

HARVARD SCHOOL OF PUBLIC HEALTH

DEPARTMENT OF HEALTH POLICY & MANAGEMENT

Department Handbook

Degree Requirements
SM1, SM2 and SD Programs



Academic Year
2009-2010

Questions about HPM courses and programs can be directed to:

Anne Occhipinti

Director of Academic Programs and Student Services

Kresge Building, Room 322

Telephone: (617) 432-4511

E-Mail: aocchipi@hsph.harvard.edu

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***NOTE:** Courses are subject to changes. Please be sure to check for updated course information at <http://www.hsph.harvard.edu/administrative-offices/registrar/courses-and-schedules/> when planning your class schedule.

Purpose of Handbook

This handbook provides the degree requirements for the three degree programs offered by the Department of Health Policy and Management:

- the One-Year Master of Science (SM1) program
- the Two-Year Master of Science (SM2) program
- the Doctor of Science in Health Policy and Management (SD) program.

We encourage you to review carefully the requirements for your academic program, and to consult with your faculty advisors and program director to develop a course of study that fulfills the requirements of your degree program and best meets your interests and needs.

Please also become familiar with the HPM policy on WinterSession on page 34 of this handbook.

Other Degree Programs

HPM participates in a number of other degree programs, including: an environmental science and risk management (ESRM) area of interest offered jointly with the Department of Environmental Health, the school-wide Master of Public Health (MPH) program, the joint JD/MPH program with Harvard Law School, and the university-wide doctor of philosophy (PhD) in Health Policy program. The degree requirements for these programs can be obtained by contacting:

Degree Program	Contact	Office	Telephone and E-Mail
Master of Public Health (MPH) *	Roberta Gianfortoni Assistant Dean for Educational Programs	Kresge G-29	617-432-3530 rgianfor@hsph.harvard.edu
JD/MPH *	Michelle Mello Professor	Kresge 407	617-432-0217 mmello@hsph.harvard.edu
PhD in Health Policy	Deborah Whitney Executive Director, PhD Program in Health Policy	14 Story Street Cambridge, MA 02138	617-496-5506 deborah_whitney@harvard.edu

*Students in the MPH Concentrations of Health Care Management and Policy (CMP), Law and Public Health (LPH) and the joint JD/MPH program must follow the MPH Curriculum Guide which is available in the OEP/MPH office in Kresge G29 or on the HSPH website at <http://www.hsph.harvard.edu/academics/master-of-public-health-program>.

Other HSPH Resources

In addition to the information in this handbook, students at HSPH are expected to review and become familiar with the following resources:

The HSPH Student Handbook

(<http://www.hsph.harvard.edu/administrative-offices/registrar/student-handbook/>)

The HSPH Catalog

(www.hsph.harvard.edu/catalog)

The University-wide course catalog

(<http://crossreg.harvard.edu>)

The Doctoral Student Information pages

<http://www.hsph.harvard.edu/administrative-offices/registrar/doctoral-student-information/>
<http://www.hsph.harvard.edu/administrative-offices/registrar/doctoral-student-information/doctoral-forms/index.html>

The academic calendar and procedure for cross-registration at other schools

<http://www.hsph.harvard.edu/administrative-offices/registrar/academic-calendar/2009-2010/index.html>

<http://www.hsph.harvard.edu/administrative-offices/registrar/cross-registration/>

The Office of Human Research Administration

<http://www.hsph.harvard.edu/research/human-research-administration/>

The Career Services Office

www.hsph.harvard.edu/careers

HSPH student classified ads

<http://mycourses.med.harvard.edu/tradingpost.asp>

Other important HSPH resources are:

Office for Student Services

Stanley Hudson, Associate Dean for Student Services (Kresge, G-10)

Joann Wilson-Singleton, Registrar (Kresge, G-4)

Kathryn Austin, Director of Student Financial Services (708 Huntington Ave)

Andrew Eisenmann, Director of Student Affairs (Kresge G-20)

Career Services Office (Kresge G-18)

Peter Crudele, Director of Career Services

Office of Alumni Programs

Jim Smith, Assistant Dean for Alumni Affairs

Landmark, Bldg. East, 3rd floor

401 Park Drive

Department of Health Policy and Management Overview

Arnold M. Epstein, MD, MA

Department Chair

John H. Foster Professor of Health Policy and Management

Kresge 403

aepstein@hsph.harvard.edu

The Department of Health Policy and Management is dedicated to resolving major management and health policy problems through original research, advanced training, and dispute resolution.

Research priorities in HPM include: health financing and insurance; management of health hazards; injury prevention; violence prevention; management of health care organizations; evaluation and management of medical technology; negotiation of occupational safety and health care benefits in the collective bargaining process; international health, including evaluation of the cost-effectiveness of health programs in developing countries; health care law and policy; quality of health care; public opinion and leadership opinion in health care; and health care reform.

The problem-solving orientation of HPM is exemplified by its strong ties to leading health practitioners in hospitals, health plans, community health centers, health advocacy groups, corporate medical departments, health and environmental consulting firms, state and local government, federal policymakers, and international agencies. Practical problem-solving skills are emphasized by HPM's interdisciplinary faculty, which includes management specialists, program evaluators, decision scientists, risk assessors, accountants, physicians, lawyers, policy analysts, economists, and political scientists.

Further information about HPM, including faculty profiles and research interests, and departmental programs and courses can be found on the department's website at www.hsph.harvard.edu/departments/health-policy-and-management

KEY HPM Contacts for Students

Program	Key Contact	Office	E-Mail
One-Year Masters (SM1)	Anne Occhipinti	Kresge 322	aocchipi@hsph.harvard.edu
Two-Year Masters (SM2)	Nancy Turnbull	Kresge 303	nturnbul@hsph.harvard.edu
Doctor of Science (SD)	Nancy Turnbull	Kresge 303	nturnbul@hsph.harvard.edu
MPH-Health Care Management and Policy (CMP)	Howard Rivenson	Kresge 301	hrivenso@hsph.harvard.edu
MPH-Law and Public Health (LPH)	Michelle Mello	Kresge 407	mmello@hsph.harvard.edu

HPM Academic Programs and Student Services Resources

Name	Position	Office	E-Mail and Telephone
Anne Occhipinti	Director of Academic Programs and Student Services	Kresge 322	aocchipi@hsph.harvard.edu 617-432-4511
Janeen Rivers	Coordinator of Academic Programs and Student Services	Kresge 324	jrivers@hsph.harvard.edu 617-432-4506

Two -Year Master of Science Program (SM2)

Program Director: Nancy Turnbull (nturnbul@hsph.harvard.edu or 617-432-4496)

The SM2 program is a professional degree program designed for students who are building professional careers in health-related fields and who aspire to leadership roles. The program emphasizes professional skills and concepts, a solid grounding in the substance of health problems, rigorous quantitative training, and a curriculum that combines professional, academic, and field practice activities. Acquired knowledge is applied to practical situations through a required summer internship and an applied field research and practice program.

General Requirements

The SM2 program is comprised of three tracks that offer training in general skills as well as advanced work in specialized areas of problem solving: **Management**, **Policy**, and **Research**.

A minimum of 80 credits is necessary for graduation. (At least 60 credits must be taken for an *ordinal* grade. Other credits may be graded pass/fail or taken for an ordinal grade.)

Each concentration consists of a set of required core courses as well as a list of recommended electives. Students must take a specific number of credits from their list (the exact number of electives varies for each concentration). The remaining number of credits may be selected from within or outside this list.

In addition to satisfying the specific concentration requirements, all students must complete the School and Departmental requirements listed below. *Students may request a waiver of any of the General Requirements, based on previous coursework, from the relevant HSPH department. (See list of contacts at end of this section.)*

School Core Course Requirements:

SM2 students must satisfy school core requirements in: Biostatistics, Environmental Health, Epidemiology, Ethics, Health Services Administration (HSA), and Social and Behavioral Sciences. The HSA core requirement is satisfied by the required HPM courses for each SM2 track.

There are two options for meeting the school core course requirements:

- 1. Take ID 538 (Fall) *Foundations in Public Health (10 credits)*: Only students who have applied and been accepted into the course may enroll. This course meets the biostatistics, epidemiology, environmental health, and society and health core requirements. Foundations students must still take a separate Ethics course.**
- 2. Take a separate approved course in each of the five non-HSA core areas:**

The core competencies and approved courses for each core area are listed below.

1. Biostatistics

Biostatistics is the collection, storage, retrieval, analysis and interpretation of health data; design and analysis of health-related surveys and experiments; and concepts and practice of statistical data analysis.

Biostatistics Core Competencies

- Demonstrate the roles biostatistics serve in the discipline of public health.
- Interpret graphical and descriptive techniques commonly used to summarize public health data.
- Describe basic concepts of probability, random variation, and commonly used statistical probability distributions.
- Apply common statistical methods for estimation and inference and use them appropriately according to underlying assumptions and type of study design.
- Interpret the results of statistical analyses to provide evidence within the context of public health, health care, biomedical, clinical and population-based studies and research.
- Develop basic skills for utilizing statistical computing software for performing data analyses.

Biostatistics courses that fulfill the core requirement are:

BIO 200 [Fall]	Principles of Biostatistics	5.0 credits
	<u>Or</u>	
BIO 201 [Fall]	Introduction to Statistical Methods	5.0 credits

2. Environmental Health Science

Environmental health science is the study of environmental factors including biological, physical and chemical factors that affect the health of a community.

Environmental Health Science Core Competencies

- Characterize the human health effects, both acute and chronic, of major environmental and occupational hazards such as: air pollution, metals, organic pollutants, microbial contamination of drinking water, and physical hazards.
- Analyze sources, pathways and routes of exposure to these environmental and occupational hazards [and safety], and determine the populations with a high risk of exposure.
- Assess the factors that can modify the overall impact of environmental and occupational hazards on a population (e.g., age, genetic polymorphisms, nutritional states).
- Apply risk assessment and risk management concepts to develop effective guidelines and policies to mitigate and manage environmental and occupational hazard.

Environmental health courses that fulfill this requirement:

EH 201 [Fall 2]	Introduction to Environmental Health	2.5 credits
	<u>Or</u>	
EH 202 [Spring 2]	Principles of Environmental Health	2.5 credits
	<u>Or</u>	
EH 278 [Spring 2]	Human Health and Global Environmental Change	2.5 credits

Other approved courses to meet the EH requirement (Note: These courses have prerequisites and require prior permission of the instructor for SM2 students):

EH 232 [Spring]	Introduction to Occupational & Environmental Medicine	2.5 credits
	<u>Or</u>	
ID 215 [Spring]	Environmental and Occupational Epidemiology	2.5 credits

3. Epidemiology

Epidemiology is the study of distributions and determinants of disease, disabilities and death in human populations; the characteristics and dynamics of human populations; and the natural history of disease and the biologic bases of health.

Epidemiology Core Competencies

- Describe the role of epidemiology as a quantitative approach to address problems in clinical medicine and public health.
- Describe and apply the basic principles and methods of epidemiology, including: disease measures, association and causation, bias, confounding and effect modification and susceptibility.
- Interpret descriptive epidemiologic results in order to develop hypotheses of possible risk factors of a disease.
- Develop a foundation for designing valid and efficient epidemiologic studies to address public health problems, including: understanding the strengths and limitations of descriptive, observational and experimental studies.
- Become a critical reader of epidemiologic literature by analyzing the appropriateness of study design, quality of data, methodological strategies, and interpretation of results.

Epidemiology courses that fulfill this requirement:

EPI 200 [Fall 1]	Principles of Epidemiology	2.5 credits
	<u>Or</u>	
EPI 201 [Fall 1]	Introduction to Epidemiology	2.5 credits

4. Ethics

Ethics is the application of moral and political philosophical principles and processes of moral reasoning to resolve dilemmas arising in public health policy and practice.

Ethics Core Competencies

- Develop facility in analyzing the ethical assumptions and components underlying health policy decisions
- Develop proficiency in examining critically the basic vocabulary and concepts of the main alternative lines of argument in areas of moral philosophy relevant to public health contexts
- Develop and apply philosophical ideas and arguments to practical problems underlying public health problems
- Develop competency in criticizing and defending ethical arguments that are applied to public health problems
- Develop facility in explaining how student's arguments and defenses of them are sensitive to changes in evidence, circumstances, or assumptions

Ethics courses that fulfill this requirement:

ID 250 [Fall 1 or Spring 1]	Ethical Basis of Public Health Practice	2.5 credits
	<u>Or</u>	
ID 292 [Spring 2]	Justice and Resource Allocation	2.5 credits

5. Social and Behavioral Sciences

Social and Behavioral Sciences is the study of concepts and methods of social and behavioral sciences relevant to the identification and solution of public health problems

Social and Behavioral Sciences Core Competencies

- Compare social, developmental and behavioral theories of health, health behavior and illness, and analyze their applicability to different types of health problems.
- Formulate social and behavioral change interventions based on these theories that are appropriate and responsive to the social and cultural context.
- Develop program and policy implementation skills, including communication, advocacy and engaging the media.
- Design and implement program evaluations using qualitative and quantitative methods.
- Critique the validity of basic behavioral and evaluation research.
- Identify individual, organizational and community concerns, assets, resources and deficits for social and behavioral science interventions.

Social and behavioral sciences courses that fulfill this requirement:

SHH 201 [Fall 1]	Society and Health	2.5 credits
	<u>Or</u>	
SHH 281 [Fall 2]	Methods for Research on Social and Behavioral Dimensions of Public Health	2.5 credits
	<u>Or</u>	
ID 540 [Spring 1]	Life Course Epidemiology	2.5 credits

Students who wish to take another SHDH course to fulfill this requirement may complete a petition to be reviewed by the SHDH department. The petition must be submitted in advance of the start of the course. The petition must state the reason for the request and why the student cannot take one of the courses listed above. SHDH will assess alternative courses to determine if they explicitly address the social and behavioral roots of problems to understand their nature and/or to develop appropriate interventions.

Departmental Course and Practice Requirements:

1. Economics

Economics Core Competencies

- Articulate the functions of supply and demand.
- Assess the extent to which real markets diverge from perfect markets.
- Apply models of rational choice to markets.
- Assess the effects of financial and payment incentives on the behavior of individuals and organizations.
- Apply these tools of economic analysis to new policy issues and proposals.

Economics course that fulfills this requirement:

HPM 206 [Fall] Economic Analysis 5.0 credits

2. Leadership and Communication

Leadership and Communication Core Competencies

- Communicate orally and in writing in a clear, logical, and grammatical manner in formal and informal situations; prepare cogent presentations, and meaningfully contribute to group discussions
- Accurately assess one's own strengths and development needs, including one's impact on others; show willingness to address needs through interactions with classmates and with colleagues during practice placements
- Describe how leaders can act to bring about changes in health care and public health and exercise effective leadership to accomplish such change

Students must take 5 credits from the following courses:

HPM 223 [Fall 2]	Public Speaking for Managers	1.25 credits
HPM 230 [Spring 2]	Managing People in Health Care Organizations.	2.5 credits
HPM 245 [Winter]	Public Health Leadership Skills	2.5 credits
HPM 278 [Spring 2]	Negotiation and Conflict Resolution	1.25 credits
HPM 283 [Spring 2]	Advanced Skills and Methods in Health Care Negotiation	1.25 credits
HPM 536 [Spring 2]	Leading Change	2.5 credits
HPM 539 [Spring 2]	Health Care Organizations and Organizational Behavior	2.5 credits
ID 284 [Spring 2]	Media and Health Communication	2.5 credits

3. Summer Internship

Required, carries no credits. (See page 17 for more detail)

4. Practice and Culminating Experience

HPM 290 [Fall and Spring] Applied Research and Practice 10 credits

See page 19 for more detail.

Waiver of General Requirements

Students may request a waiver of any of the General Requirements, based on previous coursework. To do so, a student should complete a **Waiver of Core Course Form** (for Biostatistics and Epidemiology) available from the Enrollment Services Office or a departmental waiver of course form for EH, SHDH and HPM available from each department, attach a syllabus from the prior course(s) and a transcript, and send this material to the relevant key contact listed below.

Department Requirement	Contact	Phone	e-mail	Location
Biostatistics	Jelena Follweiler	2-1087	jtillots@hsph.harvard.edu	SPH2-408
Environmental Health	Barbara Zuckerman	2-1471	bzuckerm@hsph.harvard.edu	SPH1-1301
Epidemiology	Joann Alexander	2-1055	jalexand@hsph.harvard.edu	Kresge-908
Society, Human Development, and Health	Elizabeth Solomon	2-3761	esolomon@hsph.harvard.edu	Kresge-622
HPM: Economics	David Hemenway	2-4493	hemenway@hsph.harvard.edu	Kresge-309
HPM: Ethics	Michelle Monestime (for Marc Roberts)	2-4523	mmonesti@hsph.harvard.edu	Kresge-315

Management Track

Curriculum Advisor: Dr. Howard Rivenson

This concentration prepares professionals for managerial and leadership positions in health care organizations, such as hospitals, sub-acute and long-term care facilities, physician practices, insurers, community health centers, and other community-based organizations. The coursework is designed to give students a range of financial, operational and strategic skills. Students will be able to analyze and take actions to improve organizational performance using the skills and frameworks learned in coursework and through field experiences.

Management Track Competencies

Through coursework and practice experiences, students in the Management Track will demonstrate the ability to:

1. Describe and apply the basic language and concepts that underpin managerial decision-making (financial, operations, organizational behavior, marketing, strategy)
2. Critically evaluate organizational structures, processes, and performance in managerial terms and apply appropriate principles and concepts to address organizational issues
3. Assess a health care management situation, develop alternative courses of action, and make appropriate managerial decisions consonant with that assessment
4. Demonstrate ability to understand, analyze, and make decisions based on financial and accounting information; be able to analyze the organizational implications of third party payment systems
5. Design and execute performance measurement systems using statistical, clinical, financial, and other administrative measures to drive organizational performance toward strategic goals

Required Courses

1. General Requirements (see pages 5-8)

2. Management Courses:

HPM 219 [Fall 1]	Financial Transactions and Analysis	2.5 credits
HPM 220 [Fall 2]	Financial Management and Control	2.5 credits
HPM 222 [Spring 2]	Financial Management of Health Care Organizations	2.5 credits
HPM 231 [Spring 1]	Competitive Strategy	2.5 credits
HPM 232 [Spring 1]	Operations Management	2.5 credits
HPM 233 [Spring 2]	Strategic Marketing Management in Health Systems	2.5 credits
HPM 255 [Spring 2]	Payment Systems in Health Care	2.5 credits
HPM 539 [Spring 2]	Health Care Organizations and Organizational Behavior	2.5 credits

3. Plus 5 credits from the following Policy courses:

HPM 545 [Spring1]	Health Care Issues: Public vs Market Resolutions	2.5 credits
	<i>And</i>	
ID 242	Politics and Strategies for Change in Health Care	2.5 credits
	<i>Or</i>	
HPM 227 [Spring]	The Economics of Health Policy	5.0 credits
	<i>Or</i>	
KSG HCP-175 [Spring] (formerly HPM 247)	Political Analysis and Strategy for US Health Policy	5.0 credits

Recommended Electives at HSPH

HPM 235 [Fall 2]	Managing Health Care Costs	2.5 credits
HPM 516 [Spring 2]	Health Care Quality Improvement	2.5 credits
HPM 519 [Spring 1]	Health Information Technology: Impact on Health Care	2.5 credits
RDS 280 [Fall 2]	Decision Analysis for Health and Medical Practices	2.5 credits

Policy Track

Curriculum Advisor: Dr. Marc Roberts

This concentration prepares students for leadership positions in health policy in the public or private sectors, as consultants, advocates, analysts, or directly as policymakers. Students develop skills in applying economics and political analysis to the design, implementation, and evaluation of public health policies. Students also are encouraged to develop technical expertise in one area of concentration, such as health economics, program evaluation, decision science, or health care financing.

Policy Track Competencies

Through coursework and practice experiences, students in the Policy Track will demonstrate the ability to:

1. Analyze how political processes influence health policy outcomes, and develop effective political strategy.
2. Describe contexts in which regulatory intervention into health care market is appropriate (and when it is not) in pursuit of public health goals.
3. Demonstrate knowledge of healthcare provider payment systems, analyze the incentives they engender, and develop alternative payment systems that more fully address public health goals
4. Evaluate effectiveness of public health policy using formal methods of policy analysis and program evaluation
5. Describe the major policy tools and processes for improving the health status of populations and the strengths and weaknesses of each
6. Assess a health care policy situation, develop alternatives, and make appropriate recommendations
7. Describe and apply some of the basic language and concepts that underpin managerial decision-making (financial, operations, organizational behavior, marketing, and/or strategy)

Required Courses

1. General Requirements (see pages 5-8)

2. Policy Courses:

HPM 545 [Spring 1]	Health Care Issues: Public vs Market Resolutions	2.5 credits
	<u>Or</u>	
HPM 227 [Spring]	The Economics of Health Policy	5.0 credits
	AND	
KSG HCP 175 [Spring] (formerly HPM 247)	Political Analysis for U.S. Health Policy	5.0 credits

AND

HPM 543 [Spring 1] Program Evaluation: Part 1 2.5 credits

Plus 7.5 credits from the following courses:

HPM 545 [Spring 1]	Health Care Issues: Public vs Market Resolutions	2.5 credits
HPM 213 [Spring 1]	Public Health Law	2.5 credits
HPM 227 [Spring]	The Economics of Health Policy	5.0 credits
HPM 243 [Spring 1]	Health Economics	2.5 credits
HPM 255 [Spring 2]	Payment Systems in Health Care	2.5 credits
HPM 520 [Fall 2]	Community Organizing for Health	2.5 credits
HPM 544 [Spring 2]	Program Evaluation: Part 2	2.5 credits
ID 272 [Spring 1]	Financing Health Care in Developing Countries	2.5 credits
RDS 280 [Fall 2]	Decision Analysis for Health and Medical Practices	2.5 credits
RDS 282 [Spring 2]	Cost-Effectiveness and Cost-Benefit Analysis	2.5 credits

3. Management Courses

Plus Two of the following management courses:

HPM 219 [Fall 1]	Financial Transactions and Analysis	2.5 credits
HPM 220 [Fall 2]	Financial Management and Control	2.5 credits
HPM 222 [Spring 2]	Financial Management of Health Care Organizations	2.5 credits
HPM 231 [Spring 1]	Competitive Strategy	2.5 credits
HPM 232 [Spring 1]	Operations Management	2.5 credits
HPM 233 [Spring]	Strategic Marketing Management in Health Systems	2.5 credits
HPM 539 [Spring 2]	Organizational Behavior in Health Care Organizations	2.5 credits

Recommended Electives at HSPH:

BIO 211 [Spring]	Regression and Analysis of Variance in Experimental Research	5.0 credits
BIO 212 [Spring]	Survey Research Methods in Community Health	2.5 credits
EPI 203 [Spring 1]	Design of Cohort and Case-Control Studies	2.5 credits
HPM 235 [Fall 2]	Managing Health Care Costs	2.5 credits
KSG-API 214 [Spring] (formerly HPM 297)	Public Opinion, Polling, and Public Policy	5.0 credits
HPM 516 [Spring]	Health Care: Quality Improvement	2.5 credits
HPM 529 [Spring 2]	Principles of Suicide Prevention	2.5 credits
ID 240 [Spring 1]	Principles of Injury Control	2.5 credits
ID 506 [Fall]	Theory and Practice of Public Health in the U.S.	2.5 credits

Research Track

Curriculum Advisor: Dr. Milton Weinstein

This track is designed for students planning to pursue careers in academic or research settings. Coursework emphasizes empirical methods and techniques for analytical research. Students in this concentration intend to pursue doctoral level studies in public health or related fields, either upon completion of the master's program or after a year or two of professional experience in an analytical capacity.

Research Track Competencies

Through coursework and practice experiences, students in the research track will demonstrate the ability to:

1. Locate, interpret, and critically evaluate research literature related to specific health policy topics, including program evaluations, health services research, and quality of care research
2. Synthesize evidence, including conflicting evidence, on a health policy question
3. Weigh the advantages and disadvantages of alternative study designs for evaluating the effectiveness, safety, and/or economic consequences of a health care intervention
4. Describe the technical methods and applications of decision analysis and cost-effectiveness analysis in health care technology assessment, medical decision-making and public health policy.
5. Plan and design a health services research study
6. Describe the structure and process of law and regulation, apply stakeholder analysis to health policy issues, and formulate an effective political strategy for achieving a public policy goal
7. Apply some of the basic language and concepts that underpin managerial decision-making (financial, operations, organizational behavior, marketing, and/or strategy)

Required Courses

1. General Requirements (see page 5-8)

Biostatistics

BIO 201 and EP1 201 are strongly recommended for students in the Research Track.

2. Research Courses

RDS 280 [Fall 2]	Decision Analysis for Health and Medical Practices <i>And</i>	2.5 credits
RDS 282 [Spring 2]	Cost-Effectiveness and Cost-Benefit Analysis	2.5 credits

Plus at least **one** of the following:

BIO 210 [Fall or Spring]	The Analysis of Rates and Proportions	5.0 credits
BIO 211 [Fall]	Regression and Analysis of Variance in Experimental Research	5.0 credits
(GSE) S-052[Fall]	Applied Data Analysis	5.0 credits

3. Program Evaluation

HPM 543 [Spring 1]	Program Evaluation: Part 1	2.5 credits
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4. Management Courses

Plus two of the following management courses:

HPM 219 [Fall 1]	Financial Transactions and Analysis	2.5 credits
HPM 220 [Fall 2]	Financial Management and Control	2.5 credits
HPM 222 [Spring 2]	Financial Management of Health Care Organizations	2.5 credits
HPM 231 [Spring 1]	Competitive Strategy	5.0 credits
HPM 232 [Spring 1]	Operations Management	2.5 credits
HPM 233 [Spring]	Strategic Marketing Management in Health Systems	2.5 credits
HPM 539 [Spring 2]	Organizational Behavior in Health Care Organizations	2.5 credits

5. Policy Course

HPM 545 [Spring1]	Health Care Issues: Public vs. Market Resolutions <i>And</i>	2.5 credits
ID 242 [Spring1]	Politics and Strategies for Change in Health Care <i>Or</i>	2.5 credits
HPM 227 [Spring]	The Economics of Health Policy <i>Or</i>	5.0 credits
KSG HCP 175 [Spring] (formerly HPM 247)	Political Analysis for U.S. Health Policy	5.0 credits

Recommended Electives at HSPH:

BIO 111 [Winter]	Introduction to SAS Programming	2.5 credits
BIO 113 [Fall 1]	Introduction to Data Management and Programming in SAS	2.5 credits
BIO 212 [Spring]	Survey Research Methods in Community Health	2.5 credits
BIO 214 [Spring 1]	Principles of Clinical Trials	2.5 credits
EPI 202 [Fall 2]	Elements of Epidemiologic Research	2.5 credits
EPI 203 [Spring 1]	Study Design in Epidemiologic Research	2.5 credits
GHP 263 [Winter]	Grant Writing	2.5 credits

Two-Year Master of Science Program - Summer Internship

The Department of Health Policy and Management (HPM) is committed to the education of professionals for positions of leadership in public and private organizations concerned with the planning, financing, and delivery of health care and related services. HPM offers programs for students and professionals who are prepared to apply strong analytic and quantitative training to the critical public health issues facing health care managers and policy makers.

Beyond the weight it places on the core HPM curriculum—consisting of specialized courses in policy planning and implementation, the principles of economics, quantitative methods, and management—HPM recognizes that masters-level training must be supplemented by problem-solving experiences in actual health care organizations.

A summer internship between the first and second year of the two-year Master of Science Program allows students to apply the technical tools, analytical skills, and theoretical knowledge gained in the first year, and to acquire further exposure to career possibilities in the field. In the past, students have participated in summer internships in such settings as hospitals, managed care plans, consulting firms, community-based organizations, pharmaceutical companies, state, local and federal governments, and universities.

Because of diverse student needs and interests, the internship's requirements are flexible, allowing students to develop a field experience that most closely meets their educational and career objectives. The Summer Internship sometimes leads to a full-year Applied Research and Practice opportunity during the second year.

Criteria for Project Selection

The Summer Internship should:

- Complement the student's career objectives,
- Require the student to apply and practice analytic and problem-solving skills,
- Focus on actual problems and needs of the host organization or sponsor,
- Integrate the student into an organizational setting as a new employee, using whatever methods the sponsor normally uses, and
- Be full time and at least eight weeks in length.

Finding a Summer Internship

Most students locate placements on their own and are encouraged to discuss potential opportunities with faculty members, alumni, and current students, and to contact professionals in the field. A list of Summer Internship projects from prior years is available from HPM's office of academic programs and student services.

Responsibilities of the Summer Internship Sponsor

The sponsor is the personal and professional link between the intern and the organization. Responsibilities begin with an understanding and assessment of the intern's interests and academic preparation. An agenda of projects and activities should be developed that link the intern's efforts

to the needs of the organization, and a working relationship should be established between intern and sponsor that encourages ongoing guidance, project planning, support, feedback, and evaluation.

The specific responsibilities of the sponsor are to:

- Develop, in conjunction with the intern, a plan for the summer that specifies work schedules as well as expected projects and written reports;
- Provide the intern with appropriate orientation to the organization and to fellow workers (this should include information on the purpose, history, and policies of the organization);
- Introduce the intern to the organization's structure, personnel, and other professionals, including any relevant community members;
- Provide adequate work space, special equipment, and support services for the intern to complete specified projects; and
- Maintain regular (at least weekly) contact with the intern to ensure personal support, project direction, and performance feedback.

Responsibilities of the Intern:

The student/intern is responsible for pro-actively seeking new learning opportunities within the host organization and for satisfactorily meeting the expectations of that organization during this probationary employment period. Specifically, the intern assumes the responsibility to:

- Develop a realistic work plan for the summer, in conjunction with the sponsor and host organization;
- Devote full-time hours of work each week (excluding vacation periods) to specified projects;
- Meet regularly with the sponsor to discuss direction and progress;
- Present any written reports in a well-organized and timely fashion;
- Submit an abstract and conduct a presentation describing the internship upon the student's return to HPM in the fall.

For more information please contact: Anne Occhipinti, the Director of Academic Programs and Student Services, aocchipi@hsph.harvard.edu) or Nancy Turnbull, Director of the SM2 program, nturnbul@hsph.harvard.edu).

Two -Year Master of Science - Applied Research and Practice (HPM 290)

The Applied Research and Practice (ARP) is the practice and culminating experience for the SM2 program. It runs during the second year of the program. Students are expected to devote a minimum of 8-10 hours a week for at least 16 weeks from October to May working in a setting relevant to health policy, health management or health research.

The ARP is designed to help students:

- Integrate, synthesize and apply classroom learning to a real world problem/issue
- Enhance and develop skills needed to function in a professional public health setting, particularly:
 - Goal setting
 - Problem solving and analysis
 - Producing professional quality work
 - Interpersonal skills
 - Oral and written communication
- Work on a substantive public health problem or issue that is salient to the sponsoring organization
- Learn from professionals in the field
- Build professional and personal confidence
- Engage in professional self-assessment and critical reflection.

Students must register for the ARP in the fall and spring semesters and the courses must be taken for ordinal credit. Grades are based on the following requirements:

- 8-10 hours of work per week on a field project at an approved ARP site,
- Regular attendance and participation in class meetings (1-2 per month)
- Reflective memos and other written assignments
- Final written project report and presentation (at the end of Spring2),
- ARP abstract,
- Evaluation by ARP preceptor.

Most students locate ARPs on their own and are encouraged to discuss potential opportunities with faculty members, alumni, and current students, and to contact professionals in the field. A list of ARP projects from prior years is available from HPM's office of academic programs and student services. Students may not begin the field work until the placement, project and preceptor have been approved by the SM2 program director.

One -Year Master of Science Program (SM1)

The One-Year Master of Science Program (SM1) is an academic degree program designed for individuals with doctoral degrees in medicine, dentistry, or other health-related disciplines who are pursuing research careers and desire intensive exposure to analytic and quantitative skills. The program is appropriate for students who plan to pursue health policy analysis and for students interested in domestic or international research questions.

Program Competencies

Through coursework and supervised independent study, students in the SM1 program will be able to:

1. Demonstrate competencies in the core public health disciplines of biostatistics and epidemiology (see below)
2. Describe economic theory and its application to health care and public health
3. Apply the theory and methods of quality improvement in health care
4. Describe the technical methods and applications of decision analysis and cost-effectiveness analysis in health care technology assessment, medical decision-making and public health policy
5. Design and produce a health policy analysis or research study resulting in a manuscript of publishable quality

Program Requirements

Students must take a minimum of 42.5 credits for graduation, including the following required courses:

A. School Academic Program Core Course Requirements

1. Biostatistics

Biostatistics is the collection, storage, retrieval, analysis and interpretation of health data; design and analysis of health-related surveys and experiments; and concepts and practice of statistical data analysis.

Biostatistics Core Competencies

- Demonstrate the roles biostatistics serve in the discipline of public health.
- Interpret graphical and descriptive techniques commonly used to summarize public health data.
- Describe basic concepts of probability, random variation, and commonly used statistical probability distributions.
- Apply common statistical methods for estimation and inference and use them appropriately according to underlying assumptions and type of study design.
- Interpret the results of statistical analyses to provide evidence within the context of public health, health care, biomedical, clinical and population-based studies and research.
- Develop basic skills for utilizing statistical computing software for performing data analyses.

Biostatistics courses that fulfill the core requirement are:

BIO 200 [Fall]	Principles of Biostatistics	5.0 credits
	<i>Or</i>	
BIO 201 [Fall]	Introduction to Statistical Methods	5.0 credits

2. Epidemiology

Epidemiology is the study of distributions and determinants of disease, disabilities and death in human populations; the characteristics and dynamics of human populations; and the natural history of disease and the biologic bases of health.

Epidemiology Core Competencies

- Describe the role of epidemiology as a quantitative approach to address problems in clinical medicine and public health.
- Describe and apply the basic principles and methods of epidemiology, including: disease measures, association and causation, bias, confounding and effect modification and susceptibility.
- Interpret descriptive epidemiologic results in order to develop hypotheses of possible risk factors of a disease.
- Develop a foundation for designing valid and efficient epidemiologic studies to address public health problems, including: understanding the strengths and limitations of descriptive, observational and experimental studies.
- Become a critical reader of epidemiologic literature by analyzing the appropriateness of study design, quality of data, methodological strategies, and interpretation of results.

Epidemiology courses that fulfill this requirement:

EPI 200 [Fall 1]	Principles of Epidemiology	2.5 credits
	<i>Or</i>	
EPI 201 [Fall 1]	Introduction to Epidemiology	2.5 credits
	<i>Or</i>	
EPI 208 [Summer]	Introduction to Clinical Epidemiology.	5.0 credits

B. Departmental Requirements

Students also must take an additional **10 credits** in the Department of Health Policy and Management, and complete an additional **5 credits** of supervised independent study under the direction of an HPM faculty member.

The 10 HPM course credits must include courses in each of the following subject areas: ***Economic Analysis; Quality of Care; and Health Decision Sciences***. Courses that fulfill these requirements are listed below.

1. Economic Analysis

HPM 206 [Fall]	Economic Analysis	5.0 credits
HPM 545 [Spring 1]	Health Care Issues: Public vs Market Resolutions	2.5 credits
HPM 227 [Spring]	The Economics of Health Policy	5.0 credits
HPM 243 [Spring 1]	Health Economics: Analysis of the Health Care System	2.5 credits

2. Quality of Care

HPM 516 [Spring 2]	Health Care: Quality Improvement	2.5 credits
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3. Health Decision Sciences

RDS 280 [Fall 2]	Decision Analysis for Health and Medical Practices	2.5 credits
RDS 282 [Spring 2]	Cost-Effectiveness & Cost-Benefit Analysis	2.5 credits
RDS 284 [Fall]	Decision Theory	5.0 credits
RDS 286 [Summer1]	Decision Analysis in Clinical Research	2.5 credits
RDS 288 [Summer2]	Methods for Decision Making	2.5 credits

Students may request to waive required courses in areas where they can demonstrate prior proficiency.

4. Tutorial/Supervised Independent Study

HPM 300 [Fall/Spring]	Independent Study/Tutorial	5.0 credits
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Questions and More Information

Any questions about the One-Year Master of Science Program may be directed to:

Anne Occhipinti
Director of Academic Programs and Student Services
aocchipi@hsph.harvard.edu
617-432-4511

Doctor of Science (SD) Program in Health Policy and Management

General Information

Key Contact: Nancy Turnbull (617- 432-4496 or nturnbul@hsph.harvard.edu)

The department offers a Doctor of Science (SD) Program in Health Policy and Management for physicians, lawyers, pharmacists, dentists and other professionals with doctoral degrees who are interested in acquiring research skill in health management or policy. Working closely with a faculty advisor, students develop interdisciplinary research competence in an intensive program that includes two years of coursework.

Program Competencies

Through coursework and independent research, students in the SD program will be able to:

- Demonstrate competence in intermediate-level epidemiology, including applying the elements of study design, data analysis and inference in epidemiologic research
- Demonstrate competence in intermediate-level biostatistics, including analyzing and interpreting research on health policy and management issues, using appropriate statistical methods
- Articulate the functions of supply and demand in the context of health care markets.
- Assess the extent to which real markets diverge from perfect markets in health care.
- Apply models of rational choice to health care markets.
- Assess the effects of financial and payment incentives on the behavior of individuals and organizations in health care.
- Apply these tools of economic analysis to develop new policy issues and proposals.
- Construct a well designed evaluation study and evaluate existing evaluation studies critically, including drawing appropriate policy conclusions and implications.
- Prepare and defend a doctoral dissertation representing original research of publishable quality, including:
 - the ability to structure an unstructured research question,
 - the ability to collaborate with researchers from other fields/disciplines,
 - flexibility in the use of various analytic methods, and
 - the ability to articulate how a piece of research is a contribution to a larger body of literature.

Virtually all successful applicants to the SD program will have graduated from the MPH, one-year MS or two-year SM2 program at HSPH. All applicants must have a clearly identified advisor/mentor in the HPM department.

The Department of Health Policy and Management also participates in the Harvard University Ph.D. Program in Health Policy, awarded by the Faculty of Arts and Sciences. This collaborative program (which draws on the faculties of the Graduate School of Arts and Sciences, the School of Public Health, the Business School, the Medical School, and the John F. Kennedy School of Government) is designed for students who desire teaching and research careers and who seek the doctoral degree in health policy as their primary degree. Application for admission to this program is made through the Graduate School of Arts and Sciences: 8 Garden Street, Cambridge, MA 02138, telephone: (617) 495-5315. For more information, look at the program website at

<http://www.healthpolicy.fas.harvard.edu/index.html> or contact Deborah Whitney, Executive Director of the PhD Program in Health Policy, 14 Story Street, Cambridge, MA 02138, telephone: (617) 495-5506 or deborah_whitney@harvard.edu.

General Degree Requirements

NOTE: In addition to this handbook, doctoral students should refer to the Registrar's Doctoral Student webpage at <http://www.hsph.harvard.edu/administrative-offices/registrar/doctoral-student-information> .

To earn the Doctor of Science degree, the student will be required to demonstrate, through course work and examinations, in-depth knowledge in eight *Areas of Study*: Health Politics, Epidemiology, Biostatistics, Decision Sciences, Economics, Law and Public Health, Management, and Program Evaluation. The student must also prepare and defend a doctoral dissertation representing original research.

A minimum of two academic years of full-time residence at the graduate level at the HSPH is required. The first year of graduate study is ordinarily devoted to full-time course work. The second year usually involves course work, independent study, and research. Subsequently, additional courses are taken to fulfill any remaining requirements, and a transition is made to full-time research. Students must also fulfill a teaching requirement, which is generally satisfied by being a Teaching Assistant.

There is no strict schedule that all students must necessarily follow. Early planning of the student's career at Harvard is desirable. Each new student is assigned a faculty advisor who will assist the student in planning a program, taking into account the student's past coursework. In addition, each student's plan will be reviewed by the HPM Committee on the Doctor of Science (CDS). This committee may suggest or prescribe courses that must be completed before the general examination may be taken.

Previous master's degrees in policy, management, public health, or related fields may reduce the number of courses required at HSPH if equivalent courses were previously taken. However, the two-year residency requirement (at full tuition) still applies, unless the previous degree was earned at HSPH, in which case the residency requirement is reduced by one year.

While all required courses toward the Doctor of Science will be offered through the Harvard School of Public Health, students are encouraged to investigate academic opportunities at other Harvard schools, including, the Graduate School of Arts and Sciences, the School of Education, the Business School, the John F. Kennedy School of Government, and the Medical School, as well as at the Sloan School at MIT. Information about cross-registration can be found in the HSPH Student Handbook, and the Registrar's Office or at <http://crossreg.harvard.edu>.

Throughout the student's career, the HSPH Committee on Admissions and Degrees (CAD) will monitor performance in course work and in meeting requirements, such as submission of Prospective and Final Programs, Research Proposal and Oral Qualifying Examination, Research Progress Reports and completion of the degree within the School's five-year limit from the date of matriculation. Inadequate performance may lead to the imposition of additional requirements or academic probation. In cases of unacceptable performance, the student may be required to withdraw.

Departmental Requirements

All students are required to complete courses in eight Areas of Study. These areas are:

Health Politics	5 credits
Epidemiology	5 credits
Biostatistics	10 credits (2 intermediate-level courses)
Decision Sciences	2.5 credits
Economics	5 credits
Law and Public Health	2.5 credits
Management	5 credits
Program Evaluation	5 credits

All students in the Doctor of Science Program in Health Policy must select health policy and management as their major field of study. Twenty or more graduate credits must be earned in formal health management and policy courses and must be taken for ordinal credit. In addition, students must select two minor areas of study from the required areas of study and take 10 credits in each. At least one course in each minor field must be a doctoral-level course. With the exception of Biostatistics and Epidemiology, any of the suggested courses listed below may be counted toward the major field in “health policy and management.” The HPM Committee on the Doctor of Science may prescribe or suggest courses that are not included.

Suggested Courses

Health Politics

(5 credits)

HPM 227 [Fall]	(5 credits)	The Economics of Health Policy
HPM 246 [Fall/Spring]	(10 credits)	Seminar in Health Policy
KSG HCP 175 [Spring] (formerly HPM 247)	(5 credits)	Political Analysis for Health Policy (recommended for all students)
HPM 276 [Summer 1]	(5 credits)	Survey of Methods in Health Services Research
ID 242 [Spring 1]	(2.5 credits)	Politics and Strategies for Change in Health Care

Epidemiology

(5 credits)

EPI 200 [Fall 1]	(2.5 credits)	Principles of Epidemiology
EPI 201 [Fall 1]	(2.5 credits)	Introduction to Epidemiology
EPI 202 [Fall 2]	(2.5 credits)	Elements of Epidemiological Research
EPI 205 [Fall]	(2.5 credits)	Practice of Epidemiology
EPI 208 [Summer]	(5 credits)	Introduction to Clinical Epidemiology
EPI 236 [Summer 2]	(5 credits)	Analytical Aspects of Clinical Epidemiology
EPI 242 [Fall]	(1.25 credits)	Seminar in Clinical Epidemiology

Suggested Courses (Cont'd)

Biostatistics	(10 credits)	
BIO 210 [Fall or Spring]	(5 credits)	Analysis of Rates and Proportions
BIO 211 [Fall]	(5 credits)	Regression & Analysis of Variance in Experimental Research
BIO 210 [Fall or Spring]	(5 credits)	Analysis of Rates and Proportions
BIO 211 [Fall]	(5 credits)	Regression & Analysis of Variance in Experimental Research
BIO 213 [Fall]	(5 credits)	Applied Regression for Clinical Research
BIO 222 [Fall]	(5 credits)	Basics of Statistical Inference
BIO 223 [Spring]	(5 credits)	Applied Survival Analysis
Decision Science	(2.5 credits)	
RDS 280 [Fall 2]	(2.5 credits)	Decision Analysis for Health and Medical Practices
RDS 282 [Spring 1]	(2.5 credits)	Cost-Effectiveness and Cost-Benefit Analysis
RDS 284 [Fall]	(5 credits)	Decision Theory
RDS 288 [Summer2]	(2.5 credits)	Methods for Decision Making
Economics	(5 credits)	
HPM 206 [Fall]	(5 credits)	Economic Analysis
HPM 545 [Spring 1]	(5 credits)	Health Care Issues
HPM 243 [Spring 1]	(2.5 credits)	Health Economics
KSG: API-201A [Fall]	(5 credits)	Quantitative Analysis and Empirical Methods
FAS: Econ 2020a [Fall]	(5 credits)	Microeconomic Theory I
Law and Public Health	(2.5 credits)	
HPM 213 [Spring 1]	(2.5 credits)	Public Health Law
Management	(5 credits)	
HPM 219 [Fall 1]	(2.5 credits)	Financial Transactions and Analysis
HPM 220 [Fall 2]	(2.5 credits)	Financial Management and Control
HPM 222 [Spring 2]	(2.5 credits)	Financial Management of Health Care Organizations
HPM 231 [Spring 1]	(2.5 credits)	Competitive Strategy
HPM 232 [Spring 1]	(2.5 credits)	Operations Management
HPM 233 [Spring]	(2.5 credits)	Strategic Marketing Management in Health Systems
HPM 539 [Spring 2]	(2.5 credits)	Organizational Behavior in Health Care Organizations

Suggested Courses (Cont'd)

Program Evaluation	(5 credits)	
HPM 543 [Spring 1]	(2.5 credits)	Program Evaluation-Part 1
HPM 544 [Spring 2]	(2.5 credits)	Program Evaluation-Part 2
HPM 530 [Summer 1]	(2.5 credits)	Measuring Health Outcomes
SHH 245 [Fall]	(5 credits)	Social and Behavioral Research Methods, Part I
GSE: T506 [Spring]	(5 credits)	Evaluation for Informed Decision-Making
KSG: API 206 [Spring]	(5 credits)	Fundamentals of Program Policy and Evaluation
KSG: API 207 [Fall]	(5 credits)	Qualitative Methods in Policy Research
KSG: API 208 [Spring]	(5 credits)	Program Evaluation: Estimating Program Effectiveness with Empirical Analysis

Students may request permission from their advisor and the CDS to have courses taken at other Harvard Schools or MIT count towards their Departmental and School requirements. In addition, courses taken in prior and related graduate programs may be considered to meet certain requirements.

Prospective Program: By the end of the first semester, a Prospective Program must be filed with Anne Occhipinti, the HPM Director of Academic Programs. The Prospective Program must list the courses the student intends to take to satisfy the course requirements. The Prospective Program must be approved by the student's Academic Advisor, the CDS, and the CAD.

Departmental Examinations and Papers

The Departmental written qualifying examination is ordinarily taken in June following the second year of study. It tests students on their general knowledge of health issues, their major and minor fields, and the Required Areas of Study. While it is not necessary to have completed all course work prior to the qualifying examination, any prescribed course must be completed.

The Department may specify the format of the written qualifying examination. Generally, the examination will be comprised of three questions, which must be completed within a specified time period. Each question will be graded on a scale of High Pass, Pass or Fail. Students must earn a grade of Pass on each question in order to pass the examination. Students failing any part of the examination will be required to retake that part of the examination. Students failing the examination, or any portion thereof, will be given one opportunity to retake the examination at a later date, usually within six months. The format of the second examination may differ from the first examination, at the discretion of the Department.

Students who are ready to take the qualifying exam should contact Anne Occhipinti, Director of Academic Programs and Student Services, in the early spring to make arrangements for the exam to be scheduled.

Final Program and Oral Qualifying Examination

Usually during the third or fourth semester of study, the student will identify an area of research and a Research Advisor. Students coming from a Master of Science or a Master of Public Health program may accomplish this sooner. The Research Advisor need not be the same person as the Academic Advisor, although the Research Advisor becomes the Academic Advisor following the formal appointment of a Research Committee (see below).

By the end of the third semester, the student submits a Final Program and nominations for an Oral Qualifying Examination Committee. The Final Program is a revision of the Prospective Program, listing courses taken or to be taken to fulfill requirements. Only courses taken for a grade (B- or better) may be listed. Courses listed in the Final Program need not have been taken by the time of submission or even by the end of the second year.

The Oral Qualifying Examination is a School-wide process designed to accomplish two goals: evaluate the student's dissertation proposal, and evaluate the student's ability to perform interdisciplinary health policy research. Upon submission of the Final Program, the student, in consultation with the prospective Research Advisor, nominates two (or, occasionally, three) members for the Oral Qualifying Examination Committee, in addition to the Research Advisor. They need not be the same people who will later make up the Research Committee (see below).

The Final Program, which includes nominations for the Oral Qualifying Examination Committee, must be approved by the Academic Advisor, the Head of the Departmental Doctoral Program, and the CAD. The CAD appoints a chairman for the Examining Committee; the chairman may or may not be one of the student's nominees.

The Oral Qualifying Examination itself must be scheduled and taken before the end of the summer after the second year. Extensions to the end of the fifth term are possible if necessary course work cannot be completed early enough in the student's career. The student prepares a written research proposal and distributes it to the Oral Qualifying Examining committee several weeks in advance of the Examination. At the Examination, the student opens with a 20 to 30 minute presentation of the research proposal, followed by a question and answer period covering both the research proposal and the student's knowledge of the required areas of study.

The possible results of the Oral Examination are Pass, Pass with Qualification, and Fail. Under the terms of a qualified pass, the student may be required to take additional course work, prepare a paper, take an examination in a specified field, or prepare a revised research proposal. In the case of failure, the School permits one re-examination within a reasonable time, ordinarily within the same term, but not more than six months later.

Research Committee

After satisfactory completion of the Oral Qualifying Examination, the student, with approval of the Research Advisor, nominates a Research Committee to oversee the student's progress. The committee consists of the Research Advisor, who chairs the committee, and at least two other faculty members. The petition nominating the proposed committee must be approved by the Director of the HPM Doctoral Program and the CAD. Both may suggest or require modifications.

Students are required to hold meetings with the Research Committee at least once every six months, except during leaves of absence. A Progress Report must be filed at least once every six months with the Director of the Doctoral Program and the CAD.

The Dissertation

The dissertation ordinarily consists of a set of three manuscripts suitable for publication in a scientific medium appropriate to the candidate's field. However, a longer dissertation on a single topic is also permissible, with the approval of the Research Adviser, and Doctor of Science program director.

The dissertation should together demonstrate the following competencies:

- *the ability to structure an unstructured research question,*
- *the ability to collaborate with researchers from other fields/disciplines,*
- *flexibility in the use of various analytic methods, and*
- *the ability to articulate how a piece of research is a contribution to a larger body of literature.*

If the work is published prior to submission of the dissertation, reprints may be submitted in lieu of a manuscript. A 5-10 page introduction describing the historical context of the three papers, their objectives, and their significance is also required. Papers published under joint authorship are acceptable, provided that the student is the principal author of the majority of the dissertation. Co-authorship with scholars from other disciplines is encouraged.

The dissertation is ordinarily completed within four years of entry into the doctoral program, but not more than five full-time equivalent years after entry into the program. Part-time years count as half years in calculating all deadlines that apply to doctoral students.

Thesis Defense

The final requirement is the thesis defense, which is a public presentation of the research with open discussion. Following the defense, the Research Committee evaluates the presentation, and the criticisms and comments of the audience, prior to final acceptance of the dissertation.

Non-Resident Status

A minimum of two years of full-time residence is required. Residence accumulated in a related master's degree program at HSPH may be used toward satisfying this requirement.

Occasionally dissertation research will be performed away from the Eastern Massachusetts area. Students who have not passed the Oral Qualifying Examination are not eligible for non-resident status. Before the CAD grants non-resident doctoral status, it is necessary that the Research Committee meet with the student to appraise the dissertation plan. Agreement must be reached, and the CAD must approve a written petition before the departure of the student. Criteria for approving non-resident status are: (1) acceptability and feasibility of the proposed research plan; (2) timing and scope of the periodic written reports required (including at least one Progress Report each 6 months); (3) arrangements having been made for direct supervision of the student; and (4) the minimum time the student will spend back at the School prior to the thesis defense. In no case will non-resident status be granted for more than one year at a time. One condition for extension is submission of acceptable and timely Progress Reports.

Questions and More Information

Any questions about the Doctor of Science program may be directed to:

Anne Occhipinti
Director of Academic Programs and Student Services
aocchipi@harvard.edu
617-432-4511

Cross-Registering from HSPH

HSPH students may enroll in courses offered by one of the other [Harvard](#) faculties, [Massachusetts Institute of Technology \(MIT\)](#), [Tufts Fletcher School of Law and Diplomacy](#), and [Tufts Friedman School of Nutrition Science and Policy](#) -- the cross-registration consortium. Obtaining credit for cross-registered courses is permissible only for graduate-level courses appropriate to the student's HSPH degree program and if a similar course is not available at HSPH.

To cross-register for a course offered by one of the consortium schools, students must obtain a Cross-Registration Petition Form from the web site listed below, complete it, obtain the signatures of their advisor and the course instructor, and submit the form to the Registrar's Office of the school offering the course. Deadline dates for cross-registration and for the first day of classes may vary from school to school. Students should avoid visiting the Registrar's Office of a consortium school on the first day of their registration. Students must also list cross-registration courses on their Registration Form.

Students may obtain cross registration information via a web-based system developed by the Provost Office and the Harvard Registrars. The site, <http://crossreg.harvard.edu>, is a synopsis of cross registration information and resources available to graduate students who wish to register for courses at different Harvard faculties.

Registering For a Cross-Registered Course

Students must register for a cross-registered course at both the HSPH Registrar's Office and the consortium school's Registrar's Office. Failure to complete the registration process at both schools will result in a student not being officially enrolled in the course. To register for courses offered by one of the consortium schools, students must complete each of the following steps:

1. Students must list on their OASIS registration print-out the school code, course code and grading option.
2. Students must calculate the total number of cross-registered credits by referencing the [Cross-Registration Conversion Table](#).
3. The students' advisor (or department designate) must initial each cross-registered course listed on the OASIS *Registration Form* print-out.
4. Students must submit the completed OASIS registration print-out on or before the HSPH add/drop/change deadline.
5. Students must also complete a HSPH *Cross-Registration Petition* for each school of cross-registration.
6. Students must submit the complete HSPH *Cross-Registration Petition* to the Registrar's Office at the host school by the earliest add/drop/change deadline.

Students cannot enter cross-registered courses via the on-line registration system (OASIS). The HSPH Registrar's Office will enter these courses upon receiving approval from the host school.

Cross-Registration Credit Requirements

For a cross-registered course to count toward a HSPH degree and to appear on the transcript, the course:

1. Must be a graduate-level course
2. Must be relevant to the student's degree program
3. Must be taken for pass/fail or ordinal credit
4. Must be approved by the student's advisor and department

Undergraduate-level and language courses are not counted toward a HSPH degree. Please note that Radcliffe Seminars and Harvard Extension and Summer School courses are not counted toward degree credit at HSPH.

Cross-Registration Credit Limits

HSPH degree candidates can cross-register for a maximum of 1/2 of their total credits per semester. For example, a full-time student who is planning to register for a total of 20 credits may not register for more than 10 cross-registered credits. Students who wish to take more than 1/2 of their total credits for the semester outside HSPH must file a *General Petition Form* (available at the HSPH Registrar's Office) for approval.

Cross-Registration Deadlines:

<https://crossreg.harvard.edu/OASIS/CourseCat/calendar.jsp?mode=crossreg>

Students cross-registering into consortium schools *must meet the deadlines set by both* HSPH and the host school. Therefore, a student who wishes to enroll in a cross-registered course *must meet the earlier add/drop/change deadline*. Please refer to the Cross-Registration Deadline Chart found in the registration packet or visit the [Harvard Cross-Registration web site](#), which contains links to cross-registration information for all consortium schools.

A student dropping a cross-registered course **must do so by the earlier add/drop/change deadline** and must submit a completed *Add/Drop/Change Form* to the HSPH Registrar's Office. Students who do not drop a cross-registered course via the *Add/Drop/Change Form* will be considered enrolled in the course and will receive a grade for it.

Dropping after the Cross-Registration Deadline

Students dropping a cross-registered course after the earlier add/drop/change deadline must complete a [Late Add/Drop/Change Form](#) and submit it to the HSPH Registrar's Office for review. The petition will be reviewed, and approved or rejected. If the petition is approved, the student will receive a grade of "WD" for the course. If the petition is not approved, the student will be expected to complete the course. Any add/drop/changes submitted after the HSPH deadline, if approved, are subject to a fee of \$80.00. Students may be charged other schools' late fees as well. HSPH students should continue to attend classes until notified by the Registrar's Office of the outcome of the petition.

Cross-Registration Grades

Students who cross-register are bound by the rules and regulations of the respective faculties regarding grades, examination schedules, make-up examinations, and incomplete work. These regulations are often very different from those at HSPH.

The HSPH Registrar's Office receives the grades from the consortium school's Registrar's Office and they are included as part of the student's official academic record. These grades will not be translated into HSPH's grading system. For example, HBS has a Roman numeral grading system such as: "I," "II," and "III." These grades will appear on the student's official transcript as roman numerals. Although HBS grades will not calculate into the HSPH G.P.A., the credit taken counts for ordinal credit.

Degree candidates are urged to check the examination schedules of cross-registered courses to avoid possible problems of late grade reporting to the HSPH Registrar. Some schools give examinations at such a late date that HSPH degree candidates risk not receiving grades and credit for courses taken in time for them to be counted in the final degree audit for June Commencement.

Students should be aware that the Harvard Medical School will only allow students to take courses Pass/Fail.

Scheduling Cross-Registered Courses

Some schools pattern the length and activity of their classes much differently than that of the HSPH. For example, at the Harvard Business School (HBS), classes meet intensively for several hours at a time instead of meeting in several one- or two-hour sessions per week. This may interfere with students' abilities to attend classes at the HSPH. In addition, commuting time to all but the Medical School and the School of Dental Medicine may be as long as 45 minutes each way, so that a course may require a 1-1/2 hour commitment in addition to formal class meeting times. Students should discuss the desirability and feasibility of cross-registration with their advisor. ***Please note that students may not, under any circumstance, register for courses that overlap time periods.***

HPM Policy on WinterSession

- A. Each full-time HPM student is expected to participate in WinterSession activities that will enhance the student's academic experience. The nature of these experiences will vary in accordance with the needs and interests of individual students. Some of the activities that would be appropriate include:
- Courses on campus - these may be credit or non-credit courses at HSPH or at other Harvard graduate schools or MIT.
 - School-sponsored field trips
 - Work conducted as part of HPM 290, the Applied Research and Practice for SM2 students
 - Independent study under the auspices of a faculty sponsor (HPM 300 courses)
 - Research work
 - Volunteer work in the community
- B. Every full-time HPM student in the SM1, SM2, and SD programs is required to submit an agreement that designates the nature of the student's WinterSession activity. All agreements must be signed by the program director and submitted to the Director of Academic Programs by the start of the second half of the fall term. (The agreement is available from the WinterSession section of the HSPH website at <http://www.hsph.harvard.edu/registrar/WinterSession/hpmcontract.pdf>).
- C. Part-time students are not required to participate in WinterSession activities. There will be a tuition charge for any credit courses taken by part-time students.

Other Useful Information for HPM Students

Advisors: Each student is assigned an advisor, who is an HPM faculty member. The advisor's role is to provide the student with academic guidance, information and general assistance. Each student must meet with his or her advisor at least twice during the academic year (before the start of the Fall and Spring semesters) to discuss the student's proposed course of study and any issues or problems relevant to the student's academic performance.

The advisor's signature is required on the student's course *Registration Form*. If a student's advisor is not available, the following people in HPM are surrogate advisors for the purposes of signing *Registration Forms*:

Anne Occhipinti Kresge Room 322

Nancy Turnbull Kresge Room 303

Howard Rivenson Kresge Room 301

A few advising tips: If you can, schedule meetings in advance and let your advisor know what you would like to discuss. Some faculty members have regularly scheduled office hours; others prefer to schedule appointments through e-mail. Ask your advisor about the best way to arrange meetings.

Faculty members are often not the best resource on administrative questions. So, if possible, look up your administrative questions in the HPM or HSPH student handbooks, ask Anne Occhipinti or Janeen Rivers in HPM's Office for Academic Programs and Student Services, or talk to Enrollment Services.

Your advisor is not the only faculty member who can give you guidance and support. We encourage you to talk with other faculty members, including those in other departments. Other students are invaluable resources too, particularly on classes.

If you and your advisor are not a good match, you should feel comfortable changing advisors. But you must get permission from your new and old advisor. Students who wish to change advisors can obtain a *Change of Advisor Form* from the HSPH Registrar's Office. The form must be signed by the new advisor, the old advisor and the HPM department chair.

Lunchtime Discussions/Seminars: HSPH abounds with lunchtime speakers, talks and seminars. Three discussions/seminars of particular interest to HPM students are:

- **The Harvard Injury Control Research Center** sponsors a monthly seminar series. For dates and topics, check the Center's website at:
<http://www.hsph.harvard.edu/research/hicrc/seminar-series/index.html>.
- **Lunch with the Chair:** Four times a year, Arnold Epstein, the Chair of HPM has a lunchtime discussion with students in an informal question-and-answer format. Throughout the course of the year, you will receive emails inviting you to attend these events. Space is limited, so you will need to respond to the email invitation to secure your place.
- **HPM Bi-Monthly Research Seminars:** HPM faculty members present on recent research. Look for posters and emails to find out when these are scheduled. They are typically held from noon-1:00pm in Kresge 439.

Notes
