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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 Program 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 graduate

^{*} 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, Medicine, and Technology.

program anticipate completing a Ph.D., the program welcomes 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**, 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.; 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*.
- **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 (HSMT) graduate program. A grade of B or better must be received in all courses used to satisfy these requirements. Courses in History of Science or Medical History with numbers 300 or above may count toward the 21-credit requirement as long as they permit graduate student enrollment. Students should consult with the Director of Graduate Studies (DGS) before counting cross-listed courses taught by members outside the HSMT program toward the 21-credit requirement. (Note that ethics courses within the Department of Medical History and Bioethics do not count toward the 21-credit requirement.)
- 2. History of Science 720, "Pro-Seminar: Historiography and Methods." This course should be taken during the first year of graduate work.
- 3. One HSMT course of 3 or 4 credits in four of the following five distribution areas. *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 count towards the distributions areas, but only with approval of the 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.

- 4. At least three seminars, including two seminars in History of Science or Medical History. 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 925, 950, 990 and 999. For courses in other departments, the Program generally 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. Students uncertain about whether a course counts as a seminar should ask the DGS to approve the course.
- 5. Additional courses up to the required total of 30 credits from within or outside the HSMT program, to yield a balanced curriculum fitted to the background and interests of the student.

- 6. During the first year in the graduate program, completion of at least one research paper based on primary sources. 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 during the fourth semester in the program. See below for details

M.A. Advising. The DGS will ordinarily serve as advisor for first-year students. Students are expected to choose an M.A. advisor no later than registration week of their third semester in the Program (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 may change advisors at any time by filling out the Form A in this handbook and filing it with the DGS.

Concurrent Courses. Some HSMT courses require concurrent registration in a separate one-credit graduate section. These sections do not count as separate courses in meeting graduate degree requirements.

History of Science 925. Students who wish to enroll for research credit while writing a Master's paper in the fourth semester should take HistSci 925 when offered, rather than HistSci 990 or 999.

History of Science Brown Bag and Colloquium. The colloquium series and weekly "brown bag" lunchtime talks represent a critical component of the Program's intellectual culture. Regular attendance at these events is strongly advised for all graduate students in residence, even when the topic is not related to the student's area of interest.

Foreign Language Requirements. There is no foreign language requirement for the M.A. degree. However, graduate students must demonstrate proficiency in either French, 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. The M.A. paper is due <u>on the first Monday in April</u> during the spring term of the student's second year in the Program. One hardcopy is to be submitted to the Program office, and an electronic copy (preferably PDF) should be emailed to mail@histsci.wisc.edu. Citations should follow the footnote style in Kate Turabian, <u>A Manual for Writers of Term Papers</u>, <u>Theses</u>, <u>and Dissertations</u>, but without a separate list of works cited. Quotations in the body of the paper should be translated into English.

The paper is to be 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. Although no formal limits have been established for the length, between 30 and 45 typewritten pages is typical. In most cases the M.A. paper is the outgrowth of a course or seminar paper, subsequently revised through independent study or HistSci 925, thus representing about six

credits of effort. Students normally work closely with their M.A. advisor in researching and writing the M.A. paper; students are also encouraged to consult with other program faculty.

All HSMT faculty evaluate the M.A. papers, using standard criteria for historical research. These include clarity, insight, significance, quality and quantity of research, appropriate and relevant use of primary and secondary literature, successful articulation of the paper's central thesis, and stylistic merit. Students who fail to produce an acceptable paper will not be granted the M.A. degree. At the discretion of the program, students may be given the opportunity to rewrite an M.A. paper that fails to meet requirements. (Note that the M.A. paper is also considered separately as part of the application for admission to the Ph.D. program; see below.)

Students who wish to submit the M.A. paper later than the fourth semester must request an extension of time at least two weeks prior to the submission deadline. Except for part-time students, extensions are granted only in extenuating circumstances. Failure to submit a paper during the fourth semester or to obtain an extension is grounds for termination from the graduate program.

M.A. Checklist. The M.A. Checklist (Form B) should be submitted 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)
- Health Disease and Healing I (Broman)
- 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)
- History of the Social Sciences
- 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 (Lederer/DeLancey)
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	Envi	ronme	ent and	d Healt	th in	Global	Perspec	tive	(Mitman)
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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)
523	Race and American Medicine and Public Health (DeLancey/Houck/Lederer)
524	Medical History of Sex and Sexuality (Houck)
531	Women and Health in American History (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 initially admitted to the master's degree program. Admission to the Ph.D. program is based on evaluation of the student's overall departmental record and requires successful completion of requirements for the M.A. degree. Particular attention is paid to the potential for Ph.D. work revealed by the M.A. paper, but the M.A. paper is not necessarily the decisive element.

Applicants to the Ph.D. program should consult with Program faculty about suitable areas for their dissertation research prior to submitting their application; applicants must indicate their probable area of dissertation research on the application form. Admission to the Ph.D. program requires demonstrated proficiency in French, German, or an approved alternative (see Ph.D. language requirements below).

Students who already have M.A. degrees in history of science (or the equivalent) 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.)

Applying for Admission

- 1) Applications to the Ph.D. program are due on the first Monday in April along with the M.A. paper. Students should inform their M.A. advisor if they plan to apply for admission to the Ph.D. program. Applicants must complete form C in this handbook.
- 2) Applicants with 3 or more outstanding incompletes will not be considered; any unresolved incompletes may have an adverse influence on the admission decision.

The Admission Decision

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 revision 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. Having a member the HSTM faculty agree to serve as the major professor to supervise the student's Ph.D. work.
- 2. Obtaining approval of the overall Ph.D. program.
- 3. Achieving a reading proficiency in two foreign languages. (MD/PhD students: one foreign language)
- 4. Completing an appropriate number of seminars (see below).
- 4. Completing a minor in another department (see below).
- 6. Passing the preliminary examination.
- 7. Completing 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.
- 8. Passing a final oral examination on the dissertation conducted by the dissertation defense committee.
- 9. Completing the minimum credit requirement of the Graduate School, currently 32 graduate-level credits taken at UW-Madison, including work for an M.A. degree, receiving a grade of A. AB, B, or S. For details, see the Graduate School Academic Policies and Procedures, http://www.grad.wisc.edu/education/acadpolicy/guidelines.html#46. Note that this requirement is only of concern to students who satisfy requirements of the graduate program with coursework from other institutions.
- **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 Program 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 week before the final faculty meeting of the semester after admission to the Ph.D. program, a student must submit form D, "Approval of Overall Ph.D. Program." This form indicates the titles of the three fields for the preliminary examination, 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 on the list below will include a short statement describing the field and a relevant reading list. The fields must not overlap excessively or be too narrow or specialized. A 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.

Dissertator Status. Students achieve dissertator status (also known as ABD, "all but dissertation") upon completing all the requirements for the Ph.D. degree except the dissertation. These requirements include the minor, foreign language proficiency, and the preliminary examinations. Dissertator status provides a significant reduction in tuition.

Ph.D. Minor. The Program requires majors to complete an external minor, that is, one based on coursework outside the HSMT program. The Graduate School offers two alternatives for the external minor.

The **Option A** minor requires a minimum of 9 credits in a single department or area of study. Approval of an Option A minor comes from the department in which the minor is taken; contact that department for specific requirements. Students in HSMT often choose an Option A minor in the Department of History, although students have arranged Option A minors in many other departments and programs, including Science and Technology Studies.

The **Option B** minor consists of a set of related courses from outside the HSMT Program. This minor requires approval by the faculty of the HSMT program. For an Option B minor, the Program requires a minimum of 12 credits of coursework distributed across at least two departments. Students request approval of an Option B minor by submitting a letter that describes the proposed courses and their relevance to the overall plan of 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. Completion of the minor is required for dissertator status.

Under certain conditions, either type of minor may be satisfied in whole or in part by prior graduate study, for example a previous masters' degree. Approval by Program faculty is required to count prior graduate coursework toward an option B minor. The Graduate School requires that such coursework be completed no more than 5 years before admission to the Ph.D. program. Students can also request to count for the minor up to 5 credits of coursework completed more than 5 but less than 10 years prior to admission to the Ph.D program. These courses will not appear on the transcript, and will not fulfill the Graduate School's minimum credit requirements.

Ph.D. Seminar Requirement. Students are required to complete at least five graduate seminars in order to be granted dissertator status. At least three of the seminars must be offered through the HSMT program. Students are encouraged to take additional seminars. HistSci 720 and HistSci 925 do not count toward this seminar requirement. (For a definition of seminar, see chapter 3 under "Requirements for the M.A. Degree," paragraph 3.) Exceptions to this rule may be granted on an ad-hoc basis, for example for students who use prior graduate work to satisfy Program requirements.

History of Science 990 and 999. The Graduate School requires dissertators to enroll for exactly 3 credits. Most dissertators enroll for HistSci 990, but they may instead enroll in a seminar, if appropriate.

Ph.D. Foreign Language Requirement. The HSMT Ph.D. requires proficiency in two foreign languages. (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 are normally French and German; other languages may be substituted when appropriate, by approval of the Program. 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, Medicine and Technology 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 Program 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 are examined orally and by written examination in three fields. (For a list of standard fields, see below.) Each field is directed by a faculty member from the HSMT program or, if appropriate, from another department of the University. Three different faculty members must direct the three fields. The candidate must notify the Program 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 (see Form D).

The Goals. There are three principal goals for the prelim exams. These are:

1) Mastery of the field. At the most basic level, students should be able to understand and articulate the most significant historical and historiographical trends that shape the field.

- Further, students should be able to use that 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) Competence to teach in the field. The preliminary examinations should 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) Discovery of 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, preparation and examination.

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 approach these exams with a variety of expectations. For example, some faculty members focus on history, while others stress 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. Students should clarify faculty expectations early in the process.

The Written Examination

No later than one month before the oral examination, each faculty member provides a question to the student. (Students may ask faculty for clarification of the questions.) Student use these questions to complete an essay in each of three fields, without assistance. Students provide the completed essays to each member of the examining committee no fewer than four days before the oral examination. The maximum length for each essay is 2500 words (excluding footnotes).

The Oral Examination

The oral examination lasts 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 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 may pass with distinction, for example by demonstrating a remarkable level of intellectual dexterity or analytical sophistication. 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 part 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 requires at least two members of the original committee and may cover an individual field or all fields, at the discretion of the committee.

Prelim Fields. The Ph.D. preliminary examination will cover three fields, chosen by the student in consultation with his or her major professor. The scope of each field is 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 of any field will vary from one faculty member to another. Students are encouraged to propose other fields either within or outside the Program where appropriate. Approval of fields not regularly offered requires 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)
- 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 (Keller)
- 13. History of Public Health in America (Lederer/DeLancey)
- 14. History of Health Care in America (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 (Nyhart/DeLancey)
- 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)
- 22. Race, Medicine and Public Health in America (DeLancey/Houck/Lederer)
- 23. History of Medical Technology in the U.S. from 1721 (DeLancey)
- 24. History of Sexuality (Houck)

25. Gender, Health, and Illness (Houck)

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 consists of three faculty members, led by the major professor and including at least one other member of the Program, chosen by the student in consultation with the major professor. This committee approves the dissertation proposal and provides general oversight of the student's dissertation research. The members of this committee 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. For more information, see the Graduate School web page, "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 HSMT program.*

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 are 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

<u>Depositing the dissertation</u>. The Graduate School has stringent rules regarding acceptable dissertation format. For details, see "The Three D's: Deadlines, Defending, & Depositing Your Ph.D. Dissertation," http://www.grad.wisc.edu/education/completedegree/ddd.html.

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 the student must obtain the signed readers' page and the signed warrant from the Program administrator to include with the dissertation when depositing it.

Publication of the dissertation by microfilm is required; students must cover the cost of microfilming.

<u>Additional copies and binding</u>. 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 Program has arranged for inexpensive binding; please see the Program 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. Plagiarism and other forms of proven academic misconduct are grounds for dismissal from the graduate program. In addition to the University guidelines, the Program does not permit a graduate student to 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: http://www.grad.wisc.edu/education/acadpolicy/guidelines.html#127. This policy applies to all graduate students and is reproduced here:

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 have their records reviewed by Program faculty at the beginning of the second year of graduate work. 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 comments summarizing the review.

By August 25 before the fall semester of the 2nd year, M.A. students are to submit a portfolio to the Program chair that includes:

- 1) A roughly one-page self-assessment 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) An unofficial course transcript
- 3) A research paper completed during the first year of the M.A. program
- 4) Identification of a possible major advisor and area(s) of interest for the M.A. paper

Incompletes. Students are discouraged from taking incompletes, and they are expected to remove any incompletes promptly. 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 must have removed all incompletes before receiving the M.A. degree. All incompletes must also be removed before a student is allowed to take either the preliminary examination or the final Ph.D. 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.

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.

Graduate students in the program should 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 Program.

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.

<u>Preliminary Examination</u>: 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.

<u>Ph.D. Degree</u>: 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.) 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 Program 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 may lead to a review of the student's overall academic record, including the possibility that the student be required to retake prelims if more than five years have elapsed. Ultimately, the student may 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.

Chapter 7. Graduate Student Support (Financial Aid)

Program Support. Support is granted to incoming students 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 teaching assistant, project assistant, and research assistant positions controlled by the Program, as well as fellowships. <u>All</u> 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 Program 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. 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 Program. 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 have enough resources to fund all our graduate students through completion of the Ph.D. The Program therefore strongly encourages students to seek sources of funding outside the Program. UW-Madison is a two-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://uwoffr.wordpress.com/.

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.

<u>Teaching assistantships</u> 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 each 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. Faculty 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 controlled by the Program, even when the position is funded by a different department or program.

<u>Project assistantships</u> 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.

<u>Fellowships</u> (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 controlled by the Program are allocated either to incoming students or to dissertators.

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 Credits

This section describes Program policies for transfer of graduate credits earned at other institutions or at UW-Madison before entering the HSMT program. Transfer of credits is not automatic; specific courses must be approved by the Program.

Technically, graduate credits from other institutions do not transfer. Instead, these credits may be used to satisfy Program requirements. Such courses do not appear on the UW-Madison transcript and do not count towards the Graduate School's minimum credit requirements.

Time limits and grade restrictions apply to such transfers. No credits earned more than 10 years before admission to the Ph.D. program may be used; no more than 5 credits earned between 5 and 10 years before admission to the Ph.D. program may be used. No credits carrying a grade below B are transferable.

Credits Applied to the M.A. Degree:

For 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 non-HSMT coursework for graduate students in the Program.

For graduate work in the history of science, medicine, and technology at other institutions, up to 9 credits may be counted toward the M.A. degree. Applicability of the transferred courses to the distribution requirements will be judged on a case-by-case basis.

Total credits transferred for the M.A. degree 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 are being applied toward another master's degree at UW-Madison, then, by Graduate School policy, there can be no more than a 25% credit overlap between the two degrees, based on the lower credit requirement of the two programs.

Credits Applied to the Ph.D. Degree:

The faculty will consider requests for transfer of courses to meet the Program's Ph.D. requirements, beyond those approved for the M.A. For example, 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. See the discussion of the Ph.D. minor in chapter 5 above.

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

Application to the joint Ph.D. program is permitted only after the student completes a master's degree in either History or the History of Science, Medicine, and Technology and is admitted to the Ph.D. program in the original department. 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 are assigned a supervising committee, consisting of three members (two from the home department), who will supervise the student's 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 meets 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 is guided by the student's supervising committee. Satisfactory defense and submission 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, 19th 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, <u>located in this handbook</u> 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, if one is in force. 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 cons-	ent)
	Date
Approved(Chair or Director of Graduate	e 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 Hist	ory of M	ledicine S	eminars					
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 t	otal of 3	0 credits						

Form B, page 2

7. M.A. Paper	
Title	
Approval for M.A. Degree: Yes No	(Office Use Only)
Signed(Chair or DGS)	(Date)
Comments	
8. Admission to Ph.D. Program:	
Admission requested? Yes No	
Departmental action_	(Office Use Only)
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 Germ	an)
How earned (see p. 14)?	
Signature approving language(Chair or DGS	S) (Date)
Describe in general terms the expected area	
Possible Ph.D. Advisor	
Signature of Applicant	Date
	Faculty Action
Signature of Ph.D. Advisor	
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 Program 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 examinat	ion:
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	
racuity Approvar	
Signature	(D.)
(Chair or DGS)	(Date)

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

Name	Start date in program
1. Completion of language require	ements
1st language How earned?	
2nd language	
	OGS) (Date)
2. Overall Program approved (dat	re)
3. Minor agreement form receive	ed (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:	
Fields:(Field Title	e) (Professor's Signature)
(Field Title	e) (Professor's Signature)
(Field Title	e) (Professor's Signature)
Fourth Field (see Handboo	ok page 17):
(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
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 Program administrator before you go.

ъ т

Name				
Destination and dates (inclusive)				
Reason for trip (if paper is to be pre title or topic of the paper; if trip is f	· ·		<u> </u>	and
Previous travel grants (include date	es and sums):_			
Amount requested: Transportation Food		Lodging Other (specify)		
TOTAL			_	
Endorsement of Major Professor_	Signature	Date		
ApprovedDisapproved	Amount of §	grant		
Signed (Chair or DGS)			Date	

Form G. History of Science TA Training Form

has completed the training Program/Project Assistants (PAs) focusing on diver	sessions for Teaching Assistants (TAs) and
	,
TAs who complete the sessions and have completed receive the "experienced" rate of pay at the start of	
	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*

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

^{*}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.

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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