The History of Science

Graduate Program
at Oregon State University
The History of Science Graduate Program

The History of Science graduate program provides professional training in the interdisciplinary subject of history of science, technology, and medicine. It bridges the humanities, social sciences, and the natural sciences by studying the social and cultural context within which science is practiced and has developed. Its successful pursuit requires an understanding of the development of the sciences and technology within particular historical settings, as well as the ability to synthesize knowledge from seemingly disparate fields of study. In addition to engaging in the teaching and research of a challenging academic discipline, historians of science may also work to help reform the teaching of science by placing science in a broader context and illustrating and explaining the processes of science.

History of Science graduates are teachers at high school, colleges and universities; they are archivists, museum curators, and editors; they are analysts of science and technology policy, and historians for government agencies, for research facilities, and for business corporations.

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The School of History, Philosophy and Religion offers the M.A., M.S., and Ph.D. Degrees in History of Science. The School also participates in the graduate program in Interdisciplinary Studies (M.A.I.S.). History and History of Science may be used as a major or minor in the MAIS degree program or as a minor in other graduate programs.

The History of Science Graduate Program at Oregon State University provides professional training in the interdisciplinary subject of history of science. The program connects the humanities, social sciences, and natural sciences by studying and interpreting the development of the sciences within particular historical settings and analyzing the changing roles of the sciences within modern cultures. Emphasis in the program is on scientific traditions since the sixteenth century in Europe and North America, in the physical, earth, biological, medical, and social sciences, as well as on environmental history and the history of the environmental sciences.

Oregon State University is a Land, Sea, and Space Grant institution located in the Willamette Valley between the Oregon Coast and the Cascade Mountains, approximately eighty miles south of Portland. The University traditionally is noted for strong graduate programs in scientific, engineering, and agricultural fields.

At OSU, we already are fortunate to have world-class scholars in support of History of Science, all of whom publish prolifically in their fields and have earned national and international recognition for their work. The program also benefits from the presence of the Horning Chairs in the Humanities, who are the intellectual backbone of work connecting science and the humanities at OSU. They foster not only scholarship but also community engagement by sponsoring lectures, publications, seminars, research grants, and many other activities.

Among noteworthy resources at OSU for the history of science are the archival and online collection of the papers of Ava Helen and Linus Pauling in the Special Collections of the Valley Library. The History of Atomic Energy Collection is an archival reference library documenting the history of atomic energy since the discovery of radioactivity in 1896.
Contact Information

School of History, Philosophy, and Religion
Oregon State University
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Program Faculty

Faculty who offer courses in HSTS are in marked with an asterisk (*). Other faculty members offer related courses, may direct thesis/dissertations, and may otherwise participate in the History of Science program.

Courtney Campbell (Hundere Chair of Religion and Culture), biomedical ethics, death and dying, ethics

*Mina J. Carson (Harvard 1984, Associate Professor), history of psychology and social work, American social and cultural history.

Sharyn Clough (Associate Professor), philosophy of science, feminism and science, epistemology, contemporary pragmatism

Marisa Chappell (Associate Professor), 20th-century U.S. history; focus on politics, social policy, and political economy of race and gender.

*Gary B. Ferngren (Professor), social history of ancient medicine, historical relationship of science and religion, history of Greece and Rome.

*Anita Guerrini (Horning Professor in the Humanities), history of life sciences and medicine; focus on environmental history and the history of animals.

*Jacob Darwin Hamblin (Associate Professor), history of environmental sciences, Cold War era, nuclear issues, international dimensions of science and technology

*William B. Husband (Professor), Russian history and policy, science and society in modern Russia

Stephanie Jenkins (Assistant Professor), continental philosophy, feminist philosophy, disability studies, critical animal studies, ethics

Jonathan Kaplan (Associate Professor), philosophy of science, philosophy of biology, environmental and research ethics, political theory

*Paul E. Kopperman (Professor), military medicine in the 18th century, English history, history of the Holocaust.

*David S. Luft (Horning Professor in the Humanities), modern Central European history, including Germany, Austria, and the Habsburg Monarchy.
Kathleen Dean Moore (Distinguished Professor, University Writer Laureate), philosophy of nature, critical thinking, environmental ethics

Ben Mutschler (Associate Professor), colonial America, early American history and culture, history of colonial medicine.

*Michael A. Osborne (Professor), history of modern biology, medicine, and environmental issues

Lisa T. Sarasohn (Professor), early modern science, medieval and early European history.

Stacey Smith (Assistant Professor), history of the North American West; emphasis on race relations, labor, and politics in 19th-century California

Allen Thompson (Assistant Professor), environmental philosophy, philosophical ethics, social and political philosophy, practical reason

Bill Uzgalis (Professor), history of philosophy, epistemology, metaphysics

Additional faculty members from the School of History, Philosophy, and Religion, have expertise in the comparative religion, religious history, history and philosophy of race, history of the U.S., Russia, China, the Middle East and Islamic cultures, Latin America and Mexico, and Africa, with fields including African American history, the history of women, Native American history, and U.S. foreign relations.

Full faculty profiles are available at http://oregonstate.edu/cla/shpr/faculty
Application Guidelines

The deadline for applications is January 1 for admission in the fall quarter of the academic year. The application packet must include the following:

1. Application Form
   Available through the Graduate School, [http://oregonstate.edu/admissions/graduate-students](http://oregonstate.edu/admissions/graduate-students)

2. Application Fee
   $60 check or money order in U.S. dollars payable to Oregon State University.

3. Transcripts
   Three photocopies of all official transcripts of previous academic work, undergraduate and graduate. Students must have completed a four-year baccalaureate degree from an accredited college or university and have achieved a combined GPA of 3.00 on the last 90 quarter (or 60 semester) credit hours of graded undergraduate work of the first baccalaureate and all subsequent graded credit hours.

4. Language Requirements
   International applicants must have achieved the equivalent of an American baccalaureate degree of at least four years duration with a B average (equivalent 3.00 on an American 4.00 grading scale) on the last two years and subsequent graded coursework; an English language proficiency TOEFL minimum score of 550 (paper and pencil) or 213 (computer test). The TOEFL score must be no more than 2 years old at the time of the applicant’s first term of registration. Two photocopies of the TOEFL score must be submitted. The university requires demonstration of sufficient financial resources by means of a financial certificate with supporting documentation.

5. Personal Statement / Writing Sample
   Two copies of the applicant’s statement of particular fields of interest and overall aims and purpose in the history of science. An additional writing sample (no more than 25 pages) would be helpful to the graduate admissions committee.

6. Letters of Recommendation
   Three letters of recommendation that specifically evaluate academic abilities and professional potential. The letters should be sent to the History Department, with attention to the History of Science Graduate Program, if not included in the original packet.

7. GRE Scores
   Photocopy of official record of Graduate Record Examination (GRE) scores. The photocopy should be sent directly to the History Department if it is not included in the original application packet.

Under special circumstances, students who do not meet the minimum requirements may be considered for admission. Prospective students should be aware that the University and the History Department are not able to accommodate all applicants who meet the minimum admission requirements. Applicants who wish to apply for graduate assistantships or graduate teaching assistantships should indicate this on the application. Assistantships ordinarily are awarded around April 1 for the following academic year. An appointment as graduate assistant includes a tuition waiver and a stipend. Oregon State University is a member of the Council of Graduate Schools. Accordingly, students are under no obligation to respond to offers of financial support prior to April 15. For further information about financial support, contact the University’s Financial Aid Office, (541) 737-2241.
Graduate School Contact Information

Graduate School
Oregon State University 300 Kerr Administration Building Corvallis, OR 97331 (541) 737-4881 (541) 737-3313
fax www.oregonstate.edu/dept/grad_school graduate.school@oregonstate.edu

Graduate School Staff

Dean: Brenda McComb 541-737-4881
Executive Assistant to the Dean: Nagwa Naguib 541-737-1456
Associate Dean: Martin Fisk 541-737-4881
Associate Dean: Bruce Rettig 541-737-4881
Assistant Dean: Rosemary Garagnani 541-737-4881

Director of Graduate Student Financial Support and Recruitment: Fran Saveriano 541-737-4881
Policies Governing Master’s Degree Programs

General Requirements
All master’s degree programs require a minimum of 45 graduate credits including thesis (6 to 12 credits) or research-in-lieu-of-thesis (3 to 6 credits). Exceptions to this capstone requirement are specified under the degree descriptions that follow these universal master’s degree requirements. Effective fall 2005, all graduate student programs of study submitted to the Graduate School must consist of, at a minimum, 50% graduate stand-alone courses. The remaining credits may be the 500 component of 400/500 slash courses. General regulations for all master’s program are cited here, with certain exceptions provided for master’s degrees in the professional areas listed on the following pages.

Residence Requirements
The residence requirement for the master’s degree is 30 graduate Oregon State University credits after admission as a degree-seeking graduate student. These 30 graduate credits must appear on the master’s degree program. (This does not include credits reserved as an undergraduate or postbaccalaureate student, credits taken as a postbaccalaureate or graduate nondegree-seeking student, nor transfer courses.) Deviation from the residence requirement requires a petition to the Graduate School.

Language Requirements
For the master of arts degree, the student must show foreign language proficiency equivalent to that attained at the end of a second-year university course in that language with a grade of “C” (2.00) or better. English is not considered a foreign language for purposes of this requirement. There is no language requirement for the Master of Arts in Interdisciplinary Studies degree. For other master’s degrees, there is no foreign language requirement unless a language is required in the individual student’s program. The foreign language requirement for the MA degree must be completed before the student takes the final oral examination for the degree.

Graduate Study Program
A regular master’s degree student must file a study program with the Graduate School before completing 18 graduate credits. This includes credits reserved as an undergraduate or postbaccalaureate student and credits earned as a postbaccalaureate, graduate nondegree-seeking student, or graduate student. A student who does not file a program within the specified deadline will not be allowed to register for the next term. A registration hold also may be placed on students whose programs of study are not approved after initial evaluation by the Graduate School and until appropriate action is taken to bring the program of study into compliance with Graduate Council policy.

Effective fall 2005, all graduate student programs of study submitted to the Graduate School must consist of, at a minimum, 50% graduate stand-alone courses. The remaining credits may be the 500 component of 400/500 slash courses.
If a minor is declared, approximately two-thirds of the work (30 graduate credits) should be listed in the major field and one-third (15 graduate credits) in the minor field. In such cases, the student’s advisory committee must include a member from the minor department.

The program is developed under the guidance of the major professor, and minor professor when a minor is included, and signed by those professors and the chair of the academic unit before filing in the Graduate School. Each candidate’s program should include substantial work with at least three faculty members offering graduate instruction. Changes in the program may be made by submitting a Petition for Change Form, available in the Graduate School.

Time Limit
All work toward a master’s degree, including transferred credits, course work, thesis (if required), and all examinations, must be completed within seven years.

Thesis (optional)
When scheduling their final oral examinations, thesis option master’s students are required to submit the pretext pages of their thesis to the Graduate School at least one week prior to the final oral examination. Pretext pages include the abstract, copyright (optional), title page, approval page, acknowledgment page, contribution of authors, table of contents, list of figures, tables, appendices, dedication (optional), and preface (optional). It is expected that students will distribute examination copies to all their committee members, including the Graduate Council Representative, sufficiently early to permit thorough review of the thesis prior to the student’s final oral examination.

Within six weeks after the final oral examination, two unbound copies of the thesis for the library, including copies of the abstract, must be deposited in the Graduate School office. If these copies are submitted after the initial six-week period, the student may be subject to re-examination. The student must obtain on the thesis approval page the original signatures of the major professor and the head of the major department. The required Graduate School signature will be obtained by the Graduate School. The thesis will not be accepted for graduation requirements until it has received approval by the graduate dean.

Full information concerning the prescribed style for theses is given in the booklet, Preparing a Thesis or Dissertation at OSU: A Graduate Student Guide, available on the web at

http://oregonstate.edu/Dept/grad_school/

The results from studies conducted using human subjects without obtaining Institutional Review Board approval shall not be used to satisfy master’s thesis or doctoral dissertation requirements. For complete details, please refer to http://oregonstate.edu/research/ RegulatoryCompliance/HumanSubjects.html.

The credit allowed for the thesis, including research and preparation of the manuscript, varies from 6 to 12 credits. In certain departments, the MS or MA thesis is optional, to be determined in each case by the department and the major professor. See departmental descriptions.
Final Examination
Successful completion of a final oral examination is required for all master’s degrees with the exception of students who complete the non-thesis option under the EdM degree or internship option for the MPH degree. In those cases, non-thesis EdM students and MPH students who complete the internship option must take a final written examination. The final oral examination should be scheduled for two hours. Some departments also require the student to pass a written exam prior to the oral exam.

For master’s candidates whose programs require a thesis, not more than half of the examination period should be devoted to the presentation and defense of the thesis; the remaining time can be spent on questions relating to the student’s knowledge of the major field, and minor field if a minor is included in the program of study. Graduate faculty serving on thesis-oriented master’s degree programs may contribute to the direction of the student’s thesis, will assess the student’s thesis and his or her defense of it in the final oral examination, will vote to pass or fail the student, and may sign the thesis when it is in acceptable final form. The examining committee consists of at least four members of the graduate faculty—two in the major field, one in the minor field if a minor is included, and a Graduate Council representative. When a minor is not included, the fourth member may be from the graduate faculty at large. All members of the student’s graduate committee must approve the scheduling of the final examination. Students writing a thesis must have a Graduate Council representative on their committee. It is the student’s responsibility to obtain his or her own Graduate Council representative from a list provided by the Graduate School. This must be done prior to scheduling the final exam.

When no thesis is involved, not more than half of the examination period should be devoted to the presentation of the research project; the remaining time can be spent on questions relating to the student’s knowledge of the major field, and minor field if one is included in the program. For nonthesis master’s degree programs, the major professor is responsible for directing and assigning a final grade for the research or culminating project. Other members of the nonthesis committee will assess the student’s defense of the project in the final oral examination, as well as the student’s knowledge of his or her field, and vote to pass or fail the student. The examining committee consists of three members of the graduate faculty—two in the major field and one in the minor field if a minor is included. When a minor is not included, the third member may be from the graduate faculty at large.

The examining committee is nominated by the student’s advisor, subject to the approval of the head of the department and the Graduate School. One dissenting vote is permitted for both thesis and nonthesis degrees. No more than two re-examinations are permitted by the Graduate School, although academic units may permit fewer re-examinations. The final oral examination must be scheduled in the Graduate School not less than one week prior to the date of the examination. At the time of the final examination the student must have completed or be currently registered in all courses required by the student’s program. All incomplete course work appearing on the program of study (with the exception of research/project credit in lieu of thesis) must be completed prior to scheduling the final oral examination. In addition, the student must have a 3.00 GPA for all courses taken as a graduate student and also must have a 3.00 GPA for courses on the program of study. For MA degrees, the foreign language requirement must be completed prior to the final oral exam.
The Master of Arts in Interdisciplinary Studies (MAIS) degree is granted for attainment of broad, advanced knowledge and achievement integrated from three fields of study. Any graduate major or minor may serve as a field for this degree. Two of the three fields may be from one department if the areas of concentration within these two fields are different. At least one field must be selected from among the programs in the College of Liberal Arts. A minimum of 9 credits in each of the three fields of study is required; at least 12 credits must be taken in the College of Liberal Arts.

No more than 21 credits (excluding thesis or research paper credit) may be taken in any field unless the total program exceeds 45 credits. There is no foreign language requirement. No more than 4 credits of blanket-numbered courses in each field of study may be used in the program; thesis credits (Option A) or research paper credits (Option B) are exempt from this limitation. The student’s committee consists of four members of the graduate faculty—one from each of the three fields—and a Graduate Council representative. A formal program meeting must be held prior to the completion of 18 graduate credits. A final oral examination is required.

There are two options under the program:

Option A: Thesis option. The thesis must coordinate work in the three fields. The requirement is 6 - 9 credits of Thesis 503. The thesis advisor must be a member of the graduate faculty authorized to direct theses.

Option B: Research paper option. The research paper doesn’t necessarily integrate work from the three fields, but typically investigates in depth a subject from one, possibly two of the three fields. The requirement is 4 to 7 credits, registered as Research 501, Reading and Conference 505, or Projects 506.
History of Science Master’s Degree Program Checklist

The Master’s Degree Program Checklist must be filed with the Chair of the History Department Graduate Committee before completing 18 hours of graduate credits. **Note:** The MA Degree requires proficiency in one foreign language. The MS Degree requires none.

Program Committee

Chair: ________________________________ (major field) Member:

________________________________________ (major field) Member:

________________________________________ (minor field) Member:

________________________________________ (grad council rep)

Foreign Language: ________________________________

Thesis Topic: ________________________________

If you are choosing the exam/non-thesis option, you still need to identify a research project:

________________________________________

HSTS Coursework

Note: 45 credit minimum. 50% rule: no more than 50% of total credit hours can be slash-listed courses. 24 credit minimum for HSTS courses, including historiography.

Slash-listed courses 507 and 505 Other Courses

Minor Coursework (optional for MA or MS)

Note: Minimum 15 credits.

Slash-listed courses 507 and 505 6-12 503 thesis credits
Instructions for Completing the Master’s Program Form

Check the degree that you are working toward. Fill in course titles, numbers, and credit hours as they appear on your transcript and in the Graduate Catalog. List sequences by individual course. Only graduate level courses may appear on your program.

When filling out your program, list your major department and the official name of your graduate major and minor (if applicable) as listed in the Graduate Catalog. If the major is the same as the minor, declare an approved area of concentration after either the major or the minor.

If you choose the thesis option, you must list 6-12 credits of 503 in the major. If you choose the research paper option, you may list 3-6 credits of 501, 505, or 506 in the major. This research credit must be labeled “(in lieu of thesis)”. The credits for the thesis or the research paper do not count as blanket credit.

If coursework is being transferred from another institution, please indicate the name of the institution in the box titled “Transfer courses indicated above:” Then mark the course with the appropriate transfer symbol (T1, T2, T3, T4). A maximum of 15 hours of graduate coursework may be transferred into a 45 hour program. Transcripts (for all courses to be transferred from other institutions) must be on file in the Graduate School Office BEFORE your program can be approved. When requesting transcripts from another institution, ask that they be sent directly to the Graduate School Office. Only graduate level courses with a grade of a 3.0 (B) or better are transferable. To convert semester hours to quarter hours: multiply semester hours by 1.5. See additional information under “Transferred Credit” in the Graduate Catalog.

A minimum of 45 hours is required for a master’s program by the Graduate School. Of these 45 hours, 9 blanket (i.e., 501, 505, 506, 507, 508, 509) hours are allowed. 30 hours of resident credit (i.e., coursework taken at OSU after being admitted into a graduate degree program) must appear on a master’s program.

Obtain the signatures of your major and minor professor (if applicable) and the chair/head of your major department/academic unit and submit the completed program to the Graduate School.

Copies of your approved program will be sent to you, your major department, and major professor c/o your major department. Please contact your department for your copy.

Changes to your approved program must be made on a “Petition for Change” form obtained from the Graduate School Office.

See additional information in the Graduate Catalog under “Rules & Regulations” for Master’s Degree Programs and the current Graduate School Guide to Success. If you have any questions, please call 541-737-4881 (Graduate School).
SAMPLE MA PROGRAM OF STUDY FOR HISTORY OF SCIENCE

<table>
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<th>OREGON STATE UNIVERSITY GRADUATE SCHOOL MASTER'S PROGRAM FOR THE DEGREE OF:</th>
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<td>Check One MA X MBE MEng MF MFA MPP MS MMP MHP PSM</td>
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<table>
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<tr>
<th>LAST Name (Family)</th>
<th>Smith</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Name, Middle Initial</td>
<td>Jane</td>
</tr>
<tr>
<td>OSU ID #</td>
<td>931555555</td>
</tr>
<tr>
<td>Day Phone #</td>
<td>541555555</td>
</tr>
<tr>
<td>Email Address</td>
<td><a href="mailto:shlandjona@yahoo.com">shlandjona@yahoo.com</a></td>
</tr>
<tr>
<td>Highest Degree Held</td>
<td>BA</td>
</tr>
<tr>
<td>Institution/Year Rcvd</td>
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<th>Academic Unit</th>
<th>School of History, Philosophy, and Religion</th>
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<tbody>
<tr>
<td>Major</td>
<td>History of Science</td>
</tr>
<tr>
<td>Check One:</td>
<td>Thesis X Non-Thesis</td>
</tr>
<tr>
<td>Minor</td>
<td>none</td>
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### CAPSTONE

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<tr>
<th>G*</th>
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<th>Course</th>
<th>Cr.</th>
<th>Gr.</th>
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<tr>
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<td>HSTS 503</td>
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<table>
<thead>
<tr>
<th>G*</th>
<th>Non-Thesis Project or Research (3-6 credits)</th>
<th>Course</th>
<th>Cr.</th>
<th>Gr.</th>
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<tbody>
<tr>
<td>G</td>
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<td>501</td>
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Total: 12

Transfer courses indicated:

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<td>T1</td>
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<tr>
<td>T2</td>
<td></td>
</tr>
<tr>
<td>T3</td>
<td></td>
</tr>
<tr>
<td>T4</td>
<td></td>
</tr>
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</table>

Total Blanket Hour Credits 0
Total Gradual Credits 26
Total Non-Gradual Credits (4XX/5XX) Credits 20
Total CREDITS ON PROGRAM

*Mark courses that will be graduate standalone courses with the letter "G" in this column.
The **program of study will be audited** to determine if it is accurate and it meets the minimum requirements for this degree as established by the OSU Faculty Senate. Please be sure that the following items are correct:

1. The correct degree is indicated in the first row. Please refer to and attach a copy of your unofficial OSU transcript.
2. Student name, phone, ID number, email address, degree held, year the degree was awarded, and institution from which it was received are filled in.
3. The academic unit, major, minor, if applicable, and thesis or non-thesis are indicated.
4. If your degree includes a thesis, the program of study must include from 6 to 12 credits of XXX503 Research, where XXX is the course code of your major.
5. If your degree is non-thesis, the program of study must include 3 to 6 credits of project such as XXX501, XXX505, or XXX506 unless your degree has been approved for an alternative capstone requirement.
6. The maximum number of blanket numbered courses is 9 on a 45 credit degree program.
7. A transfer symbol is indicated for each transfer course (T1 for the first university, T2 for the second, etc.)
8. Transfer courses have been approved by your major advisor and minor advisor if they are in the minor field. All transfer courses must be either:
   a. Graduate courses taken at OSU while I was a special, non-degree student, or
   b. Graduate courses taken at OSU and reserved for graduate credit while I was an undergraduate student, or
   c. Graduate courses taken at OSU and reserved for graduate credit while I was a postbaccalaureate student, or
   d. Graduate courses taken at other accredited universities after I had received a baccalaureate degree.
9. All courses listed as transfer courses must comply with policies:
   a. be graded B, B+, A-, A, or A+ (no P/N, S/U, credit/no credit graded courses will be allowed), and
   b. not have been used on a previous master's or doctoral degree, and
   c. grades of "B" (3.00) or better have been earned.
10. Thirty (30) credits must be taken at OSU after having been admitted as a regular, degree-seeking graduate student. (Transfer courses, as defined above, cannot be counted toward this residence requirement.)
11. For each standalone graduate course a G is entered in the G column.
12. Each course in the major and minor has a title, abbreviated if necessary, a department code, a course number, number of credits and a grade, if the course has been completed.
13. Grades of non-transfer courses listed on this program will be either C or above, or P, or R for research.
14. The total number of credits at the 4XX/5XX level is entered. And the number of 5XX or 6XX credits is entered.
15. No more than 50% of the credits are slash courses (the 5XX component of a 4XX/5XX course). To determine if a course is a slash course examine the OSU course catalog for the term that you took 5XX course. If there is a 4xx course with the same title during the same term, then this is a slash course.
16. Your total number of credits must be at least 45. (Your major may require more credits—check with them.)
17. All work toward this degree will be completed within seven (7) years. This includes transfer credits, all course work, all examinations, and final library copies of thesis, if applicable.
18. Your major professor must be a member of the Graduate Faculty in your major. Your minor professor, if you have a minor, must be a Graduate Faculty member in your minor.
19. The examining committee consists of two Graduate Faculty members from the major, a Graduate Faculty member from the minor (if a minor is listed) and, if a thesis is required, a Graduate Council Representative.
20. The program of study must be signed by the student, the major professor, the minor professor, if a minor is declared, and the academic unit chair.

<table>
<thead>
<tr>
<th>Student's Signature</th>
<th>Signature Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPROVED - Major Professor</td>
<td>Typed Name Signature Date</td>
</tr>
<tr>
<td>APPROVED - Minor Professor</td>
<td>Typed Name Signature Date</td>
</tr>
<tr>
<td>I affirm that the above program of study meets the minimum requirements of our master's degree program.</td>
<td></td>
</tr>
<tr>
<td>APPROVED - Academic Unit Chair</td>
<td>Typed Name Signature Date</td>
</tr>
<tr>
<td>APPROVED - Graduate School</td>
<td>Signature Date</td>
</tr>
</tbody>
</table>
MA Foreign Language Requirement Report

To access the OSU Graduate School’s form for completion of the MA foreign language requirement, please visit oregonstate.edu/dept/grad_school/phpforms/ma_fl_req.php
Policies Governing Doctoral Degree Programs

General Requirements
The doctor of philosophy degree is granted primarily for creative attainments. There is no rigid credit requirement; however, the equivalent of at least three years of full-time graduate work beyond the bachelor’s degree (at least 108 graduate credits) is required. Effective fall 2005, all graduate student programs of study submitted to the Graduate School must consist of, at a minimum, 50% graduate stand-alone courses. The remaining credits may be the 500 component of 400/500 slash courses. After admission into the doctoral program, a minimum of one full-time academic year (at least 36 graduate credits) should be devoted to the preparation of the thesis. The equivalent of one full-time academic year of regular non-blanket course work (at least 36 graduate credits) must be included on a doctoral program. It is not recommended that a student obtain all of his or her academic training through the doctoral degree at a single institution.

Graduate Study Program
The student’s doctoral study program is formulated and approved subject to departmental policies at a formal meeting of his or her doctoral committee, which consists of a minimum of five members of the graduate faculty, including two from the major department and a representative of the Graduate Council. If a minor is declared, it must consist of at least 18 credits (15 credits for an integrated minor) and the committee must include a member from the minor department. All committee members must be on the graduate faculty with appropriate authorization to serve on the student’s committee.

The student must be registered for a minimum of 3 credits for the term in which the program meeting is held. When the program is approved by the doctoral committee, the departmental chair, and the dean of the Graduate School, it becomes the obligation of the student to complete the requirements as formulated. Changes in the program may be made by submitting a Petition for Change Form available in the Graduate School.

Effective fall 2005, all graduate student programs of study submitted to the Graduate School must consist of, at a minimum, 50% graduate stand-alone courses. The remaining credits may be the 500 component of 400/500 slash courses. No more than 15 credits of blanket-numbered courses, other than thesis, may be included in the minimum 108-credit program.

A regular graduate student who holds a master’s degree must file a study program with the Graduate School by the end of one calendar year of enrollment as a doctoral student. A regular graduate student who does not hold a master’s degree must file a study program with the Graduate School by the end of the fifth quarter of enrollment as a doctoral student.

A student who does not file a program within the specified deadline will not be allowed to register for the next term. A registration hold also will be placed on graduate students whose programs of study are not approved after initial evaluation by the Graduate School and until appropriate action is taken to bring the program of study into compliance with Graduate Council policy.
Residence
For the doctoral degree, the residence requirement consists of two parts:
1. a minimum of 36 graduate Oregon State University credits must be completed;
2. student must spend at least three terms of full-time graduate academic work (at least 9 credits/term) on campus or at an off-campus site approved by Graduate School. The latter requirement of 3 terms of full-time enrollment does not have to take place in consecutive terms.

Adequate fulfillment of the residence requirement shall be determined by the Graduate School.

Language Requirements
The foreign language requirement is determined by the student’s doctoral committee, subject to the same approval required for the graduate study program, and is so designated in the official doctoral program. Foreign language requirements must be completed before the oral preliminary examination.

Preliminary Examination
The student working toward a doctoral degree must pass a comprehensive preliminary examination. The purpose of this exam is to determine the student’s understanding of his or her major and minor fields and also to assess the student’s capability for research. Students must enroll for a minimum of three credits during terms in which they undertake departmental written or oral preliminary examinations.

Written Comprehensive Examination
Most programs require a written comprehensive examination to be taken before the oral preliminary examination. If a written examination is required, it must be completed prior to the oral preliminary examination. The content, length, timing, passing standard, and repeatability of this examination are at the discretion of the major department. The general rules and structure of this examination, however, must be provided in writing to all candidates for this examination and a current copy of these guidelines must be on file with the Graduate School. Copies of the written examination (questions and student’s answers) must be available to all members of the student’s doctoral committee at least one week prior to the oral preliminary examination.

Oral Preliminary Examination
The oral preliminary examination is taken near the completion of the student’s course work. The oral examination is conducted by the student’s doctoral committee, and should cover the student’s knowledge in his or her major and minor subjects. The exam may cover the student’s proposed research topic, although no more than one-half the time should be devoted to specific aspects of the proposal. The examination should be scheduled for at least two hours, and the exam date must be scheduled in the Graduate School at least one week in advance. If more than one negative vote is recorded by the examining committee, the candidate will have failed the oral examination. No more than two reexaminations are permitted by the Graduate School, although academic units may allow fewer re-examinations.

At least one complete academic term must elapse between the time of the preliminary oral examination and the final oral examination. If more than five years elapse between these two examinations, the candidate will be required to take another preliminary oral examination.
Thesis
Each candidate for the PhD degree must submit a thesis embodying the results of research and giving evidence of originality and ability in independent investigation. The thesis must be a real contribution to knowledge, based on the candidate’s own investigation. It must show a mastery of the literature of the subject and be written in creditable literary form. The preparation of an acceptable thesis will require at least one full-time academic year. The booklet, Preparing a Thesis or Dissertation at OSU: A Graduate Student’s Guide, is available electronically on the web at http://oregonstate.edu/Dept/grad_school/.

The results from studies conducted using human subjects without obtaining Institutional Review Board approval shall not be used to satisfy master’s thesis or doctoral dissertation requirements. For complete details, please refer to http://oregonstate.edu/research/RegulatoryCompliance/HumanSubjects.html.

A formal thesis proposal meeting is recommended but not required by the Graduate School; however, it is required for some majors. This meeting should be held with the student’s doctoral committee prior to the start of any substantial doctoral thesis research.

When scheduling their final oral examinations, doctoral students are required to submit the pretext pages of their dissertations to the Graduate School at least two weeks prior to the final oral examination. Pretext pages include the abstract, copyright (optional), title page, approval page, acknowledgment page, contribution of authors, table of contents, list of figures, tables, appendices, dedication (optional), and preface (optional). It is expected that students will distribute examination copies of their thesis to all committee members, including the Graduate Council representative, sufficiently early to permit thorough review of the thesis prior to the student’s final oral examination. Within six weeks of the final oral examination, two final copies of the thesis for the library and one extra copy of the abstract and title page must be deposited unbound in the Graduate School. Doctoral students entering their degree programs fall 2000 or later also are required to submit a copy of their thesis electronically. The thesis will not be accepted for graduation requirements until it has received approval by the graduate dean.

A doctoral thesis abstract of not more than 350 words will be published by Bell and Howell/ University Microfilms in Dissertation Abstracts. Candidates for the doctor of philosophy and doctor of education degrees pay a minimum fee of $55 for archiving of the thesis in its entirety by University Microfilms and publication of the abstract in Dissertation Abstracts. The student, upon completing the doctorate, is asked to fill out the form for survey of earned doctorates.

Final Examination
After completion of or while concurrently registered for all work required by the program, the student must pass a final doctoral examination that may be written in part but must include an oral examination. The final oral examination must be scheduled in the Graduate School Office at least two weeks prior to the date of the examination. All incomplete course work appearing on the program of study must be completed prior to scheduling the final oral examination.
The final oral examination consists of a public thesis defense followed by a closed session of the examining committee with the candidate. Under normal circumstances, the final oral examination should be scheduled for two hours. All members of the student’s graduate committee must approve the scheduling of the final examination.

It is expected that the thesis defense portion of the final oral exam be open to all interested persons and should be limited to one hour. After the open portion of the exam, the examining committee should exclude all other persons and continue with the examination of the candidate’s knowledge of his or her field and the evaluation of the candidate’s performance.

If the department favors a more elaborate presentation, it should be scheduled as a separate seminar. In any case, the time involved for the open presentation may not impinge upon time required for the examining committee to conduct appropriate, iterative oral inquiry with the candidate, to evaluate the candidate’s performance, and to deliberate fully within the time constraints of the scheduled oral examination.

The examining committee consists of the student’s doctoral committee and any additional members, including professors from other institutions, whom the major department may recommend. In the oral examination, the candidate is expected to defend the thesis and show a satisfactory knowledge of his or her field. If more than one negative vote is recorded by the examining committee, the candidate will have failed the examination. No more than two re-examinations are permitted by the Graduate School, although academic units may permit fewer re-examinations.

The final oral examination must be taken within five years after the oral preliminary examination. If more than five years elapse, the candidate will be required to take another oral preliminary examination.
History of Science Doctoral Degree Program Checklist

Program Committee

Major Professor (Chair) ________________________________ (dissertation field)

Member: ___________________________________________ (History of Science general field)

Member: ___________________________________________ (Secondary specialization field)

Member: ___________________________________________ (minor field) Member:

____________________________________________________ (grad council rep)

Foreign Languages: ____________________________ ____________________________

Preliminary Examination Fields:

Declared Minor Field: ________________________________ Requirements

Note: 108 credit hours beyond the bachelor’s degree. 50% rule: no more than 50% of total credit hours can be slash-listed courses. A maximum of 15 doughnut-numbered courses (X0X) other than the thesis (603) may be counted toward the 108 credit minimum for the doctoral degree.

Major Field (minimum of 36 credits, including doughnut-numbered courses other than thesis)

Minor Field (minimum of 18 credits, including doughnut-numbered courses other than thesis)

Instructions for Completing the Doctoral Program Form

Doctoral program meetings are required by the Graduate School by the end of the fourth quarter of enrollment for those holding master’s degrees and by the end of the fifth quarter of enrollment for those holding only bachelor’s degrees. Before holding your program meeting you will need to obtain a list of names from the Graduate School office of graduate faculty members who are eligible to serve as your Graduate Council Representative (GCR). After you select one, he/she becomes your permanent GCR. You must bring a Doctoral Program Meeting Checklist (available in the Guide to Success at http://oregonstate.edu/dept/grad_school/current/meetings.html) to the meeting. This checklist should be given to your GCR at the beginning of the meeting. Your GCR will return it to the Graduate School after the program meeting.

It is your responsibility to select a common time for your program meeting with your committee and to remind all committee members of your meeting. You must note on your program of study the date your program meeting was held. You must be registered for the term that your program meeting is held.

When filling out your program, list your major department and the official names of your major and minor(s) as listed in the Graduate Catalog. Fill in course titles (abbreviations are acceptable), numbers, and credit hours as they appear on your transcript and in the Graduate Catalog. List sequences by individual courses. List transfer courses first, courses completed at OSU next, and courses to be taken at OSU last.

Transcripts (for all courses to be transferred from other institutions) must be on file in the Graduate School Office BEFORE your program can be approved. When requesting that transcripts be sent, ask that they be sent directly to the Graduate School Office. See “Transferred Credit” in the Graduate Catalog. To convert semester hours to quarter hours: multiply semester hours by 1.5.

A minimum of 108 hours is required for a doctoral program by the Graduate School. Of these 108 hours, 15 blanket (i.e., 501, 502, 505, 506, 507, 508, 509) hours are allowed. Also required are 36 hours of “real” (non-blanket) coursework. Thesis hours should be registered as 603 under the major. A minimum of 36 thesis credits for a PhD or 24 for an EdD are required.

Have each committee member initial his/her approval of the proposed program at the meeting, or later if changes have been recommended. Obtain the department head’s signature before submitting your program to the Graduate School office. After your program has been approved by the Graduate School, copies will be distributed to you, your major department, and all your committee members.

See additional information in the Graduate Catalog under “Doctoral Degrees” and the current Graduate School Guide to Success. If you have any questions, please call 541-737-1462 (Graduate Program Evaluator) or 541-737-4881 (Graduate School).
Sample Program of Study for Ph.D. in History of Science

Oregon State University Graduate School Proposed Doctoral Program

<table>
<thead>
<tr>
<th>Last Name (Family)</th>
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<tbody>
<tr>
<td>First Name</td>
<td>Jane</td>
</tr>
<tr>
<td>Middle Init.</td>
<td>A</td>
</tr>
<tr>
<td>ID #</td>
<td>92155555</td>
</tr>
<tr>
<td>Email Address</td>
<td><a href="mailto:wow.rule@onid.orst.edu">wow.rule@onid.orst.edu</a></td>
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<td>Major</td>
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<td>G R ST/Content Lites P</td>
<td>HSTS 599</td>
<td>4</td>
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<td>G ST/Readings in Euro</td>
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<td>G ST/Sci communities</td>
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<td>G ST/EST and Phil Geo</td>
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<th>Gr.</th>
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<td></td>
<td></td>
<td>Am Diplomatic Hist</td>
<td>HSTS 565</td>
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<tr>
<td></td>
<td></td>
<td>Modern Germany</td>
<td>HSTS 526</td>
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<tr>
<td></td>
<td></td>
<td>Modern Mexico</td>
<td>HSTS 552</td>
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Total: 96

Supportive Requisites:
Languages: French, 2yr at OSU

Other Requirements:

- Total Major Hours: 96
- Total Minor 1 Hours: 16
- Total Minor 2 Hours: 0
- Total 4XX/5XX Program Credits: 40
- Total Graduate Standalone Credits: 72
- Total Credits on Program (d+e): 112

*Mark courses that will be graduate standalone with the letter "G" in this column.
The program of study will be audited to determine if it is accurate and it meets the minimum requirements for this degree as established by the OSU Faculty Senate. Please be sure that the following items are correct:

1. Student name, phone, ID number, email address, degree held, year awarded, and institution from which it was received.
2. The academic unit, major, and minor, if applicable, are indicated. Please run an unofficial copy of your OSU transcript to attach to this form: https://admindfu.ouadrm.oregonstate.edu/prod/twbkwbis.P_WWWLogin
3. The program of study satisfies the residence requirement. That is, (1) a minimum of 36 credits on the form are courses taken at OSU after admission as a regular, degree-seeking graduate student and (2) a minimum of three terms of full-time graduate academic work (at least 9 credits/term) will be spent on site at the Corvallis campus or at an off-campus site approved by the Graduate School. Transfer courses as defined above are not counted toward this residence requirement.
4. The maximum number of blanket numbered courses is 15 on a 108 credit degree program.
5. A transfer symbol is indicated for each transfer course (T1 for the first university, T2 for the second, etc.)
6. Transfer courses have been approved by your major advisor and minor advisor if they are in the minor field. All transfer courses must be either:
   a. Graduate courses taken at OSU while I was a special, non-degree student, or
   b. Graduate courses taken at OSU and reserved for graduate credit while I was an undergraduate student, or
   c. Graduate courses taken at OSU and reserved for graduate credit while I was a postbaccalaureate student, or
d. Graduate courses taken at other accredited universities after I had received a baccalaureate degree.
7. All courses listed as transfer courses must comply with policies:
   a. be graded B, B+, A-, A, or A+ (no P/N, S/IU, credit/no credit graded courses will be allowed), and
   b. not have been used on a previous master’s or doctoral degree, and
c. grades of “B” (3.00) or better have been earned.
8. For each standalone graduate course a G is entered in the G column.
9. Each course in the major and minor has a title, abbreviated if necessary, a department code, a course number, number of credits and a grade, if the course has been completed.
10. Grades of non-transfer courses listed on this program will be either C or above, or P, or R for research.
11. The total number of credits at the 4XX/5XX level is entered. And the number of 5XX or 6XX credits is entered.
12. No more than 50% of the credits are slash courses (the 5XX component of a 4XX/5XX course). To determine if a course is a slash course examine the OSU course catalog for the term that you took 5XX course. If there is a 4xx course with the same title during the same term, then this is a slash course.
13. Your total number of credits must be at least 108. (Your major may require more credits—check with them.)
14. Your major professor and at least one other member of your committee must be members of the Graduate Faculty in your major. Your minor professor, if you have a minor, must be a Graduate Faculty member in your minor. All other committee members must be members of the OSU graduate faculty with authority to serve on doctoral advisory committees.
15. The program of study must be signed by the student, the major professor, the minor professor, if a minor is declared, other members of the advisory committee, and the academic unit chair.

<table>
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<tr>
<th>Student's Signature</th>
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<th>Date</th>
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<tbody>
<tr>
<td>APPROVED – Major Professor</td>
<td>Anita Guerrini</td>
<td>Signature</td>
</tr>
<tr>
<td>APPROVED – Committee Member</td>
<td>Michael Osborne</td>
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<td>APPROVED – Committee Member</td>
<td>Jacob Hamblin</td>
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<td>APPROVED – Committee Member</td>
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<tr>
<td>APPROVED – Minor Professor (If minor is declared)</td>
<td>Stacey Smith</td>
<td>Signature</td>
</tr>
<tr>
<td>APPROVED – Graduate Council Rep</td>
<td>Kind Faculty Member X</td>
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<tr>
<td>APPROVED – Academic Unit Chair</td>
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<tr>
<td>APPROVED – Graduate School</td>
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Ph.D. Foreign Language Requirement Report

In addition to the university’s requirements, your major professor may require more than one language competency, depending on your proposed research.

To access the OSU Graduate School’s form for completion of the Ph.D. foreign language requirement, please visit http://oregonstate.edu/dept/grad_school/phpforms/phd_fl_req.php
Ph.D. Preliminary Examinations

The last step in finishing coursework and embarking upon the dissertation is to take Ph.D. preliminary exams. These consist of *four separate examinations*, to be scheduled on separate days, in consultation with the student’s committee. There is one 3-hour written examination for each of the three Ph.D. fields. There is also an oral examination, which includes the entire Ph.D. committee, including Graduate Council representative. At the oral examination, the student is expected to respond to questions from all committee members, including the minor field professor.

Examinations are required in three fields:

1. Dissertation field. After you choose a major professor, you will work to develop expertise in a particular area relevant to your dissertation.

2. General field in History of Science. In this field you will demonstrate mastery of the content and historiography of history of science broadly conceived, from ancient times to the present.

3. Another field of specialization that may emphasize:
   - a *discipline* (for example, the history of chemistry or the history of environmental sciences)
   - a *country* (for example, the history of French science and scientific institutions)
   - an *era* (for example, science and the cold war)
   - a *different subject relevant to the history of science* (for example, philosophy of science)

The “fourth” field is the minor field. At the time of preliminary examination, the student will have taken at least 16 credit hours in a minor field (history, science, philosophy, etc), in addition to the major-area HSTS and HST courses. “History of Science” is understood to include the history of medicine and the history of technology.

The preliminary written examination fields are defined broadly and flexibly so that examination questions can be constructed in order to meet the individual interests and coursework of the student as taught by specific faculty members, most importantly those serving on the PhD program committee.
Graduate Level Courses in History of Science (HSTS)

**HSTS 501 RESEARCH (1-16)**

**HSTS 503 THESIS (1-16)**

**HSTS 505 READING AND CONFERENCE (1-16)**

**HSTS 507 SEMINAR (1-16)**

**HSTS 511 HISTORY OF SCIENCE (___)**
Stresses the interaction of scientific ideas within their social and cultural context. Scientific thought from ancient civilizations to the post-Roman era. Not offered every year. HSTS 411/HSTS 511, HSTS 412/HSTS 512, HSTS 413/HSTS 513 need not be taken in sequence. OTHER PREREQS: Graduate standing; at least one science sequence.

**HSTS 512 HISTORY OF SCIENCE (___)**
Stresses the interaction of scientific ideas with their social and cultural context. Origin of modern science in the 16th and 17th centuries. HSTS 411/HSTS 511, HSTS 412/HSTS 512, HSTS 413/HSTS 513 need not be taken in sequence. OTHER PREREQS: Graduate standing; at least one science sequence.

**HSTS 513 HISTORY OF SCIENCE (___)**
Stresses the interaction of scientific ideas with their social and cultural context. Development of modern science in the 18th and 19th centuries and to the present. HSTS 411/HSTS 511, HSTS 412/HSTS 512, HSTS 413/HSTS 513 need not be taken in sequence. OTHER PREREQS: Graduate standing; at least one science sequence.

**HSTS 514 HISTORY OF TWENTIETH-CENTURY SCIENCE (___)**
Focuses on the organization, practice, and theories of the natural sciences in the twentieth century, with emphasis primarily on the European and American scientific traditions from the 1890s to the present.

**HSTS 515 THEORY OF EVOLUTION AND FOUNDATION OF MODERN BIOLOGY (___)**
Origin and development of Darwin’s theory of evolution. Reception of theory and history of evolution to the present. OTHER PREREQS: Graduate standing.

**HSTS 517 HISTORY OF MEDICINE (___)**
History of medical theory and the changing role of the physician; internal development of medicine as a discipline as well as a profession; relationship of medicine’s development to general changes in science and culture. OTHER PREREQS: Graduate standing.

**HSTS 518 SCIENCE AND SOCIETY (___)**
Historical study of the interaction of science and society. Case studies are used from the 18th through 20th centuries. Topics vary by term.
HSTS 519 STUDIES IN SCIENTIFIC CONTROVERSY: METHOD AND PRACTICE OF (_)
Course focuses on accounts of scientific discoveries that have been controversial, to understand the rational, psychological, and social characteristics which have defined the meaning and procedures of the natural sciences. Case studies are used from the 18th through 20th centuries.

HSTS 521 TECHNOLOGY AND CHANGE (_)
Current views of technology and associated cultural changes and the contexts in which these developed; the changing role of technology in modern industrial society, especially in the United States; recent efforts to predict and control technological developments and the social and cultural consequences. OTHER PREREQS: Graduate standing.

HSTS 522 HISTORICAL STUDIES OF SCIENCE AND POLITICS (_)
The historical study of scientists, their work, their political and ethical choices mainly in the United States and Europe from the 1920s to the 1950s.

HSTS 523 SCIENCE AND RELIGION (_)
A historical survey of critical issues in the relationship of Western science and religion from ancient times to the end of the twentieth century. Not offered every year.

HSTS 525 HISTORY OF THE LIFE SCIENCES (_)
History of ideas about life from Greeks to present day. Cultural background and development of major theories of the life sciences with emphasis on natural history. OTHER PREREQS: Graduate standing plus one year college sciences.

HSTS 540 HISTORY OF PSYCHOTHERAPY (_)
The history of psychotherapy in modern Western societies, from biomedical, cultural, political, and psychosocial perspectives. Not offered every year.

HSTS 570 ECOLOGY AND HISTORY: LANDSCAPES OF THE COLUMBIA BASIN (_)
Integrates environmental history and landscape ecology of the Columbia River Basin from geologic origins to the present, to create an understanding of change caused by natural processes and human activities. Not offered every year. CROSSLISTED as FW 470/570. OTHER PREREQS: HST 201, 202, 203 or BI 370.

HSTS 599 SPECIAL TOPICS (1-16) HISTORY