one of these sample pages for your use – just replace the sample information with your own. Some tips and instructions for these pages follow.

A. Title page

- Follow the capitalization shown in the sample.
- You should reference your department by its official name. If your major does not match the name of the department, you need to include "WITH A MAJOR IN _____" below the degree name.

B. Thesis Committee Approval page

Option 1: Your Graduate Coordinator will use Adobe Sign to gather signatures for your approval page. Once the chair/co-chairs and

committee members have all signed, you will include that signed approval page as page 2 in your dissertation.

Option 2: If your chair/co-chairs and committee members prefer to physically sign your approval page at the final defense, please follow these instructions:

- Download the sample at <http://grad.arizona.edu/degrecert/samples-templates> to prepare your approval page. Be sure to use the correct version, depending on whether you have one thesis chair or co-chairs. Type your name, thesis title and names of the members who will participate on your thesis defense committee. Use your defense date as the date for the signature lines.
- Print out a hard copy to take to your thesis defense and get the signatures of all your committee members. Your Thesis Chair Co-Chairs will need to sign the form twice (as a member and as chair/co-chair). If a committee member or chair attends the defense remotely, scan the page, have them sign and send back to you.
- When all signatures are received, scan the signed approval page and email it to your Graduate College Degree Counselor. Keep the original for your records. DO NOT add to ETD ProQuest as a supplementary file.
- Once you receive the approval page back with the UA watermark, insert the page into your
- thesis as page 2.

C. Acknowledgements and Dedication(optional)

- If you include an Acknowledgements page, it should directly follow the Thesis Director approval page.
- The next page, if you include it, would be the Dedication.

D. Table of Contents

- The Table of Contents follows the title page, Thesis Director Approval page, and the Acknowledgements and/or Dedication (if included).
- All chapters and major sections of the thesis that appear after the Table of Contents, including the Abstract, should be reported.
- You may decide how many levels of sub-headings you wish to report in the Table of Contents. Be consistent – if you report some headings of a given level, you should report all of them. Different levels of heading are normally distinguished in the Table of Contents by indenting.
- Each heading reported in the Table of Contents should match the heading in the body of the thesis and should have its page number reported.
- We recommend using a dot leader (e.g. “.....”) between each heading and its page number on the far right, for the ease of the reader.

E. Lists of Figures/Illustrations and Tables

- If your thesis includes figures, it is helpful to include a List of Figures following your Table of Contents to identify the figures and report the pages where they appear.
- Similarly, a List of Tables is helpful if your thesis includes tables.
- You may number your figures and/or tables using any method that will make sense to your readers.

F. Abstract (*Required*)

- You **must** include your abstract prior to the first chapter of the thesis, and following all other frontmatter.

III. Formatting Principles

A. Fonts

- It is best to use a standard serif font, as they reproduce well.

B. Headings

- Different levels of heading should each have a distinct and consistent appearance. Ideally, the reader should know at a glance what level a given heading is based on its appearance.

C. Margins

- Theses that are archived and retrieved electronically in .PDF format do not need to abide by specific margins.
- If you are ordering bound copies of your thesis from ProQuest/UMI when you submit it for archiving, you will want to use margins appropriate for binding: 1.5" on the left, and 1" at the top and bottom.

D. Page Numbers

- Page numbers should appear on all pages (although the title page does not need to display its page number), in the same place on each page.
- The title page is considered page 1 of the thesis, with all other pages numbered successively.
- If you include scanned material with page numbers, please ensure that the reader can easily find the thesis page number on any page.

E. Citations

- You should use the citation style appropriate for your discipline, following the guidance of your committee.

F. Footnotes/Endnotes

- You may use footnotes or endnotes as appropriate.
- There is no specified format for footnotes or endnotes.

G. Appendices

- You may include material in appendices as appropriate.
- Appendices appear following the chapters of the thesis, and before the final References section.
- Typically each appendix has a letter designation and a title (e.g. "APPENDIX A – SUPPLEMENTARY DATA").

H. References/Bibliography

- The final section of the thesis should be a comprehensive list of the works you have cited or used.
- As noted above, the Graduate College does not specify a citation style to use.

IV. Manuscript/Article-Based Thesis

A. Manuscript/Article-Based Thesis Option

- At the option of the student and the committee, an alternate format permitting inclusion of a paper/papers published or prepared for publication in scholarly journals may be used.
- The decision to allow the inclusion of previously published or submitted work in a thesis is left to the candidate's degree-granting unit.
- If using multiple papers, the published or publishable work must be logically connected and integrated into the thesis in a coherent manner. Simply binding reprints or collections of publications together is not acceptable as a thesis in either format or concept.

B. Presentation of Articles and their Academic Context

- Published/publishable papers should be included in the thesis as appendices. Any paper or article that has been published or submitted for publication should reference the journal of submission so the reader can find the published article.
- However, in order to provide coherency, the thesis must also include chapters that present a summary of the research, an explanation of the student's contribution if it was not individual research, and an explanation of how this research contributes to the student's field.
- The committee will guide the student in presentation of this summary material.
- If references are cited in the thesis chapters, they should be reported in a References section that follows the chapters and precedes the appendices.

V. Other Considerations

A. Filing for Copyright

- While your thesis is your own intellectual property, you may elect to file the copyright with the Library of Congress to secure additional legal protection.
- For information about copyrighting, please review the information

available on the Graduate College web site at
<https://grad.arizona.edu/gsas/dissertations-theses/about-copyrighting>.

There is contact information there for the copyright expert at the University Library should you have questions.

- When you submit your thesis for archiving, you will be asked whether you wish to file for copyright.
 - i. If you decide to file for copyright, please be sure to use the correct version of the Statement by Author/thesis approval page.
 - ii. If filing for copyright, you will be charged a fee by ProQuest/UMI

copyright for your thesis in your name.

4

B. Use of Copyrighted Material

- Use of copyrighted material in your thesis, including illustrations, usually requires written permission from the copyright holder. Start this time-consuming process as early as possible. Play it safe and assume that you must obtain permission if the material is copyrighted.
- Notice of permission granted for the use of copyrighted material should either be included in the thesis (likely as an appendix) or be included in a supplementary file submitted with the thesis for archiving.
- The use of small fractions of a musical score or other document without explicit permission is governed by the concept of “fair use.” Factors weighed in determining “fair use” include: the purpose of the use, whether commercial or nonprofit and educational; the nature of the copyrighted work; the amount and substance of the material used in relation to the entire work; and the effect of the use upon the potential market for or value of the copyrighted work. See The University of Arizona’s Fair Use checklist for more information
<http://www.library.arizona.edu/services/faculty/scholcom/fairuse/>.

C. Archived theses (UA Campus Repository)

- You can find theses and dissertations archived by past UA graduates in the Campus Repository maintained by the University Library at
<https://repository.arizona.edu/handle/10150/129649>

VI. Submission of the Thesis

A. Thesis Archiving Requirement

- A student who completes a master’s thesis (with registration in course number 910) is required to have the thesis archived. The student has the option to temporarily or permanently restrict public access to the archived thesis.
- Archived theses are stored in two archives: the national archive maintained by ProQuest/UMI and the [University of Arizona’s Campus](#)

[Repository.](#)

B. Timing

- You will submit your thesis for archiving after you have successfully defended and gained final approval from your committee. If your committee requires you to make revisions following your defense, your revisions must have been completed and accepted by the committee before you submit the thesis.
- In order to graduate in a given term, you must submit your thesis by the graduation deadline published on the Graduate College site (<https://grad.arizona.edu/gsas/degree-requirements/important-degree-dates-and-deadlines>). This deadline is typically the last day of finals, but check the specific date published for your graduation term to be sure.

C. The Submission Procedure

- You will submit your thesis online via the submission web site: <http://www.etdadmin.com/arizona> This is not a UA site, so you will begin by establishing your profile in the submission system. Note that you must include your 8-digit UA student ID number in your profile.
- Once you have established your profile, you can follow the step-by-step instructions on the site to make your submission.
- Publishing option: You will be asked to select either Traditional or Open Access publishing.
 - i. Traditional publishing: If you elect Traditional publishing, there will be no fees charged. With Traditional publishing, ProQuest/UMI will sell your thesis to a customer who requests it and will forward a very small royalty to you. Note that your thesis will be available for free in the University of Arizona Campus Repository if someone searches for it there.
 - ii. Open Access publishing: If you elect Open Access publishing, you pay a fee to ProQuest/UMI, and they will then make your thesis available for free from their archive. Note: All theses and dissertations are available for free from the UA Campus Repository whether or not you pay for Open Access publishing through ProQuest/UMI.
- Copyrighting Option
 - i. If you elect to copyright, ProQuest/UMI will charge you a fee and will then register the copyright in your name. (Please see section IV.A above for information about copyrighting.)
- Your [Degree Counselor](#) in the Graduate College will review your thesis submission and will e-mail you to tell you whether any formatting changes are needed. Note that the e-mail will be sent to the address in your submission profile and may be caught in your spam filter.
- You will receive a confirmation email when your thesis has been accepted. The thesis will be published based on your selection of whether and how long to

delay release. Any changes to the thesis post publication may incur a fee.

D. Other Steps to Complete

- a. In addition to having the formatting of your submitted thesis cleared by the Graduate College, you need to complete the following:
 - i. Submit your signed Distribution Rights form to your [Degree Counselor](#) in the Graduate College. You may bring the form to Room 316 of the Administration Building, fax it to (520) 621-4101, or scan and e-mail it to your Degree Counselor. The Distribution Rights form is available for download from <https://grad.arizona.edu/gcforms/academic-services-forms>. This form may also be delivered as a hard copy, or it may be faxed or e-mailed.
 - ii. Complete the Graduate College exit survey at <http://grad.arizona.edu/academics/degree-certification/commencement/exitsurvey>.
- b. The thesis submission procedure is summarized at <http://grad.arizona.edu/gsas/dissertaions-theses/submitting-and-archiving-your-thesis>.
- c. Your degree award will not be processed until you have completed the submission procedure.

Special Notes

- Please become familiar with the Departmental forms and procedures located on the HAS website, as well as the Graduate College forms located in GradPath forms accessed through your UAccess Student.
- Full graduate credit will be given to graduate courses taken no more than six (6) years before the completion of degree requirements. Coursework more than 6 years old will not be accepted toward meeting the degree requirements.
- Validation of work by examination is not permitted. No courses taken by correspondence can be used for graduate credit.
- The cumulative grade point average required for granting the master's degree is 3.000, based on A = 4.000, B = 3.000, C = 2.000, D = 1.000, and E = 0.000.
- The grades of D and E do not carry graduate credit, but are included in the grade-point average.
- The grades of S (Superior) and P (Passing) given for thesis research (ATMO/HWRS 910) are not included in the overall grade point average, but are included for graduate credit. In special circumstances, grades of C, D or E may be given; such grades will be used in computing the overall grade point average.