

**PROPOSAL FOR A DOCTOR OF PHILOSOPHY DEGREE PROGRAM  
IN HISTORY  
AT MONTANA STATE UNIVERSITY, BOZEMAN**

A Proposal by the

**Department of History & Philosophy  
Montana State University, Bozeman**

Implementation date: Fall 2004

**PURPOSE:** To establish a Doctor of Philosophy degree program in History in the Department of History & Philosophy at Montana State University-Bozeman.

**VISION:** In keeping with the mission statement of MSU-Bozeman that our university will provide "an environment that promotes the exploration, discovery, and dissemination of new knowledge," this program promises to provide world-class doctoral training in History for graduate students interested in 1) the history of science, technology and society; 2) environmental history; and, 3) the history of the American West and Montana. By extending doctoral education at MSU-Bozeman beyond the technical fields, the Ph.D. in History will create a new dialogue between the humanities and sciences at this university.

The History doctoral program at MSU-Bozeman will be built on the following foundations: 1) the presence of a distinguished cohort of full-time and associated faculty with research and teaching expertise in the above three doctoral fields; 2) a unique Rocky Mountain setting that provides pioneering research opportunities for graduate students at such sites as the Yellowstone National Park archives (a satellite of the National Archives) located in Mammoth, Wyoming; the Museum of the Rockies; the MSU-Bozeman Library's Department of Special Collections; the Montana State Historical Society archives, as well as other research sites and museums scattered throughout the region; 3) the interdisciplinary resources and faculty strengths of MSU-Bozeman.

**RATIONALE:** Science and technology have had a long history of shaping the history of American West and will play an even greater role in the region's future. Consequently, it is imperative that we develop advanced, historically-informed knowledge about how science and technology have affected the historical development of the state, region, nation, and world.

The Department has a critical mass of talented faculty with research expertise in 1) the history of science, technology, and society; 2) environmental history; and 3) the history of the American West. In the past four years, as part of an overall strategy to build a program better suited to Montana State University's mission, the Department, following a series of retirements, hired four full-time faculty with research interests and extensive publication records in topics related to the above doctoral fields.

Currently, the Department has some 150 history majors, most of whom study topics related to U.S. history and the history of the American West and Montana. These students also write highly original (and in several instances, award-winning) papers related to the history of science and technology as well as environmental history (See Appendix A). In addition, the Department

has some twenty graduate students pursuing their Master of Arts degrees. These students, virtually without exception, research topics related to the history of science and technology, environmental history, and the history of Montana and the American west. The number of majors (currently 150 which is up from 80 in 1980), as well as the number of students who enroll in History classes every year (approximately 1,000 students in our history classes each semester), provide evidence of increasing interest in History. Indeed, as one of the bedrock disciplines of any university, History provides a firm foundation on which graduates can build a variety of meaningful careers, even in our constantly changing economic and professional landscape. Our program, through training students for careers in public and academic history, will prepare students to better our living environment here in Montana and elsewhere.

Research focused on the Yellowstone heritage region, the state of Montana, and the American West will provide the regional foundation upon which the Department's doctoral program will be built.

Teaching has long been the centerpiece of the Department's mission. The Doctor of Philosophy program will stay true to this commitment to undergraduate and graduate education, and enhance it by linking this program with our undergraduate offerings, especially in the new university-wide core curriculum.

Service is another important component of the Department. When local institutions, museums, political policymakers, or state and federal courts seek expert advice on historical issues related to Montana, science, technology, or environmental issues, they turn to members of our faculty. Members of our Department, for example, often serve as expert witnesses in litigation involving Native American legal challenges and environmental damage caused by mining. When the state and federal government seek historians knowledgeable about issues that sit at the intersection of science, technology, the environment, and society, they often draw on the expertise offered by our faculty. Importantly, the faculty's expertise in these highly relevant areas of contemporary concern will allow our program to prepare students for useful careers in Public History at both the state and national levels.

## **OBJECTIVES AND NEEDS:**

### Centrality to the Montana State University Mission

As a land-grant institution with a strong focus on educating students to become the cutting-edge scientists, agriculturalists, humanists, and engineers of the future, Montana State University has played a central role in nurturing and promoting many of these scientific and technological changes at the state, national, and even international levels.

The National Science Foundation designated Montana as one of the original five states for its Experimental Program to Stimulate Competitive Research (NSF-EPSCoR). For the past twenty years, MSU-Bozeman has received funding through EPSCoR to enhance its graduate education program in the fields of science and technology and to create stronger ties with industry and government. Our Department is in a propitious position to facilitate this growth of science and technology in Montana through a doctoral program that highlights the social and cultural ramifications of such growth. Our faculty is specifically trained in studying the intersection of science, technology, and industry, as well as its effects on the environment, and its impact on the politics and economics of the state.

### Goals and Objectives of the Program:

The major fields for the Department's Doctor of Philosophy program would be:

History of science, technology and society. Research and teaching in the history of science and

technology at Montana State dates from 1964, when the field was just in its infancy. After initially expanding to include top scholars in the social and cultural history of technology and the philosophy of science, the Department has recently developed a strong and diverse cohort of faculty who work in science and technology studies, including three new hires in the past three years. Currently, topics of expertise among our faculty include the science of exploration, the history of the physical and biological sciences, the science and engineering technology of mining and other forms of resource extraction, and the social and cultural history of museums and exhibitions. In an age when science and technology have become pervasive instigators of social change, graduate students in our program will be able to employ complex methodological skills, with both scientific and historical fluency, to uncover the ways in which science and technology helped shape the history of the United States, the American West and Montana more specifically, and other histories of places geographically distant, but economically interdependent, such as Japan and South Asia.

A doctoral program with an emphasis in the history of science, technology, and society will also prove beneficial in bringing money into the university. The history of science and technology is a relatively well-funded field, as it is able to draw funding from humanities as well as social, biological, and physical science sources, including the American Physical Society, the American Philosophical Society, the American Institute of Physics, the National Science Foundation, and the American Association for the Advancement of Science. While conventional sources of funding for scholars in the humanities are shrinking -- such as the National Endowment of the Humanities -- those in the sciences are expanding, and will keep expanding, as humanity moves into an even more scientific and technical age.

Environmental history. Environmental history represents another area of expertise in the Department. Our faculty continues to research topics at the cutting-edge of environmental history: environmental degradation, the rise of modern industrial economies, the technology of extractive industries, animal extinctions, and the technologies of dam construction and water management. Considering that some of the most menacing problems facing humanity relate to our relationship with the changing climate and ecosystem, environmental history offers a historical vantage point from which to view these problems. Just as land-grant institutions like Montana State University bettered the lives of Montanans through the promotion of engineering and agricultural sciences, in today's world that same institution can better lives through teaching the historical consequences of such developments. Our program will complement other doctoral programs at Montana State University that strive to better understand and improve our relationship with Montana's environment, while helping to pioneer new, and more sustainable, policies, economies, and relationships with the land that promise to improve the quality of life in our state.

History of the American West and Montana. New faculty hires have given our department greater depth of faculty with expertise in the American West and comparative frontiers and we are positioned to offer a field of study in the history of the American West that will encompass the social, cultural, technological and environmental history of the region, using Montana and the Yellowstone heritage area as points of intense study. With the support of graduate level offerings in English and Native American Studies, students will have the opportunity to develop advanced knowledge in the literature of the American West and in the study of Native American cultures.

#### Intellectual Basis for the Curriculum:

On a national level, the Department's doctoral program would help define, and eventually lead, several emerging fields of historical inquiry concerned with the historical dimensions of science, technology, society, and the environment, particularly with regards to the histories of the United

States, the American west, and Montana. Over the past few years, a historians around the country have carved out new fields of research that explore the intersection of scientific development, technological advancement, and environmental change; the research of such scholars is beginning to provide penetrating new insights into the complex ways that humans have constructed scientific knowledge and employed technologies to change their environment and society for the better and, all too often, worse. They have opened up new dialogues that reveal not only how science and technology have helped change society, but also, in turn, how social and cultural change affects the way in which we construct scientific knowledge, implement new technologies, and view our environment.

A related emerging field is the industrial history of the modern American West. Largely untouched by traditional western historians, this new field promises to help us better understand both the history of western industrial development and its potential future. Once more, exploring the historical dimensions of our scientific, technological, and environmental heritage is very much in the spirit of the land-grant institution, as it helps us to understand the economic and environmental future of resource-based economies in states such as Montana. Given that these historical fields of study are still new and developing--and that the few universities around the country that do train students in these fields rarely attempt to wed them together in one coherent program--MSU-Bozeman has the opportunity to establish itself as the leading institution that focuses on these interrelated fields.

### Course of Study

The course requirements of the Doctor of Philosophy in our Department would follow the guidelines of the College of Graduate Studies, and are based on students selecting an area of specialization from one of the three doctoral fields mentioned above. The program is built upon research and intensive course work that will normally require four years of full-time work beyond the Master of Arts degree. The general course requirements would include:

1. A Master of Arts degree in History or a closely related field.
2. At least four years of in-residence, full-time study at MSU-Bozeman after the baccalaureate degree. A minimum of 30 credits must be taken through the regular registration process at MSU-Bozeman. A minimum of 18 additional credits must be of HIST 690 Dissertation Research.
3. All students are required to pass a departmental foreign language examination (American Indian languages would be considered as meeting this requirement).
4. Declaration of a "major" field, a "supporting" area, and a "thematic" area, by the third semester of graduate study in the doctoral program in the form of a "graduate program." This "graduate program" includes designing, with the major field advisor, anticipated course work and language requirements.

Major fields include: a. History of science, technology and society; b. Environmental history; c. History of the American West and Montana.

Minor area: Public history must include 15 credits of approved courses.

Supporting area must be a national (i.e., a regional or area studies) category, and include: a. United States; b. Japan or East Asia; c. South Asia; d. France; e. Britain; f. Germany; g. Latin America; h. Ancient Greece and Rome.

Thematic areas will include one of the following: a. gender; b. race; c. class and economy; d. religion; e. imperialism; f. historical theories and methodologies; g. comparative frontiers; h. comparative slavery; i. science and technology; j. environmental studies; k. philosophy of science; l. science and religion.

5. The "supporting" area will be acquired through three courses (9 credits) and a four-hour written examination administered by the "supporting" area advisor. The "thematic" area is acquired through a four-hour examination written and administered by the "thematic" area advisor.

6. The minor area will require 15 credits in course work in public history and will be examined by both a written and oral examination administered by the students' graduate committee.
7. Mastery of the major field will be determined by 1) the Dissertation; 2) a record of excellence in all departmental courses; 3) submission of a "Syllabus Requirement," in which student would design and defend a detailed course syllabus in their major field or the submission of another applied exercise, such as the design of a museum exhibit; 4) a four-hour written exam generated by the faculty; 5) a two-hour oral examination with the Graduate Committee.
8. After the fourth semester of full-time graduate study beyond the master=s level, the student will submit a "Dissertation Prospectus" to the Graduate Committee for approval.
9. The Dissertation will be a suitable piece of scholarly writing, one that makes an original contribution to the major field of study, and will be defended in a public forum or "Dissertation Defense."

### Course Descriptions

HIST 500 Seminar

HIST 503 History of America Before 1860

HIST 505 U.S. History 1860 to Present

Graduate research and analysis of important issues in recent American history.

HIST 512 Topics in World History

HIST 513 Topics in Social and Cultural History

HIST 515 The American West

HIST 540 Historical Methods

\*HIST 5XX Historical Writing

\*HIST 5XX Comparative Histories of Science

\*HIST 5XX Histories of Technology and Society

\*HIST 5XX Comparative Environmental Histories

\*HIST 5XX Museums and Material Culture

\*HIST 5xx Public History

HIST 570 Individual Problems

HIST 575 Professional Paper

HIST 576 Internship

HIST 580 Special Topics

HIST 588 Professional Development

HIST 589 Graduate Consultation

\*HIST 6XX Research and Writing in the History of the American West

\*HIST 6XX Research and Writing in History of Science, Technology & the Environment

\*HIST 690 Dissertation

\*Suggested courses that would need to be approved.

### Need for the Program

The Department's Doctor of Philosophy program, with its major fields in 1) the history of science, technology and society, 2) environmental history, and 3) history of the American West, will not only prepare graduates for traditional careers as instructors at colleges and universities, but would also prepare them for growing nontraditional fields in history that require the skills to inform private and public audiences about broad-ranging issues at the local, state, and national levels. Outside traditional university academic appointments, graduates from the Department's program would find employment in positions in archives, museums, businesses, historical societies, editorial boards, private and public libraries, cultural resource management sectors, natural resource management and heritage preservation positions, and in litigation and expert-

witness roles. Historians trained in our program would find employment in agencies such as the U.S. Bureau of Land Management, the National Park Service, the U.S. Forestry Service, not to mention state agencies. In a state such as Montana, where vast federal lands intersect with state lands, and where policy issues transcend a single category of disciplinary analysis and expertise, graduates from our program would be in high demand. Although an increasing number of jobs for historians falls outside the realm of traditional university academic positions, few Doctor of Philosophy programs in the United States have adjusted to train students in the multidisciplinary skills necessary for historians in today's job market.

#### ADEQUACY, ACCREDITATION AND ASSESSMENT ISSUES:

##### Adequacy of Present Faculty

There are 19 tenure-track faculty who would be involved in delivering the Doctor of Philosophy program in the Department. Of these faculty, four have expertise in the history and philosophy of science; three have expertise in the history of technology; four have expertise in environmental history; five have expertise in U.S. history; three have expertise in the American West; and three have expertise in Montana history. Our degree program would also draw on the comparativist expertise of faculty in Religious Studies and Philosophy. The Department also has a cadre of adjunct faculty with particular expertise in public history and the history of the American West.

##### Tenure-Track Faculty

James Allard (PhD, Princeton University, 1976): history of philosophy; Prasanta Bandyopadhyay (PhD, Rochester University, 1986): philosophy of science; Gordon Brittan, Jr. (PhD, Stanford 1966; Regents Professor), philosophy of science, technology, and the environment; Robert Campbell (PhD, Yale University, 2002): American West; comparative frontiers; environmental history; exploration; David Cherry (PhD, University of Ottawa, 1985): ancient Greece and Rome; comparative frontiers; Susan Cohen (Ph.D., Harvard University, 2000): Syro-Palestina, religion and politics; Daniel Flory (Ph.D., University of Minnesota, 1995): philosophy of race, aesthetics; David C. Large (PhD, University of California, Berkeley, 1973): modern Europe; Germany; intellectual history; Timothy LeCain (PhD, University of Delaware, 1998): American West; Montana history; history of technology; environmental history; Sanford Levy (PhD, University of Michigan, 1982): ethics; biomedical ethics; Michelle Maskiell (PhD, University of Pennsylvania, 1979): modern South Asia; Asian women; material culture; Mary Murphy (PhD, University of North Carolina, Chapel Hill, 1990): American West; Montana history; American women; labor history; Sara Pritchard (PhD, Stanford University, 2001): modern France; history of science and technology; environmental history; Michael S. Reidy (PhD, University of Minnesota, 1999): history of science and technology; modern Britain; exploration; comparative frontiers; Robert W. Rydell (PhD, University of California, Los Angeles, 1980): nineteenth-century U.S. history; history of technology; museum studies; intellectual and cultural history; Lynda Sexson (PhD, Syracuse University, 1986) religion and science, religion and literature; Billy G. Smith (PhD, University of California, Los Angeles, 1981): early American history; class; race; slavery; disease and medical history; Brett L. Walker (PhD, University of Oregon, 1997): Japan; East Asian history; environmental history; history of East Asian biological sciences; medical history; Yanna Yannakakis (PhD, University of Pennsylvania, 2003): Latin America; exploration and conquest; material cultures.

##### Adjunct Faculty

Joan Hoff (PhD, Berkeley, 1966): US foreign policy; US women's history; David Schrupp, (PhD, Vienna, 1984): modern Germany; Middle East; Thomas R. Wessel (PhD, Maryland, 1970): US

agricultural and economic history; William Wyckoff (PhD, Syracuse, 1982): historical geography; Alan Yarnell (PhD, University of Washington, 1969): US political history.

### Adequacy of Present Facilities, Equipment, and Library Holdings

Library resources are adequate thanks to the efforts the Library has made to make the majority of professional journals available online. JSTOR and WorldCAT, together with the fine interlibrary loan and Special Collections services, provide the necessary library foundations for this program. We are also fortunate that, since the mid-1960s, the department has had faculty strength in both the history and philosophy of science, so the book resources are surprisingly strong in this area. There is no doubt that we will need to build additional resources, especially in environmental history, but are confident that grants can be written to support these acquisitions and processing costs. In addition, we should mention the proximity and strengths of the archives in Yellowstone National Park. These will become a mainstay for our Ph.D. students.

### Assessment Plan

Students will be required to hold a M.A. in history, or closely related field, and a minimum graduate GPA of 3.00 in order to be admitted to the doctoral program. The department will also assess cumulative records of undergraduate and graduate achievement, GRE scores, and letters of recommendation.

Progress toward the degree will be assessed by the department's graduate advisor, the student's graduate committee chair, and by other members of the students committee through a series of written and oral examinations outlined above. Final student assessment will be based on the student's dissertation and successful defense of the dissertation.

### IMPACT ON FACULTY, FACILITIES, COSTS, STUDENTS, AND OTHER DEPARTMENTS ON CAMPUS:

#### Additional Faculty Requirements

The Department requires one new tenure-track line and a minimum of one post-doctoral position to have sufficient staffing for a Ph.D. program. In addition, the Ph.D. program will need to rely on the support of a newly created curatorial position in history at the Museum of the Rockies.

Funding for the new line in History and Philosophy will come from the line vacated by Prof. Brittan when he retires four years hence. If the Department of History and Philosophy is allowed to recapture all of the money on Brittan's line, we can replace Prof. Brittan with an assistant professor and have sufficient funds to make the new hire who will have as part of her/his job description the task of teaching the "Contemporary Issues in Science" course in the new core curriculum. In the short-term, we will ask NSF/EPSCoR to fund this line; then with Prof. Brittan's retirement, base funding will come from the salary differential on Prof. Brittan's line.

Funding for the curatorial line in history at the Museum of the Rockies will come from an already existing line that will be dedicated to the history curatorship once the Curator of Archaeology. This position is already in the Museum's strategic plan and endorsed by the Dean of the Museum.

Funding for the Department's postdoctoral fellowships at \$30,000/year will initially come from NSF/EPSCoR. These lines will help us establish the Ph.D. program, enhance its reputation, and integrate our Ph.D. program with instruction in the undergraduate curriculum, especially in the new "Contemporary Issues in Science" course. Postdoctoral fellows will be expected to teach two "Contemporary Issues in Science" courses in the new core curriculum and one directed-readings graduate course in their areas of expertise. We are confident that, at the end of the NSF/EPSCoR period, we will be able to utilize a combination of vacancy savings and FAs generated by faculty grants to support at least one postdoctoral fellow on an ongoing basis.

### Impact on Facilities

The impact of this program on facilities will be minimal. We will require office space for a new faculty member and shared office space for postdoctoral fellows. As noted above, library resources are adequate for our program and can be supplemented with grant support.

### Costs

The fundamental assumption behind our assessment of the costs of this program is that the Department of History and Philosophy, on the basis of its already existing faculty quality, demonstrable productivity, and centrality to the university mission, will be allowed to recapture its vacancy savings. The second, but independent, assumption is that this program will be funded in its initial phases through NSF/EPSCoR.

	2004-2005	2005-2006	2006-2007
I. Planned Student Enrollment			
M.A. Enrollment	17	14	11
New Ph.D. Enrollment	3	3	3
Total	20	20	20
II. Expenditures			
Personnel Costs	\$84,000	\$96,000	\$96,000
(8 GTA @\$9,000- \$12,000/. 5 FTE)			
Operating Costs			
Materials and Supplies	\$500	\$800	\$1,000
Grand Total Expenditures	\$84,500	\$96,800	\$97,000
III. Revenues			
Sources of Funds			
Existing Base GTA Support	\$47,000	\$47,000	\$47,000
Reallocated Funds	\$24,000	\$33,500	\$33,500
Anticipated Grant Support	\$40,000	\$40,000	\$40,000
Grand Total Revenues	\$101,500	\$120,500	\$120,500

### Relationship to Other Programs on Campus

The doctoral program in history will complement the graduate offerings in English, Earth Sciences, and Native American Studies. The doctoral program will also enhance and directly benefit the new undergraduate core curriculum, especially the sector of the new core dedicated to exploring "Contemporary Issues in Science." Students from our program undoubtedly will enroll in graduate level courses in related departments, but the impact in terms of numbers will be small.

### Relationship to Other Institutions

Currently, there is no active Ph.D. program in History in Montana. The University of Montana is authorized to offer such a degree but has not trained doctoral students since the 1980s. Other established programs in the region include the University of Utah and Washington State University. Within the last year, the University of North Dakota and North Dakota State University have begun offering doctoral training in History. It is important to emphasize that none of these programs offer our unique combination of the history of science, environmental history, and the history of the American West.