



Columbia University
MAILMAN SCHOOL
OF PUBLIC HEALTH

SYLLABUS DEVELOPMENT TOOLKIT

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HOW TO USE THIS TOOLKIT

The Syllabus Toolkit contains many resources to support faculty in the development of excellent syllabi. When using the Toolkit for the first time, it is useful to progress sequentially through the tools, each of which is described below. For later use, these tools can serve as references for evaluating and revising your syllabi. The purpose of each resource and suggestions for usage are described below.

In addition, the Office of Academic Affairs is available to support faculty throughout the course development process. Please contact Leah Hooper, MST, Director of Educational Initiatives (lch2124@columbia.edu or 212-305-9504) for more information and additional guidance.

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INTRODUCTION

Background

A thoroughly planned course with clear goals and expectations is more likely to yield robust student learning, and a well-constructed syllabus is an essential tool for creating such a course.¹ The Mailman School's Curriculum Committee and Office of Academic Affairs are collaborating to ensure high-quality syllabi across the School. This collaboration, the Mailman School Syllabus Project, seeks to equip professors with clear expectations, guidelines, and models for designing syllabi.

As part of the Mailman School's educational strategic plan, contributors to this project seek the following outcomes:

- Improved quality of the educational experiences at the School through careful planning and design of courses and clear communication with students
- Increased support for faculty in the course development process
- Shared expectations among faculty and the School community for syllabi
- Increased clarity and consistency for faculty submitting course syllabi for approval by Department and School curriculum committees
- Increased role for the School's Curriculum Committee in ensuring high-quality curricula and in setting school-wide norms for course design

This Syllabus Toolkit is one instrument for achieving these goals. In addition, the Office of Academic Affairs offers workshops and one-on-one support for course development. Please contact Leah Hooper at 212-305-9504 or lch2124@columbia.edu for more information.

Purpose

The purpose of this guide is to assist faculty in the design and development of highly effective syllabi. This Toolkit is intended to make the often challenging process of designing syllabi easier and more straightforward. The goal of the Syllabus Project is to further enhance teaching and learning at the Mailman School through a well designed syllabus.

The Scholarship of Teaching and Learning: A Collaborative Process

This Toolkit is the product of a fruitful collaboration between the Mailman School's Curriculum Committee and Office of Academic Affairs. In addition, we gratefully acknowledge the faculty across the School who contributed portions of their syllabi as examples.

We view the syllabus as scholarship and hope that this initiative will foster further conversations with colleagues about how we can advance the field of teaching and learning in public health. We encourage collaboration and sharing of best (or promising) practices as faculty develop and revise syllabi. As with other scholarship, please observe appropriate citation and acknowledgement along with professional courtesy in receiving appropriate permissions to use aspects of a colleagues' syllabus.

¹ Grunert O'Brien, J., Millis, B., and Cohen, M. (2008). *The course syllabus: A learning-centered approach*. San Francisco, CA: Jossey-Bass.

IMPORTANT DATES AND INFORMATION

MARCH 1, 2010

All Mailman School syllabi reformatted into the School's Syllabus Template.

SUMMER SESSIONS 2010

March 1 Course schedules due from Mailman School departments in preparation for submission to CUMC Classroom Management

March 9 Final deadline for course submissions to the School Curriculum Committee

March 26 Curriculum Committee decisions returned

April 15 Course Schedule available for reviewing by students

May 20 Registration begins

FALL SEMESTER 2010

April 1 Course schedules due from Mailman School departments in preparation for submission to CUMC Classroom Management

May 4 Final deadline for course submissions to the School Curriculum Committee

May 14 Curriculum Committee decisions returned

Registration begins during the first week in September.

SPRING SEMESTER 2011

Sept 1 Course schedules due from Mailman School departments in preparation for submission to CUMC Classroom Management

Nov 1 Final deadline for course submissions to the School Curriculum Committee

Pre-registration begins during the first week in December.

Dec 15 Curriculum Committee decisions returned

Registration begins in mid-January.

SYLLABUS CHECKLIST

Mailman School of Public Health syllabi should include the following elements. The role and purpose of each element is described in “Anatomy of a Syllabus” (page 5).

- Course description
- Prerequisites (if any)
- Course learning objectives
- Assessment and grading policy
- Course requirements
- Course structure
- Mailman School policies and expectations
- Course schedule

Syllabi submitted to the Mailman School Curriculum Committee for approval should include each of these elements.

ANATOMY OF A SYLLABUS

Mailman School of Public Health syllabi are comprised of the following elements: course description, course learning objectives, prerequisites (if any), course requirements, assessment and grading policy, course structure, and school-wide policies and expectations. Understanding the role and purpose of each of these elements is essential to crafting an effective syllabus. The role of each syllabus component is described below.

Course Description

The course description gives students a summary of the major questions, issues, and topics the course will cover. As Grunert O'Brien, et al., note, a “strong course description...can generate student interest by providing a stimulating overview of the course, including its content, value, and the philosophical assumptions behind it.”²

The Curriculum Committee uses a qualitative rubric to evaluate course descriptions for syllabi submitted for approval. You can find this rubric on page 8 in this guide, as well as examples of effective course descriptions on page 11.

Prerequisites

Prerequisites help students to identify not only the required training they need before enrolling in a course, but also the prior material a course will build upon. If you are unsure of the prerequisites for your course, please contact your Academic Coordinator.

Course Learning Objectives

The learning objectives serve as the educational “road map” for both instructors and students. They describe what knowledge and skills students will gain by the end of the course. Learning objectives are structured in the language of what evidence student will provide to demonstrate that they mastered the course content.

In addition, course learning objectives are guided by and linked to the relevant program, degree, or departmental competencies. In other words, an individual course’s learning objectives, far from being developed in isolation from the overarching curricular goals, constitute the “building blocks” that will enable students to achieve the larger competencies upon completion of their degree. The Curriculum Committee uses a qualitative rubric to evaluate learning objectives for syllabi submitted for approval. You can find this rubric on page 8 in this guide, as well as examples of effective learning objectives on page 14. In addition, you can locate more guidance in writing learning objectives on page 28 of this Toolkit.

Assessment and Grading Policy

The syllabus is a critical tool for communicating to students how their performance will be evaluated. This section of the syllabus describes the assignments they will be expected to complete, how they will be graded, what portion of their overall grade each assignment will constitute, and so on.

The Curriculum Committee uses a qualitative rubric to evaluate assessment and grading policies for syllabi submitted for approval. You can find this rubric on page 8 in this guide. In addition, both the Mailman School and Columbia University have developed policies for grading, available online at <http://mailman.columbia.edu/honorcode>

² p. 51.

- Course Requirements** Shared expectations, explicitly communicated at the outset, can enable students to take greater responsibility for success, as well as to decrease conflicts between students and instructors. Course requirements should include required texts, expectations for classroom behavior, group work, late assignments, attendance, citations, original work, incomplete grades, and more.
- You can find examples of clear course requirements on page 21 of this Toolkit.
- Course Structure** This section of the syllabus describes how the course will be organized and conducted. It may indicate, for example, whether the class sessions will be lectures, seminars, group work, breakout sections, lab sections; combinations of these, and so on. If the course is organized into units, this section can also describe these units.
- Mailman School Policies and Expectations** The school-wide policies and expectations are standardized in the Mailman School syllabus template. This section references the School’s mission, values, and oath and describes the School’s policies related to academic integrity and disability services.
- For more information on issues related to academic integrity and disability services, please contact the Office of Student Affairs at 212-342-3128.
- Course Schedule** This section describes the major topic(s) for each class session, as well as relevant information such as class readings, learning objectives,³ assignments due, and so on. You can find examples of course schedules on page 24 of this guide.

³ Session by session learning objectives are currently required for all new course submissions to the School’s curriculum committee and are strongly recommended for all other courses.

GENERAL GUIDELINES

Prerequisites

Syllabi should list any relevant prerequisites. If there are no prerequisites, please indicate this on the syllabus.

Assessment and Grading Policy

The Mailman School and Columbia University guidelines for grading are as follows:

- A+ Reserved for highly exceptional achievement.
- A Excellent. Outstanding achievement.
- A- Excellent work, close to outstanding.
- B+ Very good. Solid achievement expected of most graduate students.
- B Good. Acceptable achievement.
- B- Acceptable achievement, but below what is generally expected of graduate students.
- C+ Fair achievement, above minimally acceptable level.
- C Fair achievement, but only minimally acceptable.
- C- Very low performance.
- F Failure. Course usually may not be repeated unless it is a required course.

To ensure grading consistency, course grading should align with these guidelines.

Please note that these letter grades correspond to narrative descriptions of student performance. It is the instructor's discretion to determine what range of numerical grades corresponds to this scale. However, faculty should ensure that the syllabus explicitly identifies the letter grades that will be awarded to numerical values (e.g, "87-89 = B+"). Examples of faculty's own scales can be found on pages 16 and 18 of this guide.

In addition, please adhere to the following expectations:

- Courses should include at least two assignments or assessments.
- "Class participation" or similar assessment criteria should not be counted for more than 20% of the overall grade. If class participation is included in students' evaluations, faculty are strongly encouraged to provide explicit descriptions of their expectations related to classroom behavior and citizenship (see page 21 for example).

Course Structure

Syllabi should specify what structure the course will take, whether lecture, group work, breakout sessions, etc. This section of the syllabus need not identify how the course time will be divided, but syllabi should give students an idea of how the class will be organized instructionally.

Mailman School Expectations

Syllabi should include the Mailman School's policies related to academic integrity and disability access. These policies are included in the syllabus template. Any request to adjust these policies for a specific course should be submitted in writing to the Curriculum Committee.

SYLLABUS RUBRIC

This rubric is the metric that the School’s Curriculum Committee uses to evaluate new syllabi submitted for approval; to be approved, syllabi must (at a minimum) meet expectations in all categories. For new syllabi, this tool provides guidance to instructors on the Committee’s expectations. In general, the syllabus rubric provides valuable guidance for identifying areas for possible improvement in existing syllabi.

Element	Exceeds expectations	Meets expectations	Does not meet expectations
Course description	Describes course’s major areas of inquiry. Outlines key concepts, topics, and/or skills to be covered. Provides context for learning and rationale for course. Indicates course’s role in department/degree curriculum. For example, see page 10	Provides context for learning and rationale for course. Outlines key concepts, topics, and/or skills to be covered. Indicates course’s role in department/degree curriculum. For example, see page 11	Describes topics to be covered. Does not describe major skills or concepts. Does not link course to competencies or overarching goals. For example, see page 12
Learning objectives	Are measurable and/or observable. Progress toward more ambitious and rigorous cognitive demands. Are anchored by verbs describing what the student will do to provide evidence of mastery. Are grounded in departmental and/or school-wide competencies. For example, see page 13	Are measurable and/or observable. Describe desired behaviors that students will perform to demonstrate skill/concept mastery in the course. Involve cognitive challenge and higher-order thinking skills. For example, see page 14	Are not measurable or observable. Do not describe behaviors that students will perform in order to demonstrate understanding. May describe content to be covered rather than student learning outcomes. For example, see page 15
Assessment and grading policy	Thoroughly describes each assignment. Describes grading policy and philosophy clearly and concretely. Expectations for all forms of assessment (e.g., assignments, exams, group projects, etc.) are clear. For example, see page 16	Describes all assignments. Grading policy is defined, and points distribution is explained. For example, see page 18	Assessments are not defined. Grading policy is either not explained or is defined in vague terms. For example, see page 19
Course requirements	Clearly and thoroughly outlines requirements for success in course. Specifically and concretely describes all expectations for academic and social behavior. Details policies related to lateness, attendance, group work, citations, etc. For example, see page 20	Clearly outlines expectations related to class participation, group work, assignments, etc. Defines policies related to lateness, attendance, group work, citations, etc. For example, see page 22	Describes expectations in general terms (e.g., “You should come to class prepared”). Does not specify course policies. For example, see page 23
Course schedule	Lists learning objective(s) for each week in addition to topics. Cites related readings, both required and supplementary, for each week and any relevant assignments due. For example, see page 24	Lists topics to be covered each week. Identifies required readings and any relevant assignments due. ⁴ For example, see page 25	May list topics to be covered but does not specify a schedule for learning. For example, see page 26

⁴ For Core Courses and all new submissions for course approval, learning objectives should also be included for each class session.
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SYLLABUS EXEMPLARS

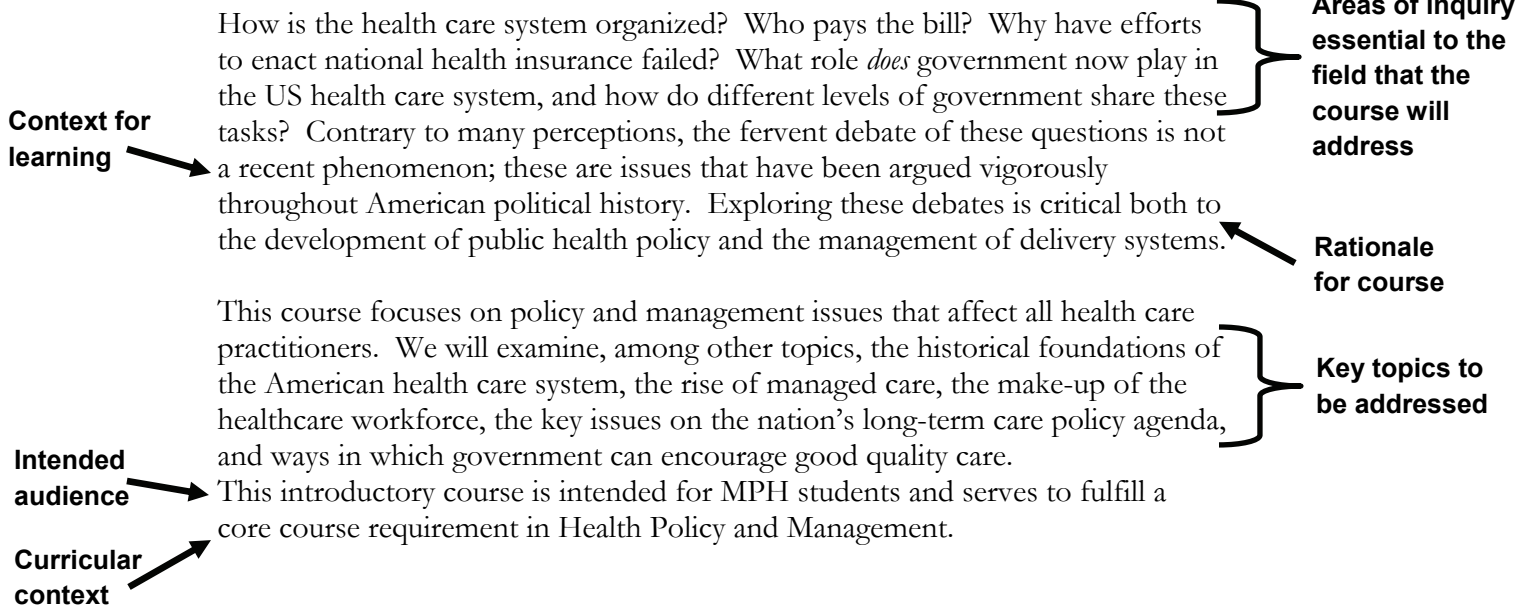
- **COURSE DESCRIPTIONS** (pp. 10 - 12)
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- **ASSESSMENT AND GRADING POLICY** (pp. 16 - 19)
- **COURSE REQUIREMENTS** (pp. 20 - 23)
- **COURSE SCHEDULES** (pp. 24 - 26)

■ COURSE DESCRIPTIONS

Sample Course Description

Rubric rating: Exceeds Expectations

COURSE DESCRIPTION



Analysis

The Course Description introduces the major inquiries—“the big questions”—that the course will tackle. This enables students to focus not merely on receiving information but on acquiring the knowledge and skills that will enable them to answer these questions. By describing some of the topics the course will cover, the description also gives students an idea of the content and how it relates to their future work as public health professionals. The description also describes the audience for whom the course is intended and its context in the larger program, degree, and/or departmental curriculum.

Sample Course Description

Rubric rating: Meets Expectations

COURSE DESCRIPTION

**Context
for learning**

Over the past century, the field of public health has made extraordinary contributions to improving the health and well-being of populations. However, new challenges have confronted public health at the turn of the 21st century. Preventable chronic illnesses, cancers, mental illnesses, pandemic viruses, and injury-related conditions are among the major causes of death in both industrialized countries and the global south. These factors not only affect the lives of people but also the economic stability of communities and countries. What do most of these illnesses have in common? Their acquisition, transmission, severity and treatment are profoundly determined by both human behavior and the social conditions. Changing behaviors and the social conditions that affect the health of communities is therefore an essential component of preventing many diseases, but this kind of change is a very difficult and complex task.

**Rationale
for course**

**Key skills
and topics**

The overall goal of this course is for students to learn the conceptual tools and skills of prevention research and of multilevel health. Topics include: the role of social and community factors in both the onset and solutions of public health problems; evidence-based approaches in the development and evaluation of social and behavioral science interventions; and steps and procedures for the planning, implementation and evaluation of public health programs, policies and interventions. This introductory course is the Core Course for the Sociomedical Sciences Department.

Analysis

The Course Description offers a context for learning so that students can situate their training in this course into a larger framework. The description also specifies the overarching goal for the course and the targeted learning. It describes some of the topics the course will cover so that students have an idea of the content and how it relates to their future work as public health professionals. The description also describes the course's context in the larger program, degree, and/or departmental curriculum.

Sample Course Description

Rubric rating: Does Not Meet Expectations

COURSE DESCRIPTION

This course will introduce elementary methods of data analysis. We will use continuous and categorical data that professionals often encounter in public health and medical research. Using a quantitative focus, we will explore descriptive statistics, inferential statistics, and statistical computing.

Key topics



Analysis

The Course Description identifies the general topic of the course. It does not include a description of the context for the learning, either within the program or department, and the context for professional training is vague.

■ COURSE LEARNING OBJECTIVES

Sample Learning Objectives

Rubric rating: Exceeds Expectations

COURSE LEARNING OBJECTIVES

Students who successfully complete this course will be able to:

- Describe the roles biostatistics serves in public health and biomedical research;
- Explain general principles of study design and its implications for valid inference when, for example, identifying risk factors for disease, isolating targets for prevention, and assessing the effectiveness of one or more interventions;
- Assess data sources and data quality for the purpose of selecting appropriate data for specific research questions;
- Translate research objectives into clear, testable statistical hypotheses;
- Describe basic principles and the practical importance of key concepts from probability and inference, inductive versus deductive reasoning, including random variation, systematic error, sampling error, measurement error, hypothesis testing, type I and type II errors, and confidence bounds;
- Apply numerical, tabular, and graphical descriptive techniques commonly used to characterize and summarize public health data;
- Identify appropriate statistical methods to be applied in a given research setting, apply these methods, and acknowledge the limitations of these methods;
- Differentiate between quantitative problems that can be addressed with standard, commonly used statistical methods and those requiring input from a professional biostatistician; and
- Evaluate computer output containing statistical procedures and graphics and interpret it in a public health context.

Analysis

Each learning objective is anchored by a measurable or observable behavioral verb (“describe,” “identify,” “apply,” “differentiate,” etc.) that describes what the student is expected to do to demonstrate understanding of the course’s “big ideas.” The objectives build on one another, beginning with basic cognitive tasks, such as comprehension (“Describe the roles biostatistics serves in public health and biomedical research”) and progressing to more holistic, integrated, and challenging thinking, such as critical analysis (“Differentiate between quantitative problems that can be addressed with standard, commonly used statistical methods and those requiring input from a professional biostatistician”).

Sample Learning Objectives

Rubric rating: Meets Expectations

COURSE LEARNING OBJECTIVES

Students who successfully complete this course will be able to:

- Describe the role of social and community factors in both the onset and solutions of public health problems;
- Identify the causes of social and behavioral factors that affect health of individuals and populations;
- Identify basic theories, concepts and models from a range of social and behavioral disciplines that are used in public health research and practice;
- Apply ethical principles to public health program planning, implementation and evaluation;
- Specify multiple targets and levels of intervention for social and behavioral science programs and/or policies;
- Apply evidence-based approaches in the development and evaluation of social and behavioral science interventions;
- Organize relationships among critical stakeholders for the planning, implementation and evaluation of public health programs, policies and interventions; and
- Evaluate public health programs, policies and interventions to determine effectiveness.

Analysis

The learning objectives are anchored by observable or measurable behavioral verbs (“describe,” “identify,” “apply,” “organize,” etc.) that describe what students are expected to do to demonstrate understanding. The objectives largely build upon one another—for example, students will plan public health programs, organize their implementation, and then develop evaluation methods to determine the effectiveness of these programs.

Sample Learning Objectives

Rubric rating: Does Not Meet Expectations

COURSE LEARNING OBJECTIVES

Students who successfully complete this course will be able to:

- Understand the historical foundations of the national health programs
- Understand domestic health care issues, including:
 - a. The evolution of health insurance
 - b. Why health care is so expensive
 - c. The social role of local health care providers
 - d. Relationships among providers
- Discuss strategies for improving quality of health interventions

Analysis

The learning objectives lack measurable or observable terms that describe the evidence a student should provide to show that s/he understands the course's content. In the previous examples, each learning objective describes what students will do in order to give evidence of understanding. For instance, in the second example ("Meets Expectations"), if students "Identify the causes of social and behavioral factors that affect health of individuals and populations," they will necessarily show that they understand a) that social and behavioral factors affect individual and population health; b) that the causes of these behaviors are many and complex; and c) that individuals and populations may be affected by different factors and react to their effect in diverse ways. This sample, by contrast, does not offer any direction for what kinds of evidence the instructor will be looking for to show that students grasped the material. Understanding cannot be seen, but evidence of it can. Thus learning objectives should describe the knowledge, skills, and/or behaviors that students will demonstrate in order to provide *evidence* of their understanding.

In addition, this sample functions more as a list of the topics to be taught ("The evolution of health insurance," "strategies for improving quality," etc.), not the learning that is expected. For additional guidance in writing learning objectives, please see "Further Reading and Support."

■ ASSESSMENT AND GRADING POLICY⁵

Sample Assessment and Grading Policy

Rubric rating: Exceeds Expectations

ASSESSMENT AND GRADING POLICY

- There will be a homework assignment due every week (See Pages 5-18) (30%)
- A midterm (See Page 4) (25%)
- A final (See Page 4 and Page 19) (45%)

For the final course grades, I follow the Mailman School grading policy where:

A+ = 98-100 (Highly Exceptional Achievement)

A = 94-97 (Excellent. Outstanding Achievement)

A- = 90-93 (Excellent work, close to outstanding)

B+ = 88-89 (Very good. Solid achievement expected of most graduate students)

B = 84-87 (Good. Acceptable achievement)

B- = 80-83 (Acceptable achievement, but below what is generally expected of graduate students)

ASSESSMENT:

Homework (30% of Final Grade):

Because economics requires repetition and interaction with the material, there will be weekly homework assignments. The homework assignments represent an extension of the concepts presented in class; you will be asked to synthesize the lecture and class activities.

Homework must be handed in to a box at the front of the classroom at the beginning of class in which it is due; I will not accept homework handed in late or in electronic form. Homework assignment 5 (which would be due the week of the midterm) will not be graded or turned in and there will no assignment 14. (Everyone will receive full credit for assignment 5).

On each homework assignment, I will make the allocation of points explicit (ie. two points for this question, one point for this answer). Homework answers will be posted on CourseWorks within 48 hours of the class in which assignments were due.

If you work with others, which is encouraged, each member of the group must separately hand in the homework, including the names and unis of all group members at the top of the homework. In most cases, homework answers should be 3-4 sentences or less. Do not write more than a page per homework assignment.

In-class exercises (ungraded):

The answers to all in-class exercises will be posted on CourseWorks within 48 hours of class.

Midterm Exam (25% of Final Grade):

The midterm will be cumulative. A sample midterm with answers will be posted to CourseWorks under class files two weeks before the midterm. The 1.5 hour midterm will include multiple choice questions, short answer, and graphical and mathematical problems (which may require a

⁵ Please visit <http://mailman.columbia.edu/honorcode> for additional information on school-wide expectations regarding assessment and grading.

calculator) and will be cumulative.

Because my objective is for you to learn the theories and application of economics, I will accept rewritten midterm exams. That is, any student who received a grade less than an A (including A-) will have the option to turn in a revised (and corrected) copy of his or her exam, up until November 3rd at 4:00pm. The revised exam must be hand-delivered to me during class or during office hours. I will post the answers to the midterm on CourseWorks within 48 hours of the due date for the revised and corrected midterm.

Final Exam (45% of Final Grade):

The final exam for the class (3 hrs, 200 points) will be cumulative and will cover all of the material in the class. One half of the final exam point total (100 points) will come from a brief policy analysis which will involve synthesizing the materials from the entire class. The structure of this policy analysis (and the grading rubric for this policy analysis) are contained within your syllabus (Page 19).

The remainder of the final exam will consist of a combination of short answer, and graphical and mathematical problems, similar in style to the midterm and the same length as the midterm (100 points). The point breakdown and expectations for each question will be clearly written on the exam. The final exam will be cumulative. I will distribute a sample final exam and answer key before the final (and will post them on CourseWorks under class files) including the complete set of possible topics from which the policy analysis question will be drawn.

Incompletes: There is no automatic grade of incomplete. Students are expected to complete all course assignments and exams on schedule by the end of a semester. An incomplete may be given only when a student has met the attendance requirement but certain course assignments have not been completed for reasons satisfactory to the instructor. To request an incomplete the student must contact the course instructor no later than May 5th. To remove an incomplete, you will need to coordinate with the instructor a date and time within 12 months after the last day of the course to submit the required work.

Analysis

This section clearly identifies each assignment for the course—students know from the outset what work will be required of them. The grading policy and distribution of points is explicitly described. In addition, the numerical grades are aligned to narrative descriptions of the student performance they represent (e.g., 98-100 = Highly Exceptional Achievement). The instructor has clearly identified policies related to group work.

Sample Assessment and Grading Policy
Rubric rating: Meets Expectations

ASSESSMENT AND GRADING POLICY

Student grades will be based on:

Seminar participation	15 points
Midterm exam	25 points
Final paper	25 points
Final exam	35 points

Final grade cutpoints:

≥ 95.0	A
≥90.0 and <95.0	A-
≥87.5 and < 90.0	B+
≥82.5 and <87.5	B
≥80.0 and <82.5	B-
Below 80.0	C

Seminar Participation: On-time submission of answers to the Epiville online discussion questions constitute 10 points. Weekly attendance and participation within the seminars comprise an additional 5 points of the seminar participation grade.

Midterm Exam: This is an in-class, closed-book exam to be given on October 29th during regular course hours from 5:30 to 8:30 pm. There will be no make-up exams. If you have a conflict of schedule on the day of the exam, you are required to notify your seminar leader in advance and your final exam will be assigned a combined value of both midterm and final exams (60 percent of your grade).

Final Exam: This is an in-class, closed-book exam given on December 17th during regular course hours from 5:30 to 8:30 pm. The exam will cover material presented over the entire semester. *Please make any travel arrangements early and accordingly.* If you have a scheduling conflict and cannot attend the exam, you will receive an INCOMPLETE grade. While we will make every effort to convert incomplete grades the following semester (particularly in the case of documented hardship) our ability to do so in a timely fashion is often limited.

Final Paper: This is an 8-10 page methodological critique of a published epidemiologic study addressing an etiologic hypothesis. The list of approved articles and further guidelines for this assignment will be distributed later in October. The paper is due on **Tuesday, December 22nd by 5 pm EST**. You will receive detailed instructions, but generally papers should be no longer than ten double-spaced pages, exclusive of references, tables and figures, with margins at least 1 inch using Arial or Times New Roman font in 12-point type. *Late submissions will be marked down by two points for every day for which they are overdue, starting after 5PM and including the due date. This essentially results in two points being subtracted from your final course grade for every day the paper is late.*

Analysis

This section clearly identifies each assignment for the course—students know from the outset what work will be required of them. The grading policy and distribution of points is explicitly described, as are expectations for classroom performance. Numerical values are aligned to letter grades in keeping with the University’s grading guide (see page 7 for more information).

Sample Assessment and Grading Policy
Rubric rating: Does Not Meet Expectations

ASSESSMENT AND GRADING POLICY

Student grades will be based on a combination of classroom participation and performance and exams. There will be one midterm exam and one final exam.

Unexcused absence from the exams will result in a grade of zero/F. Depending on the class's progress and performance, the exams may be "take home" papers or in class exams. Instructor reserves the right to select the method of assessment.

Analysis

Though this section does specify that students will be evaluated on their classroom participation and two exams, it does not describe how much weight each of these categories will carry. In addition, the vague wording that the instructor "reserves the right to select the method of assessment" is unclear and likely to provoke anxiety in students. Such ambiguity often contributes to conflicts and failure of communication between instructor and students.

■ COURSE REQUIREMENTS

Sample Course Requirements

Rubric rating: Exceeds Expectations

COURSE REQUIREMENTS

Course citizenship: I believe that learning is a collaborative enterprise. For that reason, I expect that students will make thoughtful, informed, and productive contributions to class, both during class discussions and also on the course edblog. These contributions should not merely be stating your view but also responding to the views of others, making connections among course texts, proposing specific interpretations of course readings, offering thoughtful probing questions that can advance and deepen our discussions, and so on. Dominating conversation is not the same as participating; be aware of the frequency of your contributions and be courteous of others' right to speak. For those of you who rarely contribute verbally to class discussions, challenge yourself to step outside your "comfort zone." Please observe the following classroom etiquette:

- Smartphones, cell phones, and other personal electronic devices should not be used and should be in the "off" position.
- Laptops should not be used during classroom discussion. If you wish to take notes during lecture, you may do so. Please note that "web surfing" is not allowed during class at any time.
- Avoid distracting others if you must eat or drink. Clean up after yourself!

Late work: For every day after the deadline of the take home exam, a half-grade penalty will be applied to the student's grade. The class discussion questions and reflections will not be accepted after the due date.

Incompletes: There is no automatic grade of incomplete. Students are expected to complete all course assignments and exams on schedule by the end of a semester. An incomplete may be given only when a student has met the attendance requirement but certain course assignments have not been completed for reasons satisfactory to the instructor. To request an incomplete the student must contact the course instructor no later than May 5th. To remove an incomplete, you will need to coordinate with the instructor a date and time within 12 months after the last day of the course to submit the required work.

Missing exams: For the in-class exam I, there will be no make-up exams for schedule conflicts. If you have a conflict of schedule on the day of exam I, you are required to notify the course instructor or teaching assistant at least five days prior to the exam. Your final exam will be assigned a combined value of both your midterm and final exams (60% of your grade). For the final exam, rescheduling will be considered on a case-by-case basis.

Citations and original work

Citations should be included with any material in which the original *research, ideas, or interpretations* are not your own. Citations should be in APA format. If you have any questions about citations, please contact your section leader. **A good rule of thumb is, when in doubt: cite.**

Collaboration

I believe that the best ideas are not born in isolation but are the product of interaction, discussion, debate, and revision. For that reason, collaboration is encouraged. However, when submitting written work that is the product of collaboration, **all work must be in your own words.** You should also indicate by name the class members with whom you collaborated.

Collaboration on the midterm and final exams and final paper is strictly prohibited.

Attendance: As Woody Allen said, “Eighty percent of success is showing up.” I expect that students will be present, both mentally and physically, for all class meetings. One absence per semester is permitted; absence in excess of this limit must be accompanied by written explanation. I will judge each case on its own merit, and student’s grade may be negatively affected by excessive absence without cause.

Analysis

This section gives detailed information related to the instructor’s expectations for student behavior and responsibilities. Students are informed of policies related to late work, incomplete course work, missing exams, attendance, and class participation. The expectations are clear and explicit.

Sample Course Requirements

Rubric rating: Meets Expectations

COURSE REQUIREMENTS

- My goal is for ALL students to learn and apply a set of widely applicable economic concepts and theories integral to their professional careers in public health.
- Every homework assignment, in-class exercise, exam and reading assignment furthers the course objectives. The more engaged you are with the material, the more useful this class will be for you in your professional life.
- I encourage all students to work in groups. Often by explaining to others (or asking questions of others), you learn much more than you would by working alone – you determine what are common points of misunderstanding and confusion and you realize the limits of your knowledge. On in-class exercises, I will ask you to work with other students in the class; I encourage you to meet outside of class in these same groups to work on homework questions and to review course materials. Students who work in groups typically enjoy the class more and learn more in the class.
- When collaborating, all submitted work must be original and in your own words. That is, even if you and your group members arrive at similar conclusions, you must justify your interpretations and ideas independently.
- Citations should be included for all work that is not original. If you're not sure whether the work is original, cite it! Footnoting is the preferred method of citation for this class.
- Keeping up with the readings, class assignments, homework assignments, and lectures will help you succeed throughout the semester. Frequently, later material builds on material in the first half of the semester.
- If you are struggling with the concepts in the first quarter of the term, it is imperative that you make an appointment to see me or the head TA immediately; do not wait until the midterm examination. Our goal is to enable all students to learn and apply the course concepts. Meeting throughout the semester to address points of confusion as they come up on class materials and homework assignments is encouraged.
- Throughout the semester, practicing applying the economic skills and theories as covered in class, class exercises, and homework assignments; submitting all homework assignments on-time; and completing readings before class will typically lead to good grades.
- Cell phones, pagers, blackberries, ipods, and computers will be off during class, except for note-taking purposes.
- Check your Columbia-designated email regularly; I will use your Columbia email to distribute course updates.

Analysis

This section gives information related to the instructor's expectations for student behavior and responsibilities. Students are informed of policies related to late work, incomplete course work, missing exams, and attendance, and class participation.

Sample Course Requirements

Rubric rating: Does Not Meet Expectations

COURSE REQUIREMENTS

- I expect you to come to class prepared each week.
- Contribute to class discussions. Part of your grade is based on class participation (see Grading Policy section of this syllabus).
- Be polite when using laptops and phones.
- Excessive absence will result in lowered grade. Our class meetings are richer for everyone if we have all viewpoints represented!
- Late work will result in lowered grade.
- If you must miss an exam due to a scheduling conflict, you must notify me in writing in advance.
- Group work is encouraged.
- Enjoy this course! You are in charge of your own learning, so make the most of it.

Analysis

This section gives some information related to expectations, but it is told mostly in vague language. Students are not aware of what constitutes “class participation,” how “excessive absence” is defined, or what “polite” laptop use may entail. Unfortunately, the assumption that students and instructors have similar understandings of good citizenship is often erroneous and can result in communication disasters.

■ COURSE SCHEDULE

Sample Course Schedule

Rubric rating: Exceeds Expectations

COURSE SCHEDULE (EXCERPT)

Meeting 6 – Organized crime and the logic of risk

Oct 15 *Learning Objectives:* 1) Develop a conceptual model of the logic of health risk; 2) Identify multilevel risks as well as factors influencing those risks; 3) Apply theory to describing the logic of risk; 4) Define gaps in knowledge and become familiar with the basic design of a needs assessment to fulfill these gaps.

Readings Chapter: Glanz, K., Rimer, B.K., and Viswanath, K. (eds.) (2008) *Health Behavior and Health Education: Theory, Research, and Practice*. San Francisco: Jossey-Bass Publishers. Chapter 18: Using the PRECEDE-PROCEED Model to Apply Health Behavior Theories, pp 407-418.

Required Article: Castells, M. (2001) End of Millenium. The Perverse Connection: The Global Criminal Economy. Malden, MA: Blackwell Publishers. pp. 166-205.

To Go Further (the following readings are not required):

Provocative Issues in the Media: Seabrook, J. (2009, June 22). Annals of Crime, “Don’t Shoot,” *The New Yorker*, p. 32

Frechtling, J. Logic Modeling Methods in Program Evaluation. Chapters 2-4. pp.11-43.

Gupta, K; Sleezer, C; Russ-Eft, D. *Practical Guide to Needs Assessment*. Chapter 1. pp. 13-28.

Homework Reading Response #3 (see Assessment and Grading Policy section of this syllabus).

Analysis

The schedule specifies measurable/observable learning objectives to gauge student mastery of the session’s concepts. It identifies both required and supplementary reading. The option “To Go Further” provides an optional challenge for students across heterogeneous skill levels. The homework is identified and cross-referenced with the Assessment and Grading Policy.

Sample Course Schedule

Rubric rating: Meets Expectations

COURSE SCHEDULE (EXCERPT)

Week 7 - Adverse Selection

Oct 22 **Learning Objective: By end of class, students will be able to...**

Describe the concept of adverse selection; Explain the implications of adverse selection for insurance plan and health system design.

Reading

Cutler, David and Richard Zeckhauser. "Adverse Selection in Health Insurance," in A. Garber, ed., *Frontiers in Health Policy Research*, Volume 1, Cambridge, MA: MIT Press, 1998, 11-22 – CW

Assignments

What economic concept would help to guide you in interpreting the data below (drawn from a study about willingness to pay for normal delivery services under community health insurance in Ghana)? (1 pt.) Focus on the data for non-enrolled women and look at the column labeled as "willing to pay." Choose either age or marital status and describe the maximization problems faced by two groups of women defined by your chosen attribute (25-29 vs. 35-39; or single vs. married). (1 pt.) How do you think these data would look if the community health insurance plan offered two separate packages – one with and one without normal delivery benefits? (1 pt.)

Analysis

The schedule specifies measurable/observable learning objectives⁶ to gauge student mastery of the session's concepts. It identifies required readings and assignments.⁷ The homework is clearly defined, and the grading for the assignment is explicit.

⁶ Session learning objectives are currently required for all Core Courses and new submissions for course approval and are strongly recommended for all other courses.

⁷ If the course does not have required readings and/or assignments for a given session, please describe your plan for the class, relevant activities, or expectations for that meeting of the course.

Sample Course Schedule

Rubric rating: Does Not Meet Expectations

COURSE SCHEDULE (EXCERPT)

Week 10 – Recognizing Bias

- Oct 21
- Selection bias
 - Systemic bias

Analysis

The schedule describes topics/concepts to cover but is vague about a specific plan. If reading is required for this week, it is not listed in the schedule for this session, nor is any relevant assignment noted.

FURTHER READING AND SUPPORT

These additional resources are intended to guide faculty through the process of course development. In addition, the Office of Academic Affairs offers workshops, small group meetings, and one-on-one support. Please contact Leah Hooper (lch2124@columbia.edu or 212-305-9504) for more information.

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GUIDE FOR WRITING LEARNING OBJECTIVES

Ian Lapp, PhD ¹

Stating intended learning outcomes provides direction for teaching, sets the necessary foundation for assessment of learning, conveys instructional intent to others, and serves as an implicit contract between teacher and student. Learning objectives, found on course syllabi, describe the knowledge and skills that a student is expected to demonstrate upon completion of the course. Ideally, each of these objectives relates, in some discernable way, to the learning objectives for the overall program of study. ²

All learning objectives should be specific, measurable and written in behavioral terms. All learning objectives have two parts – an action verb and a content area. In selecting action verbs, avoid terms like “appreciate,” “realize,” or “understand” since these terms refer to an internal state that cannot be observed by an outside evaluator. Learning objectives are not statements of topics to be covered, not statements of learning activities, and not statements about the teaching methods. Instead, learning objectives describe what the student will do when they have reached a specific level of competency with a skill or subject. ³

Learning objectives should be framed in terms of types of learning outcomes and should reflect progressively higher-level functioning. A set of learning objectives that relies primarily on terms such as “list,” “define,” “identify,” and “describe” reflects a fairly elementary level of attainment. Public health professionals need to be proficient in critical thinking and problem-solving and this level of functioning should be reflected in the learning objectives. Terms more likely to capture higher-level functioning include, for example, “analyze,” “evaluate,” and “design.” ⁴ The table below contains examples of illustrative verbs that are useful in stating specific learning outcomes.

Knowledge ⁵	define, describe, diagram, draw, identify, label, list, match, name, outline, recall, record, reproduce, select, state
Comprehension	convert, discuss, defend, distinguish, estimate, explain, extend, generalize, give examples, infer, paraphrase, predict, report, review, rewrite, summarize
Application	apply, change, compute, demonstrate, discover, dramatize, employ illustrate, interpret, make inferences, manipulate, modify, operate, predict, prepare, produce, recognize new instances, relate, show, solve, teach, translate, use
Analysis	analyze, break down, compare, contrast, examine, diagram, differentiate, distinguish, identify, illustrate, infer, outline, point out, predict, relate, select, separate, sub-divide
Synthesis	arrange, assemble, categorize, combine, compile, compose, construct, create, devise, design, formulate, generate, modify, organize, plan, rearrange, reconstruct, relate, reorganize, setup
Evaluation	appraise, assess, conclude, critique, estimate, justify, interpret, measure, rate, revise

¹Dr. Lapp is Associate Dean for Academic Affairs and Education at the Columbia University Mailman School of Public Health. He organized this guide for the Mailman School of Public Health. It is also based on his collaborative work with the Center for Education Research and Evaluation. He can be reached by phone (212-305-1204) or by email IL2011@columbia.edu

^{2,4}This text has been abridged from “Writing Clear and Measurable Learning Objectives” with permission from the Council on Education for Public Health

⁴Wolfe, RM. 1990, Educational Objectives chapter in: Evaluation and Education: foundations of competency assessment and program review. 3rd edition. Praeger, 1990.

⁵This table is based on “Bloom’s Taxonomy of the Cognitive Domain” originally conceived in Bloom, B., Englehart, M. Furst, E., Hill, W., & Krathwohl, D. 1956. Taxonomy of educational objectives: The classification of educational goals. Handbook I: Cognitive domain. New York: Longmans, Green.

ANNOTATED BIBLIOGRAPHY

The following resources are available in the Office of Academic Affairs' Professional Development Library (Rosenfield Building, Suite 1029). In addition, the Office of Academic Affairs offers workshops and one-on-one support for course development. Please contact Leah Hooper, MST, at 212-305-9504 or lch2124@columbia.edu for more information.

- **Donald, J. G. (2008). Learning to think: Disciplinary perspectives. San Francisco, CA: Jossey-Bass.**
Donald's text gives insight into identifying the epistemological foundations of a given field and helps to identify key habits of mind that define a discipline. The author provides a philosophical basis for developing courses and determining what role a course will play in the students' training.

- **Gronlund, N. E. (2008). How to write and use instructional objectives (6th ed). Upper Saddle River, NJ: Merrill, Prentice-Hall, Inc.**
This short guidebook offers a step-by-step approach to both writing learning objectives and then using them to guide classroom instruction.

- **Grunert O'Brien, J. B. J. Millis, and M.W. Cohen. (2002). The course syllabus. San Francisco: Jossey-Bass.**
This guide describes each element of the syllabus, both those included in the Mailman School template and also additional tools, such as a Letter to Students and Statement of Teaching Philosophy, that you may find useful. The authors offer multiple examples of effective syllabi and further research sources that define the impact of a strong syllabus upon a course.

- **McKeachie, W. J., and M. Svinicki. (2006). McKeachie's teaching tips: Strategies, research, and theory for college and university teachers (12th ed.). Belmont, CA: Wadsworth**
This practical handbook addresses many elements of post-graduate instruction, from course design to evaluation, and is especially useful for newer faculty members and those wishing to address common teaching challenges.

- **Nilson, L. B. (2003). Teaching at its best: A research-based resource for college instructors (2nd ed.). San Francisco, CA: Anker Publishing Company.**
This handbook contains many helpful guides for writing learning objectives and designing syllabi. It is helpful not only for developing courses but also for identifying classroom instructional techniques that enable students to master content more effectively.

- **Wiggins, G., and J. McTighe. (2006). Understanding by design (2nd ed.). Upper Saddle River, NJ: Pearson Education, Inc.**
Wiggins and McTighe's text and workbook offer extensive guidance and exercise to structure the course planning process, from identifying overarching instructional goals to determining appropriate assessment methods.