BOSTON UNIVERSITY

BOSTON UNIVERSITY SCHOOL OF MEDICINE
FORENSIC ANTHROPOLOGY

FORENSIC ANTHROPOLOGY PROGRAM

GRADUATE STUDENT GUIDELINES

2015-2016

DEPARTMENT OF ANATOMY AND NEUROBIOLOGY

DIVISION OF GRADUATE MEDICAL SCIENCES

BOSTON UNIVERSITY SCHOOL OF MEDICINE

Supplement to Boston University Division of Graduate Medical Sciences Guidebook

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Guide for Masters Degree Candidates

Full-Time Faculty in Forensic Anthropology

Program Director:	Tara L. Moore, Ph.D.
Associate Director:	Donald. F. Siwek. Ph.D.
Assistant Director:	Gary Reinecke, SSA ret. FBI
Forensic Anthropologist:	James Pokines, Ph.D., D.-A.B.F.A.
Forensic Anthropologist:	Jonathan Bethard, Ph.D.
Forensic Pathologist:	Peter Cummings, MD
Faculty Instructor:	Farzard Mortazavi, Ph.D.
Adjunct Faculty:	Det. Captain Paul J. L'Italien
Adjunct Faculty:	Murray Marks, Ph.D., D.-A.B.F.A.
Adjunct Faculty:	Ian Dadour, Ph.D.

Graduate Student Committee

This committee directs and oversees the Forensic Anthropology Graduate Program within the Department of Anatomy and Neurobiology. Its responsibilities include but are not limited to: admission decisions, policy-making, the establishment of academic requirements, the resolution of disputes and curriculum development. The Committee consists of the Director of the Forensic Anthropology Graduate Program, the Associate Director of the Forensic Anthropology Graduate Program and at least one additional full-time faculty member.

Description of the MS Program

Coursework

The program for the MS degree consists of ***two calendar years*** of fundamental course work, including laboratory-based course work and at least two semesters of thesis research work and a written thesis. Students may also complete internships, directed studies and/or field school opportunities as part of their graduate education. Candidates are required to complete a minimum of 42-46 credits at the graduate level, complete a full laboratory/field research project and pass a competency examination to meet the requirement for graduation. ***Successful completion (a grade of B- or higher) is required in all courses offered by the Forensic Anthropology program in order to be eligible to graduate. If a student receives a grade(s) below a B- in their 1st year courses, they must petition the Graduate Student Committee for permission to register for 2nd year courses and to repeat the course(s) with unsatisfactory grades.***

It is not uncommon for students to complete additional course work, internship opportunities, directed studies and/or field school that will increase their overall number of credits by the time of graduation.

Program Advisor

Upon beginning the MS program, each student will be assigned a program advisor to assist him/her in selecting an appropriate course of study. Program advisors will be full-time faculty members in the Forensic Anthropology Program and will approve and sign course registration forms, approve and assign grades for internships, and help students choose an appropriate thesis advisor by the end of the first year of study. ***Students are REQUIRED to meet with their advisor a minimum of twice a semester.***

Grades

To receive graduation credit in any course taken as part of the MS program, students *must receive a grade of B- or higher*. If a grade of C+ or lower (including grades of an "I" after one year) occurs in *eight (8) credit hours* or more a student will be automatically dismissed from the Program.

When the work of a course is not been completed within the semester of registration due to extenuating circumstances, the grade of "J" may be issued at the discretion of the instructor. ***A grade of "J" can only be given if a student is currently passing the course.*** The grade of J will be changed to the grade achieved by the student once all course work is completed, However, if the course work is NOT completed within one calendar year the J grade automatically becomes a permanent grade of "J" (unsatisfactory grade). "J" grades may not be changed after a period of one calendar year from the time the original grade is recorded. Grades of "J" (after one year) and C+ or lower are interpreted as failures.

Multiple choice, true-false style questions are graded as correct or incorrect. Short answer, essay or other handwritten responses are graded by the professor as they indicate in their syllabus. If you are UNCLEAR about the grading rubric in a particular course ask your instructor. Extra credit assignments will be not be given in any of the program courses.

Grade Scale

The following grading scale will be used in **all** courses in this program:

A	95+	C+	75-79
A-	91-94	C	71-74
B+	87-90	C-	67-70
B	83-86	D	63-66
B-	80-82	F	<62

Requirements for the MS Degree

Core Course Requirements

Students entering the program are ***required*** to ***successfully complete*** (receive a grade of B- or higher) in the following core courses.

FA 700	Professional Skills and Thesis Research Development	3 Credits
FA 703	Zooarchaeology	4 Credits
FA 704	Bioarchaeology	2 Credits
FA 705	Forensic Anthropology Techniques	3 Credits
FA 711	Forensic Pathology	3 Credits
FA 712	Human Anatomy and Osteology	4 Credits
FA 716	Expert Witness Testimony	2 Credits
FA 718	Special Topics in FA: Outdoor Crime Scene Awareness	3 Credits
FA 760	Research in Anthropology	2 Credits
FA 790	History, Methods and Theory in Bio Anthropology	3 credits
FA 802	Applied Forensic Anthropology	3 Credits
FA 806	Advanced Osteology	4 Credits
FA 807	Taphonomy	3 Credits

FA 810	Mortuary Archaeology	3 Credits
FA 804	Experimental Design for Forensic Anthropology	2 Credits

Students may transfer credits for any of the above courses if it is deemed that an equivalent and appropriate graduate level course has been successfully completed in the preceding 3 years at an accredited college or university. To obtain transfer credits, students must provide a course description, transcript and syllabus from the completed course. Students who receive a waiver for a core course must complete an elective course in its place. Requests to substitute an equivalent course for credit must be submitted on the appropriate forms to the Graduate Student Committee.

Elective Courses

FA 800	Field Methods in Forensic Anthropology	3 Credits**
FA 812	Forensic Entomology	2 Credits
FA 805	Advanced Crime Scene Investigation	2 Credits
FA 814	Directed Study in Forensic Entomology	var Credits
FA 816	Research in Forensic Entomology	var Credits

*** Students who do not take FA 800 Field Methods in Forensic Anthropology, must complete a Field School that is approved by the Program or have comparable supervisory-level experience in the field. Students must petition to waive this course requirement on an individual basis or must enroll for it. Students with extensive field experience, including but not limited to previous field schools, supervisory-level participation, and employment, may also petition the Faculty to drop the FA 800 requirement, although all total coursework credits in the program still must be met for graduation.*

In addition to the core courses listed above, students may register for courses offered by the Biomedical Forensic Sciences program, departments of Anthropology and Archaeology, or any graduate courses offered by the Division of Graduate Medical Sciences or the Graduate School of Arts and Sciences. Course selection will be carried out in consultation with the student's program advisor.

Sequence of courses:

Year 1
Fall

FA 790	History, Methods and Theory in Bio Anthropology	3 credits
FA 806	Advanced Osteology	4 Credits
FA 700	Professional Skills and Thesis Research Development	3 Credits*
FA 718	Special Topics in FA: Outdoor Crime Scene Awareness	3 Credits (1/2 stds)
FA 760	Research in Anthropology	2 Credits

Spring

FA 705	Forensic Anthropology Techniques	3 Credits
FA 703	Zooarchaeology	4 Credits
FA 804	Experimental Design and Statistics for Forensic Anthropologists	3 Credits
FA 711	Forensic Pathology	3 Credits
FA 718	Special Topics in FA: Outdoor Crime Scene Awareness	3 Credits (1/2 stds)

Summer

FA 760	Research in Anthropology	2-4 Credits
FA812	*Forensic Entomology*	*2 Credits*

Year 2

Fall

FA 807	Taphonomy	3 Credits
FA 810	Mortuary Archaeology	3 Credits
FA 712	Human Anatomy and Osteology	4 Credits
FA 805	*Advanced Crime Scene Investigation*	*2 Credits*

Spring

FA 704	Bioarchaeology	2 Credits
FA 802	Applied Forensic Anthropology	3 Credits
FA 800	*Field Methods in Forensic Anthropology*	*3 Credits***
FA 716	Expert Witness Testimony	2 Credits

Electives in italics.

**Failure to have an approved final version of the thesis proposal (including an established experimental design, identified location, collection, population etc for data collection, and travel plans) in FA 700 by the end of the Fall semester (December) will result in a grade of Incomplete for this course. The student will be required to continue to work on the proposal and to finalize the proposal by February 1st. A finalized proposal will have been reviewed and edited at least twice by the student's research committee, presented by the student in an oral presentation to all FA faculty and the final version approved by the research committee before Feb 1st. If the final version of the thesis proposal, is then submitted and approved by Feb 1st a final grade of no higher than B+ will be given in place of the incomplete grade. If the final proposal is not submitted and/or not approved by the faculty, the student will receive a grade of F in the course and be required to re-take and successfully complete FA 700 in the following Fall semester.*

*** Students who do not take FA 800 Field Methods in Forensic Anthropology, must complete a Field School that is approved by the Program or have comparable supervisory-level experience in the field. Students must petition to waive this course requirement on an individual basis or must enroll for it. Students with extensive field experience, including but not limited to previous field schools, supervisory-level participation, and employment, may also petition the Faculty to drop the FA 800 requirement, although all total coursework credits in the program still must be met for graduation.*

Prerequisites:

Multiple courses have prerequisites in order to be eligible to enroll in them. In each case, the required previous course must have been passed with a grade of B- or higher and cannot be in an Incomplete status at the final deadline for enrollment for the upcoming course.

FA 703 Zooarchaeology
Prerequisite:
FA 806 Advanced Osteology

FA 807 Taphonomy
Prerequisites:
FA 703 Zooarchaeology
FA 806 Advanced Osteology

FA 802 Applied Forensic Anthropology
Prerequisites:
FA 703 Zooarchaeology
FA 705 Forensic Anthropology Techniques
FA 807 Taphonomy
FA 806 Advanced Osteology

Forensic Entomology Option:

Forensic Entomology is the application of the study of arthropods, including insects, arachnids, centipedes, millipedes, and crustaceans to criminal or legal cases. It is primarily associated with death investigations and used to assist in determining the time since death of human remains. It is also used in cases requiring the detection of drugs and poisons, determining the location of an incident, and finding the presence and time of the infliction of wounds. The field of Forensic Entomology is related to Forensic Anthropology, and often professionals from both fields will work closely with each other on a criminal case. Due to the limited number of qualified Forensic Entomologists in the United States, it is often the Forensic Anthropologist who will be responsible for the analysis of the insect evidence at a crime scene. Therefore, it is a field of study that needs to be understood by the forensic anthropologist and the addition of this option will provide a subset of our students with more in-depth training in this field.

The program in Forensic Anthropology now offers students the opportunity to complete course work and their thesis research in the area of forensic entomology under the supervision of Dr. Ian Dadour (Forensic Entomology from the University of Western Australia. Students electing this option will complete most of the core course in the program and then will also complete 3 additional courses including FA 812 Forensic Entomology, FA 816 Research in Forensic Entomology, and FA 814 Directed Studies in Forensic Entomology and will be required to completed a minimum of two full semesters of research. Their research project will be expected to be of high caliber and involve at least one repetition of their data collection. They will also be required to submit their data for publication prior graduation.

In addition, each year, students who demonstrate exceptional research and academic standards may be considered for a Ph.D. program position at the University of Western Australia. As part of the Ph.D. program position, they will be given the opportunity to apply for the International Postgraduate Research Scholarships (http://www.scholarships.uwa.edu.au/search?id=454).

Agent Reinecke and Dr. Ian Dador will coordinate this program, and Dr. Ian Dadour will be responsible for teaching and serving as the Research Committee Chair for the students.

Criteria for Acceptable Academic Standing

Students in the MS Program in Forensic Anthropology must meet *all* of the following criteria each semester in order to maintain acceptable academic standing:

1. Maintain a minimum GPA of 3.50
2. By March 1st of the 1st year in the program a ***complete thesis proposal must be approved*** by the Faculty.
3. By the end of the Summer II semester (first year), sufficient progress in data collection must have been made by the student and approved by the Chairman of the student's thesis committee.
4. A complete 1st draft of the student's thesis must have been submitted and approved by the Chairman of the student's thesis committee according to the dates described in the Thesis Research Time Line.
5. Successful completion (a grade of B- or higher) is required in all courses offered by the Forensic Anthropology program (including Biostatistics) in order to be eligible to graduate. If a student receives a grade below a B- in their 1st year, they must petition the Graduate Student Committee for permission to register for 2nd year courses and to repeat the course(s) with unsatisfactory grades.
6. Individual Committee Chairpersons may have additional requirements, including but not limited to completion of chapter drafts at intervals prior to the entire thesis draft being due. These requirements will be conveyed on an individual basis.

Failure to meet these criteria will result in the student not being eligible to participate in internship opportunities, short courses, and other program-affiliated activities outside of regular course requirements and possible suspension of research funding.

All deficiencies in the criteria listed above must be corrected within one semester of being notified of unacceptable academic standing by the Graduate Student Committee. *Failure to correct the deficiencies within one semester will result in dismissal from the program.*

Attendance

Attendance is required in all courses. If a situation arises that requires a student to miss a scheduled class, the student must e-mail the instructor and inform him/her that he/she will miss class. Unanticipated or emergency absences will be considered individually. Unexcused absences will be penalized by subtraction of 1% from the final grade per absence. If you arrive late to a class BE SURE to sign the attendance sheet prior to leaving. Habitual lateness (i.e., more than three per course) will be penalized 1% from the final grade. Lateness for a class exceeding one hour will be treated as missing a class.

Assignments

Each course will require specific writing assignments (including lab assignments) to be submitted during the semester by specified due dates. Late assignments will be accepted but will be penalized 10% per day (including weekends) and no assignment (including lab assignments or casework) will be accepted after 10 days beyond the original due date.

Competency Exam

A requirement for graduation from the MS program in Forensic Anthropology is successful completion of a competency exam. This examination consists of a written examination and a practical examination (hands-on laboratory exercises). Specifically, questions on the examination will cover material from, but not limited to, the

courses listed below. In order to be eligible to sit for the competency exams, a student must have successfully completed (receive a grade of B- or higher in each for these courses).

FA 705 – Forensic Anthropology Techniques
FA 806 – Advanced Osteology
FA 790 – History, Methods and Theory in Biological Anthropology
FA 703 – Zooarchaeology

Students will complete the examination in the second week of May of their 1st year in the program. The specific date of the exam will be announced by January 15th. The examination will consist of a 4-hour written examination in the morning and a 4-hour practical examination in the afternoon.

In the event that a student does not pass (a grade of less than 80%) one or both sections of the examination, the student will be provided with **ONE** additional opportunity to retake and pass the examination or failed section. Failure of the 2nd examination is considered grounds for dismissal from the program. The Graduate Student Committee, in consultation with the student and the student's academic advisor, will set the date and format of the one re-examination(s), if necessary. The grading of the exam follows the grading scale of the program (page 3).

Thesis and the Research Committee

Research Committee

By the end of the first semester in the graduate program, each student **must** select a Research Committee and have a complete and approved final version of their thesis proposal. Failure to have an approved final version of the thesis proposal (including an established experimental design, identified location, collection, population etc for data collection, and travel plans) by the end of the Fall semester (December) will result in a grade of Incomplete for this course. If the final version of the thesis proposal, is then submitted and approved by March 1st a final grade of no higher than B+ will be given in place of the incomplete grade. *If the final thesis proposal is not submitted and approved by March 1st, students will be required to take a leave of absence until the following fall, at which time they will be required to register for and successfully re-take this course.*

Research or work toward the thesis **WILL NOT BE ACCEPTED** without prior approval from the Research Committee. The Research Committee will include two Forensic Anthropology faculty members (full-time, adjunct or affiliated). Each student will choose a Committee Chair who will serve as the first reader and another faculty member who will be the second reader of the thesis. If one of the readers is not a GMS faculty member, the student must obtain a special appointment in advance for that individual through the registrar's office.

The Research Committee will meet with the student at intervals of not more than one month apart once the student begins working on his/her research. **These meetings will be initiated and arranged by the student**. The Research Committee will consider the student's research plan, assist in implementing that plan and guide the writing process. The student should note that the two members of the Committee (first and second readers) must sign the finished thesis. Therefore, the student should seriously consider the advice of the Research Committee. **All deadlines for submission of thesis work and the required forms to the registrar's office *are the responsibility of the student*. Failure to meet these deadlines may require the student to register as a continuing student for an additional semester in order to complete his/her thesis.** Please see attached Student Checklist for required meetings and actions.

Thesis Proposal

All students are required to prepare and submit a thesis proposal in the Professional Skills and Thesis Research Development course during the 1st semester, and then the final copy of the proposal is due to their Research Committee by February 1st of their first year. Research Committee will review the proposal and comments will be given to the students by March 15th. The FINAL version of the thesis proposal will be submitted to the Graduate Student Committee by July 1st of the student's first year.

Thesis Budget: Students must include a detailed budget of expenses for their project in their thesis proposal. All students will have a research budget of no more than of $1200 to conduct their thesis research. Expenses beyond this amount will be the responsibility of the student. Those budget expenses that will be approved for reimbursement include travel, lodging, museum fees, equipment and supplies. Meals will not be reimbursed.

Thesis Research

All thesis projects are laboratory or field-work based. Library theses are not acceptable. The body of the thesis document must be **a minimum of 65 double-spaced pages in length (not including figures, tables, and appendices)**. No individual chapter may be fewer than 5 double-spaced pages in length. Information about margins, font size etc can be found in the *Research Guide for Writers of Theses and Dissertations*, prepared by Boston University's Mugar Memorial Library The process of conducting research and writing a thesis requires approximately **8-12 months to complete**.

The thesis is not a term paper, library book review or a laboratory report. It will not be graded and passed back to you. The thesis is a process of writing and revision. Two faculty members will spend considerable time reading and editing your thesis a minimum of twice and return their editorial comments to you.

Students are expected to incorporate this feedback into a 2nd version of their thesis. The committee will again review this version and additional feedback will be provided to the student. A third version of the thesis may be required.

The faculty reviewing your thesis will decide when the thesis is complete.

Please see Appendix A, Thesis Time Line, for Dues Dates for the drafts of the thesis. **Failure to meet these deadlines will result in the student being required to register as a continuing student and pay the associated tuition fee for an additional semester.** Extensions are **NOT** provided if students do not meet graduate school deadlines. **It is the student's responsibility to obtain the deadlines for graduation for each semester from the registrar's office and to meet these deadlines**. It is highly recommended that the student frequently communicate with the appropriate advisors in regards to plans for the thesis and the proposed graduation date.

Progress of a student's research and writing of their thesis will be monitored by their research committee (See Appendix E). At regularly scheduled meetings, the chairperson of each committee will document the student's progress and inform the student of their expected graduation date on the Student Thesis Review Form. The committee chairperson and the student at each meeting will sign this form.

As a piece of scientific work, your thesis must include a **clearly stated hypothesis or scientific question** that is being addressed or investigated. The hypothesis or question should be related to laboratory/field experience. Students should be mindful of the significant time commitment involved in a field- or laboratory-based project, availability of instrumentation, supplies and chemical/biological standards as well as the availability of an appropriate faculty member(s) for guidance.

All work must be properly cited in an accepted format. The reference list must include authors, year published, title of article, journal, volume and inclusive pages. References are listed alphabetically by author. The following provides examples of a suggested format for references:

> Gilmore TD, White DW, Sarkar S and Sif S (1995) Malignant transformation of cells by the v-Rel oncoprotein. In *The DNA Provirus: Howard Temin's Scientific Legacy* (Cooper GM, Greenberg-Temin R & Sugden B, eds), American Society for Microbiology, Washington DC, pp 109-128.
>
> White DW and Gilmore TD (1993) Temperature-sensitive transforming mutants of the v-rel oncogene. *Journal of Virology* 67 6876-6881.
>
> White DW, Roy A and Gilmore TD (1995) The v-Rel oncoprotein blocks apoptosis and proteolysis of IκB-α in transformed chicken spleen cells. *Oncogene* 10 857-868.

AJPA Format:

> Hanson CL, Owsley DW. 1980. Frontal sinus size in Eskimo populations. *Am J Phys Anthropol* 53:251-255.

All statements and facts included in the thesis that are not the student's own conclusions or original data **MUST** be cited properly. The majority of citations **MUST** be from peer-reviewed journal articles. Textbook citations and personal communications should be limited to less than 5% of literature cited. Web sites and their documents (other than peer-reviewed journal reprints) are generally unsuitable as reference sources and as such are discouraged. Students must incorporate a minimum of **60 references** into their overall work. The complete set of formal requirements for a thesis available from the Division of Graduate Medical Sciences (*Research Guide for Writers of Theses and Dissertations*, prepared by Boston University's Mugar Memorial Library).

http://gmsfile.bumc.bu.edu/pdfs/thesisgd.pdf

Arrangements must be made to present one bound copy of the final thesis to the Forensic Anthropology Office. It is the responsibility of the student to initiate contact and meet with the Registrar, Millie Agosto (617-638-5124), to ensure the use of proper formatting in advance of all deadlines.

Statistics Advising for Thesis: Dr. Farzad Mortazavi is available to students in the MS program in Forensic Anthropology to provide statistical advising. Dr. Mortazavi will be available for 4 hours on three separate dates each semester to assist with the statistics for student thesis. Students must attend at least 2 of these sessions prior to completing their thesis. Dates of the meetings will be announced at the beginning of each semester.

These sessions are intended to answer questions and guide the student's analysis and are NOT intended to have the analysis completed by Dr. Mortazavi.

Two weeks prior to their 1st meeting with Dr. Mortazavi, students must provide a complete copy of their thesis proposal, a description of the types of statistical analysis they think they will need to conduct with their data and at least 2 journal articles describing studies that have used these statistical methods.

Two weeks prior to their 2nd meeting, students must provide a copy of the methods section and data collection of their thesis and a description of the proposed data analysis section of their thesis.

Failure to meet with Dr. Mortazavi during the designated times will result in the student's graduation date being moved to the next semester.

Students are not permitted to use statistical consulting services to complete the statistics for their thesis.

Research Grades: Students are required to register for a minimum of 2 research credits during their time in the program. The research grade will be based the criteria listed in Appendix B&C.

Alternative Thesis Option

Alternate Thesis Option: Students in the Forensic Anthropology program have the option for an alternative format for the preparation of their thesis. Students will still be required to conduct an approved thesis research project exactly as outlined above. However, with approval from the student's advisor and the graduate student committee, the full-length MS thesis requirement may be waived. In place of the full-length thesis, the student can elect to prepare a written manuscript suitable for submission to a refereed scientific journal. The selection of the scientific journal must be approved by the student's research committee, and the final, formatted manuscript must be approved by all members of the student's research committee and/or other project collaborators. If a student elects this option, the manuscript must be **officially submitted** for publication a minimum of three months prior to the expected date of graduation; simply being "ready" for submission is not acceptable. In addition, the student will still be required to complete an oral presentation of their project in front of the faculty. If a student chooses the alternative publication format and fails to produce a manuscript suitable for publication, the graduation date will be postponed until the student produces a suitable manuscript or full-length thesis document. Formatting for this manuscript will follow the selected journal's requirements **exactly**, including all relevant sub-documents (separate tables, figure captions, abstract, etc. if required) and all figures and tables to be publication-ready and in the exact format required by the journal.

Upon review of the submitted manuscript, if the editor requires revisions, the student must make the requested revisions under the supervision of the student's research committee and re-submit the manuscript within an 8-week time period or the interval that is granted by the journal, whichever one is smaller. Likewise, if the manuscript is rejected by the scientific journal, the student will revise the manuscript and submit it to a different scientific journal within an 8-week time period. These requirements must be met even after the student has graduated from the program.

Oral Defense of Thesis Research

All students will be required to provide a 20 minute oral presentation describing their thesis research and results prior to handing in the final and approved draft of their thesis. The faculty and students attending the defense will be allowed additional time as required for questions. The format of this presentation will be similar to the type of presentation that would be given at a professional meeting. The precise instructions and details for the presentation will be provided to students in the Directed Study course in the fall of the first year. Student's presentations will be graded according the program-grading rubric for presentations (Appendix D) and will count for 15% of their final research grade. Successful completion of the oral defense, a grade of 80% or higher on the presentation, is required to graduate.

In the event that a student does not pass the oral defense, the student will be provided with **ONE** additional opportunity present their thesis and pass the oral defense. Failure of the 2nd attempt is considered grounds for

dismissal from the program. The Graduate Student Committee, in consultation with the student and the thesis committee chairman, will set the date and format of the one re-examination(s), if necessary.

International Travel for Research

Students may wish to travel to other Universities, Museums, or other institutions to collect data for their thesis. Students traveling internationally to collect data for their thesis must follow the policies and guidelines set forth by the Global Operations Program at Boston University. The policies and guidelines can be found at http://www.bu.edu/globalprograms/global-toolkit/. Compliance with all of the Global Operation Program policies and guidelines are mandatory.

Publishing and Presentations

Students are encouraged to submit their thesis research for presentations at professional meetings and for publication. All manuscripts, abstracts, presentations and posters **MUST** be approved by the Chairman of the student's research committee **prior** to submission to any journal or professional society or association. Please see Appendix F for more details.

Internships, Field Schools, and Archaeological Field Work

Although not a requirement for graduation, students may decide to pursue an **approved** internship, field school and/or archaeological field work in a relevant setting. Students will be responsible for identifying their internships or field schools with the assistance of the Graduate Student Committee. With approval from the Graduate Student Committee and the site supervisor, work completed at an internship or field school may be used as data and resources for the student's thesis. Students may receive 2-4 credits for their internship or field school at the discretion of the student's academic advisor, depending on the number of hours completed and the nature of the work completed during the internship or field school. A completed evaluation from the internship or field school supervisor describing the nature of the work completed and the quality of the student's performance is required. In addition, the student will be required to write an 8-10 page summary of his/her internship or field school experiences and responsibilities. The paper should include evidence of skills or knowledge gained during the internship or field school and the results of any experiments or research conducted. The evaluation (grade) for the internship or field school will be based upon the written paper, which will be graded by the student's program advisor, as well as input from the internship or field school supervisor. **It is the responsibility of the student to make sure the evaluation form and the written paper are turned in to his/her program advisor in order for a grade to be assigned**. Students who register for an internship or field school and fail to submit the required documents will receive a grade of "F".

Requests for Letters of Recommendation

Requests for letters of recommendation for Ph.D. programs, internships or field schools, or employment applications must be requested at least 4 weeks prior to the due date. Requests must be made in writing, and the student must provide the address of the school, to whom the letter should be addressed and specific details about the program to which the student is applying and any required forms and postage. In addition, students should send an updated copies of their CVs and thesis proposals to the faculty when requesting a letter of recommendation.

Professional Organizations

Students are strongly encouraged to join the American Association of Physical Anthropology (www.physanth.org) and American Academy of Forensic Sciences (www.aafs.org) as well as other forensic and

anthropological professional organizations such as the International Association for Identification (www.theiai.org). Students are responsible for association fees.

Students may attend the annual meeting of the American Academy of Forensic Sciences (AAFS) annual meeting that is held in February each year. However, to complete all necessary courses in the spring semester, the week of the AAFS meeting will be considered Spring Break for the Forensic Anthropology program, and therefore classes will be held during the regularly scheduled Spring Break for the Medical School. Students are advised that in all cases, their coursework and thesis take precedence and that meeting attendance does not indicate an automatic acceptable excuse for submitting assignments late or falling behind in their thesis research. Students who are not in good academic standing are in no way encouraged to attend professional meetings, as your coursework takes total priority.

Policy on Academic Honesty

Boston University is committed to the principles of intellectual honesty and integrity. All members of the BU community are expected to maintain complete honesty in all academic work, presenting only that which is their own work in tests and assignments. Violating this policy will result in a failing grade for the assignment or test at issue. If a second violation occurs in association with any course in the Forensic Anthropology Program, the student will face a disciplinary hearing with the Graduate Student Committee, and the Dean of Students will be notified. For complete details, please refer to the Boston University Code of Student Responsibilities. If you have any questions regarding proper attribution of the work of others or additional academic honesty concerns, contact the instructor prior to submitting the work for evaluation.

Classroom Policies

The nature of the material explored in this program is inherently delicate, and it is of a deeply personal nature. While enrolled in this program it is expected that all students will adhere to the Boston University Code of Student Responsibilities. This document can be found at: http://www.bu.edu/lifebook/university-policies/policies-code.html. Students are expected to conduct themselves professionally and represent the program professionally. Professional and respectful behavior is required at all times in your communication and interactions with faculty, students and administrators.

Human remains are to be treated as sacred and never to be abused or handled in an inappropriate manner. Human remains must never be used to impress or thrill anyone at anytime. Violation of the appropriate decorum in working with these materials will be considered a serious infraction, resulting in a disciplinary hearing and possible dismissal from the program.

To ensure a quality educational experience for all students and instructors, we ask that students respect fellow students and instructors. To sustain an organized and meaningful learning environment you should make every effort to arrive on time for your classes, turn off cell phones/PDAs and provide your full attention to your instructors and fellow students. Students may **NOT** send or receive text messages or e-mail during class time. If an urgent situation does arise during class, please step out into the hallway to communicate.

Laboratory Safety Training
All students are required to complete a mandatory Laboratory Safety Training session during Orientation and during September of the 2nd year. This training is required prior to being allowed access to any of our laboratories and outdoor facility.

Outdoor Research Facility

The program in forensic anthropology operates an off site outdoor research (the Outdoor Research Facility [ORF] in Holliston, MA) that is available for use by students to conduct research projects to gather data for their theses. The facility consists of 34 acres of land that includes wooded areas, former cranberry bogs, and open areas. The number of research projects that can be conducted at the facility is high but limited, and therefore students interested in conducting research projects at the facility must submit a written proposal to the graduate student committee that clearly and thoroughly describes the hypothesis, rationale and methods for the project. The use of all material at the facility (e.g., soft tissue, bones and fresh carcasses) must be approved by the faculty prior to the beginning of all research projects. The graduate student committee will review all submitted proposal and decide which projects will be approved. This is a research facility, and while you are permitted to be there during your studies, you may NOT bring family, or friends to survey the property without a request to do so and subsequent permission. Violation of this rule will constitute a serious breach of trust and will be dealt with appropriately.

Prior to using the ORF, each student must read the rules and guidelines governing the use of the facility. Each student must sign and acknowledge the rules and guidelines sheet. Any non-program student attending the facility may only due so with prior faculty approval and they must sign a release form as required by the University.

When it is required for students to travel to the facility for course related activities, costs for travel between the medical school campus and the facility may be reimbursed to the student with prior faculty approval. The total mileage may not exceed 53 miles per round trip and students will be reimbursed under the current government travel mileage rate. The use of Zip Cars also requires prior faculty approval. Once approved by a faculty member the student will be required to open a personal account and will be reimbursed after submitting the appropriate receipt.

At the end of each Spring semester, there will be a day scheduled to clean-up the facility from previous experiments and to prepare the for the next round of experiments. All students are expected to assist in the clean-up of the facility.

Photography

Casual personal photography of activities, materials, classes, class material and above all decomposing remains of any sort is strictly forbidden. Research photography and videography IS permitted in the context of research and thesis purposes. Unauthorized imagery of any research activity or the facilities is viewed dimly and may carry disciplinary consequences, including dismissal from the university, pending investigation by the Program faculty.

STUDENTS ARE STRICTLY FORBIDDEN FROM PUBLISHING ANY MATERIALS RELATED TO THE PROGRAM ON THE INTERNET IN ANY FASHION WITHOUT EXPLICIT WRITTEN CONSENT OF THE PROGRAM FACULTY. THIS INCLUDES SPECIFICALLY, BUT IS NOT LIMITED TO, FACEBOOK AND OTHER SOCIAL NETWORKING SITES AND PERSONAL WEB SITES.

Students are expected to be sophisticated and discreet in their inevitable conversations about programmatic activities. Most people are uncomfortable with the idea of death and decomposition. It simply is impolite, inappropriate public conversation. Be mindful of your location when such conversations arise. Use your indoor voice, and avoid unnecessarily graphic speech. Do NOT display osteological materials casually in public, especially when transporting materials to and from the Holliston facility.

Background Checks

While not required for entry into the graduate program, students should be aware that employment in a crime laboratory (government or private) or law enforcement agency typically requires successful completion of an extensive personal background check which may include a criminal history investigation, fingerprint check, polygraph examination and drug testing.

Appendix

Thesis Research Time Line

MAY GRADUATION:

December 1st:	Meet with Research Committee. Must submit 1st FULL draft of thesis (All Sections)
January 15th:	Receive Feed back from all readers and you will be notified by committee if you are eligible for May Graduation date.
February 15th:	FULL COMPLETE draft of thesis (all sections) to all readers. If the draft is not complete at this time, your Graduation date will be forwarded to September. Decision of the Research Committee is final.
March 15th:	Receive Feed back from all readers
March 25th:	FINAL DRAFT OF THESIS DUE

SEPTEMBER GRADUATION:

April 1st:	Meet with Research Committee. Must submit 1st FULL draft of thesis (All Sections)
May 15th:	Receive Feed back from all readers and you will be notified by committee if you are eligible for September Graduation date.
June 15th:	FULL COMPLETE draft of thesis (all sections) to both readers. If the draft is not complete at this time, your Graduation date will be forwarded to December. Decision of the Research Committee is final.
July 15th:	Receive Feed back from all readers
July 25th:	FINAL DRAFT OF THESIS DUE

DECEMBER GRADUATION:

Aug 1st:	Meet with Research Committee. Must submit 1st FULL draft of thesis (All Sections).
Sept 15th:	Receive Feed back from 1all readers and you will be notified by committee if you are eligible for December Graduation date.
Oct 15th:	FULL COMPLETE draft of thesis (all sections) to all readers. If the draft is not complete at this time, your Graduation date will be forwarded to May. Decision of the Research Committee is final.
Nov 15th:	Receive Feed back from all readers
Nov 25th:	FINAL DRAFT OF THESIS DUE

Grading Rubric for Thesis
Program in Forensic Anthropology

Student: _____ Grader: _____

The Unsatisfactory Paper (Below B-): Minimal lack of effort or comprehension of the assignment. Very difficult to understand owing to major problems with mechanics, structure, and analysis. Has no identifiable thesis, or utterly incompetent thesis.

Criteria	A/A-	B+/B	B-
Thesis/ Hypothesis	Easily identifiable, plausible, novel, sophisticated, and insightful	Promising, but slightly unclear, or lacking in insight or originality.	Unclear (contain many vague terms), appears unoriginal, or offers relatively little that is new.
Structure	Evident, understandable, appropriate for thesis. Excellent transitions from point to point. Paragraphs support solid topic sentences	Generally clear and appropriate, though wanders occasionally. Has a few unclear transitions, or a few paragraphs without strong topic sentences.	Generally unclear, often wanders or jumps around. Few or weak transitions, many paragraphs without topic sentences.
Use of evidence/ literature	Primary source information used to buttress every point with at least one example. Examples support thesis and fit within paragraph. Excellent integration of quoted material into sentences.	Examples used to support most points. Some evidence does not support point, or may appear where inappropriate or lacking. Quotes well integrated into sentences.	Examples used to support some points. Points often lack supporting evidence, or inappropriate evidence Quotes are poorly integrated into sentences.
Analysis	Appropriate analysis conducted with data and results described appropriately. Results discussed in conclusion and related to literature.	Acceptable analysis conducted though somewhat superficial. Results described but somewhat unclear. Relationship of findings to literature addressed but superficial	Basic or inappropriate analysis. No clear description of results and not adequately related to literature.
Logic	All ideas in the paper flow logically; the argument is identifiable, reasonable, and sound. Author acknowledges counter-arguments; makes novel connections to literature that demonstrate relevance of thesis.	Argument of paper is clear, usually flows logically and makes sense. Some evidence that counter-arguments acknowledged, though perhaps not addressed. Occasional insightful connections literature made.	Logic often fails, or argument may often be unclear. Does not address counter-arguments or make any connections with the literature.
Feedback Incorporation (if applicable)	Student incorporated previous feedback and solved problems discussed.	Student made some attempt but left significant gaps.	Student did not fix large problems indicated previously and our in need of immediate attention.
Grammar & Language	Sentence structure, grammar, and diction excellent; correct use of punctuation and citation style; no spelling errors; no run-on sentences or comma splices.	Sentence structure, grammar, and diction strong despite occasional lapses; punctuation and citation style often used correctly. Some (minor) spelling errors; may have a few run-on sentence or comma splice.	Significant problems in sentence structure, grammar, and diction. Frequent major errors in citation style, punctuation, and spelling. Many run-on sentences and comma splices.

GRADING CRITERIA FOR RESEARCH CREDITS

All students are required to register for a minimum of 4 research credits during their time in the MS program in Forensic Anthropology, normally during the summer between Year 1 and Year 2. A primary goal of this program is to train students in appropriate and effective research behaviors that produce data and provide the basis for writing your thesis. When registered for research credits, students will be graded on their performance in research design, data collection, data analysis and the final write-up their thesis.

As part of your responsibility for your research grade, students need to demonstrate responsibility for their work, frequent and effective communication with your thesis committee, appropriate data collection and analysis, and incorporation of the ideas, comments and editorial comments from your committee into the final draft of your thesis. The grading for research credits is not an automatic "A". Your research committee will review your work with you each semester and evaluate your thesis proposal and the final draft of your thesis. Your committee will assign you a final grade upon submission of the final draft of your thesis. Your final grade will be for your thesis proposal, data collection, data analysis, thesis presentation, and final draft of your thesis. Grading will be based on the following criteria:

1. **Thesis Proposal (15%)**
   a. Valid and significant research question.
   b. Clear and concise statement of hypothesis.
   c. Reasonable and realistic research plan.
   d. Preparation and final follow-through of IRB or IACUC application (if applicable).

2. **Communication with Committee (10%)**
   a. Timeliness and frequency of communications (it is recommended that students update their committee either in person or by e-mail bi-weekly and meet with their committee at least twice a semester)
   b. Responsiveness to suggestions (e.g., are suggestions and comments incorporated into projects and text of thesis)
   c. Effectiveness in the ability to articulate the project and its progress.

3. **Familiarity with Relevant Literature (10%)**
   a. Knowledge of references that are central to research project.
   b. Depth of knowledge of the literature, including those drawn from branches of science other than forensic anthropology.
   c. Incorporation of relevant comparisons between one's own findings and those of other researchers

4. **Research Conduct (10%)**
   a. Appropriate regard for regulations as a representative of Boston University.
   b. Proper and careful handling of materials.
   c. Follow-through with introductions and research offers from other institutions, including approval by them of any type of research proposal deemed by them to be necessary to obtain their permissions and access to materials.
   d. Appropriate use of time.
   e. If needed, adjustments in plan made with consent of research committee.

5. **Thesis Presentation (15%)**
   a. Effectiveness of communication skills (e.g.,. no use of slang, discusses project rather than reading directly from slides, highlights of project on slides and not copious amounts of text).
   b. Practiced presentation with faculty prior to defense.
   c. Completed within 20 minute time limit.
   d. Ability to answer questions.

6. **Final Draft of Thesis (40%)**
   a. Consistent meeting of deadlines with complete versions that are not in need of basic editorial review prior to their submission to the research committee (i.e., if a draft is deemed "rough" or incomplete, it is in no way ready nor acceptable for submission at any stage of the thesis review process).
   b. Incorporation of suggestions, editorial comments, and critiques from research committee.
   c. Discussion of results and the relationship of the results to the known literature (not simply a restatement of results).
   d. Ideas for logical next steps in future research based on findings.
   e. Discussion of the relevance of the results to the field.
   f. Overall ability for written expression, including basic grammar, clarity of expression, ability to build logical arguments, conformity to standards of science writing, use of appropriate tables and graphics, and consistency in formatting.

Grading Rubric for Oral Presentations
Program in Forensic Anthropology

Score: _____/50

Criteria	Excellent (5 points)	Very Good (3 points)	Good/Poor (1 point)
Preparation	Exceptional effort into the preparation and design.	Very good preparation and design.	Minimal preparation. Work appears to have been completed at the last minute or no plan in place
Visual Aids	Slides were very well done and added greatly to the presentation.	Slides were clear and helpful.	Slides were very wordy or incomplete and were not particularly helpful.
Organization	Presentation was logical and very well organized.	Presentation had a clear introduction, body and conclusion but needs to more organized.	Presentation was poorly organized and lacked clarity.
Articulation	Excellent and clear verbal articulation of all points.	Explained ideas well.	Ideas were stated, but lacked clarity.
Expertise	Hypothesis and purpose of study were very well presented and supported by several sources. Excellent knowledge of topic was demonstrated.	Hypothesis and purpose of study were presented clearly and supported by a few sources. Good knowledge of topic.	Hypothesis and purpose of study unclear and lacked references. Average/below average knowledge of topic
Grammar and language use	Proper grammar and English was used on slides and in speech throughout presentation. No use of slang.	Proper grammar and English was used on slides and in speech through most of presentation. No or minimal use of slang.	Numerous incorrect uses of grammar and English occurred on slides and/or in speech. Slang was used on occasion or frequently during presentation
Time Management	Presentation was finished within allotted time.	Presentation went under/over time limit by 1-3 minutes	Presentation was under/over time limit by more than 3 minutes.
Feedback Incorporation (if applicable)	Presenter incorporated previous feedback and solved problems discussed.	Presenter made some attempt but left significant gaps.	Presenter did not fix large problems indicated previously and our in need of immediate attention.
Overall Quality	Overall outstanding quality. A powerful and memorable presentation.	Covered all the main points and it was generally well delivered.	Needed more effort in preparation of the presentation to increase overall quality.
Attire/ Professionalism	Presenter was appropriately dressed and maintained excellent professionalism.	Dress was acceptable, and adequate professionalism.	Dress and behavior needs to be more professional.

Student Thesis Progress Form

1st Year

	Student Initials	**Advisor Initials**
Meet with Faculty in Professional Skills Class	_____	_____
Thesis Topic Approved by December 1	_____	_____
Complete choosing a Research Committee by February	_____	_____
Finalize all schedules, equipment, travel, and permissions for thesis (March 1)	_____	_____
Meet with Graduate Student Committee (May)	_____	_____
Meet with Statistician (May)	_____	_____
Meet with Research Committee (June)	_____	_____
Meet with Research Committee (August)	_____	_____

2nd Year

Submission of 1st Version of Thesis:

Meet with Statistician (Sept)	_____	_____
Meet with Research Committee and Submit 1st Version of Thesis (Dec)	_____	_____
Decision of Committee on Graduation Date (Date: _____)	_____	_____

Student Signature: _____

Signature of 1st Reader: _____

Signature of 2nd Reader: _____

Feedback Received from 1st and 2nd Readers (by Jan 15th)	_____	_____
Submit Thesis Title Approval Form to Registrar	_____	_____
Submit Diploma Application Form to Registrar	_____	_____

IF GRADUATING IN MAY:

Submission of 2nd Version of Thesis:

Meet with Statistician (January) _____ _____

Meet with Research Committee and Submit 2nd Version of Thesis (Feb) _____ _____

Decision of Committee on Graduation Date (Date: _____) _____ _____

Student Signature: _____

Signature of 1st Reader: _____

Signature of 2nd Reader: _____

Feedback Received from 1st and 2nd Readers (by Mar 15th) _____ _____

Oral Presentation of Thesis Research (February) _____ _____

Submission of 3rd Version of Thesis:

Meet with Statistician (February) _____ _____

Meet with Research Committee and Submit 3rd Version of Thesis (Mar 25) _____ _____

Thesis Format Review Completed with GMS Office _____ _____

Final Thesis Submitted to GMS Office _____ _____

IF GRADUATING IN SEPTEMBER:

Submission of 2nd Version of Thesis:

Meet with Statistician (March) _____ _____

Meet with Research Committee and Submit 2nd Version of Thesis (April) _____ _____

Decision of Committee on Graduation Date (Date: _____) _____ _____

Student Signature: _____

Signature of 1st Reader: _____

Signature of 2nd Reader: _____

Feedback Received from 1st and 2nd Readers (by May 15) _____ _____

Oral Presentation of Thesis Research (April) _____ _____

Submission of 3rd Version of Thesis:

Meet with Statistician (May) _____ _____

Meet with Research Committee and Submit 3rd Version of Thesis (June 15) _____ _____

Thesis Format Review Completed with GMS Office _____ _____

Final Thesis Submitted to GMS Office _____ _____

PUBLISHING AND PRESENTATION GUIDELINE CERTIFICATION

Submission of thesis data or other data collected while a student in the Program in Forensic Anthropology at Boston University School of Medicine for publication ***must*** be approved by the chairman of your thesis committee. The chairman will approve the idea of preparing a manuscript and will be provided with ample opportunities to edit the manuscript. Authorship on the manuscript will be decided under the advisement of the chairman of thesis committee. Final submission of the manuscript will be at the discretion of the chairman of thesis committee.

Submission of thesis data or other data collected while a student in the Program in Forensic Anthropology at Boston University School of Medicine as an abstract for a poster presentation or oral presentation ***must*** be approved by the chairman of your thesis committee. The abstract, poster and/or power point presentation must be submitted to by the chairman of your thesis committee to be reviewed and edited at a ***minimum of 3 weeks prior to presentation***. Authorship on the abstract and poster or presentation will be under the advisement of the chairman of thesis committee. Final submission of the abstract, poster and/or power point presentation will be at the discretion of the chairman of thesis committee.

By signing below in the space indicated I certify that I have read this document fully and am aware of my responsibilities regarding the submission and preparation of manuscript, abstracts, poster and oral presentations. Furthermore, by signing I am indicating my agreement with the content of this document.

_____

Student Printed Name

_____ _____

Student Signature Date

STUDENT GUIDELINE CERTIFICATION

By signing below in the space indicated I certify that I have read this document fully and am aware of my responsibilities regarding the proper timing and conditions of the requirements for graduation from this program. Furthermore, by signing I am indicating my agreement with the content of this document.

_____
Student Printed Name

_____ _____
Student Signature Date

_____
Faculty Printed Name

_____ _____
Faculty Signature Date