

# Master of Public Policy and Management

Since 1984, the public policy and management (PPM) program has offered a master's degree in public policy and management for both full- and part-time students. The program received national accreditation in 1994 from the National Association of Schools of Public Affairs and Administration (NASPAA), Washington, D.C. and was reaccredited by NASPAA in 2002.

A master's degree in public policy and management prepares individuals for careers in government, nonprofit organizations, and the private sector. Over time some graduates will become local and state policy leaders in such fields as planning, social and health services, court administration, education, business regulation, and legislation. They will work as agency directors, town and city managers, and policy analysts. Others will work in management and consulting firms, regional planning offices, institutions of basic and higher education, and some will be elected officials.

Job opportunities for graduates are not limited to nonprofit organizations and government. Some students will find work in major corporations, banks, and the private sector in the areas of strategic planning, personnel management, government relations, finance, research, and corporate philanthropy.

Applicants with prior public service experience will significantly broaden their skills and abilities, enabling them to assume increased responsibilities. Students without public experience will find the combination of formal training and practical experience ideal preparation for public service.

The program provides each student with a strong multidisciplinary foundation of skills and knowledge and the opportunity to apply them to contemporary issues of public concern.

## Program Requirements

A total of 39 credits is required to earn the master's degree in public policy and management. A core curriculum of 18 credits assures an understanding of basic principles of political science, management, economics, public finance, and the use of microcomputers and statistics.

Following the core courses, students elect one of two tracks of study: *policy analysis* or *public management*. Each track requires a combination of required and elective courses totaling 12 credits.

Students who specialize in policy analysis examine the role of analysis in public policy making, and are taught the methods typically employed by analysts. The curriculum provides students with numerous opportunities to apply developing skills to real decision-making situations.

The track in public management allows the student to focus on either organizational or financial aspects of public management. Organizational management provides the student a greater understanding of how organizations and people work in the public sector, and the skills to improve the management of public and nonprofit organizations. Financial management builds skills in accounting, economics, and the financial management of public agencies and governments. Special attention is offered to the financial management problems confronting local governments.

After the core and track courses, students have six credits of electives to be used in any manner. Typically, a student will either take an additional course in a track, or courses toward a certificate of graduate study.

### The Core Curriculum

At the center of the curriculum is a core of study in policy analysis and public management, providing a foundation of knowledge and skills for effective performance in public policy and management.

The core of study includes a course which integrates politics, management, and policy making, as well as courses which approach the study of public policy from the perspectives of economics, law and ethics, and courses in the theory and techniques of computing, statistics, management, research design, and public finance and budgeting.

			<i>Credits</i>
PPM	601	Applied Statistics for Public Policy and Management	3
PPM	602	Research Design	3
PPM	610	Foundations of Public Policy and Management	3
PPM	611	Economics and Public Policy	3

PPM 615	Foundations for Public Service and Management	3
PPM 640	Public Finance and Budgeting	3

### *Tracks of Study*

After completion of the core courses, students select a twelve-credit track of study in either policy analysis or public management. The tracks are designed to provide more depth of knowledge in one of the two primary curriculum areas. Each track requires one or two courses, with the additional six or nine credits selected from a range of designated courses which may change over time as student interests and program initiatives vary.

#### **Policy Analysis Track**

##### Required Course

PPM 620 Introduction to Policy Analysis

##### Select three credits

PPM 603 Applied Research Methods: Modules B-L

PPM 604 Evaluation Methods

PPM 622 Applied Policy Analysis

##### Select an additional six credits from above courses or from the following

CPD 622 Introduction to ArcView

PPM 511 Economic Business Data and Measurement

PPM 513 Law and Public Policy

PPM 519 Communication Skills for Public Managers

PPM 524 Gender, Race, Politics, and Public Policy

PPM 526 Public Policy and Children

PPM 551 Public Policy Dispute Resolution

PPM 623 Risk and Public Policy

PPM 633 Strategic Planning in the Public and Nonprofit Sectors

PPM 642 Seminar in Financial Analysis

PPM 650 State and Regional Economic Development

PPM 666 Environmental Policy

#### **Public Management Track**

##### *Organizational Management*

##### Required Course

PPM 630 Organizational Dynamics

##### Select an additional six credits

PPM 513 Law and Public Policy

PPM 604 Evaluation Methods

PPM 632 Human Resource Management in Public, Nonprofit, and Health Organizations

PPM 633 Strategic Planning in the Public and Nonprofit Sectors

PPM 636 Management Information Systems in the Public and Nonprofit Sectors

PPM 641 Financial Management for Nonprofit Organizations

##### Select an additional three credits

PPM 519 Communication Skills for Public Managers

PPM 535 Managing in the Nonprofit Sector

PPM 545 Grant Writing and Financial Management in the Nonprofit Organization

PPM 622 Applied Policy Analysis

PPM 637 Intergovernmental Relations

PPM 639 Topics in Public Policy and Management

##### *Financial Management*

##### Required Course

PPM 640 Public Budgeting and Finance

##### Select an additional nine credits

CPD 656 Principles of Development Finance

HPM 634 Health Care Finance I (2 credits)

LAW 616 State and Local Government

PPM 545 Grant Writing and Financial Management in the Nonprofit Organization

PPM 603 Applied Research Methods

PPM 613 Law and Public Policy

PPM 630	Organizational Dynamics
PPM 634	Managing the American City
PPM 641	Financial Management for Nonprofit Organizations
PPM 642	Public Financing and Budgeting II
PPM 649	Applied Research in Finance

Beyond the core and track requirements, students take six credits of electives of their choice which may include further courses from the tracks, the beginnings of a certificate, or other combination of courses.

#### *Field Experience*

A field experience is required for pre-service students with little or no prior experience in public or nonprofit organizations. Faculty and staff work with managers and policy makers throughout the region to develop meaningful opportunities. PPM students may also complete their PPM field experience requirement within the Muskie School Research Institutes as long as the assignment is related to professional-level experience. Incoming students will be screened by the Admissions Committee as to whether a field experience is required. If the Admissions Committee recommends that a field experience is not required, the student and the Academic Standing Committee will be notified and the student will be given the opportunity to formally petition for a waiver of the field experience requirement from Academic Standing. All PPM students are required to complete and submit a Field Experience Waiver Form by the end of their first semester of enrollment as a matriculated student in the PPM program. This form will indicate whether or not they intend to petition to waive or complete the field experience requirement. In no case shall field experience be waived except by approval of a petition submitted by a student to the Academic Standing Committee. *A waiver of the field experience requirement does not reduce the number of credits otherwise required to receive the degree.*

#### *Capstone Project*

A three-credit capstone project is required for all students. The capstone project experience is intended to integrate educational and applied learning from all program courses, and should be taken in the final year of study, just prior to graduation. Students are required to obtain faculty approval and signature to register for PPM 699 Capstone (whether individual or group experience).

**PPM 503C Applied Cost-Benefit Analysis**

Provides an opportunity to learn how to conduct cost-benefit analysis. Students will work individually and in teams to analyze the quantitative and qualitative issues involved in measuring and forecasting costs and benefits and in preparing analysis for decision makers. The emphasis will be on learning the practical issues involved in conducting cost-benefit analysis. It is assumed that students will be familiar with the underlying economic theory, either from an economics course or from the text. Prerequisite: familiarity with spreadsheet use. The course will use Microsoft Excel for the analytical exercises. Students may use another spreadsheet or statistics package, but instruction will focus on Excel. Cr 1.

**PPM 503H Graphing Data with Excel**

Provides students with the skills to use graphs effectively to illustrate data and communicate findings. Students will use Excel charting features to prepare and refine a variety of chart types, evaluate the technical aspects and communication impact of graphs and visual transformation of data. Prerequisite: Excel basics. Cr 1.

**PPM 511 Economic Business Data and Measurement**

Introduces students to economic data commonly used in public policy and to methodologies used in constructing data. Includes work with an underlying data set to frame the importance of understanding data and to make the course relevant to contemporary policy issues. Cr 3.

**PPM 513 Law and Public Policy**

Introduces the student to legal analysis and emphasizes the role of the law in the choices faced by public policy makers. Students will examine materials ranging from constitutional provisions to statutes, regulations, and case decisions. The course will consider social values and custom; how these factors limit and shape the law and then directly or indirectly shape the options of policy makers. The course provides an introduction to the fundamentals of legal research and insight into judicial and administrative processes. There is some exposure to substantive law particularly in the areas of jurisprudence, constitutional law, procedure, and administrative law. Cr 3.

**PPM 519 Communication Skills for Public Managers**

The course focuses on professional communication skills (oral, written, and graphic) required in public organizations. Students will become familiar with types and styles of public speaking and writing, and the techniques and tools for developing professional presentations, as well as a greater understanding of communication theories. The course incorporates a variety of learning experiences, including in-class exercises to develop technical writing skills, individual and group presentations, case studies, and presentations by guest speakers. Cr 3.

**PPM 524 Gender, Race, Politics, and Public Policy**

A gender-informed approach to racial analysis, practice, and activism. Purpose of seminar is to develop a framework for relating gender to other systems of inequality and to apply this framework to a critical rethinking of policy and planning in spheres such as employment, the environment, housing, and community development. Cr 3.

**PPM 526 Public Policy and Children**

Explores policies affecting the well-being of children including early education and care, home visiting, child welfare, juvenile justice, child health care, and welfare reform. Discussion within each category of child social policy will examine the history of the policy, recent legislation, interesting aspects of the policy, and possible future developments. Assignments involve the development of practical skills including producing fact sheets, testimony, and policy analysis. Cr 3.

**PPM 527 Child and Family Policy and Law**

This course examines the legal issues affecting children and families and the policy implications of these issues. The course will give students a basic understanding of the law (statutory and case law) as it relates to children and families and how policy decisions are made and analyzed within that context. The course will emphasize the laws, cases, and policies from the viewpoint of children and families and will examine how policymakers can affect children and families both positively and negatively. Cr 3.

**PPM 531 Measuring Performance in the Public and Nonprofit Sectors**

This course is an introduction to performance measurement and other related activities such as strategic planning and benchmarking. Students who complete the course will be prepared to develop basic performance indicators for public and nonprofit agencies in a variety of policy and management arenas. Specific attention is given to reviewing a variety of performance indicator systems currently in use or under development in Maine and elsewhere. Readings, interactive lectures, guided Internet research, class work, and graded assignments will be designed to help students understand how to do performance measurement and will provide students with practice conceptualizing and developing measures. An emphasis will be placed on "hands-on" learning so that students gain confidence in using measurement techniques and learn how to apply practical measurement strategies in real world settings. Cr 3.

**PPM 535 Managing in the Nonprofit Sector**

An examination of the managerial dimensions of nonprofit organizations. Major foci include the nonprofit environment, organizational roles and processes, interagency relationships, and problems of change and adaptability. Specific attention is given to current issues in nonprofit management such as strategic planning, board/staff relationships,

computerization of the workplace, fund raising, and volunteer development. Cr 3.

### **PPM 545 Grant Writing in Public and Nonprofit Organizations**

Concentrates on the process of securing the resources to support effective nonprofit projects. The goal of the course is to prepare students to identify sources of funding, to write proposals that will attract grant awards, and to develop an understanding of what it takes to build an organization that foundations, public entities, and individual donors are confident in supporting. The course will begin with an examination of current trends in this post-industrial economy in which money is available to the voluntary and private sector. It will also focus on the importance of understanding the “ways of money” and knowing how to develop and administer a budget that will inspire trust in the organization’s reputation for effectively managing its programs and its fiscal resources. Cr 3.

### **PPM 601 Applied Statistics for Public Policy and Management**

Introduces students to a variety of analytical approaches to studying management and policy questions. The course concentrates on the acquisition of skills that will enable the student to choose and apply statistical methodology appropriately, and to evaluate critically work done by others. Topics include tabular and visual displays of data; data analysis including central tendency, dispersion, measures of association and linear regression; and the use of a statistics software package. Prerequisite: Excel basics. Cr 3.

### **PPM 602 Research Design**

Focuses on social research as it applies to policy and organizational analysis. Emphasis is on the employment of the scientific method. Basic dimensions of social science inquiry are covered: philosophy of science, research ethics, processes of theory construction, hypothesis testing, validity and reliability issues of measurement, and methods of data collection. Includes survey of applied social research techniques. Course materials are specifically designed to illustrate the particular research problem faced by policy analysts and public/nonprofit managers. Prerequisite: PPM 601. Cr 3.

### **PPM 603/503 Applied Research Methods**

Topical modules in statistics, research methods, evaluation, and computing. Cr 1.

### **PPM 603B Applied Research Methods: Introduction of Forecasting Using Regression Analysis**

Introduces students to forecasting using regression analysis. Students will work individually and in teams to conduct a series of forecasting projects using autoregressive, multiple regression, and mixed models. The emphasis will be on learning the theoretical and practical applications of regression analysis and

introducing the problems of forecasting. Prerequisite: familiarity with spreadsheet use. The course will use Microsoft Excel for the analytical exercises. Students may use another spreadsheet or statistics package, but instruction will focus on Excel. Cr 1.

### **PPM 603D Special Topics: Methods Analysis**

Selected topics in methods analysis determined from time to time. Cr 1.

### **PPM 603F Introduction to Correlation and Regression Methods**

Provides an introduction to explanatory data modeling using correlation analysis and linear regression. The course may be taken to obtain an initial introduction to these topics or as a refresher for students with some previous exposure to correlation and regression analysis. The course emphasizes application to real world policy, planning, and management issues. Prerequisite: PPM 601 or equivalent introduction to statistics. Cr 1.

### **PPM 603G Hands-on Multiple Regression**

A computer lab-based course that extends and refines the student’s understanding of basic regression analysis. Using data supplied by the instructor, students build models to practice regression methods, to see how violations of regression assumptions affect model parameters, and to learn to diagnose problems, evaluate impact, and take remedial action where indicated. Prerequisite: PPM 603F or a prior regression course. Cr 1.

### **PPM 603I Computer Applications and Data Analysis**

Introduces the student to a selected quantitative or qualitative software package for analyzing research. Emphasizes acquiring competency using the software with real world research problems and data.

### **PPM 603J Interviewing Methods: Individual and Focus Group Settings**

This course introduces students to the appropriate use of this data gathering procedure as part of a mixed-methods or qualitative only research design. Students will be trained in the basics of one-to-one interviewing and how to facilitate a focus group interview. Prerequisite: PPM 602 or instructor permission.

### **PPM 603K Qualitative Data Analysis**

This course introduces students to the processes of coding and developing themes from non-numeric data with the use of a software program. Much of the work of the course is hands-on data analysis and the development of written propositions towards theory building or other type of analytic findings. Prerequisite: PPM 602 or instructor permission.

### **PPM 603L Non-Parametric Statistics**

This module is an introduction to the application of non-parametric tests in applied research, program evaluation. The course objectives are to identify

when non-parametric statistics should be applied and to introduce students to a select number of tests. Prerequisite: PPM 602 or instructor permission.

#### **PPM 604 Evaluation Methods**

Introduces students to the methods and techniques used to assess effectiveness and monitor the performance of programs, whether provided directly by government agency or under contract. Specific attention is given to problem formulation, determination of evaluation or assessment plan, conducting the research, and presenting results for the intended audiences. Information gathering through surveys and interviews as well as statistical analysis of data are emphasized. Evaluating research done by others and the RFP process of obtaining evaluators is covered. Prerequisites: PPM 601 and PPM 602. Cr 3.

#### **PPM 605 Advanced Research Methods**

Provides an in-depth examination of multivariate statistical techniques used in public policy research. Topics include regression, principal components analysis, factor analysis, canonical correlation, discriminate analysis, and time series analysis. Prerequisites: PPM 601, PPM 602, and PPM 603 or permission of the instructor. Cr 3.

#### **PPM 606 Survey Methods and Design**

Introduces students to the practice of survey research. Students will work individually and in teams to design survey samples, develop survey instruments, and analyze survey data. The emphasis will be on learning the theoretical and practical applications of survey research in planning and policy settings. Prerequisite: familiarity with spreadsheet use. The course will use Microsoft Excel for the analytical exercises. Students may use another spreadsheet or statistics packages, but instruction will focus on Excel. Cr 3.

#### **PPM 610 Foundations of Public Policy and Management**

Examines the relationship between the political process, policy-making, and public management. Topics include policy formulation, adoption, implementation, and evaluation. Specific attention is given to the ways that key political variables (public opinion, elections, parties, interest groups, and leadership styles) influence public policy; the role of policy analysis in government; contemporary issues of public policy; and how public bureaucracies implement policy through planning, organizing, and other administrative processes. Cr 3.

#### **PPM 611 Economics and Public Policy**

Introduces students to fundamental economic concepts and illustrates their application in a wide range of public policy problems. The central theme is the usefulness and limitations of economic analysis in the public policy formation and evaluation process. Particular attention is paid to the theory of consumer behavior, markets and market processes, the nature and causes of market failure and strategies, and models for government intervention. Application exercises

and case materials are drawn from a variety of substantive policy areas such as the agricultural price support system and government transfer programs. Previous background in economics, especially microeconomic theory, is most helpful. Cr 3.

#### **PPM 615 Foundations for Public Service and Management**

Considers temporary perspectives, issues, and strategies regarding the management of public sector organizations, the importance of public service and provides a basic understanding of public management theory. Topics covered include a wide range of management concerns and prepares public and nonprofit managers to be leaders of public and nonprofit institutions who can enhance the capability of these institutions. The course presents a realistic view of effective management and leadership in government and nonprofit organizations and the ways in which these organizations work and interact. Cr 3.

#### **PPM 620 Introduction to Policy Analysis**

An introduction to the role of policy analysis in the development of public policy designed for students entering the policy analysis and planning track. Students are introduced to historical and scientific methods of policy analysis through the use of case studies. Prerequisites: PPM 601 and PPM 602. Cr 3.

#### **PPM 622 Applied Policy Analysis**

Designed as an integrative course that will reinforce other analysis courses. Introduces students formally to the application of policy analysis to public sector problems and issues. The course will be case-based, with substantive material introduced to provide more detail and food for discussion for the cases. Prerequisite: PPM 610. Cr 3.

#### **PPM 623 Risk and Public Policy**

Introduces students to varied models for the conceptualization and management of risk. Emphasis is given to analytic frameworks and findings on how individuals and communities respond to risk information bearing on health. Ethical issues and responsibilities in risk management will also be considered. Draws on multiple perspectives, including medical, social, environmental, and political sciences. Cr 3.

#### **PPM 629 Policy Analysis Practicum**

Provides an intensive, one-semester, client-directed experience in which students work as a team under the direction of faculty on problems and issues of current concern. Cr 3.

#### **PPM 630 Organizational Dynamics**

Examines the basic processes that determine how organizations set goals, structure themselves, measure performance, adapt to their environment, manage change and internal conflict, and make decisions. Emphasis is given to techniques of analysis that can be used to understand and manage these various organizational functions. Prerequisite: PPM 610. Cr 3.

### **PPM 631 Performance Measurement in Public Organizations**

This course is an introduction to performance measurement and its application in government and non-profit settings. Students who complete the course will be prepared to develop basic performance indicators for public and nonprofit agencies in a variety of policy and management arenas. Specific attention is given to reviewing a variety of performance indicator systems currently in use or under development in Maine and elsewhere. Cr 3.

### **PPM 632 Human Resource Management in Public, Nonprofit, and Health Organizations**

This course examines human resource management in the public, nonprofit, and health sectors and introduces basic conceptual frameworks, techniques of analysis, and considers contemporary issues in human resource management. Topics include the historical development of employment systems, the functions associated with personnel management (workforce planning, acquisition, recruitment, retention, selection, performance appraisals, compensation, training, employee motivation, and collective bargaining). Contemporary human resource management issues considered include strategic human resource management, contracting and outsourcing, downsizing and workforce reductions, HR metrics, knowledge management, and work-life balance issues. Cr 3.

### **PPM 633 Strategic Planning in the Public and Nonprofit Sectors**

Examines how public organizations can utilize strategic planning in responding to environmental change and the future. Approaches to and techniques of strategic planning are covered, including goal-setting, environmental scanning, resource audits, and the formulation of strategy and its implementation. Examples are drawn from Maine state and local government and the nonprofit sector. Cr 3.

### **PPM 636 Management Information Systems in the Public and Nonprofit Sectors**

Designed to give those who work in the public and nonprofit sectors the knowledge and skills they need to understand the underlying principles and theories of management information systems and the roles which they play in public and nonprofit organizations. Students will participate in the design, implementation, and evaluation of information systems in their organizations, and become conversant with key issues and problems in contemporary public policy and law relative to information policy and telecommunications. Cr 3.

### **PPM 637 Intergovernmental Relations**

This course analyzes the revolutionary changes taking place in traditional relationships among the federal, state, and local levels of government. Topics include: how traditional intergovernmental approaches are changing and what those changes mean for the future of government; what innovative

policies and methods federal, state, and local governments are using to make policy and deliver services in an era of declining resources; and how governments are using mandates to enforce policy decisions at other levels of government. Special attention will be given to Maine state and local governments as well as national trends and perspectives. Cr 3.

### **PPM 639 Topics in Public Policy and Management**

Selected topics in public management determined from time to time. Cr 3.

### **PPM 640 Public Finance and Budgeting**

Equips students with the knowledge, vocabulary, skills, and practical tools needed to participate skillfully and ethically in public finance decision-making and to assume a leadership role in guiding dialogue about resource acquisition and allocation choices. Teaches participants to assess context, to identify and analyze budgetary opportunities and constraints facing state and local decisionmakers, to generate and evaluate alternatives using frameworks from public finance, and to project impact of choices, including identifying the potential for unintended consequences. State and local governments are the focus of the course, with the federal budget considered only from the perspective of its impacts on the economies and fiscal options of lower governmental levels. Prerequisite: PPM 601 or similar introductory statistics course. Cr 3.

### **PPM 641 Financial Management for Nonprofit Organizations**

Examines the management of finances in nonprofit organizations from the perspective of managers. Topics include an introduction to accounting for non-accountants, financial statement analysis, working with a board, internal resource analysis, cash budgeting, fiscal administration, risk management, and measuring financial health. Cr 3.

### **PPM 642 Public Finance and Budgeting II**

The course focuses on the financial analysis of government, including the measurement and evaluation of government financial condition. Specific topics include an introduction to accounting for non-accountants, G.A.A.P. standards for government, preparation and analysis of government financial statements, cash budgeting, financial ratio analysis and the analysis of economic and financial condition. Prerequisite: PPM 601 or equivalent introductory statistics course. Cr 3.

### **PPM 649 Applied Research in Finance**

Provides an intensive client-directed experience in which students work individually or in groups investigating an important finance policy issue or exploring a municipal financial management concern. Prerequisite: PPM 640. Cr 3.

### **PPM 650 State and Regional Economic Development**

This course surveys basic regional economic con-

cepts, economic impact analysis, and economic modeling. Students work extensively with economic data for Maine and other states. Cr 3.

#### **PPM 666 Environmental Policy**

A seminar on environmental issues in Maine, New England, and the nation. Topics may include air quality, water quality, toxic and hazardous waste management, solid waste management, wildlife habitat, landscape degradation. Federal, state, and local roles in reconciling natural resource threats, economic growth, property rights, and the public interest will be explored. Cr 3.

#### **PPM 695 Independent Study**

An independent study is a self-directed learning experience designed to develop a student's ability to plan, organize, research, and report as well as develop specific skills beyond the classroom activity. An independent study must be related to the student's academic program and is approved and monitored by a program faculty member. Independent studies may take the form of either a reading or a special project. Students are required to obtain faculty approval and signature to register for PPM 695 Independent Study. Cr 3.

#### **PPM 696 Field Experience**

Students without a substantial and relevant work experience in public service are required to complete an internship during the course of their studies. Determination of whether an internship will be required will be made upon admission to the program. The internship will be designated to expose the student to the formulation and implementation of public policy in a work setting. It will usually be

with a public or nonprofit agency, although internships with private agencies involved in a public policy issue may be accepted. Cr 0.

#### **PPM 699A Capstone Seminar (Group)**

The capstone seminar is designed to provide the PPM student with the opportunity to work as a member of a group on a capstone project under faculty supervision. The precise form of the capstone project is determined by the faculty member and may focus on a specific public policy or management issue. The project may take many forms, including a piece of policy research, the development of a strategic plan for a public, nonprofit agency, an organizational or human resource analysis, or a financial study, among others. The seminar meets on a regular basis throughout the semester. Students are required to obtain faculty approval and signature to register for PPM 699A Capstone. Cr 3.

#### **PPM 699B Capstone Project (Individual)**

The capstone project is undertaken by students working independently or in a team, under faculty supervision. The capstone project requires the student to integrate knowledge and skills acquired in the PPM program, and to demonstrate competence in their application to a specific topic in public policy or management. The project may take many forms, including a piece of policy research, the development of a strategic plan for a public nonprofit agency, an organizational or human resource analysis, or a financial study, among others. The precise form will be determined by the student in consultation with his or her capstone advisor. Students are required to obtain faculty approval and signature to register for PPM 699B Capstone. Cr 3.