(Revised July 2010)

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Chapter 1. An Overview of Graduate Study in the History of Science, Medicine, and Technology at the University of Wisconsin–Madison[*]

The UW-Madison Program in History of Science, Medicine, and Technology is one of the broadest, and most prestigious academic programs of its kind in the United States, offering an undergraduate major as well as M.A. and Ph.D. degrees. The program is housed in the Department of the History of Science and staffed by faculty from that department and the Department of Medical History and Bioethics. The program's fourteen tenured and tenure-track faculty members and affiliated scholars provide broad coverage of the field, with expertise in the physical, biological and social sciences from the Middle Ages to the present; medicine from the Middle Ages to the present; and technology from the nineteenth century to the present. The department has strong geographic coverage of Europe and the United States, with growing expertise in non-Western areas.

The Memorial Library of the University of Wisconsin-Madison is an exceptionally fine general research library and is particularly strong in the history of science. Because of the early interest in the history of science at Wisconsin, Memorial Library has been actively collecting periodicals, reference works, historical monographs, and research materials for many years. Especially noteworthy are the holdings of early scientific journals and the special collections of early works relating to the history of chemistry, medicine, and pharmacy. Memorial Library is also very strong in the history of physics and mathematics, in works relating to science in England during the sixteenth and seventeenth centuries, and in nineteenth-century German scientific journals. The history of medicine collection, housed in the Ebling Library, provides outstanding opportunities for research in the history of European and American medicine from the seventeenth through the twentieth centuries. Of particular interest to historians of American science, technology, and medicine is the library of the State Historical Society of Wisconsin, which is one of America's great research libraries in its own right. The State Historical Society's newspaper holdings are second only to those of the Library of Congress.

Graduate students come to the Program in History of Science, Medicine, and Technology from a variety of backgrounds in the sciences and humanities and with diverse professional goals. The Program maintains a policy of maximum flexibility and, as far as possible, can be tailored to fit individual needs. Students are encouraged to undertake work in related departments such as History, Philosophy, Science and Technology Studies, and the various sciences. Joint degrees in the History of Science, Medicine, and Technology and another field are possible. In past years such Ph.D. programs have been successfully completed with the departments of Philosophy, Classics, Psychology, History, Chemistry, Mathematics, and Physics. The department has formal joint Ph.D. programs with the departments of History and Philosophy and is an active contributor to the Ph.D. minor in Science and Technology Studies. A description of the first two joint programs appears in chapters 9 and 10 below. Although most students who enter the

[*] **A Note on Terminology**: Most references here will be made to the "Program in History of Science, Medicine, and Technology," (or more simply, "the Program") which is the degree program in which all graduate students are enrolled. When reference is made to the "Department of History of Science" or the "Department of Medical History and Bioethics," it is to one or the other of the two departments that participate in the Program. The Chair of the Department of History of Science is also the Chair of the Program in History of Science, Medicine, and Technology.

graduate program anticipate completing a Ph.D., we welcome applications from students whose career goals will be furthered by the M.A. degree.

The Program in the History of Science, Medicine, and Technology has financial aid for graduate students in a variety of forms, including research and teaching assistantships, the John Neu Distinguished Graduate Fellowship, the David and Greta Lindberg Distinguished Graduate Fellowship, the Theodore and Genevieve Herfurth Project Assistantship, and the William Coleman Dissertation Fellowship. Applicants may also compete for University Fellowships and for a variety of national fellowships offered by the National Science Foundation and other agencies. In addition, the Department of Medical History and Bioethics provides financial support for some students concentrating in the history of the biomedical sciences. For more information, see chapter 7 below.

Chapter 2. Program Faculty

Thomas H. Broman, Associate Professor, B.A. (biology & chemistry) Ripon College; M.S. (agronomy) University of Illinois; Ph.D. (history) Princeton University. *Science and the Enlightenment, early modern medicine.*

Dayle DeLancey, Assistant professor, B.A. (History & Literature) and M.A. (English), Harvard University; M.Sc. and Ph.D. (History of Science, Technology, & Medicine), CHSTM, University of Manchester, UK. *19th- & 20th-c. African-American health experiences (esp. vaccination), U.S. public health, medical technologies, the public understanding of medicine, and race & gender in medicine.*

Judith A. Houck, Associate Professor, B.A. (liberal studies) St. John's College, Santa Fe; M.A., Ph.D. (history of science) University of Wisconsin. *History of women's health, American medicine, medicine and sexuality, race and medicine, science and gender.*

Florence Hsia, Associate Professor, A.B. (East Asian studies) Princeton University; M.A., Ph.D. (history) University of Chicago. *Early modern European science; Jesuit science; science and European expansion (esp. into East Asia).*

Richard Keller, Associate Professor, B.A. (history) University of Colorado at Boulder; M.A., (European history), University of Colorado at Boulder; Ph.D. (European history), Rutgers University. *History of European and colonial medicine and public health; history of psychiatry and psychoanalysis; history of the human sciences; science and race.*

Susan E. Lederer, Turell Professor of Medical History and Bioethics, B.A. (history of science) Johns Hopkins University; Ph.D. (history of science) University of Wisconsin. *History of American medicine; race and medicine in America; history of bioethics, especially research ethics.*

Gregg Mitman, William Coleman Professor of the History of Science, B.Sc. (biology) Dalhousie University; M.A., Ph.D. (history of science) University of Wisconsin. *History of ecology; environment and health; 20th century life sciences; science in America; science and film.*

Ronald L. Numbers, Hilldale and William Coleman Professor, B.A. (mathematics and physics) Southern Adventist University; M.A. (history) Florida State University; Ph.D. (history) University of California, Berkeley. *History of science and medicine in America; the historical interactions of science, medicine, and religion.*

Lynn K. Nyhart, Professor, B.A. (history/history & philosophy of science) Princeton University; Ph.D. (history and sociology of science), University of Pennsylvania. *History of biology, especially natural history, genetics, evolution, and marine biology; biology and society; feminist approaches to science, technology, and gender.*

Robin E. Rider, Senior Lecturer, B.S. (mathematics) Stanford University; M.A. (mathematics), Ph.D. (history), University of California, Berkeley. *Early modern science; printing and publishing of science; history of mathematics.*

Walton O. Schalick, III, Assistant Professor, B.A. (physics/English literature) Washington University; M.D./Ph.D. (history of science, technology & medicine), Johns Hopkins University; Residencies/Fellowships (pediatrics/physical medicine & rehabilitation), Harvard University. *History of medieval medicine; history of disability in Europe and the U.S.; 19th and 20th centuries.*

Eric Schatzberg, Associate Professor, B.S. (engineering) Swarthmore; Ph.D. (history and sociology of science), University of Pennsylvania. *History of technology; 19th and 20th centuries; technology and culture; critiques of technology.*

Michael H. Shank, Professor, B.A. (physics) Goshen College; M.A. (history and philosophy of science) University of Notre Dame; A.M., Ph.D. (history of science) Harvard University. *Physical Sciences to the 17th Century, especially in late middle ages; science and the university.*
Richard Staley, Associate Professor, B.A. (history and philosophy of science) University of Melbourne; Ph.D. (history of science), University of Cambridge. *History of the physical sciences since Newton; relativity and quantum theory; instruments, experiment, and theory; science in the 20th century ; science and war.*

Emeritus Faculty

Victor L. Hilts, A.B. (history and science) Harvard University; Ph.D. (history of science) Harvard University. *History of the social and behavioral sciences.*
Judith W. Leavitt, B.A. (social sciences) Antioch College; M.A.T. (education) University of Chicago; M.A., Ph.D. (history) University of Chicago. *History of public health in America; History of women's health in America; 19th and 20th centuries.*
David C. Lindberg, B.S. (physics) Wheaton College; M.S. (physics) Northwestern University; Ph.D. (history and philosophy of science) Indiana University. *Science and natural philosophy before 1700; science and religion.*
John Neu, B.S. (English) University of Wisconsin; M.L.S. (library science) University of Wisconsin. *Bibliography of the History of Science.*
Daniel M. Siegel, B.S., M.S. (physics) University of Chicago; Ph.D. (physics) University of California, Berkeley; M. Phil. (history of science) Yale University. *Physics and related disciplines in the 19th and 20th centuries.*
Glenn A. Sonnedecker, B.S., (pharmacy), Sc.D. Ohio State University; M.S., Ph.D. (history of pharmacy and science) University of Wisconsin. *Pharmacy and materia medica.*

In addition to these faculty members with appointments in the Department of the History of Science, faculty from other departments (History, Philosophy, English, Sociology, Community and Environmental Sociology, Curriculum and Instruction, and various natural sciences) cooperate in the graduate program.

Chapter 3. The M.A. Degree in History of Science, Medicine, and Technology

Requirements for the M.A. Degree.

1. A total of 30 credits, of which at least 21 must be in the History of Science, Medicine, and Technology graduate program. A grade of B or better must be received in all courses used to satisfy this requirement. Courses in History of Science or History of Medicine with numbers 300 or above carry graduate credit and may count toward the MA degree (except HistSci 403 & 404, which may be applied toward the MA degree only with departmental permission).

2. Four of the following five distribution areas must be represented by at least one course of 3 or 4 credits in the program. *No course may be counted for more than one distribution area*. (See the end of this chapter for a list of courses in each area.)

Distribution Areas
1) Science: Ancient through the Enlightenment
2) Modern Science and Technology
3) Medicine and Public Health
4) Transnational Science and Medicine
5) Race, Gender, Class, and Religion in Science and Medicine

Special topics or irregularly offered courses may also count towards the distributions areas, but only with approval of the Director of Graduate Studies (DGS). The student must submit a copy of the course syllabus and a brief letter explaining why this course is appropriate for the category; approval is not automatic.

3. At least three seminars, including two seminars in History of Science and/or History of Medicine. (There are no consistent definitions for seminars across departments. For History of Science, seminars carry three or more credits and are numbered 900 or above, excluding 950, 990 and 999. In general, the department accepts as a seminar any course that: 1) is open only to graduate students; 2) has a small class size, generally less than 20 students; 3) requires extensive readings or in-depth research projects; 4) has one class meeting each week organized mainly around discussion, not lecture; and 5) is three credits or more. If you are uncertain about whether a course counts as a seminar, please ask the DGS to approve the course.)

4. History of Science 720 (Pro-Seminar: Historiography and Methods). Ordinarily this course must be taken during the first year of graduate work.

5. Additional courses up to the required total of 30 credits from within or outside the Department, to yield a balanced program fitted to the background and interests of the student.

6. Completion of at least one research paper based on primary sources during the student's first year in the graduate program. To fulfill this requirement, students may need to request, from one of their professors, the opportunity to write a research paper (as opposed to, say, a historiographic or literature paper).

7. Completion of an M.A. paper (a research paper), which in form, content, and length is to approximate an article that might be submitted for publication in a history of science journal. Typically this will be based on a previously prepared term or seminar paper (such as the paper described in item 6, above), appropriately extended and revised.

M. A. Advising. The DGS will ordinarily serve as advisor for first-year students. Student are expected to choose an M.A. advisor no later than registration week of their third semester in the department (completion of form A is required). The M.A. advisor will assist students in planning their academic program and preparing an M.A. paper. Students should inform their M.A. advisor if they expect to apply for admission to the Ph.D. program upon completion of the M.A. degree. Students may change advisors at any time. To initiate such a change, the student should fill out the appropriate form and file it with the DGS.

Concurrent Courses. Some department courses require concurrent registration in another course open only to graduate students (e.g., the courses numbered 323 and 623). Such courses count as a single course in meeting graduate degree requirements.

History of Science 925 for Fourth Semester. Students who intend to enroll for research credit while writing a Master's paper should enroll in HistSci 925 when offered, rather than HistSci 990 or 999.

History of Science 950, Colloquium. All students are expected to attend departmental colloquia on a regular basis. During their first two semesters, students must enroll in HistSci 950 ("History of Science Colloquium") for either 0 or 1 credit unless exemption is granted by the DGS.

Foreign Language Requirements. There is no foreign language requirement for the M.A. degree. However, graduate students must demonstrate proficiency in either French or German (or an approved alternative) in order to be admitted to the Ph.D. program. The Ph.D. in History of Science, Medicine, and Technology requires proficiency in two foreign languages. Those students intending to pursue a Ph.D. degree should anticipate these requirements. (See Ph.D. language requirements below for methods by which proficiency may be demonstrated.)

M. A. Paper. Students will submit an M.A. paper during the spring term of the student's second year in the department. These papers are due <u>on the first Monday in April.</u> One hardcopy should be submitted to the department office, and an electronic copy (preferably PDF) should be emailed to mail@histsci.wisc.edu. Although no formal limits have been established for the length of the M.A. paper, something in the neighborhood of 30-45 typewritten pages is recommended. Style should follow Kate Turabian, <u>A Manual for Writers of Term Papers, Theses, and Dissertations</u> (University of Chicago Press). A separate bibliography is discouraged; instead, bibliographical information should be communicated in the footnotes. Quotations in the body of the paper should be translated into English. *The paper is to be a research paper*. Typically it will be the outgrowth of a course or seminar paper, subsequently revised through independent study or the HistSci 925, Seminar: Research and Thesis--thus representing 3-6 credits of effort. The student should work closely with a member of the departmental faculty in its preparation.

The paper will be evaluated by the usual criteria for a historical research paper: clarity, insight, significance, quality and quantity of research, appropriate and relevant use of primary and secondary literature, successful defense of the paper's central thesis, and stylistic merit. In the case of students applying for admission to the Ph.D. program, particular attention will be paid to the potential for Ph.D. work revealed by the paper. Admission to the Ph.D. program is based on an evaluation of the student's overall departmental record; the M.A. paper is but one (and not necessarily the decisive) element.

Any student wishing to submit an M.A. paper later than the fourth semester must request an extension of time. The request for such an extension must be received at least two weeks prior to the date when the paper would ordinarily have been submitted. Except for students proceeding on a part-time basis, extension will be granted only in the most extenuating circumstances. Failure to submit a paper during the fourth semester or to request an extension of time will be grounds for departmental review of a student's record and possible termination of a student from the graduate program.

M.A. Checklist. Students wishing to be awarded the M.A. degree will submit an M.A. Checklist (form B) along with the M.A. paper.

Courses by Distribution Area

Note: each course appears in only one area.

Distribution Area 1: Science: Ancient through the Enlightenment

322/622 Ancient and Medieval Science (Shank)
323/623 The Scientific Revolution (Hsia/Shank)
324 Science in the Enlightenment (Broman/Rider)
507 Health Disease and Healing I (Broman/Schalick)
512 Galileo (Shank)
903 Seminar: Medieval, Renaissance and 17th Century Science
911 Seminar: Eighteenth Century Science (Broman)

Distribution Area 2: Modern Science and Technology

325 History of Physics, Classical Period (Staley)
326 History of Modern Physics (Staley)
333 History of Modern Biology (Nyhart)
337/637 History of Technology (Schatzberg)
339/639 Technology and its Critics since WWII (Schatzberg)
353 History of Ecology (Mitman)
394 Science in America (Numbers)
536 History of the Social Sciences
538 Science in the 20th Century: Historical Themes and Issues
905 Seminar: Modern Physical Science (Staley)
907 Seminar: History of Technology (Schatzberg)

909 Seminar: History of Biology and Medicine (Nyhart/Mitman)
915 Seminar: Science and Medicine in America

Distribution Area 3: Medicine and Public Health

504 Society and Health Care in American History (Numbers)
508 Health, Disease and Healing II (Keller)
509 The Development of Public Health in America (Leavitt)
543 Doctors and Delusions: Madness and Medicine in the Modern Era (Keller)
575 Clinical Medicine Since 1750
901 Graduate Studies in Medical History
902 Research Seminar in Medical History
919 Seminar in Medical History

Distribution Area 4: Transnational Science and Medicine

513/713 Environment and Health in Global Perspective (Mitman)
553 International Health and Global Society (Keller)

Distribution Area 5: Race, Gender, Class, and Religion in Science and Medicine

331 Science, Medicine and Religion (Numbers/Hsia)
343 Darwinian Revolution (Nyhart)
431 Childbirth in the United States (Leavitt)
523 Race and American Medicine and Public Health (DeLancey/Houck)
524 Medical History of Sex and Sexuality (Houck)
531 Women and Health in American History (Leavitt/Houck)
532 History of the Body (Houck)
913 Seminar: Social Aspects in the Development of Science

Chapter 4. M.A. Degree for Students Entering With an Advanced Health Professional Degree

An M.A. degree in the History of Medicine is awarded through the History of Science Department at the University of Wisconsin, Madison. This program is designed for students with doctoral training in one of the health professions who wish to pursue a Master's degree in the history of medicine.

Requirements: A minimum of 30 course credits are required for the M.A. degree. The distribution should be along the following lines:

Required Courses:

504 Society and Health Care in American History
507 or 508 Health, Disease, and Healing I and II (4-credit option, if available)
720 Proseminar: Historiography and Methods
901 Graduate Seminar in the History of Medicine

Additional Requirements:

One additional history of medicine course at or above the 300 level
One additional history of science course at or above the 300 level
One additional seminar in the history of medicine, history of science, or history
One approved elective to complete the 30 credits.

Transfer credits

Students can apply up to 6 credits from their previous professional degree work toward the M.A. degree. If only 3 credits are transferred, these will count as 1 course towards the M.A. requirements. The Graduate School stipulates that only courses taken within the previous ten years may be used for transfer credits.

History of Science Department Requirements

There is no foreign language requirement for the M.A. degree for students entering with an advanced health professional degree. However, graduate students must demonstrate proficiency in either French or German (or an approved alternative) in order to be admitted to the Ph.D. program. The Ph.D. in History of Science, Medicine, and Technology requires proficiency in two foreign languages. Those students intending to pursue a Ph.D. degree should anticipate these requirements. (See Ph.D. language requirements below for methods by which proficiency may be demonstrated.)

M. A. Paper. Same as for M.A. degree in History of Science, Medicine, and Technology.

M.A. Checklist. Students wishing to be awarded the M.A. degree will submit an M.A. Checklist along with the M.A. paper. The checklist appears in Form B below.

Chapter 5. The Ph.D. Degree in History of Science, Medicine, and Technology

Admission to the Ph.D. Program

Students entering the Program in History of Science, Medicine, and Technology are ordinarily admitted to the master's degree program only. Students who already have M.A. degrees in history of science from another institution may be admitted directly to the Ph.D. program. Direct admission requires submission of a research paper of scope and quality comparable to what is required for the M.A. paper; this paper will normally be reviewed at the April faculty meeting that examines M.A. papers. (See also chapter 8 on transfer of credit from previous graduate work.)

The department expects applicants to the Ph.D. program to consult with department faculty about suitable areas for their dissertation research; applicants are required to indicate their probable area of doctoral research on the application form. In order to be admitted to the Ph.D. program, students must have demonstrated proficiency in either French or German or an approved alternative. (See Ph.D. language requirements below.)

Applying for Admission

1) Applications to the Ph.D. program are due on the first Monday in April along with the M.A. paper. (The M.A. paper will be considered as an important piece of the Ph.D. program admission application.) Applicants must complete form C in this handbook.

2) Applications with 3 or more incompletes will not be considered. (Incompletes from the first year must be resolved by July 1 of the first year). A transcript that contains two unresolved incompletes may affect the admission decision.

Outcomes of the Application Process

Applications are considered at a meeting of the faculty in April. There are five possible outcomes from this meeting: 1) admission to Ph.D. program granted; 2) admission granted contingent upon elimination of incompletes by mid-August of the calendar year; 3) decision postponed until after a rewrite of the M.A. paper; 4) decision postponed until incompletes are resolved and work from semester 4 completed; 5) admission to the Ph.D. program denied.

In the case of decisions 3 and 4, the faculty will form a committee to review the student’s work. Final decisions of this committee will be made by mid-August.

Students not admitted to the Ph.D. program in April who hope to be admitted in August will receive lower priority for funding.

The admission process is not complete until the student has secured the signature of a Program faculty member to serve as major professor (use form A). This form must be submitted before the start of the semester following application to the Ph.D. program.

Requirements for the Ph.D. Degree in History of Science, Medicine, and Technology

1. Acceptance for Ph.D. work by a major professor who will direct the student's work.

2. Achievement of a reading proficiency in two foreign languages. (MD/PhD students: one foreign language)

3. An appropriate number of seminars (see below).

4. A minor in another department (see below).

5. Departmental approval of overall Ph.D. program.

6. Passage of the preliminary examination.

7. Completion of a satisfactory dissertation based on original research, written under the direction of the student's major professor and subject to the approval of the dissertation committee.

9. Passage of a final oral examination on the dissertation conducted by the dissertation defense committee.

10. Graduate School residency requirements for the Ph.D. degree as stated in the Graduate School Bulletin.

Ph. D. Advising. In order to complete the process of admission to the Ph.D. program, a student chooses a major professor. A student may change major professors after admission to the Ph.D. program. When changing or choosing a major professor, a student must obtain the written consent of the new major professor. A form for this purpose, which must be endorsed by the Department Chair or the DGS, is provided in this handbook (form A).

Ph.D. Checklist. These checklists will be maintained in the History of Science Departmental Office; a student may inspect his or her checklist at any time.

Approval of Overall Ph.D. Program and Prelim Fields. No more than one semester after admission to the Ph.D. program, a student must obtain departmental approval of the overall Ph.D. program. To obtain this approval, the student must submit form D, "Approval of Overall Ph.D. Program." This form indicates the titles of the three fields, the minor department, seminars taken or contemplated, and the area of dissertation research. The student is required to obtain signatures from each faculty member directing a field. Students electing a field not regularly approved for the preliminary examination will include a short statement describing the field and a relevant reading list. The set of fields will not be approved if they overlap excessively or constitute too narrow and specialized a program. Prelim fields outside the department are encouraged, but an outside prelim field may not overlap substantially with the minor field. If both the prelim field and the minor are in the same department, they should be based upon

different courses and represent different subject matters. A semester of independent study is a standard option for each of the three prelim fields.
Under normal circumstances, requests for approval of the overall Ph.D. program will not be acted on between May 15 and September 1.

Ph. D. Minor. The Graduate School offers two alternatives. The **Option A** minor requires a minimum of 10 credits in a single department or area of study. Approval of an Option A minor comes from the department in which the minor will be taken; contact that department for specific requirements. Students in the History of Science often choose an Option A minor in the Department of History (which requires 12 credits), although students have arranged Option A minors in many other departments and programs, including Science and Technology Studies. The **Option B** minor requires, in the Graduate School wording, "a minimum of 10 credits in one or more departments." This minor requires approval by the faculty of the Program in History of science, Medicine, and Technology. In most cases, the Program only permits Option B minors for a minimum of 12 credits of course work distributed across at least two departments. Requests for approval of an Option B minor should be in the form of a letter that describes the proposed courses and their relevance to the overall plan of study. In certain cases, either type of minor may be satisfied by prior graduate study. Students should consult with their major professor in advance about their plans for a minor. Students are not required to complete the minor before prelims, but are encouraged to do so.

Ph.D. Seminar Requirement. Students who have entered or who intend to enter the Ph.D. program are expected to enroll in seminars. The number of seminars required is determined by the "N-1" rule, where N is the number of semesters of full-time registration at the time of prelims (including the current semester). At least three of the seminars taken under this rule must be graduate seminars offered through the Department of History of Science or the Department of Medical History and Bioethics, and the overall the seminar requirement is capped at 5. Students are, of course, encouraged to take additional seminars. HistSci 720 ("Historiography and Methods") and HistSci 925 ("Research and Thesis") do not count toward this seminar requirement. For a definition of seminar, see chapter 3 under "Requirements for the M.A. Degree," paragraph 3.

History of Science 990 and 999. At their option, dissertators should consider enrolling for a seminar, if appropriate, rather than HistSci 990.

Ph.D. Foreign Language Requirement. Most graduate students must demonstrate proficiency in two foreign languages for the Ph.D. degree. Students who are working toward a degree as part of a combined M.D./Ph.D. program only need to demonstrate proficiency in one language. The two languages will normally be French and German; other languages may be substituted when appropriate, by approval of the department. Substitutions require early action on the part of the student. The candidate must have demonstrated proficiency in one language in order to be admitted to the Ph.D. program, and in the second preferably before taking the preliminary examination. ABD status, with its attendant reduction in tuition, is contingent upon satisfying the two-language requirement.

Proficiency may be demonstrated by means of (1) a language examination administered on the Madison campus by the relevant department or University Extension (consult departments and University Extension regarding availability), (2) the Graduate Student Foreign Language Test or other national foreign language test, or (3) undergraduate language courses (see chart below). Approval of language proficiency by the third means is secured by application to the Program through the DGS. In special cases, the faculty may choose to certify language proficiency in some alternative manner.

Level and grade of the most advanced foreign language course taken	*Years between completion of the most advanced undergraduate language course and matriculation in History of Science graduate program*		
	0-3	4	5
4th semester (B or AB)	Yes	No	No
4th semester (A)	Yes	Yes	No
5th semester (B or AB)	Yes	Yes	No
5th semester (A)	Yes	Yes	Yes
6th semester (B or AB)	Yes	Yes	Yes

With the approval of the department and the student's advisor or major professor, a student may choose to substitute quantitative methods for a foreign language. The student will be required to complete a coherent program of no fewer than nine credits, or their equivalent, of coursework in statistics, demography, or other quantitative methodologies relevant to historical research. The GPA in these courses must exceed 3.00, and at least three credits must have been earned in courses beyond the introductory level.

The Preliminary Examination (aka "Prelims"). Ph.D. Students will be examined orally and by written examination in three fields (for a list of standard fields, see below). The preparation of each of the three fields will be directed by a faculty member from the Department of the History of Science or, if appropriate, from another department of the University. Three different faculty members must direct the three fields. The candidate must notify the department administrator of the date of the oral examination as soon as it has been determined, **but not later than three weeks before the meeting**.

Please note that before students begin preparing for their preliminary exams, their overall course of study, including the distribution of their preliminary fields, must be approved by the faculty.`1

<u>The Goals</u>

The goal of prelims is (at least) threefold:

1) Mastery of the field. By mastery, we mean several things. At the most basic level, we expect students to understand and to articulate the most significant historical and historiographical trends that shape the field. Further, we expect students to use that knowledge and understanding to challenge aspects of the field, to reconsider or redraw its boundaries, to map and manipulate its content, and to assess its significance in their future scholarship.
2) Teaching competence in the field. We expect the preliminary examinations to prepare students to teach the field at both the graduate and undergraduate levels. As a result, the

exams may ask questions that test the students' ability to organize and translate this field for use in the classroom.

3) Discover useful models of scholarship. As students prepare for their exams, they will be exposed to different theoretical and methodological approaches to various topics. During this process, students should be on the lookout for work that will serve as models for their own scholarship.

The Process

Prelims progress in two distinct phases, the preparation phase and the examination phase. Prelims begin with a list of readings, created by the student and the faculty member supervising the field. This list may be based primarily on the professor's recommendations or it might reflect the student's research in the literature. The final list should reflect roughly 50-75 books or an equivalent mix of books and articles. (Some lists may be significantly longer with the understanding that not all the texts listed must be read in their entirety.)

Faculty members do not approach these exams in identical ways nor do they share identical expectations. For example, while some faculty members focus on the history, others stress the historiography. Some faculty members encourage regular meetings to talk about the texts, while others see prelims as an opportunity for students to wrestle with the material independently. We urge students and faculty to address their expectations early in the process.

The written examination

The students will prepare a take-home examination in each of three fields; students shall work independently on these. (Students may ask faculty for clarification of the questions, if need be.) Each faculty member will provide a question to the student no later than one month before the oral portion of the preliminary examination. Students will give the completed essay responses to all members of the examining committee no few than four days before the oral examination. The maximum allowable length will be 2500 words (excluding footnotes) for each question.

The oral examination

The oral examination will last approximately two hours. During the oral examination any member of the committee may question the candidate about the content of the written examinations as well as any other aspects of the fields. Students may bring a copy of their essays and their reading lists with them into the exam.

The Outcome

Students will be judged on the quality of their written and oral exams. The relative weight of the two exams varies. A weak essay can be overcome by a strong oral exam, and a weak oral is unlikely to overshadow a stellar written essay. There are three possible outcomes of the examination: Pass, Pass with distinction, and Fail.

A passing essay should: 1) Be well written, showing the ability to organize an essay, develop an argument, and marshal supporting evidence; 2) Demonstrate a clear understanding of the key debates, issues, and developments in the field; 3) Be more than a summary of events or historiographical approaches. It should be both synthetic and analytic.

To pass the oral examination, the student must demonstrate an ability: 1) to expand upon the ideas and claims made in the written essay; 2) to respond to challenges; 3) to think about the field and its content beyond the material covered in the written exam.

Exams that meet and exceed these expectations (by demonstrating a remarkable level of intellectual dexterity or analytical sophistication, by demonstrating that the student has clearly advanced beyond a basic understanding and knowledge of the field) may pass with distinction. To earn "distinction," the examinations must be outstanding in two of the three fields.

Exams that fail to meet these standards in full or in several parts will fail. Students who fail one or more of the exams are automatically allowed to take them once again. No student may take the prelim exam in whole or in part more than twice. A retake (with at least two members of the original committee) may cover an individual field or all fields at the discretion of the committee.

Prelim Fields. The Ph.D. preliminary examination will cover four fields, chosen by the student in consultation with his or her major professor. The scope of each field will be determined by mutual agreement of student and directing professor, with the overall program subject to approval by the faculty as a whole. The following is a list of fields regularly offered for the preliminary examination in History of Science, Medicine, and Technology. This list is not exhaustive, and the coverage represented any field will vary from one faculty member to another. Students are encouraged to propose other fields either within or outside the department where appropriate. Approval of fields not regularly offered will require the submission of a reading list, a short statement describing the field, and the approval of a sponsoring faculty member.

1. Ancient Science (Hsia/Shank)
2. Medieval Science (Hsia/Shank)
3. Scientific Revolution (Hsia/Shank)
4. Medicine from Antiquity to 1750 (Broman/Schalick)
5. Science in the Enlightenment (Broman)
6. History of Biology since 1750 (Nyhart/Mitman)
7. Physics since Newton (Staley)
8. European Medicine since 1750 (Keller)
9. Science and Medicine in the Atomic Age (Lederer/Mitman/Staley)
10. History of Scientific Methodology (Shank)
11. History of the Social Sciences
12. Public Health and Society (Leavitt/Keller)
13. History of Public Health in America (Leavitt/Lederer)
14. History of Health Care in America (Leavitt/Lederer/Numbers/Houck)
15. Science in America (Numbers/Mitman)
16. Science and Religion (Numbers/Hsia/Shank)
17. Women and Gender in Science, Medicine and Technology (Leavitt/Nyhart/Houck)
18. Social Aspects in the Development of Science and Technology (Numbers)
19. History of Technology (Schatzberg)
20. Science, Medicine and Globalization (Keller)
21. History of the Body (Houck/Lederer)

Dissertation Committee and Proposal. The Program requires students to set up a dissertation committee as soon as possible but no later than the semester following passage of the

preliminary examination, and to meet with this committee during that same semester to discuss the proposed dissertation research. (See the heading "Criteria for Satisfactory Progress as a Graduate Student" in chapter 6 for more details on deadlines.) The dissertation committee will consist of three faculty members, led by the major professor and including at least one other member of the department, chosen by the student and the major professor. This committee approves the dissertation proposal and provides general oversight of the student's dissertation research. The members of this committee will ordinarily form the core of the dissertation *defense* committee, which decides whether to approve the completed dissertation (see below).

Progress Report. Every year after admission to the Ph.D. program, the students must submit a brief progress report, typically one single-spaced page, to his or her advisor and the DGS. Before the prelim examination, the student should focus on progress towards completing the requirements for prelims (minor, relevant additional course work, preparation for prelims.) After passing prelims, the reports should detail progress toward the dissertation, for example archives visited, materials gathered, databases created, and chapter drafts produced. The student should also include other scholarly work, such as teaching, presenting conference papers, and the like. If funding problems or teaching responsibilities have slowed progress on the dissertation, this may also be addressed in the report. Students should consult with their major professor for specific advice on the content of the report. After the dissertation committee is formed, all committee members should receive a copy. This report is due in March along with the financial aid application form, which is required of all students. This report helps the faculty make funding decisions and gauge satisfactory progress (see chapter 6).

Ph.D. Dissertation Format. The remarks made above regarding style of the M.A. paper apply equally to the Ph.D. dissertation. Because of the common tendency to write longer dissertations than the subject requires, the Program encourages conciseness. In most instances, a dissertation of 250-400 pages should be sufficient. In no case will the Program accept a dissertation of more than 500 pages without prior approval. Departmental policy is that footnotes should be placed at the bottom of each page rather than at the end of the dissertation or the end of each chapter. Full-sized copies of the dissertation must be provided for both the History of Science departmental library and the major professor. The student should also be aware that the Program and the Graduate School impose additional rules concerning the Ph.D. dissertation and the oral defense; on these rules, see the section of this chapter below, "Submission of Final Dissertation"), and the graduate school web page entitled "The Three D's: Deadlines, Defending, & Depositing Your Ph.D. Dissertation,"
http://www.grad.wisc.edu/education/completedegree/ddd.html.

Submission of the Draft Ph.D. Dissertation. The student must submit a preliminary draft of the Ph.D. dissertation to the dissertation committee, and shall then take the comments of the members of the committee into account in preparing the final draft. If any member of the committee does not give a response to the draft within one month, the student, with the permission of his or her major professor, may proceed without the benefit of that professor's commentary.

Dissertation Defense Committee. This committee conducts the oral dissertation defense (see below) and decides whether to approve the dissertation. In general, this committee needs to be

established at least two months before the dissertation defense. The committee consists of five members, in most cases the three members of the dissertation committee and two additional members chosen by the student with the approval of the major professor. At least one of the five members must not be a member of the Program in History of Science, Medicine and Technology.

Dissertation Defense (Ph.D. Oral Examination)

1) Candidates for the Ph.D. degree must pass an oral defense of the dissertation before the Ph.D. can be awarded. Candidates need to plan ahead for this oral examination (in consultation with the major professor), in order to make sure that all members of the dissertation defense committee will be available on the proposed date of the examination.

2) When a date has been agreed upon, the Ph.D. candidate must schedule the exam with the administrator of the History of Science Department, although the candidate is responsible for notifying all participants. **No less than three weeks** before the examination, the administrator of the History of Science Department must file the "Ph.D. Final Oral Committee Approval Form" with the Graduate School. In order to do so, the candidate must provide the administrator with the candidate's name, title of dissertation, date of examination, and names of the members of the defense committee.

3) The candidate needs to provide all members of the dissertation defense committee with a copy of the dissertation before the defense. The due date is set in consultation with the major professor and other committee members; in general two weeks before the defense is an absolute minimum.

4) The defense typically lasts two hours. During the defense, all five members of the dissertation defense committee have the opportunity to question the candidate about the dissertation. At the end of the questioning, the candidate leaves the room while the committee deliberates. The committee votes and, if there is a favorable majority, signs the warrant accordingly. Should any member of the committee dissent from a majority decision to pass, the warrant must be immediately forwarded to the Graduate School, where the case will be investigated and adjudicated by Graduate School deans. In case of two dissenting votes, the decision of the deans will almost invariably be negative. The committee may, at its discretion, pass the candidate with conditions.

5) The oral examination is open to observers at the candidate's discretion; the deliberations of the committee are not.

Submission of the Final Dissertation

Depositing the dissertation. The Graduate School has stringent rules regarding acceptable dissertation format. The finished dissertation must be presented to the appropriate Graduate School representative (Ph.D. office, 217 Bascom Hall) for approval of its format. The Program's regulations require only that the notes be footnotes rather than endnotes; exceptions may be

granted in special cases. Please note that you must obtain the signed readers' page and the signed warrant from the department administrator to include with the dissertation when you deposit it.

Publication of the dissertation by microfilm is required; students must cover the cost of microfilming. For additional information, see "The Three D's: Deadlines, Defending, & Depositing Your Ph.D. Dissertation," http://www.grad.wisc.edu/education/completedegree/ddd.html.

Additional copies and binding. Copies are also required for Memorial Library, the History of Science Department Library, and the major professor. The candidate should offer copies to all other members of the examining committee.

- The administrator of the History of Science Department will provide the candidate information on the requirements for the Memorial Library copy.
- Bound copies are required for the History of Science Department Library and the major professor. Bound copies should be offered to other members of the examining committee.
- The candidate is required to pay for binding. The department has arranged for inexpensive binding; please see the department administrator for details.

Chapter 6. Quality Of Work

Academic Misconduct. Both the University of Wisconsin and the Program in History of Science, Medicine, and Technology expect graduate students to adhere to the highest standards of academic integrity. University guidelines relating to academic misconduct are available from the Graduate School. Plagiarism and other forms of proven academic misconduct are considered by the Program faculty to be grounds for dismissal from the graduate program. In addition, a graduate student may not submit substantially the same work to fulfill the requirements of more than one course, unless the student has received explicit, written consent from the instructor of each course and the DGS.

The Graduate School web site provides a detailed discussion of academic misconduct. (See http://www.grad.wisc.edu/education/acadpolicy/guidelines.html.) That text is reproduced here, and applies to all graduate students:

> Graduate and professional students should be aware that the university holds graduate/professional students to a high standard of academic integrity and believes that misconduct may warrant university discipline in addition to sanctions imposed by an instructor. Graduate or professional students who have been found by their instructors to commit academic misconduct can expect that the Offices of the Dean of Students will consider whether to impose a further disciplinary sanction of university probation, suspension, or expulsion.

Chapter 14 of the *University of Wisconsin Administrative Code* defines academic misconduct as follows:

> *Academic misconduct is an act in which a student:*
> 1) seeks to claim credit for the work or efforts of another without authorization or citation;
> 2) uses unauthorized materials or fabricated data in any academic exercise;
> 3) forges or falsifies academic documents or records;
> 4) intentionally impedes or damages the academic work of others;
> 5) engages in conduct aimed at making false representation of a student's academic performance; or
> 6) assists other students in any of these acts. UWS 14.03(1)
>
> *Examples of academic misconduct include but are not limited to:*
> 1) cutting and pasting text from the Web without quotation marks or proper citation;
> 2) paraphrasing from the Web without crediting the source;
> 3) using notes or a programmable calculator in an exam when such use is not allowed;
> 4) using another person's ideas, words, or research and presenting it as one's own by not properly crediting the originator;
> 5) stealing examinations or course materials;
> 6) changing or creating data in a lab experiment;
> 7) altering a transcript;
> 8) signing another person's name to an attendance sheet;
> 9) hiding a book knowing that another student needs it to prepare for an assignment;

10) collaboration that is contrary to the stated rules of the course; or
11) tampering with a lab experiment or computer program of another student.

The full text of the state statute governing academic misconduct, UWS 14, *Student Academic Disciplinary Procedures*, as well as the UW-campus procedures for implementing the provisions of UWS 14 and general information about academic misconduct, are available at http://students.wisc.edu/saja/misconduct/misconduct.html or from the Offices of the Dean of Students, 75 Bascom Hall, 263-5700.

First-Year Review. All students will have their records reviewed by Program faculty at the beginning of the second year of graduate work. The review helps insure that students are making suitable progress after their first year, including removal of incompletes by July 1 as discussed in the section immediately following. To facilitate this review, students are required to submit a portfolio as described below, preferably electronically. This review is designed to insure that students are getting the advice and support they need to complete the M.A. successfully. Students will receive a written summary of the review comments.

By August 25 preceding the fall semester of the 2nd year, MA students need to submit to the Program chair a portfolio for review by the faculty that will include:

1) A self-assessment (about one page) of the student's progress during the first year, discussing the student's strengths and areas requiring further improvement. There is no fixed format for the self-assessment, but typical topics would include writing, research and historiography.
2) Course transcript (unofficial)
3) A research paper completed during the 1st year of the MA program
4) Identification of a possible major advisor and area(s) of interest for the MA paper

Incompletes. Students are discouraged from taking incompletes, and they are expected to remove promptly any incompletes received. First-year students must have no incompletes on their record as of July 1 of the summer following the beginning of graduate work. A student also must have removed all incompletes before receiving an M.A. degree. All incompletes must also be removed before a student is allowed to take either the preliminary examination or the final oral examination. Students admitted to the Ph.D. program must remove all incompletes by the end of the August following the date of departmental action on the application for admission. An incomplete carried beyond the one semester after receipt is considered unsatisfactory and will result in review of the student's work.

Course performance and grades. The grade "A" in a History of Science course is meant to signify excellent work. "AB" represents satisfactory performance. "B" is given for acceptable work, but suggests cause for concern. "BC" and "C" represent unsatisfactory performance; courses in which these grades have been received confer credit but do not count towards departmental requirements for a graduate degree. A student receiving two "C"s will have his or her record reviewed. For admission to the Ph.D. program, a grade point average substantially higher than "B" must be achieved. Grades are, of course, only a rough measure of success; for a fuller and more precise evaluation, students are encouraged to take the initiative in discussing

with their instructors, at the end of the term, the quality of their work, areas where additional effort might be called for, and potential for further study.

Leave of Absence Policy. Graduate students wishing to take a leave of absence of one or more semesters should submit a letter to the Chair or DGS, explaining the circumstances, indicating the anticipated duration of the leave, and requesting permission for the leave. If permission is granted, the letter of permission will stipulate conditions of reentry. In all cases, removal of all incompletes will be a condition of reentry. Students wishing to reenter will need to contact the Graduate School Admissions Office in order to initiate reentry procedures.

Probationary Admission. Graduate students in History of Science, Medicine, and Technology who are admitted on probation must complete no fewer than three graduate-level courses during each of their first two semesters of graduate work. Incompletes received while the student is on probationary status must be removed no later than four weeks after the completion of the course in which the incomplete was received. A grade of B or better in all first-year courses is required for the removal of probationary status.

Full-Time and Part-Time Status. The Graduate School considers full-time enrollment to be 8-12 graduate-level credits (300 and above; no audits or pass/fail) during the fall and spring semesters. Dissertators are considered full-time with three graduate-level credits (generally research and thesis or required seminars). Non-dissertator teaching and project assistants (TAs, PAs) who hold a semester appointment of at least 33.33% and are enrolled for six graduate credits, or who hold an appointment of at least 50% and are enrolled for four graduate credits, are considered full-time by the registrar for loan deferment and for certification of student immigration status.

We expect graduate students in the program to be enrolled full-time as defined above; however, the Program acknowledges the legitimacy and appropriateness of part-time graduate study. A student who wishes to attend part-time (either on a one-time basis or for a more extended period) must secure formal approval by the faculty. In requesting approval of part-time study, the student should submit a letter to the DGS explaining the circumstances necessitating a part-time program and proposing a schedule for completing the graduate program.

Criteria for Satisfactory Progress as a Graduate Student. Full-time students are expected to meet the schedule of normal progress described below. If a student falls below the normal (or agreed upon) rate of progress, a probationary period of not more than two semesters will usually be set, during which the student must meet conditions specified by the department.

M.A. Degree: students who fail to complete the requirements for the M.A. degree by the beginning of the fifth semester will normally be asked to leave the program, absent extenuating circumstances.

Preliminary Examination: students should pass prelims by the end of the sixth semester, and no later than the fourth week of the seventh semester. Students may only take prelims after this date by submitting a formal request to the Program faculty through the DGS. Note that scheduling the exam can often be difficult because of faculty schedules, particularly when faculty are on leave. The Program is willing to make adjustments to the schedule in such cases.

Ph.D. Degree**:** Within one semester of passing the Ph.D. prelim, students must submit a dissertation proposal to a committee of three faculty members, who will meet with the student to evaluate the proposal. (See the section in chapter 5, "Dissertation Committee and Proposal" for more information about the dissertation proposal and the committee composition.) Each year after admission to the Ph.D. program, the student must submit a progress report to the advisor and DGS. These annual reports allow the Program to monitor each dissertator's progress. (See chapter 5 for details of the progress report.)

If a student does not seem to be making progress toward completion of the dissertation, the faculty may require other evidence of progress, such as a new dissertation proposal or a completed chapter. Failure to meet this schedule and to demonstrate continuing progress toward completing the dissertation will lead to a review of the student's overall academic record, with the possibility that the faculty will decide not to request a waiver of the Graduate School requirement about retaking prelims.[*] Ultimately, the faculty may recommend that the student be dropped from the graduate program.

Right of Appeal. Appeal of faculty decisions regarding award of M.A. degree, passing of preliminary examination, and admission to the Ph.D. program can be initiated by submitting a letter setting out specific grounds of appeal to the Chair within two weeks of the date on which the student received notification of the departmental action.

[*] "A candidate for the Ph.D. degree who fails to take the final oral examination within five years after passing the preliminary examination is required to take another preliminary examination and be admitted to candidacy for a second time."

Chapter 7. Graduate Student Support (Financial Aid)

Program Support. Support for incoming students is determined during the admissions process. Support for continuing students is allocated in April, generally at the first faculty meeting after consideration of the M.A. papers.

The financial aid application form is distributed during the spring semester, typically in early March. This form lists all the TA, PA, and RA positions controlled by the Program, as well as fellowships. All continuing students must return this financial aid form to remain in good standing, even if only to indicate that no financial aid is desired.

University Fellowships for dissertators, which are typically granted to students in their final year through a university-wide competition, are an exception to this process. The department requests proposals from dissertators at the end of the fall semester, and submits its nominees to the Graduate School early in the spring semester. If you would like to be considered for this fellowship, please consult with your Ph.D. advisor.

Dissertators are also eligible for research grants when they receive outside fellowships that do not provide tuition remission. These grants, supported by the Theodore and Genevieve Herfurth Fund, are equivalent to in-state dissertator tuition, and are intended to encourage students to apply for outside funding sources. In addition, dissertators who receive lectureship positions are eligible to apply for the Herfurth Research Award for Graduate-Student Instructors, which is intended for graduate students teaching their first independent course when this course meets during the academic year. This award has been funded at $1000 (for one semester). Both these awards are contingent on availability of funding. If you are eligible for one of these awards, please request information on application procedures from the Chair.

Language proficiency for teaching assistants. UW System policy requires that non-native English speakers demonstrate proficiency in spoken English before they are assigned classroom duties as teaching assistants. The Program applies this policy to any graduate student applying for a TA position if that student was required to provide English proficiency test scores with his or her graduate school application. The Program requires students in this category to take the SPEAK test of oral English proficiency before applying for a TA position controlled by the department. This test is administered by the UW Program in English as a Second Language (http://www.english.wisc.edu/esl/). The Program follows the general guidelines of the SPEAK test, which permits students to serve as TAs only if they score at least 50 on the test, or if they score at least 45 and enroll concurrently in a program to improve English skills. Marginal scores may be a factor in selecting TAs. Students who score below the required level are encouraged to take advantage of the training classes provided by the ESL program for international TAs.

External Sources of Support. The Program does not control enough resources to fund all of our graduate students through completion of the Ph.D. We therefore strongly encourage students also to seek sources of funding outside the department. UW-Madison is a billion-dollar enterprise with 16,000 employees, including over 5000 graduate assistants of all types. Most

graduate assistantships include tuition remission. In many cases, available positions are not posted, so talk with other graduate students about available opportunities in other programs.

Graduate students are also eligible for dozens of grants from outside the UW. One of the best is the National Science Foundation Graduate Research Fellowships Program (https://www.fastlane.nsf.gov/grfp/), which provides three years of very generous support. The application deadline for this program is typically in early November. Students must apply early in their graduate careers, either in their first or third semesters. All eligible graduate students are encouraged to consult with their advisors or the DGS about applying to the GRFP.

Information on outside funding, compiled by the Program's graduate students, is available here: http://histsci.wisc.edu/grads/funding.shtml. More information from the Graduate School is available here: http://www.grad.wisc.edu/education/funding/index.html.

Criteria for Allocating Graduate Student Support. The faculty relies on the following criteria when allocating teaching assistant, project assistant, and fellowship positions. Most of these positions are allocated during the April faculty meeting on financial aid, though sometimes resources only become available after this meeting. In general, students who have completed seven or more years in the graduate program are accorded lower priority in the awarding of financial aid.

Teaching assistantships are awarded on the basis of overall academic record, evidence of teaching ability, and familiarity with the field covered by the course. The faculty as a group discuss every student's performance. Every effort is made to strike a balance between academic performance, actual and potential excellence in teaching, competence in the course material, past support, current needs, and student and faculty preferences. We vote as a group on the TA selections, a process that seeks to maximize the greater good of the graduate program while minimizing arbitrariness and patronage. This process is used for all TA positions that we control, even when the position is funded by a different department or program.

Project assistantships are treated somewhat differently. In general, the faculty member responsible for the assistantship plays the major role in the process of selection, while accepting suggestions from faculty colleagues.

Fellowships (and research assistantships, which are functionally equivalent) are awarded using the same process as teaching assistants, except that the overall academic record and scholarly potential are the principal criteria. In general, the few fellowships we control are allocated either to incoming students or to dissertators.

Addendum: Obtaining In-State Status for Tuition for Dissertators

The faculty *strongly encourages* all students who are eligible to establish residency for in-state tuition to do so. In general, students who come to UW-Madison from outside of Wisconsin primarily to attend the university must pay out-of-state tuition as long as they remain students. But different rules apply to dissertators, who do not need to remain in Wisconsin to continue their studies. In many cases, students can obtain in-state tuition after being dissertators for 12

months. The university has not, however, published any written policies on this issue, so the information here is for advice only. The UW-Madison web page on "Residence for Tuition Purposes" has nothing about dissertator status (http://registrar.wisc.edu/residence.htm).

The relevant section of the governing law states:

> a student who enters and remains in this state principally to obtain an education is presumed to continue to reside outside this state and such presumption continues in effect until rebutted by clear and convincing evidence of bona fide residence. [Wis. Stat. 6.27(2)(e)]

However, once students become dissertators, they are arguably no longer "in this state principally to obtain an education." If they can demonstrate their intent to remain in Wisconsin indefinitely, they become eligible for in-state tuition after 12 months, as the law explains:

> In determining bona fide residence at the time of the beginning of any semester or session and for the preceding 12 months the intent of the person to establish and maintain a permanent home in Wisconsin is determinative. In addition to representations by the student, intent may be demonstrated or disproved by factors including, but not limited to, timely filing of a Wisconsin income tax return of a type that only full-year Wisconsin residents may file, voter registration in Wisconsin, motor vehicle registration in Wisconsin, possession of a Wisconsin operator's license, place of employment, self support, involvement in community activities in Wisconsin, physical presence in Wisconsin for at least 12 months preceding the beginning of the semester or session for which the student registers, and, if the student is not a U.S. citizen, possession of a visa that permits indefinite residence in the United States. [Wis. Stat. 6.27(2)(e)]

The following information may help dissertators decide if they are eligible for in-state tuition. This information is for guidance only and does not represent official UW policy; it was provided to the faculty verbally by the "residency counselor" at the Registrar's office in April 2004.

1) If you are a U. S. citizen **and have been a dissertator for 12 months** (as recorded in your computer record by ISIS) and have lived in Wisconsin during that time, and have the other usual evidence of residency (income taxes, in-state driver's license, etc.), the state considers that you are no longer here "primarily for educational purposes," and thus you can qualify as a resident for purposes of tuition.

2) Appeals for establishing in-state residency for tuition purposes are only taken during certain times:

For fall semester: July 1 through the 3rd Friday of classes;
for spring: Dec. 1 through 3rd Friday of classes;
for summer: April 15 through last day students register.

3) The 12 months are counted from the time you are officially a dissertator to the time for which you are registering. For example, if you passed prelims in August and so were registered as a

dissertator for fall 2003, you may appeal for residency and in-state tuition for fall 2004, even if you are making the appeal in July 2004, less than 12 months after you became a dissertator. However, if you passed prelims in October 2003, you won't be considered a dissertator by ISIS until spring semester 2004 and so have to wait to file for in-state status until after Dec. 1, 2004, for spring semester 2005. AND you need to have lived in Wisconsin for the relevant 12 months preceding the semester for which you are filing the appeal.

4) If you plan on being out of state for research SUBSEQUENT TO applying for residency, this is not an issue as long as you plan to return to Wisconsin. It's the 12 months before you request the appeal that counts.

5) Different rules apply to non-US citizens. In general, if you are here on a student visa, you pay out-of-state tuition unless you have a green card or an H-visa.

Chapter 8. Policies Regarding Transfer of Graduate Credit

Applied to the M.A. Degree in History of Science, Medicine, and Technology:

1. Graduate work in fields outside the history of science, medicine, and technology, either at another institution or at UW-Madison before admission to the Program: Up to 6 credits (2 courses) may be transferred. These credits must meet the same criteria of relevance to the history of science applied to extra-departmental course work for graduate students in the Program.

2. Graduate work in the history of science, medicine, and technology at other institutions: The department will give credit for up to 9 credits toward the M.A. degree for such work. Applicability of the transferred courses to the distribution requirements will be judged on a case-by-case basis.

3. Total credits transferred under paragraphs 1 and 2 may not exceed 12. Credit will ordinarily be granted on a one-for-one basis, though adjustments may be necessary in case of doubt about the quality or level of the transferred credits. If the transferred credits have already been counted toward another master's degree at UW-Madison, then, by Graduate School policy, only 7 of them may be applied to the M.A. degree in the History of Science, Medicine, and Technology. No credits carrying a grade below B are transferable. The Graduate School stipulates that only courses taken within the previous ten years may be used for transfer credits.

Applied to the Ph.D. Degree in History of Science, Medicine, and Technology:

4. The faculty will entertain requests for transfer of additional courses (beyond transfers approved under paragraphs 1 and 2) from other institutions or other departments within the UW-Madison to meet the Program's Ph.D. requirements. However, a decision on such transfer will not be made until after the student has satisfied the Program's M.A. requirements and been admitted to the Ph.D. program. In practice, students will find that progress toward the Ph.D. degree depends principally on one's knowledge and abilities; insofar as graduate work done in other departments and at other institutions contributes in this way, to that extent it will shorten the time required for earning the Ph.D. degree in this department.

5. Use of an M.A. or M.S. degree in the history of science, medicine, and/or technology earned at another institution as a prerequisite for Ph.D.-level work. Each case will be judged on its merits at the time of application for admission. Students may also request use of masters' degrees in history and philosophy of science, as well as in history with emphasis on the history of science, medicine, and technology.

6. In addition to the transfers outlined above, it is often possible to have previous graduate study in fields outside the history of science, medicine, and technology count toward the Ph.D. minor. For an Option A minor (see p. 12), this matter must be negotiated with the UW-Madison department representing that discipline.

Chapter 9. Joint Ph.D. in History and History of Science, Medicine, and Technology

After completing a master's degree in History or the History of Science, Medicine, and Technology (or an approved alternative), the interested student must be admitted independently to the other department, and at that time indicates interest in the joint Ph.D. program. The student then applies to a standing committee of the two departments for admission to the joint Ph.D. program. Students must declare a home department and will follow the regulations of that home department with regard to seminar requirements, financial aid, and satisfactory progress.

Students admitted to the joint Ph.D. program will be assigned a supervising committee, consisting of three members (two from the home department), who will supervise the student's subsequent work. The preliminary examination will test the student's competence in both History and the History of Science, Medicine, and Technology, balancing the material and the fields between the two programs. The number of prelim fields must equal the number required of students majoring exclusively in History or in History of Science, Medicine, and Technology, plus one additional field.

Students must fulfill the language requirements of the appropriate field of their home department. The joint Ph.D. program is conceived to meet the minor requirement of the Graduate School, and no formal minor is required. However, students who wish to have a minor field recorded on their transcript may complete a regular Option A or Option B minor or one of the internal minors defined by the Department of History.

Preparation of the Ph.D. dissertation will be guided by the student's supervising committee. Satisfactory completion and defense of the dissertation constitute the final requirements for the joint Ph.D. degree.

Chapter 10. Joint Ph.D. in Philosophy and History of Science, Medicine, and Technology

I. Description

A. General

Each candidate for the Ph.D. degree will be required to pass four prelim fields: two in Philosophy and two in History of Science, Medicine, and Technology. The candidate will write a dissertation under the direction of a major professor from either Philosophy or History of Science, Medicine, and Technology. A candidate writing the dissertation from the latter program will be said to have a "history of science emphasis" (HSE), while a candidate writing the dissertation under a philosopher will be said to have a "philosophy emphasis" (PE). All programs must have the approval of the Interdepartmental Committee on Philosophy and History of Science, Medicine, and Technology.

B. Languages

Every candidate will be required to have a reading knowledge of one foreign language related to his or her general area of interest. Most frequently, this language will be French or German. In addition, HSE candidates will be required to have a reading knowledge of a second foreign language.

C. Logic

All candidates must satisfy the logic requirement. They may do so by (1) passing Philosophy 511 (or a comparable course at another University) with a grade of B or better; or (2) passing a special examination in logic administered by the Logic Committee of the Philosophy Department.

D. Prelims

Two prelim fields will be in philosophy and two in history of science. One of the philosophy prelims must be in philosophy of science. The second prelim area in philosophy will normally be chosen from among the following: (l) history of philosophy, (2) epistemology and metaphysics, (3) logic.

1. History of Philosophy. A candidate is considered to have passed the prelim in the history of philosophy if he or she takes three of the four graduate history of philosophy courses offered by the Philosophy Department and passes the examinations administered at the end of each course. The three courses chosen should be those most relevant to the candidate's overall program.

2. Philosophy Prelims other than History of Philosophy. The candidate may choose either Option P (the paper option) or Option E (the examination option). (See Department of Philosophy statement of Information for Graduate Students for a complete description of Options P and E.) Before the candidate can take prelims under either option, he or she

will be expected to have taken three graduate seminars in the Philosophy Department. History of philosophy seminars and independent study courses do not count toward the fulfillment of this requirement.

Prelims in History of Science, Medicine, and Technology: Wide latitude is granted for the selection of prelim fields adapted to the student's interests. A given prelim field is to be negotiated with a professor in the Program in History of Science, Medicine, and Technology and approved by the Interdepartmental Committee. The following list is intended to suggest the scope of a given field: ancient science, the scientific revolution, l9th century chemistry, 20th-century physics, history of the social sciences, science in America, science and religion (see chapter 5 for a complete list). The examination in each history of science field will have both a written (take-home) and an oral component.

E. Minor

The student will be required to define a minor program. This may be within the Department of Philosophy or the Program in History of Science, Medicine, and Technology but outside the four areas covered in the preliminary examination (a coherent unit consisting of 12 credits is required), or it may be in some other department as a regular Option A or Option B minor. Approval by the Interdepartmental Committee is required.

F. Thesis

Within six months after passage of the preliminary examination the student is required to submit a dissertation proposal for approval. At that time a dissertation committee of three faculty members will be established, which will guide the preparation of the dissertation. This same committee (with possible changes in membership if faculty go on leave or interests shift or personalities clash) will serve as readers and examiners for the oral defense of thesis. For HSE candidates, two members of the committee (and thus two readers) are to be from the Department of History of Science and one from the Department of Philosophy. For PE candidates, two members are to be from the Department of Philosophy and one from the Program in History of Science, Medicine, and Technology. For the oral defense, each department will also supply one nonreader.

G. The M. A. Degree.
There is no provision for an M.A. degree in philosophy and history of science.

II. Administration of the Joint-Degree Program

A. General

The Ph.D. program here described will fall under the rubric of the Joint Degree Program of the University of Wisconsin Graduate School. The degree earned through this program will be the Ph.D. in Philosophy and History of Science, Medicine, and Technology.

B. Interdepartmental Committee on Philosophy and History of Science, Medicine, and Technology

General oversight of the program will be the responsibility of an interdepartmental committee of four members, two of whom are drawn from the faculty of each of the cooperating departments. Committee members will be appointed annually by the Chairman of their respective departments. The Committee will then elect its own Chairman.

C. Admissions to the Program

Each student in the program must have a "home department, normally the one in which his or her emphasis lies. The student must apply to, and be admitted by, the home department, acting on the advice of the Interdepartmental Committee. (It is assumed that each department will make provision for the student to indicate, in his or her application materials, the desire to enter the joint-degree program; such applications will then be funneled through the Interdepartmental Committee.) Students may change home departments in the usual manner. Students already members of the Departments of Philosophy or History of Science may apply for admission to the joint-Ph.D. program by submitting a letter of request to the Interdepartmental Committee.

D. Approval of Ph.D. Programs

Each candidate for the Ph.D. in Philosophy and History of Science, Medicine, and Technology must submit his or her list of prelim fields for approval to the Interdepartmental Committee.

E. Evaluation of Student Progress

The Interdepartmental Committee will meet at the close of each semester to evaluate the progress of all candidates for the joint Ph.D. and recommend remedial action as required.

Chapter 11. Teaching Assistant Training

1. First-time TAs (fall-term only): TAs must have completed, before the beginning of the term in which they first TA, either the L&S TA orientation program or the History of Science Department's "Teaching Forum" (when offered), or an equivalent training program offered by another department. (5 hrs. minimum)

2. First-time TAs (fall or spring term): Additional training in pedagogical technique, directly applicable to the TA's teaching assignment, will take place (1) in regular staff meetings between the TA and the supervising instructor, **and** (2) in a review of TA performance following live or taped observation by the instructor. (5 hrs. minimum)

3. First-time TAs (summer term): No specific requirements, but selection of TAs should take previous training into account as an important criterion.

4. In order to qualify for the "experienced" TA pay level, must complete the Graduate Assistant Equity Workshops offered by the Equity and Diversity Resource Center. **Documentation of attendance is required for department files**. Graduate Students must take form G, located in this handbook to the Workshop and have it signed for proof of attendance. TA's who complete this program become eligible for the "experienced" pay level after also accumulating 1-2/3 semesters of teachings experience as defined in the TAA contract, paragraph X.2.A. Information on the workshops is available here: http://oed.wisc.edu/workshop.html.

5. Requirements for TA training are governed by the collective bargaining agreement between the UW and the TAA. The 2005-7 agreement is available here: http://oser.state.wi.us/docview.asp?docid=5657.

Form A. Choice (or Change) of Advisor

____ M.A. Advisor _____Ph.D. Advisor (Major Professor)

Name of Student_____

Name of (New) Advisor_____

Signature of (New) Advisor (signifying consent)

_____ Date _____

Approved_____
(Chair or Director of Graduate Studies) (Date)

Form B. Checklist for M.A. Requirements

TO THE STUDENT: Please fill out items 1-4 as far as possible, as well as the title under 7 and yes or no under 8, and submit with the M.A. paper by the first Monday in April of the second year of graduate study.

Student's Name:_____

Course No. & Title	Dist. Area	Credits	Grade	Sem./ Yr.	Instructor	Office Use
1. One course each from four of the five distribution areas						
2. Two History of Science or History of Medicine Seminars						
3. One Additional Seminar						
4. Historiography and Methods HS720, Proseminar						
5. Additional courses or seminars in History of Science or History of Medicine. to reach a total of 21 credits						
6. Additional courses to reach a total of 30 credits						

Form B, page 2

7. M.A. Paper

Title _____

(Office Use Only)

Approval for M.A. Degree: ____ Yes ____ No

Signed_____
(Chair or DGS) (Date)

Comments_____

8. Admission to Ph.D. Program:

Admission requested? ____ Yes ____ No

(Office Use Only)

Departmental action_____

Signed_____
(Chair or DGS) (Date)

9. Additional departmental evaluation or action:

Form C. Application for Admission to the Ph.D. Program

Name _____ Start date in program _____

Title of M.A. Paper _____

_____

_____

Foreign language (normally French or German) _____

How earned (see p. 13)?_____

Signature approving language _____
(Chair or DGS) (Date)

Describe in general terms the expected area of your Ph.D. dissertation

_____

_____

_____

_____

Possible Ph.D. Advisor _____

Signature of Applicant _____ Date _____

Faculty Action

_____

_____

_____

Signature of Ph.D. Advisor _____ Date _____

Signature of Program Chair _____ Date _____

Form D. Approval of Overall Ph.D. Program

No less than a semester after admission to the Ph.D. program in History of Science, Medicine, and Technology students must obtain departmental approval of their overall program. Students seeking approval of their overall program should complete this form and submit it to the department through their major professor.

Name _____ Date submitted _____

Major Professor _____

Foreign Languages _____

Expected date of preliminary examination _____

Semesters of registration to this date _____

Examined fields to be offered for the preliminary examination:

Title _____

Director's signature _____

Title _____

Director's signature _____

Title _____

Director's signature _____

(continued on reverse)

Form D, page 2

Minor department _____

Date minor completed or expected to be completed _____

Seminars and date taken or to be taken:

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

Area of dissertation research _____

_____

Faculty Approval

Signature _____
(Chair or DGS) (Date)

Form E. Check-List for Ph.D. Requirements

Name _____ Start date in program _____

1. Completion of language requirements

1st language _____
How earned? _____

2nd language _____
How earned? _____

Signature _____
(Chair or DGS) (Date)

2. Overall Program approved (date) _____

3. Minor agreement form received (or minor certified on Prelim Warrant)

____ Yes ____ No Field or Dept. _____

4. Seminars Completed _____

5. Preliminary Examination:

Date taken _____

Results: ____ Pass ____ Fail ___ Pass with Distinction

Signed _____
(Major Professor)

Fields: _____
(Field Title) (Professor's Signature)

_____
(Field Title) (Professor's Signature)

_____
(Field Title) (Professor's Signature)

Fourth Field (see Handbook page 14):

_____
(Field title) (Signature of Chair or DGS) (Completion date)

Form E, page 2

6. Completion of Dissertation:

Title _____

_____

Date of oral defense _____

Results of oral defense (specify any requirements imposed before depositing):

_____

_____

_____

Signature of Major Professor _____

7. Date degree awarded _____

Form F. Application for Research or Travel Grant

The Program in History of Science, Medicine, and Technology has limited funds for support of research-related travel, including travel to scholarly meetings for presentation of research papers, for graduate students who have been admitted to the Ph.D. program. Graduate students are eligible to receive a career maximum of $1500, of which no more than $500 can be used before admission to the Ph.D. program. Awards are subject to the availability of funds and the merits of the application, and should not be considered an entitlement. Students are expected to avail themselves of funding from other sources whenever possible. Research funding is also available from the Department of History of Medicine, and counts toward the same maximum.

Students wishing to apply for departmental travel funds must submit a completed copy of this form to the departmental chair. This form requires the endorsement of the major professor. Applications should be submitted well in advance of the departure date. Reimbursed travel must conform to state regulations, which set limits for food and lodging. For details on UW travel regulations, see http://www.uwsa.edu/fadmin/fppp/fppp36.htm. Please discuss reimbursement procedures with the department administrator before you go.

Name_____

Destination and dates (inclusive)_____

Reason for trip (if paper is to be presented, indicate name and nature of the meeting, length and title or topic of the paper; if trip is for research, briefly describe the research):

Previous travel grants (include dates and sums):_____

_____

Amount requested:

Transportation	_____	Lodging	_____
Food	_____	Other (specify)	_____

TOTAL _____

Endorsement of Major Professor_____
Signature Date

Approved____Disapproved____ Amount of grant_____

Signed (Chair or DGS) _____ Date _____

Form G. History of Science TA Training Form

_____ has completed the training sessions for Teaching Assistants (TAs) and Program/Project Assistants (PAs) focusing on diversity, discrimination, and harassment.

TAs who complete the sessions and have completed the requisite semesters of teaching will receive the "experienced" rate of pay at the start of the next instructional period.

_____
Verification of attendance

_____
Date completed

GRADUATE STUDENT TIMELINE

YEAR 1 AND YEAR 2: MA DEGREE

Year 1

Write research paper
March: Apply for financial aid
July 1: Incompletes must be finished
August: Submit first year portfolio

Year 2

Semester 3: Choose MA advisor (submit form A to DGS by end of semester)
Semester 4: Complete seminar and distribution requirements
March: Apply for financial aid (if hoping for admission into the Ph.D. program)
April: Submit M.A. paper
Apply (or not) for admission into the Ph.D. program*

*Admission to the Ph.D. program requires competency in one research language. That competence is often acquired during the summer between years 1 and 2.

YEAR 3 AND BEYOND: PH.D.

Year 3

Summer before Semester 5: Work on second research language.
Semester 5: Obtain faculty approval of overall PhD. program (Form D)
Semester 6: Work on completing minor. Prepare for prelim exam.
March: Progress report and financial aid application
Summer: preferred time to take prelims

*****When planning for dissertation research, please note the NSF Dissertation Improvement Grant application deadlines of August 1 and February 1. These grants fund travel and living expenses for conducting research in the history of science and technology. Projects in the history of medicine have been funded, but their relevance for the history of science and technology must be demonstrated in the proposal*.*****

Year 4

Semester 7: If prelims are passed during the previous summer, the student must form a dissertation committee and discuss proposed dissertation research with that committee. (A

proposal defense and the formation of a dissertation committee may have already been completed as part of prelims.)

If prelims were not passed during the previous summer, the student must take his or her prelims by week four of this semester. (To take prelims after this date, a student must apply for approval to the faculty through the DGS.)

Students should strive to be ABD by the end of their 7th semester. To be ABD, a student must have completed his or her minor and second language requirement (or an approved equivalent) in addition to meeting the above deadlines. Indeed, the prelim warrant can not be submitted until the minor coursework has been completed. (If planning to use previous coursework as part of the minor, please be aware that the graduate school has its own deadlines. No more than 5 credits of course work completed more than five years prior to admission to the Ph.D. will be counted; course work taken ten years ago or more may not be used.)

Semester 8: If prelims are taken in the seventh semester, a student must during his or her eighth semester form a dissertation committee and discuss proposed dissertation research with that committee. (A proposal defense and the formation of a dissertation committee may have already been completed as part of prelims.)

March: Progress report and financial aid application due.

*Please note the NSF Dissertation Improvement Grant Application deadline (for history of science research requiring travel; 2 deadlines annually, August 1 and February 1.)

Year 5 and Beyond

Progress reports and financial aid applications continue to be due in March (even if financial aid not requested).

Please note that the graduate school requires that the dissertation be defended within 5 years of the prelim exam. If a student plans to defend after the 5 year window, he or she must get a waiver from the graduate school.

Please see graduate school publication "The Three D's: Deadlines, Defending, & Depositing Your Ph.D. Dissertation," for the details of finishing http://www.grad.wisc.edu/education/completedegree/ddd.html.

Annually after completion: Give generously to the History of Science Foundation Account.

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