

# AP<sup>®</sup> Economics

## Teacher's Guide

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connect to college success<sup>™</sup>  
[www.collegeboard.com](http://www.collegeboard.com)



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# The College Board: Connecting Students to College Success

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# Contents

<b>Welcome Letter from the College Board</b> .....	v
<b>Equity and Access</b> .....	vii
<b>Participating in the AP Course Audit</b> .....	xi
<b>Preface</b> .....	xii
<b>Chapter 1. About AP<sup>®</sup> Economics</b> .....	1
The AP Economics Courses .....	1
<b>Chapter 2. Advice for AP Economics Teachers</b> .....	7
Basic Start-Up Concerns.....	7
Strategies and Suggestions.....	11
College Board Resources .....	28
<b>Chapter 3. Course Organization</b> .....	31
Syllabus Development.....	31
Introduction to the Six Sample Syllabi.....	33
Sample Syllabus 1: Macroeconomics .....	34
Sample Syllabus 2: Macroeconomics .....	50
Sample Syllabus 3: Introductory Economics .....	73
Sample Syllabus 4: Microeconomics .....	84
Sample Syllabus 5: Microeconomics .....	92
Sample Syllabus 6: Microeconomics .....	99
<b>Chapter 4. The AP Exams in Microeconomics and Macroeconomics</b> .....	115
The Development Committee.....	115
Exam Format.....	115
Exam Administration.....	116
Exam Scoring and Grade Setting .....	117
Reports to Students and Teachers.....	118
Preparing Students for the Exams .....	118
After the Exams .....	121
<b>Chapter 5. Resources for Teachers</b> .....	122
How to Address Limited Resources.....	122
Resources .....	123
Professional Development .....	133



# Welcome Letter from the College Board

Dear AP<sup>®</sup> Teacher:

Whether you are a new AP teacher, using this AP Teacher’s Guide to assist in developing a syllabus for the first AP course you will ever teach, or an experienced AP teacher simply wanting to compare the teaching strategies you use with those employed by other expert AP teachers, we are confident you will find this resource valuable. We urge you to make good use of the ideas, advice, classroom strategies, and sample syllabi contained in this Teacher’s Guide.

You deserve tremendous credit for all that you do to fortify students for college success. The nurturing environment in which you help your students master a college-level curriculum—a much better atmosphere for one’s first exposure to college-level expectations than the often large classes in which many first-year college courses are taught—seems to translate directly into lasting benefits as students head off to college. An array of research studies, from the classic 1999 U.S. Department of Education study *Answers in the Tool Box* to new research from the University of Texas and the University of California, demonstrate that when students enter high school with equivalent academic abilities and socioeconomic status, those who develop the content knowledge to demonstrate college-level mastery of an AP Exam (a grade of 3 or higher) have much higher rates of college completion and have higher grades in college. The 2005 National Center for Educational Accountability (NCEA) study shows that students who take AP have much higher college graduation rates than students with the *same* academic abilities who do not have that valuable AP experience in high school. Furthermore, a Trends in International Mathematics and Science Study (TIMSS, formerly known as the Third International Mathematics and Science Study) found that even AP Calculus students who score a 1 on the AP Exam are significantly outperforming other advanced mathematics students in the United States, and they compare favorably to students from the top-performing nations in an international assessment of mathematics achievement. (Visit AP Central<sup>®</sup> at [apcentral.collegeboard.com](http://apcentral.collegeboard.com) for details about these and other AP-related studies.)

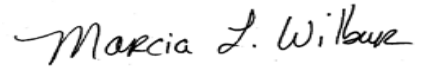
For these reasons, the AP teacher plays a significant role in a student’s academic journey. Your AP classroom may be the only taste of college rigor your students will have before they enter higher education. It is important to note that such benefits cannot be demonstrated among AP courses that are AP courses in name only, rather than in quality of content. For AP courses to meaningfully prepare students for college success, courses must meet standards that enable students to replicate the content of the comparable college class. Using this AP Teacher’s Guide is one of the keys to ensuring that your AP course is as good as (or even better than) the course the student would otherwise be taking in college. While the AP Program does not mandate the use of any one syllabus or textbook and emphasizes that AP teachers should be granted the creativity and flexibility to develop their own curriculum, it is beneficial for AP teachers to compare their syllabi not just to the course outline in the official AP Course Description and in chapter 3 of this guide, but also to the syllabi presented on AP Central, to ensure that each course labeled AP meets the standards of a college-level course. Visit AP Central<sup>®</sup> at [apcentral.collegeboard.com](http://apcentral.collegeboard.com) for details about the AP Course Audit, course-specific Curricular Requirements, and how to submit your syllabus for AP Course Audit authorization.

As the Advanced Placement Program<sup>®</sup> continues to experience tremendous growth in the twenty-first century, it is heartening to see that in every U.S. state and the District of Columbia, a growing proportion of high school graduates have earned at least one grade of 3 or higher on an AP Exam. In some states, more

## Welcome Letter

than 20 percent of graduating seniors have accomplished this goal. The incredible efforts of AP teachers are paying off, producing ever greater numbers of college-bound seniors who are prepared to succeed in college. Please accept my admiration and congratulations for all that you are doing and achieving.

Sincerely,

A handwritten signature in black ink that reads "Marcia L. Wilbur". The signature is written in a cursive style with a large initial 'M' and a distinct 'L'.

Marcia Wilbur  
Director, Curriculum and Content Development  
Advanced Placement Program



# Equity and Access

In the following section, the College Board describes its commitment to achieving equity in the AP Program.

## Why are equitable preparation and inclusion important?

Currently, 40 percent of students entering four-year colleges and universities and 63 percent of students at two-year institutions require some remedial education. This is a significant concern because a student is less likely to obtain a bachelor's degree if he or she has taken one or more remedial courses.<sup>1</sup>

Nationwide, secondary school educators are increasingly committed not just to helping students complete high school but also to helping them develop the habits of mind necessary for managing the rigors of college. As *Educational Leadership* reported in 2004:

The dramatic changes taking place in the U.S. economy jeopardize the economic future of students who leave high school without the problem-solving and communication skills essential to success in postsecondary education and in the growing number of high-paying jobs in the economy. To back away from education reforms that help all students master these skills is to give up on the commitment to equal opportunity for all.<sup>2</sup>

Numerous research studies have shown that engaging a student in a rigorous high school curriculum such as is found in AP courses is one of the best ways that educators can help that student persist and complete a bachelor's degree.<sup>3</sup> However, while 57 percent of the class of 2004 in U.S. public high schools enrolled in higher education in fall 2004, only 13 percent had been boosted with a successful AP experience in high school.<sup>4</sup> Although AP courses are not the only examples of rigorous curricula, there is still a significant gap between students with college aspirations and students with adequate high school preparation to fulfill those aspirations.

Strong correlations exist between AP success and college success.<sup>5</sup> Educators attest that this is partly because AP enables students to receive a taste of college while still in an environment that provides more support and resources for students than do typical college courses. Effective AP teachers work closely with their students, giving them the opportunity to reason, analyze, and understand for themselves. As a result, AP students frequently find themselves developing new confidence in their academic abilities and discovering their previously unknown capacities for college studies and academic success.

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1. Andrea Venezia, Michael W. Kirst, and Anthony L. Antonio, *Betraying the College Dream: How Disconnected K–12 and Postsecondary Education Systems Undermine Student Aspirations* (Palo Alto, Calif.: The Bridge Project, 2003), 8.

2. Frank Levy and Richard J. Murnane, "Education and the Changing Job Market." *Educational Leadership* 62 (2) (October 2004): 83.

3. In addition to studies from University of California–Berkeley and the National Center for Educational Accountability (2005), see the classic study on the subject of rigor and college persistence: Clifford Adelman, *Answers in the Tool Box: Academic Intensity, Attendance Patterns, and Bachelor's Degree Attainment* (Washington, D.C.: U.S. Department of Education, 1999).

4. *Advanced Placement Report to the Nation* (New York: College Board, 2005).

5. Wayne Camara, "College Persistence, Graduation, and Remediation," *College Board Research Notes* (RN-19) (New York: College Board, 2003).

### Which students should be encouraged to register for AP courses?

Any student willing and ready to do the work should be considered for an AP course. The College Board actively endorses the principles set forth in the following Equity Policy Statement and encourages schools to support this policy.

The College Board and the Advanced Placement Program encourage teachers, AP Coordinators, and school administrators to make equitable access a guiding principle for their AP programs. The College Board is committed to the principle that all students deserve an opportunity to participate in rigorous and academically challenging courses and programs. All students who are willing to accept the challenge of a rigorous academic curriculum should be considered for admission to AP courses. The Board encourages the elimination of barriers that restrict access to AP courses for students from ethnic, racial, and socioeconomic groups that have been traditionally underrepresented in the AP Program. Schools should make every effort to ensure that their AP classes reflect the diversity of their student population.

The fundamental objective that schools should strive to accomplish is to create a stimulating AP program that academically challenges students and has the same ethnic, gender, and socioeconomic demographics as the overall student population in the school. African American and Native American students are severely underrepresented in AP classrooms nationwide; Latino student participation has increased tremendously, but in many AP courses Latino students remain underrepresented. To prevent a willing, motivated student from having the opportunity to engage in AP courses is to deny that student the possibility of a better future.

Knowing what we know about the impact a rigorous curriculum can have on a student's future, it is not enough for us simply to leave it to motivated students to seek out these courses. Instead, we must reach out to students and encourage them to take on this challenge. With this in mind, there are two factors to consider when counseling a student regarding an AP opportunity:

#### **1. Student motivation**

Many potentially successful AP students would never enroll if the decision were left to their own initiative. They may not have peers who value rigorous academics, or they may have had prior academic experiences that damaged their confidence or belief in their college potential. They may simply lack an understanding of the benefits that such courses can offer them. Accordingly, it is essential that we not gauge a student's motivation to take AP until that student has had the opportunity to understand the advantages—not just the challenges—of such course work.

Educators committed to equity provide all students in a school with an understanding of the benefits of rigorous curricula. Such educators conduct student assemblies and/or presentations to parents that clearly describe the advantages of taking an AP course and outline the work expected of students. Perhaps most important, they have one-on-one conversations with the students in which advantages and expectations are placed side by side. These educators realize that many students, lacking confidence in their abilities, will be listening for any indication that they should not take an AP course. Accordingly, such educators, while frankly describing the amount of homework to be anticipated, also offer words of encouragement and support, assuring the students that if they are willing to do the work, they are wanted in the course.

The College Board has created a free online tool, AP Potential™, to help educators reach out to students who previously might not have been considered for participation in an AP course. Drawing upon data based on correlations between student performance on specific sections of the PSAT/NMSQT® and

performance on specific AP Exams, AP Potential generates rosters of students at your school who have a strong likelihood of success in a particular AP course. Schools nationwide have successfully enrolled many more students in AP than ever before by using these rosters to help students (and their parents) see themselves as having potential to succeed in college-level studies. For more information, visit <http://appotential.collegeboard.com>.

Actively recruiting students for AP and sustaining enrollment can also be enhanced by offering incentives for both students and teachers. While the College Board does not formally endorse any one incentive for boosting AP participation, we encourage school administrators to develop policies that will best serve an overarching goal to expand participation and improve performance in AP courses. When such incentives are implemented, educators should ensure that quality verification measures such as the AP Exam are embedded in the program so that courses are rigorous enough to merit the added benefits.

Many schools offer the following incentives for students who enroll in AP:

- Extra weighting of AP course grades when determining class rank
- Full or partial payment of AP Exam fees
- On-site exam administration

Additionally, some schools offer the following incentives for teachers to reward them for their efforts to include and support traditionally underserved students:

- Extra preparation periods
- Reduced class size
- Reduced duty periods
- Additional classroom funds
- Extra salary

## 2. Student preparation

Because AP courses should be the equivalent of courses taught in colleges and universities, it is important that a student be prepared for such rigor. The types of preparation a student should have before entering an AP course vary from course to course and are described in the official AP Course Description book for each subject (available as a free download at [apcentral.collegeboard.com](http://apcentral.collegeboard.com)).

Unfortunately, many schools have developed a set of gatekeeping or screening requirements that go far beyond what is appropriate to ensure that an individual student has had sufficient preparation to succeed in an AP course. Schools should make every effort to eliminate the gatekeeping process for AP enrollment. Because research has not been able to establish meaningful correlations between gatekeeping devices and actual success on an AP Exam, the College Board **strongly discourages** the use of the following factors as thresholds or requirements for admission to an AP course:

- Grade point average
- Grade in a required prerequisite course
- Recommendation from a teacher

## Equity and Access

- Recommendation from a teacher
- AP teacher’s discretion
- Standardized test scores
- Course-specific entrance exam or essay

Additionally, schools should be wary of the following concerns regarding the misuse of AP:

- Creating “Pre-AP courses” to establish a limited, exclusive track for access to AP
- Rushing to install AP courses without simultaneously implementing a plan to prepare students and teachers in lower grades for the rigor of the program

### How can I ensure that I am not watering down the quality of my course as I admit more students?

Students in AP courses should take the AP Exam, which provides an external verification of the extent to which college-level mastery of an AP course is taking place. While it is likely that the percentage of students who receive a grade of 3 or higher may dip as more students take the exam, that is not an indication that the quality of a course is being watered down. Instead of looking at percentages, educators should be looking at raw numbers, since each number represents an individual student. If the raw number of students receiving a grade of 3 or higher on the AP Exam is not decreasing as more students take the exam, there is no indication that the quality of learning in your course has decreased as more students have enrolled.

### What are schools doing to expand access and improve AP performance?

Districts and schools seeing the greatest success in improving both participation and performance in AP have implemented a multipronged approach to growing an AP program. These schools offer AP as capstone courses, providing professional development for AP teachers and additional incentives and support for the teachers and students participating at this top level of the curriculum. The high standards of the AP courses are used as anchors that influence the 6–12 curriculum from the “top down.” Simultaneously, these educators are investing in the training of teachers in the pre-AP years and are building a vertically articulated, sequential curriculum from middle school to high school that culminates in AP courses—a broad pipeline that prepares students step-by-step for the rigors of AP so that they will have a fair shot at success in an AP course once they reach that stage. An effective and demanding AP program necessitates cooperation and communication between high schools and middle schools. Effective teaming among members of all educational levels ensures rigorous standards for students across years and provides them with the skills needed to succeed in AP. For more information about Pre-AP® professional development, including workshops designed to facilitate the creation of AP Vertical Teams® of middle school and high school teachers, visit AP Central.

Advanced Placement Program  
The College Board

# Participating in the AP Course Audit

## Overview

The AP Course Audit is a collaborative effort among secondary schools, colleges and universities, and the College Board. For their part, schools deliver college-level instruction to students and complete and return AP Course Audit materials. Colleges and universities work with the College Board to define elements common to college courses in each AP subject, help develop materials to support AP teaching, and receive a roster of schools and their authorized AP courses. The College Board fosters dialogue about the AP Course Audit requirements and recommendations, and reviews syllabi.

Starting in the 2007-08 academic year, all schools wishing to label a course “AP” on student transcripts, course listings, or any school publications must complete and return the subject-specific AP Course Audit form, along with the course syllabus, for all sections of their AP courses. Approximately two months after submitting AP Course Audit materials, schools will receive a legal agreement authorizing the use of the “AP” trademark on qualifying courses. Colleges and universities will receive a roster of schools listing the courses authorized to use the “AP” trademark at each school.

## Purpose

College Board member schools at both the secondary and college levels requested an annual AP Course Audit in order to provide teachers and administrators with clear guidelines on curricular and resource requirements that must be in place for AP courses and to help colleges and universities better interpret secondary school courses marked “AP” on students’ transcripts.

The AP Course Audit form identifies common, essential elements of effective college courses, including subject matter and classroom resources such as college-level textbooks and laboratory equipment. Schools and individual teachers will continue to develop their own curricula for AP courses they offer—the AP Course Audit will simply ask them to indicate inclusion of these elements in their AP syllabi or describe how their courses nonetheless deliver college-level course content.

AP Exam performance is not factored into the AP Course Audit. A program that audited only those schools with seemingly unsatisfactory exam performance might cause some schools to limit access to AP courses and exams. In addition, because AP Exams are taken and exam grades reported after college admissions decisions are already made, AP course participation has become a relevant factor in the college admissions process. On the AP Course Audit form, teachers and administrators attest that their course includes elements commonly taught in effective college courses. Colleges and universities reviewing students’ transcripts can thus be reasonably assured that courses labeled “AP” provide an appropriate level and range of college-level course content, along with the classroom resources to best deliver that content.

## For more information

You should discuss the AP Course Audit with your department head and principal. For more information, including a timeline, frequently asked questions, and downloadable AP Course Audit forms, visit [apcentral.collegeboard.com/courseaudit](http://apcentral.collegeboard.com/courseaudit).

# Preface

The Advanced Placement Program has afforded me the greatest professional development opportunity of my 30-year teaching career. My experience in teaching the AP Economics courses has been enriched by my participation as a Reader and by my five years of service on the AP Economics Development Committee. When I taught my first AP Economics course, I could not have imagined that eventually I would be writing this publication to aid AP Economics teachers as they help students across the country acquire the skills and knowledge they need to understand and apply economic principles when analyzing real-world issues. I share my experiences in order to help the newest generation of AP Economics teachers set goals and objectives that are as lofty as they can be.

The primary goal of this Teacher's Guide is to provide advice and resources for new AP Economics teachers. This book provides a map to follow as you prepare to teach your course. Some of the topics within the chapters are related to AP Economics in general, some are ideas shared by veteran AP Economics teachers, and some are suggestions for ways to manage the course. Many resources are listed and discussed, and tips from colleagues appear in boxes throughout to describe real classroom aids that work.

Although fewer than 15 states currently require economics for graduation, in those states that do mandate economics, AP Economics enrollment is higher than in states that do not have the requirement. The number of students who take both the AP Microeconomics and AP Macroeconomics Exams has steadily grown over the years and will continue to grow as more and more high schools add AP Economics to their curriculum. As more states require an economics curriculum and AP Economics grows, I predict that (1) the demand for AP Economics to fulfill that requirement will increase, (2) more teachers will be added to the fraternity of AP Economics teachers and will need preparation to teach the courses, and (3) more colleges will see that AP Economics students are as prepared for upper-level college work as the college students who enroll in college economics courses.

As AP Economics moves into the future, new initiatives will be available to keep the courses up-to-date and vibrant. An example of a recent initiative is the collaboration between the National Council on Economic Education (NCEE) and the American Economic Association (AEA), which has resulted in the addition of program sessions for AP Economics teachers to the annual meeting agenda. These sessions provide the organizations with the opportunity to spread the word about the value of teaching AP Economics and to offer real-life lessons for teachers to use in their own classrooms. Another new initiative is anticipated from textbook publishers, some of whom plan to adapt their college texts to be more useful for the AP Economics curriculum.

Already, however, we have access to a wealth of resources. Over the years, many innovative lesson plans have been developed and distributed. There is also an extensive database of AP Economics materials from the National Council on Economic Education. The College Board publishes Released Exams for both AP Microeconomics and AP Macroeconomics on a five-year cycle. These contain a set of multiple-choice and free-response questions from actual AP Economics Exams and are invaluable aids for preparing students for the exams. The free-response questions for each exam are released annually, along with scoring guidelines that are key to helping teachers understand the grading system and test expectations. The College Board also offers one-day and weeklong workshops that have trained thousands of AP Economics teachers, as well as its AP Annual Conference, which is held every July in a different location. Conference presentations on all the subjects of the AP Program, including AP Economics, provide excellent lessons and subject-specific content. It is a great professional development experience, and teachers can learn firsthand from master teachers the nuances of AP Exams.

As a teacher, you are aware that you face a diverse student group; thus, not every idea in this publication can be a part of your plan. Look closely at the six sample syllabi and carefully read all of the boxed tips. I know you will find many valuable ideas here. All AP teachers build their own set of activities and methods that work best for them and their students. AP Economics can be taught with a wide variety of pedagogical approaches, reflecting each teacher's personal perspective. I have derived great professional and personal satisfaction from teaching this course over the years, and I wish you the best in all your endeavors with the AP Economics course.

I thank all of my colleagues, from both the high school and the collegiate spheres, for their input as I prepared this publication. They willingly shared their thoughts, course designs, and curriculum ideas. I would also like to thank Dr. Clark Ross of Davidson College (a former Chief Reader) for the support and inspiration he has given me as a teacher and Development Committee member. I have become a better AP Economics teacher because of his support. Every new teacher of AP Economics needs a similar mentor who can give advice and direction, and I hope that all who read this publication can locate that mentor quickly. Good luck with your AP Economics course!

### **Peggy Pride**



*Peggy Pride, a teacher for more than 30 years, teaches AP Economics at St. Louis University High School in St. Louis, Missouri. She has led College Board workshops across the country and has been a presenter at the AP Annual Conferences. Peggy was a member of the AP Economics Development Committee for five years and has served as a Microeconomics Reader, Table Leader, and Question Leader at the AP Reading.*





# Chapter 1

## About AP<sup>®</sup> Economics

### The AP Economics Courses

AP Economics made its debut in 1989. The content of the course presents college-level economics taught at the secondary level, with students receiving advanced standing or academic credit at many universities in the United States. A high school may choose to offer a semester of AP Microeconomics or AP Macroeconomics, or a two-semester course that covers both micro and macro.

In general, the AP Economics courses follow the plans for courses on the principles of microeconomics and the principles of macroeconomics that are found in most college curriculums. Every four to six years the AP Economics Development Committee surveys approximately 200 colleges and universities (those that receive the most AP grades) and updates the *AP Economics Course Description* based on the survey results. These frequent surveys and adjustments ensure that the Course Description and exams are representative of college courses and accurately measure AP students' skills and knowledge in the fields of introductory microeconomics and macroeconomics. The review in this chapter by Gregory Wassall and Clark Ross touches on select changes in microeconomics and macroeconomics. It is not meant to be all-inclusive, but it addresses some topics that have been incorporated into revisions to the content covered in AP Economics courses and others that will likely appear in future Course Descriptions.

AP teachers must prepare lessons that are thought-provoking and fair, while students should expect a challenging and rigorous educational experience. AP Economics introduces students to a way of thinking and a set of terms that are likely to be different from those of the other courses they have taken in the social sciences field. The mastery of the *economic way of thinking* and the internalization of economics terminology are major steps toward gaining an understanding of the concepts and ideas covered in AP Economics courses. To achieve such understanding, the two courses, AP Microeconomics and AP Macroeconomics, require college-level textbooks and ancillaries, supplemental materials, and instruction. High school textbooks have neither the depth of analysis nor the breadth of content of college-level texts.

I love teaching AP Economics because the curriculum contains ideas and concepts (e.g., supply and demand, gross domestic product, deficits) that students have seen in the newspaper or heard discussed on radio or TV but often don't understand. It's exciting as a teacher to be able to see light bulbs turning on every day in class as we discuss topics students have wondered about for years but have never had the opportunity to study and understand before.

—Chris Weinrich, Seabreeze High School,  
Daytona Beach, Florida

The AP Program sets the pace in college preparation. As the Getting Started for Teachers page on AP Central explains, many administrators feel that it raises the bar for academic achievement throughout

## Chapter 1

their school's entire curriculum. The Professional Development page on AP Central notes that teachers find that enormous satisfaction comes from working in greater depth with a group of highly motivated students. Teachers also appreciate the open dialogue and exchange of ideas with the diverse members of the AP community, which includes college faculty, school administrators, and other high school teachers. They also benefit from participating in professional development experiences like workshops and summer institutes, and from being Readers for the AP Exam.

### Key Concepts and Skills

The *AP Economics Course Description* is the key College Board publication for AP Economics. It contains a detailed description of the course and a Summary Outline of those topics an AP Economics course must address. The Course Description also provides sample multiple-choice and free-response questions for both AP Microeconomics and AP Macroeconomics, which teachers should use for testing and review. Written with the aid of the AP Economics Development Committee, the Course Description is the last word on AP Economics. The current *AP Economics Course Description* can be downloaded from AP Central ([apcentral.collegeboard.com](http://apcentral.collegeboard.com)) or purchased at the College Board Store (<http://store.collegeboard.com>).

In planning your course and writing your unit plans, you should make full use of the Summary Outline in the Course Description. It is good practice to include in your syllabus or daily lesson plan a sheet that lists the topics and key concepts and skills. (See chapter 2 for a sample list of key concepts organized by objectives and topics.) Using these key concepts can help students focus their attention on one idea at a time.

In both AP Macroeconomics and AP Microeconomics, study begins with basic economic concepts. For example, a thorough understanding of the scarcity concept—including the limit of resources to satisfy our wants, the notion of opportunity cost, and the production possibility model—is essential for fostering the economic way of thinking. Both courses must begin with a thorough grounding in the economic way of thinking: observe, hypothesize, test, and theorize. Then students can easily see that problem solving and policymaking start from a foundation set of theories. One strategy is to use real-world examples of economic events, your own personal experiences, or the experiences of your students themselves to set up the thinking process. Put the accent on “What happens?” and then ask “Why?” to stimulate the formation of hypotheses. Use drill-and-practice exercises to test the ideas. Students will then find it easy to see how the theses or general principles are stated. Lastly, students should be challenged in this beginning unit to relate the basic economic questions—What? How? For whom?—to the organizational structure of command, traditional, and market economic systems.

### Microeconomics Topics

#### I. Basic Economic Concepts

In microeconomics, the first unit must include the initial focus on marginal thinking. Stressing allocative efficiency as the equality of marginal social cost and marginal social benefit clearly shows how society is receiving the allocation of resources in such a way that it obtains the goods and services it wants. This early emphasis on marginal thinking will prepare students to apply the thinking to consumption (marginal utility), production (marginal product), profit maximization (marginal cost equals marginal revenue [ $MC = MR$ ]), resource use determination (marginal resource cost equals marginal revenue product), and externalities (marginal social cost equals marginal social benefit).

## II. The Nature and Functions of Product Markets

In the second unit, demand-and-supply analysis forms the foundation for understanding how competitive markets work. Careful teaching about movement of curves as compared to movement along the same curve can be followed by strong practice with how market equilibrium is established and maintained. Price floors and ceilings provide cases to study the impact of government interventions on the free-market outcome. The concept of elasticity will be useful to analyze market responses to changes in economic variables, and in understanding the behavior of firms in different market structures. Drill work on the underlying basis of the demand curve using marginal utility analysis will reinforce the learning later. The development of the perfectly competitive firm while stressing the marginal cost-marginal revenue approach to profit maximization must be handled in a consistent and uniform manner.

In studying oligopoly, learning the mechanics of game theory helps students to demonstrate the concept of strategic behavior and interdependence of firms in this market environment. Play a few of the simpler games with your students and then move to the payoff matrix analysis. You will find that students' ability to think through the games is enhanced if you have constantly stressed the economic way of thinking.

## III. Factor Markets

Instruction on factor markets will be successful if you concentrate on showing students the parallels in the concepts covered in the product markets in the previous unit. The development of the relationships that was stressed in the second unit is reworked from the other side of the circular flow, which should have been presented in the first unit. Marginal thinking can also be reinforced here with the concepts of marginal revenue product (MRP) and marginal resource cost (MRC), which are equated to determine the profit-maximizing combinations of resource uses. (Another notation for MRC is marginal factor cost, or MFC.) Extending the idea of resource allocation into income distribution completes this unit.

## IV. Market Failure and the Role of Government

This last unit serves to extend the marginal-thinking concepts that have been addressed throughout the microeconomics course. Market failure means that competitive markets do not allocate resources efficiently. Economic efficiency is a central focus. Studying instances of market failure helps to show students how economic policies are designed to improve the efficiency of markets. Two of the most commonly used government policies to correct for market failures are taxes and subsidies, and it is important for students to understand how each policy attempts to solve the problem.

# Macroeconomic Topics

## I. Basic Economic Concepts

The first unit must include a look at the dynamics of the macro economy: business cycle, unemployment, inflation, and growth. This will give you the first opportunity to show students that macro ideas are truly connected and to provide them with a strong foundation.

## II. Measurement of Economic Performance

The primary task in this unit is to instill an understanding of the basic measures of economic activity. Clearly defining the full range of ideas associated with gross domestic product, unemployment, and inflation and providing good drill and practice with the notion of real versus nominal gross domestic product are essential to the analysis of national income and price determination.

## Chapter 1

### **III. National Income and Price Determination**

The aggregate supply and aggregate demand model is the focus of this unit. It is the vehicle for introducing students to the determination of equilibrium national output and the general price level, and for learning how to analyze and evaluate the effects of public policy. The impact of economic fluctuations in both the short run and the long run under the assumptions of sticky versus flexible prices and wages are important distinctions that must be addressed in this unit.

### **IV. Financial Sector**

This unit introduces the role of money and how monetary policy attempts to influence the level of income and output in the macro economy. The money market mechanism—whereby changes in interest rates affect the investment demand, aggregate demand, price level, and real output—is a key concept of this unit. Examining the process of money creation and the role of the banking system, including the organization and function of the Federal Reserve System, leads to a broader understanding of how financial markets work. An understanding of the differences between the money market and the loanable funds market is important.

### **V. Inflation, Unemployment, and Stabilization Policies**

Here students have the opportunity to master policymaking strategies by learning how, as the Course Description puts it, “to analyze the impacts of fiscal policy and monetary policy on aggregate demand and on aggregate supply as well as on the economy’s output and price level both in the short run and in the long run.” By this time in the course, the skill set developed from the beginning should be effective in practice problems and discussion.

### **VI. Economic Growth and Productivity**

Although short, this unit stresses the importance of long-run economic growth. It examines the determinants of growth and government policies to promote economic growth.

### **VII. Open Economy: International Trade and Finance**

This section of the course stresses the effect of world trade, capital flows, and the determination of foreign exchange rates.

## **Current Trends in Topics and Theories of Economics**

Gregory Wassall, Northeastern University, Boston, Massachusetts  
*Chair, Development Committee 2002–2004*

Clark Ross, Davidson College, Davidson, North Carolina  
*Chief Reader, 1996–2004*

Changes in economics pedagogy generally percolate down from recent research, normally found in contemporary economics journals, to graduate teaching, to undergraduate texts, and finally to principles of economics texts. Much of the research in economics is expressed in abstract mathematical terms, and it often takes years before popular writers make it digestible for the nonexpert. A beneficial side effect of this process is that, because not all research results are validated over time, this time lag serves to limit the introduction of poorly vetted concepts into texts about the principles of economics.

## Microeconomics

Traditionally the microeconomics section of the introductory-level college course has focused on consumer and producer theory and on market structure. Factor markets have also been a major portion of the course. Although these topics still form the core of the microeconomics course, new topics and new approaches to existing topics have emerged.

One is the increased emphasis on the role of economic efficiency. This affects the nature and timing of topics in the rest of the course. For example, this concept is critical for understanding the scope and functions of government. This, in turn, permits a sharper exposition of the principal examples of market failure (monopoly power, public goods, externalities, and asymmetric information) and aids in identifying government policies to correct them. Virtually all current texts devote more pages to market failure and government solutions than their predecessors did. This paradigm also addresses the issue of when government intervention in markets may do harm and when it may do good, a key ingredient in delineating the scope of government regulation of the private sector. Finally, it informs discussions of inequality by suggesting economically efficient ways to carry out income redistribution.

Another area of evolution is the increasing complexity and subtlety of models of firms, which are not perfectly competitive. This includes more sophisticated pricing models for price-setting firms and the use of game theory to describe oligopoly behavior. It also includes incorporating the role of imperfect information in contracting and decision making inside the firm and in labor relations, and modeling the effects of firms' reactions to regulation.

A final, related theme is the modeling of the behavior of government agencies, employees, and legislators through the lens of public choice theory. This theory addresses such questions as why government programs do not always solve the problems they are intended to solve, and why political actors do not always act in the public interest. Its role is consistent with the increased emphasis on market failure and government finance that has already been noted.

## Macroeconomics

The traditional macroeconomics course has combined a dose of practical and institutional information (national income accounting, employment and unemployment, prices and inflation, and the banking system) with a theory of income and price determination. In the traditional course, the theory of income and price determination was heavily Keynesian in nature, and competing theories like monetarist and rational expectations were identified and contrasted. As with microeconomics, these topics and theories still form the core of the course. However, several new trends can be found in recent text revisions.

An evolution in macroeconomic theory has led to a growing consensus on the basics of the theory of income and price determination. Rather than focusing on differences among alternative schools of thought, this consensus argues that the classical model of the economy is the most appropriate in the long run, but that short-run changes can be modeled by using the assumptions of the Keynesian model. Differences in approaches are emphasized less than differences in the way the economy reacts to shocks in the short run and the long run. As emphasis on long-run growth issues has increased, there has been correspondingly less emphasis on inflation and unemployment.

Another important change is the increasing use of open-economy macroeconomic models in the principles course. Open-economy macro models have long been used in upper-level courses. As the dollar volume of international trade has continued to grow more rapidly than world gross product, and as the United States continues to see international transactions become a larger share of its gross domestic

## Chapter 1

product, authors have incorporated international issues more directly into the core theory rather than leaving a discussion of the international economy to a chapter or two at the end of the text.

There is also more frequent inclusion of material on links between the real and the financial sectors. Often, explicit material on bond and stock markets is introduced, and interactions between financial and other asset markets and the real economy are discussed. Another example of this theme can be seen in the more detailed treatment of foreign exchange markets that accompanies the discussion of international finance.

A final trend, perhaps less obvious at the principles level, is the increasing use of microeconomic modeling in macroeconomics. This appears most clearly in recent models of the labor market, where micro issues like signaling, search costs, and efficiency wages have become integrated into the macroeconomics course.

# Chapter 2

## Advice for AP Economics Teachers

Every teacher who is beginning a new course needs information that is related to the initial steps in getting started. This chapter is divided into three sections that will get you off to a good start. The first focuses on issues related to teaching the AP Economics courses, the second offers practical preparation tips and strategies for teaching the courses, and the third looks at College Board resources. All will give you suggestions to think about as you begin to gather materials and make preparations for teaching your first AP Economics course. Think of this chapter as your first step in anticipation of your first day of class. The work you do now to understand the material, set up your lessons, and begin teaching AP Economics will pay off in a more confident feeling as you enter the classroom on the first day of the course.

### Basic Start-Up Concerns

Every AP Economics teacher's course is shaped to some extent by the school or school district's policies and learning environment. This section looks at some factors you will need to consider as you create your AP Economics course.

### Scheduling the Course

It is best if each course, AP Microeconomics and AP Macroeconomics, is taught for one semester. I teach micro in the first semester and macro in the second semester. Since my students take both courses, I do not repeat the first topic of macroeconomics (the unit on basic economics concepts) at the beginning of the second semester because it was addressed in the first semester. I find that students are well prepared for both exams when they have taken both courses over two semesters.

Some schools offer only one semester of AP Economics—either microeconomics or macroeconomics. Students in these schools elect to take only the AP Economics Exam for which they are prepared. In some states, a one-semester government course is matched with a one-semester economics course, an arrangement that may be forced by state requirements. Where government and economics are required as matching courses, the economics course usually required is macro.

There has been some debate on the AP Economics Electronic Discussion Group about whether to teach microeconomics or macroeconomics first. I feel that micro gives students a thorough grounding in demand/supply and market analysis, which makes it easier for them to grasp the aggregate demand/aggregate supply unit. Others think that teaching macro first gives students the big picture view of the economy that helps them understand the various micro topics.

## Chapter 2

Teaching AP Economics within the structure of a block schedule is possible, though more planning and work is necessary. Depending on the type of block schedule the school is on, students may need to learn all of microeconomics or all of macroeconomics in nine weeks. This forces a quicker pace and leaves less time for practice and activities. Those who will be teaching the course on a block schedule should pay particular attention to the first and fourth sample syllabi in chapter 3. Syllabus 1 is taught on a modified block schedule, and Syllabus 4 is taught on a rotating block schedule.

### Preparing to Teach the Course on Short Notice

Taking on the assignment to teach AP Economics on short notice is challenging. Don't panic, but do realize that it will take some time and effort to stay ahead of your students. Joining the electronic discussion group (EDG) will show you that you are not alone. Many new teachers go to the EDG for help with starting a course in a few months' time, and their requests are answered in many different, resourceful, and encouraging ways. Accessing the EDG also helps new teachers build a strong network of colleagues. (See the College Board Resources section later in this chapter for information on how to sign up for the AP Economics EDG.)

Obtaining a good textbook is important, as is taking the time to acquire the necessary supplemental materials. Call the publisher's representative for your area and ask for the instructor's manuals and test banks in particular. Chapter 5 lists textbooks, publishers' Web sites, and useful resource materials.

Attending College Board workshops, which are held in the fall and spring across the country, will quickly prepare you to teach your course. Try to attend an AP Summer Institute (see below and the Professional Development section of chapter 5) as soon as possible because you will receive much assistance with getting a course started from this professional development event. Auditing a college-level course is another good idea. There are some online courses that can be taken for college credit. The Foundation for Teaching Economics (<http://fte.org/>), which offers workshops around the country, is one source for these courses.

### Encouraging Students to Take AP Economics

Accurate, honest information should be given to prospective students who wish to enroll in the AP Economics courses. (See the Equity and Access section on page vii for advice from the College Board.) I go to the history classes from which my students for next year are drawn and promote the courses by telling students about the topics and discussing the quantity and quality of work I expect. I am frank with them about the accelerated level of instruction; it is college-level thinking, and they should be prepared to engage in thoughtful discussions and assignments. I stress the challenge of the course and always ask that students talk with me if they have questions. I also encourage my current students to promote the courses and tell others about the nature of the course material.

Take time to sit down with your school's counselors who guide students into various courses. You will want to ensure that they have correct information about the AP Economics courses and exams. If your school's counselors attend the College Board Forums and training workshops, they may already be your allies.

You may be in a situation in which AP Economics is still relatively new in your school. If this is the case, don't be discouraged by initial low enrollment figures. It takes time and effort to build a successful AP program. In my first years as the AP Economics teacher, enrollment for my course was less than 30 students. For the past four years, my course has averaged more than 100 students each semester. As a new teacher, set goals each year that will allow your program to grow: attend a conference, work with other AP teachers in your department or school, or spend the summer reading books from the list of recommended books in chapter 5.



## Parents and the AP Teacher

While parents should be supportive of their children who take AP courses, the real accountability lies with the students. AP teachers should expect their students to be capable of taking responsibility for their own learning. Teacher conferences are good times to discuss progress or concerns with parents, but AP students should expect to deal directly with their teachers when issues arise. AP teachers should be willing to extend themselves for extra sessions or tutoring outside of the classroom.

Parents may have concerns about the AP Economics workload. You will want to stress to them that the concepts of the material are college level, but because the students are still in high school, they will learn the ideas in a more structured, teacher-directed format. Some parents may be concerned about the number of AP courses their child is taking. That is an issue that needs to be discussed with the school's counselors.

Educating the parents of AP Economics students is essential. You can use your school newsletter to share stories about what is happening in your course. Hold parent meetings and present information that compares the course's financial costs (textbooks and exam fees in most states) versus its financial benefits (potential savings in college tuition and books). Letters sent home at registration time can let parents know about the advantages of taking AP Economics and how their child could benefit in many ways from taking a rigorous, college-level course in high school.

## Working with Other Teachers

As a new teacher, open the lines of communication with the other members of your department. Help them understand economic ideas when they are connected to history and other areas. Suggest lessons you discover or develop that cross over to other disciplines of social science. I communicate with the U.S. history and world history teachers to understand the types of lessons and assignments they use. I offer any assistance I can in their lesson development when it involves an economic concept or history. I suggest readings for the teachers and students that provide vocabulary and analysis. I also collaborate with the department in integrating economic ideas and ways of thinking into our curriculum.

It may be difficult for some to find an interdisciplinary connection for AP Economics, but I have forged a relationship with the mathematics department that provides my students and me with a connection that has many payoffs. Since many of my students take calculus and statistics courses, I ask the teachers in the math department to include some economic ideas in their application problems. They can easily deal with marginal-thinking concepts (marginal cost and revenue) or the production and consumption functions. Statistics teachers can be asked to include economic ideas in their assignments, especially survey assignments. Demand issues (e.g., how firms measure demand for their product or how the government collects data on spending and forecasting) can also be a good link between statistics and economics. I offer my students who are taking a statistics course the chance to demonstrate ideas like sample versus population surveys when we talk about data collection in macroeconomics.

The Vertical Team approach to a comprehensive curriculum design, described later in this chapter, has proven to be an efficient way to prepare students who will enroll in AP courses. Explore the possibilities in your district and see if Vertical Team programs are in place for grades 6 through 8. If not, take the initiative, work with the district administration, and help to put the program in place. If your students have been given a set of critical-thinking skills early in their development, it will be their key to success when they enroll in an AP course. These skills are so important in AP Economics because the economic way of thinking is fundamental and is, of course, an extension of critical-thinking skills.

If there is a council of AP teachers in your school or at the district level, join it. When AP teachers periodically meet they can suggest solutions and propose plans for action to their principals and central

## Chapter 2

administrators. Together, teachers and the administration can work to create an environment that encourages a successful AP program. If you do not have a council, be your own advocate. Administrators should provide support for their teachers with appropriate textbooks and materials, teacher-training opportunities, smaller AP class loads, and realistic expectations about student enrollment and performance in the first few years a course is offered. Talk with other AP teachers to share your experiences and offer each other support.

My school has a proactive group of teachers who are excited about new ideas and methods of teaching. The administration encourages the staff to engage in worthwhile professional development opportunities. Districts that promote professional development serve their students well. A committed, dedicated faculty and staff are the keys to success in AP courses. Part of being a professional educator is sharing your knowledge and expertise with others. For the new teacher, finding a mentor who will give you guidance is crucial. Even if you are the only AP Economics teacher in your building or district, find someone who will share that indispensable voice of experience with you. Listen to that voice to build your confidence and your toolbox of methods.

### Summer Reading Assignments

Some teachers assign summer reading for their students and then test them on the reading or have them write an essay. Every spring, members of the electronic discussion group ask each other for suggestions and advice about what to assign. There are pros and cons to the idea of summer reading. The pros include introducing students in some way to the economic way of thinking with many of the books that can be assigned. Summer reading exposes them to the set of terms that will be required throughout the course, and they begin the school year with a curiosity that is otherwise hard to generate in the first few weeks. The cons include students who do not do the work until the last minute and rush through the assignment. Students might also be pressured in every other course in which they are enrolled to read something over the summer, so your assignment may be last on their list. Another idea, and one to which I subscribe, is that students deserve the summer to relax so that they are rested and ready for my course and its rigors.

If you decide to assign summer reading, the Recommended Reading section in chapter 5 will give you a list of titles from which you can choose. Read the books yourself before assigning them so that you can be sure they will have the desired effect. Also, review the second and fourth sample syllabi in chapter 3, which provide good examples of summer reading assignments.

### Using the Internet

The Internet has some value in AP Economics. There are many Web sites that offer data and perspectives on the topics addressed in the courses (see chapter 5 for an extensive list). Most textbook publishers offer Web sites that coordinate with their textbooks. These sites feature student and instructor resources that include interactive (JAVA) simulations and quizzes that can help students and *PowerPoint* presentations for each chapter of a text. Instructor materials often require a password, which can be obtained from the publisher's representative for your area.

Some teachers prepare their own Web pages to aid their students in learning the concepts. Some have Web pages on which they post their syllabus, assignments, study notes, or *PowerPoint* presentations. Links to other sites are useful as well. One feature that I find valuable is the inclusion of links to supplemental readings that offer students differing points of view. I have created a Web page for my course, and I can report that it takes time to prepare and maintain but is well worth the effort.

## Joining Professional Organizations

The National Council on Economic Education (NCEE) sponsors an organization called the Global Association of Teachers of Economics (GATE). It serves teachers in grades K–12 and provides teaching materials and support. You can find the link for GATE at the NCEE Web site, [www.ncee.net/gate/](http://www.ncee.net/gate/).

## Strategies and Suggestions

I began teaching AP Economics about a dozen years ago. I had taught regular economics courses for a number of years and willingly took on the task of adding the AP Economics curriculum to our social studies department's offerings. In those first years, I was still learning the material myself. I tried various strategies, and each year I would change a great deal of what I was doing. Some years I would get behind and not cover all of the topics, and sometimes I went beyond what was needed on others. I attended workshops and learned about the courses' topics and summary outlines and the other materials that were provided by the College Board. I looked back in my college notebooks and searched everywhere for materials. As time went on, my friend, the AP Calculus teacher, encouraged me to apply to be a Reader. I did and was asked to go to the 1995 AP Reading. At the Reading, it was as if everyone was speaking my language. I listened and learned about AP Economics, and the next year my course was more organized and focused.

Over time I developed a study guide of notes for my students and began to write my own activities and worksheets. I created *PowerPoint* presentations for the topics and tried to include student-centered activities like short simulations or starters for every topic. I consistently used the scoring guidelines format that is used at the Reading to grade my tests and free-response questions. I tell my students that I am almost on automatic pilot now because I have taught the courses so often that the material has become a part of me. When game theory and the Phillips curve were added to the outline in the Course Description, however, I admit that it took me some time to master these ideas for myself and convert my ideas into good classroom activities. My best advice for new teachers is to get help from whatever source you can, and that is what this section is all about.

The job at hand for you is to set up your course. The six sample syllabi in the next chapter provide models of well-organized AP Economics courses for you to base your own syllabi on, but a few more ideas and tips can make your course preparation easier. This section contains strategies from AP Economics teachers across the country on everything from selecting a textbook, to teaching weak areas, to preparing students for the AP Exam. You will also find many boxes containing teaching tips from colleagues. The contributors were all new teachers once, and they understand the stress and worry of starting a new course. Most veterans are willing to share ideas, activities, and tips on organization and teaching because we are all in the same business—making our students better economic citizens. This chapter reflects that spirit of sharing.

## Teacher Responsibility

As an AP teacher, your responsibility is centered on a set of ideals. An AP course requires more work and preparation than a regular course. It places responsibility for a great deal of learning directly on the students themselves, but the teacher needs to provide guideposts for the course. Sally Dickson from Ross S. Sterling High School in Baytown, Texas, offers these thoughts on the responsibilities of an AP Economics teacher.

- **Organize the learning within your time constraints.** Before the first day of class, create a syllabus, a plan, for the entire semester. Sample syllabi can be found in chapter 3, but you must make them your own. To do this, you need to create your game plan. It does not matter what type of schedule

## Chapter 2

you are on—block, every day, or all day. Your resource is time, and you must allocate it efficiently to maximize student learning. Most college economics courses have only 32 to 38 hours of instructional time. The average high school course has about 68 hours per semester before lost days. We are fortunate.

- **Simplify and explain key concepts.** Students must read units on their own. Try to make time to guide them through this process, and be ready to teach note-taking skills that emphasize quality, not quantity. Almost no AP course has enough time for detailed class lectures and discussions on every topic covered on the exams. Compress concepts into less time; model the essential concepts only. Provide students with practice. Let them explain problems to the rest of the class.
- **Challenge your very best students.** Aim for the top, not the middle, of your classes. Dare to push yourself and your students beyond the limit of who they are. That is growth. Others will follow and benefit because they know they are a part of something excellent. Use complex materials. Organize your course around a really challenging book. Provide second chances after school for those who need additional time to conquer this subject.
- **Emphasize learning, not grades.** If learning takes place, the grades will follow. When grades are the main goal, learning is externally motivated. When learning itself is the goal, then it is internally motivated. Tests and free-response questions are tools for learning, not just for evaluation.
- **Encourage students to take the AP Exam.** The only way teachers can know if they have succeeded in teaching a truly rigorous course is to have students take the exam. It validates the teacher, and it gives students the opportunity to earn college credit and to view their own efforts against a national norm. All parties receive valuable information about their efforts.
- **Prioritize and protect your time.** Use your time for studying, learning, developing lessons, and grading free-response questions (or essays), not grading mindless daily work. Use scannable sheets for multiple-choice tests; use scoring guidelines and scoring grid sheets for free-response questions or essays. Delegate work to students.

### The Steps to Success in AP Economics

John Morton, one of the early promoters of AP Economics to the College Board and now the vice president for program development at the National Council on Economic Education, developed a list of steps to success for AP Economics teachers, which he shared at a workshop some years ago. Let me comment on each of his steps.

- **Start with the economic way of thinking.** The AP Exam is a set of questions that challenge students by asking them to think. If teachers do not stress the economic way of thinking with their students, they have missed the essence of our discipline. Stress the ideas of observing, hypothesizing, testing, and theorizing. Add that policymaking follows this thinking process. Economics is really about problem solving. We have a toolbox of theories and terminology that help us form solutions to problems. When we teach economics in a conceptual way and not just draw a set of diagrams that are to be memorized, students can use the skill set that they have learned and accept the challenges the AP Exam poses.
- **Use active-learning activities.** In any learning scenario, students learn best when they are involved in the process. Standardized lectures are at times an effective teaching strategy, but exercises, problem sets, and interactive games and simulations should be integrated into any course design.

You can find many lessons in publications like those from the National Council on Economic Education, and there are Web sites that present interactive lessons and simulations. Chapter 5 has many such resources to investigate. Each of the sample syllabi in chapter 3 includes student activities or evaluation tools. I try to use a 5- to 10-minute class starter to introduce every topic. It can be a game, a pretest, a newspaper or magazine article, a cartoon, or just a story. The starter sets the stage for the lesson, and students often refer to the game results or the article in their free-response answers at test time in my class.

- **Graph early and often.** Graphs play a vital role in the understanding of the theories of economics. Economists use models to demonstrate concepts and to show the dynamic nature of the economy as changes occur. It is important to include graphing and exercises that challenge students to create these models and to explain the changes that result.

You as the teacher must model good graphing and analysis practices because students will look to you and follow the graphing example you set. You must always be precise in the graphs you place on the board, worksheet, or test. When you teach a new model for the first time, verbalize the steps as you draw. Clearly and properly label the axes, and always label the curves and changes in any graph.

Have students pair up and draw graphs on the board. They become more aware of the correct labeling and accuracy of the curve shifts. You can observe them easily, and others can benefit from the mistakes they make.

—Sue Weaver, Ramona High School,  
Ramona, California

On worksheets and practice sheets, be sure to ask for analysis: What happened to price and quantity? Why? What was the cause of the changes? Give daily work that includes drawing a graph and writing an explanation; do not let students merely memorize the graphs you display. Try randomly putting a transparency that has a short problem or idea to graph on an overhead projector when students enter the classroom. They must prepare their answer and be ready to share it with the class by the time you have finished taking attendance.

Alongside or below every graph, we always use a flow chart that both clarifies what is going on and helps us to analyze it logically. Thus, for example, when demand rises in the case of perfect competition (from a position of long-run equilibrium):  $D \downarrow \rightarrow P \uparrow \rightarrow$  economic profits become positive  $\rightarrow$  firms enter industry  $\rightarrow S \uparrow \rightarrow P \downarrow \rightarrow$  economic profits  $\downarrow$  to zero. This method is particularly useful for those for whom English is a second language.

—Mary Saso, International School of the Sacred Heart,  
Tokyo, Japan

Help students visualize as images all of the ideas you introduce. As they challenge you with a question, think in terms of graphical analysis: Can you draw it? Can you see your question in a graph? These are good ways to bring in the class when challenging ideas are presented.

The fundamental graphs of both microeconomics and macroeconomics are the production possibility frontier, the circular flow diagram, and demand and supply. Strong emphasis should be placed on these because students will make use of the skills they developed in analysis throughout the course. When testing, include problems that require students to draw a graph.

## Chapter 2

Understanding supply and demand is crucial to the whole process of learning economics. There is no other concept that is more important as a foundation. That being said, having students graph and shift supply and demand curves takes time.

We call them curves, but we usually illustrate them as straight lines. I tell my students that this makes it simpler for their aged instructor.

Having the price axis on the vertical axis of the graph often confuses the mathematically gifted students. My simple solution is to emphasize that we abbreviate the price label with a dollar sign (\$). The \$ has vertical lines in it, and the verticals always stick together. It may sound corny, but it works!

In discussing the change in demand versus the change in quantity demanded concepts, I emphasize that every time students see the term *demand*, they are to substitute the phrase *demand curve*. Of course, *supply* must now be *supply curve*. A single point doesn't move the curve, hence a change in price causes a change in the quantity demanded, not the demand (curve).

Another part to this section deals with the age-old confusion of supply increases and decreases. If supply is decreased, it is illustrated as a curve higher on the graph. Higher must mean increased, right? No. Maybe economists just love to confuse students. The rule is simple. S/D curves don't move up or down, they move left or right—and *left is less!*

—James Ranney (retired), Lanthrop High School,  
Fairbanks, Alaska

Sometime after we have completed the unit on market structure, and before the end of the course, I have my students complete a market structure graphing review. I count this for points toward their grade for the marking period. Basically, each student must draw and carefully label the graphs for the individual firm and the market in each market structure. For pure competition and monopolistic competition, profit maximizing, loss position, and long-run equilibrium are required. For monopoly, single price monopolist, with and without government regulation, and price discriminating are required. No graphs are required for oligopoly. For grading I use a scoring guideline based on correct positioning of the lines and labeling. Students can then use this packet for review for the AP Exam.

—Kathryn Galvao, Bridgewater-Raritan Regional High School,  
Bridgewater, New Jersey

- **Emphasize the historically weak areas.** The topics and concepts that students miss year after year need special attention. Students need to spend time understanding key terms and their definitions. Many confuse money and income, stock and flow, and capital and financial capital. Learning complete definitions is essential. For example, here is the definition of the law of diminishing marginal returns: “As more variable resources are added to a fixed resource, eventually the marginal product will decline.” The phrase *added to a fixed resource* is often forgotten, yet it is an essential part of the definition. There are a few micro topics as well as macro topics that puzzle students year after year. Teachers need to devote time and effort to providing drill and practice for these ideas.

### Microeconomics

Graphing and the analysis of the graphs are primary concerns. Students can memorize the “picture,” but they need to be able to explain the concepts that underlie the drawing. They need to be able to see the connections between different graphs as well. One special idea is the distinction between a change in an independent variable and a change in something else that shifts a curve.

Anytime the independent variable changes on a graph, there is going to be a point-to-point movement on a stable curve (not a shift of that curve), and the answer must contain a  $Q$ . For example:

- A price change leads to a change in  $Q_D$  or  $Q_S$
- A price level change leads to a change in  $Q$  of output (RGDP)
- An interest rate change leads to a change in  $Q$  of investment
- A change in income leads to a change in  $Q$  in consumption or  $Q$  of saving

All of these independent variable changes deal with money. They are price, price level, income, and interest rate changes, which are the price of money. If something changes besides the independent variable, there will be a shift of a curve and not a point-to-point movement. The shifts are called “change in demand or supply,” “change in AD or AS,” “change in investment,” and “change in consumption/saving.”

—Ken Norman, Bishop Lynch High School,  
Dallas, Texas

Teaching students the concept of consumer and producer surpluses is necessary because the concepts relate to other ideas in microeconomics. Defining and using graphical analysis to demonstrate consumer and producer surplus is a first step. Changes in consumer and producer surplus in the market can be shown graphically. Deadweight loss, excess capacity, and efficiency loss of a tax reinforce these ideas.

Another microeconomics topic that is often overlooked is the resource market. It is important to take time to explain the resource market. My lesson plan usually includes these elements:

- The circular flow diagram is examined again to show that we are now on the other side of the circular flow, the resource market.
- Marginal revenue product theory is next, to aid students in understanding that the demand for a resource like labor is the MRP for that resource.
- The  $MRP = MRC$  rule is used to determine the profit-maximizing amount of the resource (working with labor market) that will be hired or used.
- The distinction between the perfectly competitive labor market and the imperfectly competitive labor market is noted and includes a comparison with the product market.
- Side-by-side graphs of the firm and the market in the perfectly competitive market, and wage and employment determination in an imperfectly competitive labor market complete the unit.

One last topic that needs special attention is externalities. It comes in the last micro unit, but teaching it takes special care with the labels. The graphs are essentially demand-and-supply curves. Supply is the marginal private cost (MPC) or marginal social cost (MSC) and demand is the marginal private benefits (MPB) or marginal social benefits (MSB). Students need to understand that externalities create divergence between MPC and MSC, and between MPB and MSB, and the socially optimum quantity of a good or service (related to allocative efficiency) occurs where marginal social benefits = marginal social cost ( $MSB = MSC$ ), which is the best alternative choice. Students must clearly define the marginal private cost and benefits. If you have addressed basic demand/supply analysis earlier in the semester, your students can easily understand these ideas.

## Chapter 2

### Macroeconomics

Macroeconomics seems to be going in a new direction. There is new emphasis on the effect of changes in the long run and the short run as played out through sticky and flexible prices, wages, and interest rates. The chair of the Development Committee and the former Chief Reader reflected this thinking in chapter 1. Newer editions of textbooks also reflect the new emphasis, and teachers need to focus on these changes. Using the foundation of classical and Keynesian viewpoints helps to promote the thinking of sticky versus flexible.

Distinguishing between nominal and real interest rates is always difficult for students. Teachers should stress that the difference is related to the effect of price level change. The money market graph will show the nominal rate because the vertical axis is reflective of the opportunity cost of money with price level not an influence. The loanable-funds market graph will indicate real interest because the supply of funds comes from savers who are affected by price-level changes. This concept should be introduced as well when discussing nominal and real wages, and nominal and real income.

The international aspect of economics has gained new importance. It is best to try to incorporate the idea of trade and comparative advantage early in the semester and then address its effects through the topics as they develop.

Despite the section on international trade and finance being at the end of the syllabus and appearing to be relatively short, I devote about one quarter of my teaching time to this topic. This provides plenty of scope for a thorough review of shifts in aggregate demand, fiscal and monetary policies, and economic growth. The interactions between the domestic and international economies are endless. Moreover, these interactions demonstrate how there can often be two right answers, which, oddly enough, contributes to students' confidence. (We can all be right as long as we each provide an analysis!) For example, an expansionary fiscal policy boosts interest rates, which encourages an inflow of financial investment funds and, consequently, a U.S. dollar appreciation as its demand increases. At the same time, however, the increase in aggregate demand raises incomes and the price level so that net exports fall and the dollar depreciates.

—Mary Saso, International School of the Sacred Heart,  
Tokyo, Japan

I have found that many students have trouble graphing the supply and demand for currencies and the corresponding effects on the respective exchange rates. Especially challenging is how to label the vertical axis of a currency market. After all, what *is* the price of money? A simple rule I use and reiterate time and again is that no matter what currency is on the x-axis (e.g., if it is an S and D graph for the dollar), that same currency goes in the *denominator* of the vertical axis (e.g., pounds/dollar). This helps students see that the price of the dollar is nothing more than how many pounds it takes to get one dollar.

—Scott McAlister, Homewood-Flossmoor High School,  
Flossmoor, Illinois

- **Quiz and test frequently.** Do not be tempted to set up the AP Economics course as a college course in terms of testing. High school students need timely assessment and frequent reinforcement of learning. They need the challenge of constant quizzing, both announced in advance and of the surprise variety. You can quiz them by chapter or by concept. Five to six major tests should be included in a one-semester AP Economics course. Many teachers use multiple-choice and free-response questions on each major test to give their students practice in taking tests that follow the



AP Exam format. Review the sample syllabi, some of which contain sample tests and quizzes, in chapter 3 for more ideas on testing students.

- **Give students practice answering multiple-choice and free-response questions.** Students need to be challenged with questions that are similar to those found in both sections of the AP Economics Exams. Textbook test banks provide a challenging set of multiple-choice questions, but you should always try to offer five choices of answers because the multiple-choice section of the AP Exam is structured with five choices.

Free-response questions from previous AP Economics Exams are available on the AP Economics Course Home Pages on AP Central, with scoring guidelines and sample answers from students. These are good for group work and peer grading assignments. Be aware that students may also have access to these questions and their answers. You can also write your own free-response questions for students to practice answering. See below for helpful advice.

- **Find a textbook you like.** Use a textbook with which you are comfortable (see chapter 5 for a list of possibilities). Finding a textbook that works for both you and your students is essential. What should you look for in a good textbook?

*Coverage.* Judge a text by its coverage of the topics that are listed in the *AP Economics Course Description* and the key skills and concepts section in this chapter. Not all texts cover every topic, so be sure the essentials are presented clearly. Well-drawn graphs and solid explanations are other important features.

*Readability.* Judge a text by how well it reads. Remember that AP Economics is a college-level course, so don't try to evaluate the text by the tenth-grade standard by which most high school texts are judged.

*Supplements.* Judge a text by how valuable its supplemental materials will be to you. Are the end-of-chapter questions able to aid your students' understanding and help them apply the concepts to real-life scenarios? Are the online features worthwhile for students to use to gain more knowledge and practice? Look for items like quizzes and interactive graphs because these are useful for most students. Does the text come with a study guide that provides good practice exercises? Last, are the test bank questions organized in a range of difficulty? Do they offer significant assessment resources that include multiple-choice questions, short answer questions, and problem sets?

- **Use College Board materials.** A list of College Board publications is provided at the end of this book. The *AP Economics Course Description* as well as Released Exams, additional sample syllabi, updates, and other resources are available on AP Central. See below for a full discussion of College Board resources.
- **Use NCEE materials.** Get the AP Economics books from the National Council on Economic Education. The NCEE is an organization whose goal is to raise the economic literacy of the students in our schools. There are two specific sets that are most valuable to AP Economics teachers. (1) *Advanced Placement Economics* is a set of activity-based lessons that clearly illustrate and reinforce the economic principles you introduce in your lectures. It is one of the best resources available to supplement the AP Economics courses. The teacher resource manual has daily lesson plans that guide teachers through the most crucial economics principles. Master sheets for visual overheads, exercises, and problem sets are provided, and each unit has a set of sample multiple-choice and free-response questions. The student workbook allows each student to have a copy of all the exercises and

## Chapter 2

activities. (2) *Economics in Action: 14 Greatest Hits for Teaching High School Economics* combines favorite NCEE simulations, role-playing activities, group activities, and classroom demonstrations.

Other NCEE publications can be found at the NCEE Store at <http://store.ncee.net/economics.html>. The NCEE Web site, [www.ncee.net](http://www.ncee.net), has lessons and simulations that can be used to teach the AP Economics courses.

- **Attend conferences.** Attend weeklong conferences and summer institutes, and acquire as many professional development experiences as you can. Ken Norman of Bishop Lynch High School in Dallas says it all with this comment:

Preparation for the AP Economics courses not only makes you a better AP Economics teacher, but it also makes you a much better teacher in regular economics courses. Perhaps 60 percent of the AP material can be taught in a regular course, making those students much better prepared for college. As you take more graduate courses in your subject, you may accumulate 18 graduate hours or a master's degree, which will enable you to teach part-time at the college level. If you desire to change schools, having taught an AP course will enable you to get more job offers because schools value AP experience.

### Writing Free-Response Questions

Francis McMann, an AP Economics teacher at George Washington High School in Cedar Rapids, Iowa, contributes excellent advice for writing free-response questions for your students. Do not be afraid to write free-response questions. These suggestions from Mr. McMann make it easy.

1. **Check the specs.** Develop a test plan by specifying the content to be tested or listing core concepts.
  - Check the beginning of each chapter in your text or the summary at the end of each chapter for the chapter's content ideas, ideas your students will need to know in order to pass the unit test.
  - Check the "Key Ideas" in the third edition of John S. Morton and Rae Jean B. Goodman's *Advanced Placement Economics: Teacher Resource Manual* (2004) or similar sections in your text's study guide or instructor guide for lists of content ideas for each unit.
  - Check the Course Description—what concepts and skills will be tested on the AP Exams?
2. **Test related parts.** For any concept core, test the related and connected parts. For example, you might provide students with an elasticity problem, but also consider linking their understanding of elasticity to previously taught material:
  - Supply and demand analysis
  - Consumer and producer tax burden
  - Producer and consumer surplus
  - Production possibility graphs

3. **Provide stimuli.** Always provide students with a stimulus, a problem to be solved or analyzed. These can be:

- A new graph
- A scenario
- New or novel data or tables
- A current event (from a newspaper, journal, or magazine)
- An editorial cartoon

To find these, look in texts other than those your students are using.

4. **Focus on the verb.** Focus on the verb in the exam question that indicates what it is students are to do.

For these verbs, students may simply state an assertion, insert phrases, or use bullets.

For these verbs, students must write, in sentences, an explanation of causation or of a process.

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list

explain fully

identify, indicate

explain why

define

explain how

state

analyze

discuss

5. **Write questions that have dependency.** Have students show how their answers to one part of a question affect another part, task, or issue, and grade for consistency of answer. For example:

- Given your answer in Part (a), at what price would an effective price ceiling occur?

6. **Compare and contrast.** Write questions that demand that students compare and contrast. For example:

- Identify consumer surplus prior to the imposition of a price ceiling.
- Identify how revenues will change if demand becomes more elastic with time.
- Identify consumer surplus with an effective price ceiling.
- Compare a monopolistic price and output with a perfect competitor.
- Draw side-by-side graphs for comparison/contrast.

7. **Elicit explanations.** Write questions for which students, at some point in the problem, must explain a mechanism or list discrete steps to solve a problem. For example:

- How does a monopolist decide the price and quantity of output?
- How does a change in the interest rate change the international value of the dollar?
- Explain how tariffs impose quotas.

## Chapter 2

8. **Compute and interpret.** Have students compute and interpret. For example:
  - If the price of  $x$  is reduced from \$25 to \$20 and quantity demanded increases from 50,000 to 60,000, then what is the price elasticity of demand ( $E^d$ )?
  - What does the  $E^d$  mean?
  - What does the  $E^d$  mean for total revenues?
9. **Request graphs.** Always have students draw a graph. For every topic, isolate and focus on the graphs that students must draw:
  - Focus on correctly labeled graphs, directional signals, correct shading when necessary, and identification of areas.
  - Have students use graphs to compare and contrast between parts of an analysis or problem.
  - Have students use graphs to explain events, causations, mechanisms, and sequences.
10. **Develop, write, and use scoring guidelines.** Every question or task requires a detailed, reliable, and systematic measurement. Student peer groups can write questions and then assess them with a scoring guideline that they have developed. You should show your students the scoring guideline you used as you graded their work. Focus on the key concept or core idea you want students to demonstrate. *Avoid holistic grading.* For example, on a simple supply and demand question, you might list these necessary prerequisites for an answer:
  - Draw a supply and demand graph showing appropriate shift.
  - Label the new equilibrium price and output.
  - Include a graph as part of the scoring guidelines.

One of the best things I have students do after writing their short answers on a test is to go through the questions in groups of three or four and generate a scoring guideline of what they think might be graded. We then collectively come up with a scoring guideline, and I guide them to put in anything the real guideline has that they left out. At this point I have copied a class set of a range of five different responses and the students grade them in their groups. Just as grading helps us as teachers, so it helps students see why an answer they might think is phrased correctly really is not. Plus, they begin to see where an implied answer is not an answer. It also helps to emphasize what the terms in the question are really asking them to do. I usually mix in some of the students' essays with the samples provided by the College Board. Students become really tough graders, and this raises their own standards for what they write.

—Sandra Wright, Adlai E. Stevenson High School,  
Lincolnshire, Illinois

Some AP Economics teachers who have also taught AP United States History or AP European History have expressed the view that research papers and essays must be assigned in the AP Economics courses. Be aware that the types of free-response questions that are used on the AP Economics Exams do not require answers to be written in an essay format. Questions are presented in segments, and students are told to develop their answers around these prompts as the scenario builds.

## Key Skills and Concepts

This list of the key skills and concepts written as student objectives is specific, since new teachers need a good sense of what concepts to cover. A good idea is to include the relevant objectives from this list in the plan or calendar for each unit. I have done this for many years and find that at testing time, students look to this list to be sure they understand the ideas we have studied. You can easily insert these key skills and concepts into the sample syllabi that are presented in chapter 3.

### Microeconomics

1. Define the science of economics.
2. Distinguish between opportunity cost, scarcity, and tradeoffs.
3. Distinguish between macroeconomics and microeconomics.
4. Make a distinction between positive economics and normative economics.
5. List the three basic economic questions.
6. Define comparative advantage and specialization and benefits of exchange.
7. Use a production possibilities curve to demonstrate opportunity cost and growth.
8. List the determinants of demand and supply.
9. Recognize which factors will cause demand curves or supply curves to shift.
10. Distinguish between changes in quantity demanded and a change in demand.
11. Distinguish between changes in quantity supplied and a change in supply.
12. Determine equilibrium using a demand/supply graph, and show the effects on price and quantity when equilibrium changes.
13. Distinguish between a normal and an inferior good.
14. Distinguish between a substitute and a complementary good.
15. Predict the effect of an effective price ceiling or floor in a market.
16. Calculate elasticity using the midpoint formula.
17. Use demand-and-supply graphs to show the effect of differences in elasticity.
18. Define the law of diminishing marginal utility.
19. Use the income effect and the substitution effect to explain the down-sloping demand curve.
20. Apply the utility-maximizing rule.
21. Given a demand/supply graph, identify/calculate the area of consumer surplus/producer surplus.

## Chapter 2

22. Distinguish economic profit from accounting profit.
23. Use a circular flow diagram to model a market.
24. Make a distinction between the short run and the long run.
25. Define the law of diminishing marginal returns.
26. Identify per unit costs when given total costs and output; identify total costs when given per unit costs output.
27. Identify the key characteristics of the different types of market structure.
28. Use the profit-maximizing rule ( $MR = MC$ ) to determine output price for firms in the different types of market structure.
29. Determine short-run and long-run profit in the different types of market structure.
30. In words and using graphical analysis, show the short-run and the long-run equilibria of the purely competitive firm.
31. In words and using graphical analysis, show the profit scenario of a single price monopolist and a perfectly price-discriminating monopolist.
32. Identify the government policies employed when a firm exercises monopoly power or is a natural monopoly.
33. In words and using graphical analysis, show the equilibrium of the monopolistically competitive firm in the short run and the long run.
34. Predict the behavior of oligopolistic firms using game theory and profit matrixes.
35. Define derived demand.
36. Given a graph or a firm's production schedule (function) and a market wage, determine the quantity of labor a profit-maximizing firm would hire in a perfectly competitive labor market.
37. Given a graph or a firm's production schedule (function), determine the market wage and the quantity of labor a profit-maximizing firm would hire in an imperfectly competitive labor market.
38. Given a graph, identify/calculate the area of consumer surplus/producer surplus when government imposes a tariff.
39. Given a graph, identify the incidence of a tax on buyers and sellers and the deadweight loss.
40. List the economic functions of government.
41. Define a public good.
42. Discuss the free rider problem.
43. List the effect of income and payroll taxes on the economy.

44. Identify the two principles used to assess fairness of a tax.
45. Explain negative and positive externalities and give examples of each.
46. Identify the possible remedies for market failures that might be employed to achieve a socially optimal allocation of resources.

### **Macroeconomics**

1. Define the science of economics.
2. Distinguish between opportunity cost, scarcity, and tradeoffs.
3. Distinguish between macroeconomics and microeconomics.
4. List the three basic economic questions.
5. Define comparative advantage and specialization and benefits of exchange.
6. Use a production possibilities curve to demonstrate opportunity cost and growth.
7. List the determinants of demand and supply.
8. Recognize which factors will cause demand curves or supply curves to shift.
9. Distinguish between changes in quantity demanded and a change in demand.
10. Distinguish between changes in quantity supplied and a change in supply.
11. Determine effects on price and quantity when equilibrium changes.
12. Describe the macroeconomic performance of the United States and other countries—gross domestic product (GDP), inflation, unemployment, and other indicators.
13. Define GDP by expenditure and income approaches.
14. Distinguish between nominal GDP and real GDP.
15. Explain the limitations of GDP measures.
16. Define unemployment; list sources and types.
17. Define the labor-force participation rate.
18. Define the full-employment level of GDP.
19. Distinguish between actual and potential GDP.
20. Explain the calculation of price indices—GDP deflator, consumer price index (CPI), and producer price index (PPI).
21. Use price indices to calculate real wages and real interest rates.

## Chapter 2

22. List the determinants of aggregate demand (AD).
23. Distinguish between changes in AD and a change in price level causing movement along the AD curve.
24. List reasons why the AD curve is down sloping.
25. List the determinants of aggregate supply (AS).
26. Distinguish between changes in AS and a change in price level causing movement along the AS curve.
27. Explain and demonstrate the shape of the AS curve in the short run and long run; define and show the full-employment level of output ( $Q_f$ ).
28. Determine the importance of the shape of the AS curve on the effects of change in the AD curve.
29. Determine equilibrium using an AD/AS graph and show the effects on price level and real GDP when equilibrium changes in both the long run and the short run.
30. Given data, determine the size of the spending multiplier and assess its impact on AD.
31. Define fiscal policy—discretionary and nondiscretionary.
32. Define and measure the effect of built-in stabilizers on the economy.
33. Using AD/AS analysis, show the effect on price level and real gross domestic product (RDGP) of changes in fiscal policy.
34. Define the balance budget multiplier.
35. Distinguish between sticky price and sticky wage models and flexible price and flexible wage models; identify the effect of these differences on the AS curve.
36. Define and list factors influencing money demand.
37. Define money supply and other financial assets.
38. Demonstrate understanding of the time value of money.
39. Define a fractional banking system.
40. Explain the role of the Federal Reserve System in the economy.
41. Identify and examine the tools of central bank policy and their impact on money supply and interest rates.
42. Describe the process of money creation and multiple-deposit expansion.
43. Given data, determine the size of the money multiplier and assess its impact on the money supply.



44. Distinguish between nominal and real interest rates.
45. Define the quantity theory of money.
46. Assess the effect of fiscal and monetary policy on real output, price level, and the level of employment in the long run and the short run.
47. Gain understanding of how an economy responds to a short-run shock and adjusts in the long run in the absence of any public policy actions.
48. Examine the economic effects of government deficit budgets, including “crowding out.”
49. Consider issues surrounding the size and burden of the national debt.
50. Gain understanding of inflation-unemployment tradeoffs using short-run and long-run Phillips curve analysis.
51. Show the causes of inflation on an AD/AS model.
52. Speculate on the role of inflationary expectations on price level and output.
53. Define economic growth and list the factors that stimulate growth.
54. Assess the role of productivity in raising real output and standard of living.
55. Suggest how public policies stimulate economic growth.
56. Using graphical and tabular analysis, show the benefit of employing comparative advantage.
57. Explain how the balance of payments accounts are recorded.
58. Explain the effect of trade restrictions.
59. List the factors that influence equilibrium foreign exchange rates.
60. Using demand/supply analysis, show how market forces and public policy affect currency demand and currency supply.
61. Define currency appreciation and depreciation and relate both to graphical analysis.
62. State the effects of appreciation and depreciation on a country’s net exports.
63. Understand how changes in net exports and capital flows affect financial and goods markets.

## **Essential Graphs**

Beginning about 1996, graphs have been required of students when requested on the AP Economics Exams. Here is a short list of required graphs for both micro and macro that can assist new teachers in understanding what to stress in their courses. Of course, remember that students must be able to analyze these graphs as well as construct them.

## Chapter 2

### Microeconomics

- I. Production Possibility Curve
  - A. Efficiency
  - B. Inefficiency
  - C. Attainable versus unattainable combinations
  - D. Growth
  
- II. Circular Flow Model
  - A. Simple model: household and business, resource and product markets
  - B. Adding government in last unit
  
- III. Demand and Supply Graphs
  - A. Showing equilibrium
  - B. Shifts and effects
  - C. Changes in elasticity of demand and supply
  - D. Effect of floors and ceilings
  - E. Effect of quotas and tariffs
  - F. Effect on tax efficiency—efficiency loss
  - G. Consumer and producer surplus
  
- IV. Market Structure
  - A. Short-run costs
  - B. Long-run costs
  - C. Perfectly competitive markets
    1. Short-run and long-run profits and losses
    2. Side-by-side graphs of the market and the firm
    3. Effects of shifts in market
    4. Allocative and productive efficiency
  - D. Imperfectly competitive markets
    1. Single price unregulated monopoly
      - a) Deadweight loss
    2. Natural regulated monopoly
      - a) Socially optimum output
      - b) Fair return price
    3. Perfectly discriminating monopoly
    4. Monopolistically competitive markets
      - a) Short-run and long-run profits and losses
      - b) Excess capacity
    5. Oligopoly
      - a) Strategic behavior
      - b) Dominant strategy
      - c) Nash equilibrium

- V. Factor or Resource Market
  - A. Perfectly competitive labor market
    - 1. Side-by-side graphs of the market and the firm
    - 2. Effects of shifts in the market supply or demand for resources
  - B. Imperfectly competitive labor market
    - 1. Shift of MRP and/or MRC
- VI. Externalities
  - A. Negative externality
    - 1. Socially optimum point versus private-market equilibrium
    - 2. Effect of government corrective policies
  - B. Positive externality
    - 1. Socially optimum point versus private-market equilibrium
    - 2. Effect of government corrective policies

## Macroeconomics

- I. Production Possibility Curve
  - A. Efficiency
  - B. Inefficiency
  - C. Attainable versus unattainable combinations
  - D. Growth
- II. Demand and Supply Graphs
  - A. Showing equilibrium
  - B. Shifts in supply or demand curves and effects
- III. Circular Flow Model
  - A. Simple model: household and business, resource and product market
  - B. Simple model with government added
  - C. Open-economy macro model
- IV. Business Cycle
  - A. Phases
    - 1. Peak
    - 2. Recession or contraction
    - 3. Trough
    - 4. Recovery or expansion

## Chapter 2

- V. Aggregate Demand and Aggregate Supply
  - A. Equilibrium price level and output
  - B. AS long run and short run
  - C. Shifts in AD and AS curves (short run and long run)
  - D. Effects of fiscal and monetary policy actions
  
- VI. Phillips Curve
  - A. Shape in short run and long run
  - B. Effects of AD shifts
  - C. Effects of AS shifts
  - D. Long-run position at natural rate of unemployment
  
- VII. Money Market Graph
  - A. Equilibrium nominal rate of interest and quantity of money
  - B. Shifts of supply of and demand for money
  - C. Effect of shifts on equilibrium interest rate
  
- VIII. Loanable Funds Market
  - A. Equilibrium real rate of interest and quantity of money
  - B. Shifts of supply of and demand for money
  - C. Effect of shifts on equilibrium interest rate
  
- IX. Flexible Exchange Rates
  - A. Equilibrium price of currency and quantity of currency (equilibrium exchange rate)
  - B. Shifts of supply of and demand for currency
  - C. Effect of shifts on price of currency

## College Board Resources

The Professional Development section of chapter 5 describes many of the resources, services, and support the College Board offers new AP teachers. Other College Board resources that may be of interest to new teachers include the following.

### Publications

Besides this Teacher's Guide and the Course Description, the College Board provides several other print and electronic publications that may be useful to you.

**AP Released Exams** describe the process of scoring the free-response questions and include examples of students' actual responses, scoring guidelines, and commentary that explain why the responses received the scores they did. There are two Released Exams for AP Economics available, and the most recent features the 2005 AP Economics Exams.

Released Exams provide teachers with authentic AP Economics Exam questions that can help students become accustomed to the format and pacing of the exam. Scoring guidelines and sample student responses can be used in a peer-teaching setting. Challenge your students to grade the samples using the scoring guidelines. You can purchase Released Exams from the College Board Store ([store.collegeboard.com](http://store.collegeboard.com)).

**Sample syllabi** for each subject are available on AP Central on the course Home Pages. High school teachers have written the majority of the syllabi. As AP courses are designed to cover material usually taught at the college level, some syllabi from college professors are also included. Sample syllabi are invaluable to the new teacher who wants to develop a semester plan that relies on a proven track record. Six sample syllabi can be found in chapter 3 of this Teacher's Guide.

## AP Central

AP Central is an electronic publication of the College Board. Registration is free and allows teachers access to thousands of pages on the Web site, including teaching resource materials and lesson plans, feature articles, teacher profiles for every AP course, and reviews written by AP teachers in the Teachers' Resources section. The latter is a database of over 4,500 original reviews of textbooks, software, videos, Web sites, and other teaching materials, assessing each for their suitability to the AP classroom. The AP Microeconomics Course Home Page (<http://apcentral.collegeboard.com/econmicro>) and AP Macroeconomics Course Home Page (<http://apcentral.collegeboard.com/econmacro>) provide current Course Descriptions, sample syllabi, textbook reviews, links to Web sites, and other useful tools.

To get the most out of AP Central, you should become a registered user. Nonregistered users are able to browse a limited number of pages on AP Central, primarily AP Program information and the AP Course Descriptions. When you register, you should select the AP courses you are interested in. By making these selections, you see personalized news and promotions on the AP Central Home Page, plus you have the option of subscribing to e-mail newsletters that alert you to additions to AP Central relating to your courses at least twice per school year.

On your personal profile page, accessible from the **My AP Central** button, you can choose to receive news about your course. You should visit AP Central at least once per week. It is updated regularly with new feature stories written by AP teachers and college faculty about AP-related topics and themes; AP program, course, and exam updates; and new teachers' resources reviews and listings of professional development events.

## Electronic Discussion Groups

Electronic discussion groups (EDGs) are Web-based threaded discussion groups that allow users to post messages online to be viewed by the entire group. Messages can also be sent and received via e-mail. The EDGs provide a moderated forum for the exchange of ideas, insights, and practices among AP teachers, Coordinators, consultants, Readers, administrators, and college faculty.

The AP Economics Electronic Discussion Group serves as a great free resource for AP Economics teachers. The lively discussion threads have helped new teachers understand a concept, share an idea that works, and debate a new author's twist of an old idea, and they have provided a network of teachers who speak the same language. The AP Economics EDG is at times funny, at times serious. Veteran and new teachers alike enjoy the camaraderie it creates.

To join the EDG for AP Economics, you first need to register with AP Central at [apcentral.collegeboard.com](http://apcentral.collegeboard.com). After logging in, click on **AP Community**, then on **Registration** for Electronic Discussion Groups.

## Chapter 2

### AP Coordinator

Each participating school designates an AP Coordinator who takes primary responsibility for organizing and administering that school's AP program. The AP Coordinator may be a full- or part-time administrator or counselor, or a faculty member who is not teaching an AP course. AP Coordinators manage the receipt, distribution, administration, and return of AP Exam materials.

AP teachers and the AP Coordinator work closely together throughout the academic year. Early in the spring, AP teachers consult with the Coordinator to help determine the correct number and type of exams that need to be ordered. During the exam administration weeks, Coordinators may designate AP teachers to serve as proctors for exams in a subject area other than the one they teach. New teachers should work with their AP Coordinator, keeping the Coordinator updated on their progress in teaching the course. Often the AP Coordinator allocates funding for teachers to attend summer institutes and workshops.

Coordinators are the bridge between AP teachers, students, and administrators, and the AP Program. Questions about exam fees, dates and deadlines, and exam-specific policies, such as the calculator policy, should be directed to the AP Coordinator.

### College Board Regional Offices

The College Board maintains six regional and three State Services offices to serve students and educators. Your questions and comments regarding College Board programs and services should be directed to these offices. They provide information and features specific to their region of the country. The regional offices are working to bring many of their services to you, such as programs, professional development opportunities, associational activities, legislative relations, and governance structure.

Contact information for College Board regional offices is located on the inside back cover of this guide.

# Chapter 3

## Course Organization

### Syllabus Development

Before the first day of class, the best plan is to create a syllabus, that is, a plan for the entire semester. A syllabus is a must for a successful course. Sample syllabi for AP Microeconomics and AP Macroeconomics are presented in this chapter, but you must make them your own. Here are some suggestions for how to do that.

First, read and reread the Course Description, paying close attention to the Topics and Topic Outline sections. The Topic Outline needs to be translated into your plan for the semester, but you will need to gather some information about the time that will be available to you before you can create your plan. Your plan must accommodate the class time and configuration of your own school. Your resource is learning time, and you must allocate it efficiently in order to maximize it. Ask yourself these questions:

- Approximately how many instructional days are lost to snow, senior meetings, band trips, assemblies, senior skip day, state tests, and so on?
- How many days during the semester will be used for testing and corrections?
- How many days will be needed for review for the AP Exam and for finals?
- How many instructional days (or hours) are in the semester after subtracting the lost days (or hours)?

Now, multiply the percentages for the topics given in the Course Description's Topic Outline times the total number of instructional days to find out approximately how many days (or hours) you can spend on each unit. Roughly estimate how many days can be used for each unit based on these percentages. If you will miss many days to snow or to school events, plan to use those days for reading and written assignments. The sample syllabi in this chapter provide examples of how to make a good estimate.

Once you have determined how you will allocate the time, you can create your course syllabus. Your syllabus should include:

- **Information About the Course**
  - Introduce the general topics of the course.
  - Discuss the goal of economic thinking.
  - Give the date for the AP Exam.
  - Discuss exam preparation.

## Chapter 3

- **Course Goals and Objectives**

- Provide a set of performance objectives.
- Discuss your grading scale and expectations.

- **Course Content**

- Use the Topic Outline from the Course Description.
- Discuss the types of activities and assignments.

- **Instructor's Philosophy**

- Explain your teaching philosophy.
- Identify your behavior objectives.
- Discuss your policies on late work and absences.

- **Required Materials**

- Name the textbook and any other required texts.
- Include a short reading list that is optional.
- Identify your preference for types of notebooks, binders, colored pencils, and so on.

It is best to give students a brief outline of the semester and, at the beginning of each unit, a daily schedule with textbook reading assignments and due dates for credit work. The daily schedule may also list Web sites that might prove useful in the study of the unit topics.

I distribute my syllabus at the beginning of the semester. It clearly outlines my expectations and gives students a concise view of the course. When I wrote my first syllabus, I listed the topics we would study and tried to estimate the number of days we could study each topic. I stated my grading policy and tried to show my students that this was an organized, college-level course. Today, my syllabus begins with an introduction that discusses what economics is about. I list the “Nine Principles of Economic Thinking” (from a National Council on Economic Education publication) so that we can refer to them quickly in class:

1. Everything has a cost.
2. People choose for good reasons.
3. Incentives matter.
4. Economic actions carry secondary effects.
5. People gain from voluntary trade.
6. Economic thinking is marginal thinking.
7. The price of a good or service is affected by people's choices.
8. People create economic systems to influence choices and incentives.
9. The test of a theory is its ability to predict.



I also present information about the AP Exam date. I identify the textbook and give a warning about reading it carefully and noting the graphs as they appear. I state my attendance and behavior policies clearly. I include a description of the types of assignments that are required and list the number of unit tests and quizzes. I share with students my weighted grade policy and list the A through F grade range.

For each unit, I prepare a daily lesson plan sheet. Here I outline the plan for each day of class. I note the pages to be read in the text for each topic, and I state the assignments and their due dates. Each lesson plan sheet begins with the Course Description narrative on the topic and then lists performance goals, teaching concepts/lessons, and the graphs students will need to master. This type of unit handout clearly defines the limits of the lesson and provides a logical message about my expectations in terms of concepts and goals. I use the key skills and concepts written as student objectives that appear in chapter 2 for my performance goals.

## Introduction to the Six Sample Syllabi

Experienced and well-respected teachers from a variety of geographic locations throughout the United States have contributed the six sample syllabi in this chapter. They all bring a wealth of knowledge about AP Economics to their lesson plans, and all have participated as Readers at the annual AP Reading where they scored the AP Economics Exams. Four syllabi are written by high school teachers; two are from college courses.

Each syllabus is unique and reflects its author's personal solutions to managing the exciting challenges of teaching today's students. They all contain a course overview, a course planner, specific teaching strategies, and useful resources. Most include an actual student activity or evaluation tool the teacher has used in the classroom. The college syllabi show you the standards and expectations of a college-level class in this discipline, which is what AP courses are meant to emulate and reproduce.

The syllabi suggest ways that AP Economics can be successfully taught and provide excellent examples for new AP Economics teachers to follow. They are extensive, and you are invited to take ideas from any or all of them. Do not, however, think that these syllabi were created overnight; all were developed over a period of several years. Your first attempt, like the first syllabi created by the teachers represented here were, will be a plan in transition. Start with a short course syllabus and expand upon it as time passes.

## Important Note: The AP Course Audit

The syllabi included in this Teachers Guide were developed prior to the initiation of the AP Course Audit and the identification of the current AP Economics Curricular Requirements. These syllabi contain rich resources and will be useful in generating ideas for your AP course. In addition to providing detailed course planners, the syllabi contain descriptions of classroom activities and assignments, along with helpful teaching strategies. However, they should not necessarily be used in their entirety as models that would be authorized under the guidelines of the AP Course Audit. To view the current AP Curricular Requirements and examples of syllabi that have been developed since the launch of the AP Course Audit and therefore meet all of the AP Economics Curricular Requirements, please see AP Central.

<http://apcentral.collegeboard.com/courseaudit/resources>

# Sample Syllabus 1: Macroeconomics

**Scott McAlister**

Homewood-Flossmoor Community High School  
Flossmoor, Illinois

## School Profile

**School Location and Environment:** Homewood-Flossmoor Community High School is located in the south suburbs of Chicago, approximately 25 miles from downtown. It is the sole public high school for the communities of Homewood and Flossmoor, and it serves students from parts of four surrounding towns as well. In 2002 Homewood-Flossmoor High School received its third Blue Ribbon Award from the U.S. Department of Education; it is 1 of only 14 public schools nationwide to receive the award three times. The school is unique in that it requires all of its seniors to pass a full year of economics; as a result, four levels of economics courses are offered: Advanced Placement, Honors, College Prep, and Academic Core.

**Grades:** 9–12

**Type:** Public high school

**Total Enrollment:** 2,640 students

**Ethnic Diversity:** African Americans make up 39 percent of the student population; Hispanics/Latinos, 4 percent; and Asian Americans, 2 percent.

**College Record:** Approximately 95 percent of the graduating seniors go on to attend two- or four-year colleges or technical schools.

## Personal Philosophy

I have a strong love for teaching economics that is apparent to anyone who steps into my classroom. I believe that economics fulfills a vital and unique role in a high school curriculum because it is devoted to helping students learn not only practical subject matter but, more importantly, a way of thinking. It is wonderful to start each school year with 100 to 125 seniors who have never taken an economics course prior to stepping into my classroom. I always remind them that they come to most courses with preconceived ideas of whether they will like or dislike the course, as all of them have had many experiences with math, English, history, and so on. But for 99 percent of my students, this is the first time they have been exposed to the economic way of thinking, and I emphasize that, while they may or may not enjoy the subject matter, they will have no problem seeing its relevance to their daily decision making. If students leave my classroom knowing how to approach problems in a manner that is different from when they walked in, and they have an enjoyable time while doing it, then I have succeeded in doing what I set out to do.

## Class Profile

Approximately 15 to 20 percent of the senior class takes AP Economics, which means there are roughly 100 to 125 seniors in the AP Economics program; class sections average 20 to 25 students. Homewood-Flossmoor uses a modified block schedule in which Mondays and Fridays have traditional 50-minute periods, and Tuesdays, Wednesdays, and Thursdays have block periods during which four of the six periods meet for two out of the three days for 85 minutes a class. Approximately one-fourth of the student body also takes a course that meets before school five days a week for 50 minutes a day.

## Course Overview

This course is designed to prepare students for the AP Economics Exams. It provides students with more rigorous study than the Honors-level course because of its increased writing and analysis requirements. The AP course is divided into two distinct parts: *microeconomics* (scarcity, price determination, the theory of the firm, externalities) in the first semester and *macroeconomics* (public finance, fiscal and monetary policy, inflation, unemployment, economic growth, international trade) in the second semester. Much less emphasis is placed on consumer topics as compared to our College Prep and Academic Core levels. Emphasis is placed on critical thinking skills through the understanding, application, and analysis of fundamental economic concepts. The primary textbook for the course is the fourth edition of David C. Colander's *Economics* (2001).

## Course Planner

All of the students who are enrolled in the second-semester AP Macroeconomics course have studied microeconomics in the first semester. Consequently, we do not spend any time teaching scarcity, opportunity cost, and the price system to our students during the second semester. This enables us to spend an additional two to three weeks studying strictly macro concepts. The pacing guide that follows reflects that, since we begin with macroeconomic indicators as our first unit.

Unit	Topic	Time	Readings
1	Macroeconomic Indicators	2 weeks	Colander, chaps. 22, 23
2	Fiscal Policy and the AS/AD and Aggregate Expenditure Models	4 weeks	Colander, chaps. 24, 25, 26, 27
3	Monetary Policy	3 weeks	Colander, chaps. 29, 31, 33
4	Historical Case Studies	1 week	Independent research/presentations
5	Macro Theory International Trade	3 weeks	Colander, chaps. 19, 31, 32
6	Prepare for the AP Economics Exams	2 weeks	
7	Consumer Economics	2 weeks	

## Chapter 3

### Sample Calendar for Unit 3: Monetary Policy

March

Sun.	Mon.	Tue.	Wed.	Thurs.	Fri.	Sat.
						1
2	3	4	5	6	7	8
9	10 <b>Unit 3: Monetary Policy</b>	11	12 Test on AD/ AS and Fiscal Policy	13 Test on AD/ AS and Fiscal Policy	14 Discussion of Money Read "I Am a Dollar"	15
16	17 Go over Unit 2 Exam	18 Functions/ Character of Money M1 and M2 Homework: 647-56	19 Monetary Equation of Exchange Multiple Expansion of Demand Deposits HW: 704-6	20	21 Bank Runs Timed Writing HW: 656-65	22
23	24 <b>Spring Break!!</b>	25 "If a man insisted on always being serious,	26 and never allowed himself a bit of fun and relaxation,	27 he would go mad or become unstable	28 without knowing it." —Herodotus	29
30	31 Review material from before break Discuss timed writing					

April

Sun.	Mon.	Tue.	Wed.	Thurs.	Fri.	Sat.
		<b>1</b> Organization of the Fed and Monetary Policy	<b>2</b> The Fed and Monetary Policy	<b>3</b>	<b>4</b> Monetary Policy and Interest Rates Timed Writing HW: 692-97	<b>5</b>
<b>6</b>	<b>7</b> Effectiveness of Monetary Policy HW: 704-13	<b>8</b> Monetary Policy and Its Effects on the Dollar HW: 750-54	<b>9</b> Monetary Policy and Its Effect on Net Exports HW: 754-63	<b>10</b>	<b>11</b> Catch-Up Day	<b>12</b>
<b>13</b>	<b>14</b> Review for Unit 3 Exam	<b>15</b> Unit 3 Exam	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>
<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>
<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>			

**Unit 3: Monetary Policy Content Standards**

Students should be able to demonstrate an understanding of money and monetary policy by:

1. Defining M1 and M2
2. Listing the major functions of money
3. Calculating how money is created and destroyed by the banking system
4. Describing the organization and functions of the Federal Reserve System
5. Explaining the tools of monetary policy
6. Comparing and contrasting the effectiveness of each of the monetary policy tools
7. Applying the proper monetary policy to solve the problems of inflation or recession as determined from a set of economic data
8. Defining terms (e.g., fiat money, commodity money, near money)
9. Identifying the interest rate effect of expansionary and contractionary monetary policy
10. Identifying the effect of expansionary and contractionary monetary policy on the dollar
11. Identifying the effect of expansionary and contractionary monetary policy on imports and exports

## Chapter 3

### Unit 4: Historical Case Study: Macroeconomic Policy in the Twentieth Century

During unit 4, students are assigned the following research project:

The twentieth century in the United States saw remarkable change in many arenas of life—social, political, cultural, and economic. Having studied the specifics of fiscal and monetary policy, the task for you and your partners is to research the administration of an American president who oversaw a time period of economic transition. Specifically, your group will research, write, and report to the class on the following items.

A. Your presidential administration

- Years in office (e.g., 1952-60)
- Political experience prior to becoming president (e.g., Is your president a seasoned politician and successful in getting his policies written into law?)
- Political ideology
- Composition of Congress during his tenure (e.g., majority/minority party; numbers)
- Chair of the Federal Reserve during his tenure (Appointed by which president? How long as chair?)

B. Two domestic policy issues unrelated to the economy

- What was your president trying to accomplish in America outside of the economic realm?
- Famous athletes, teams, entertainers, movies, TV shows, and so on during your president's term

C. Two foreign policy issues unrelated to the economy

- Was there a trouble spot that dominated international affairs?
- How did the United States view its role in international circles?

D. The state of the U.S. economy

- Cite the major economic indicators (discussed in class) that paint a picture of the American economy during this time period.
- Discuss how this administration fit into the business cycle as a whole and twentieth-century U.S. history in general. Provide more than simply a snapshot in time.

E. Fiscal policy

- Given the problems identified in part D, cite the specific fiscal policy actions of your president and the Congress. If the majority party in Congress was different from your president's party, how successful was the chief executive in pushing through his legislation?
- What were the short-run and long-run effects of the fiscal policy actions identified above?

F. Monetary policy

- Given the problems identified in part E, cite the specific monetary policy actions of the Federal Reserve.
- Was the Federal Reserve under any pressure from the executive branch to change its policies?
- What were the short- and long-term effects of the monetary policy actions identified above?

Your written work should be typed and presented in the outlined form provided above. A written bibliography of sources must be included.

Your group should have a poster board that provides visuals related to your administration and the key events it faced. A good poster board will answer the following question: Could a stranger who looks at your poster board know who was president, what was going on in the United States and the world during that time, and the economic problems the country faced? Would that person be able to tell what fiscal and monetary policy actions were taken to solve the problems? Be creative yet informative with your poster board. Every group member must speak during your presentation, and your presentation should not exceed 12 minutes.

**Possible Administrations to Research**

- |                    |                           |
|--------------------|---------------------------|
| Theodore Roosevelt | Lyndon Johnson            |
| Calvin Coolidge    | Richard Nixon/Gerald Ford |
| Herbert Hoover     | Jimmy Carter              |
| Franklin Roosevelt | Ronald Reagan             |
| Dwight Eisenhower  | George H. W. Bush         |
| John Kennedy       | Bill Clinton              |

*This assignment is due on \_\_\_\_\_*

**Teaching Strategies**

The daily routine is to use class time for discussing homework assignments, outside source readings, and any material students had trouble comprehending in the text. Although I lecture, it is largely to clarify difficult concepts from the reading. Students are expected to read approximately 10 pages every night, which is not a burdensome amount but enough to keep them focused on the material at hand.

I have found that with Macroeconomics, students are often interested in how classroom content can be related to the events they encounter in the news. As a result, I have a daily subscription to both the *Wall Street Journal* and *Investor’s Business Daily* from which I draw articles for analysis. I also encourage students to locate articles to use as the basis for class discussion.

At the beginning of each unit, students receive a calendar that lists the key concepts to be discussed each day, as well as reading assignments from the text. Test dates are also included on the calendar. The reverse side of the calendar contains the content standards for each unit, which is the material I expect my students to know upon completion of the unit. The inspiration for the content standards is the *AP Economics Course Description* as well as state and local mandates. I firmly believe the unit tests should contain no surprises, and I challenge my students to locate test questions that were not based on the content standards presented to them at the beginning of the unit.

## Chapter 3

We have roughly two weeks after the AP Exam until the end of the school year, and we use this time to accomplish two tasks. First we prepare for our final exam, which is different from the AP Exam. The school strongly emphasizes the idea that the purpose of taking AP courses extends beyond the AP Exam, and therefore we hold students accountable for material covered after the AP Exam.

The second thing we do is bring to a conclusion a mini-unit on consumer economics, which covers some of the consumer topics that our College Prep-level students study in detail throughout the year. These include career planning and income forecasting, budgeting, saving and investing, and car buying. Illinois has a required consumer economics unit for all graduates, so these topics are taught throughout the school year in addition to the concentrated unit at the end of the year. While many teachers dismiss these topics as being below the level of many of the students enrolled in AP courses, most AP students are very responsive when this material is taught. Not only does it provide a break from the day-to-day routine of economic theory, but also many of these truly gifted students know little when it comes to consumer topics. I strongly recommend that you consider using this material for post-AP Exam units of instruction.

### Student Evaluation

My philosophy of student grades is that they should reflect students' mastery of the content standards for each unit. Students' overall grades include homework, quizzes (reading, concepts, etc.), research-based projects, oral presentations, and unit exams. Some of the specific parameters for these topics follow.

- **Homework and Related Quizzes.** Reading assignments are given on the unit calendar that is handed out at the beginning of each unit. They typically average 5 to 10 pages a night. Quizzes are given to ensure that students are reading the assigned text pages. As an incentive for them to read thoroughly, I allow my students to use any handwritten notes when taking these quizzes. My students also answer free-response questions as quizzes within each unit. Typically, quizzes have only one question (formatted like an AP Exam free-response question), and students are given 12 minutes to answer it. This helps them see the importance of writing under a time constraint and also writing succinctly. Written assignments usually occur about three nights per week. They reinforce concepts discussed in class, and students will arrive at class with questions related to the written work. These questions serve as a basis for class discussion and allow for further study of material students need to have mastery of in order to succeed on the AP Exam.
- **Research-Based Project/Oral Presentation.** This assignment, in unit 4, is described above.
- **Group Work.** In addition to the unit 4 research project, I often put my students in groups (never exceeding three people) and require them to complete a specific task. Sometimes I take six to eight questions from the textbook and, instead of having students complete the work individually as homework, I allow them time to answer one question as a group with the understanding that they will present their answer to the class. Whenever possible, I require them to use a graph in their answers, and each member of the group must speak during the presentation. I also interject comments and questions throughout all of the presentations so students know they will have to speak at least to answer my questions. They cannot rely on their partners' knowledge to get through the presentation without having to speak.
- **Unit Exams.** All unit exams are formatted in the same manner as the AP Economics Exams. My multiple-choice section is worth two-thirds of my students' overall exam grade, and the free-response section is worth the remaining one-third. For the major macro units of study (fiscal and monetary policy), I always have three free-response questions and give students the same amount



of time to answer my exam questions as they will be given for the AP Exam (a 10-minute reading period followed by 50 minutes to write).

A great majority of my exam questions are taken from previous AP Exams. I use the scoring guidelines to grade my students' responses. When we go over the exam together as a class, I project a transparency of the scoring guidelines on an overhead projector so that students can see point by point where they did well and in what areas they need improvement. I have found it beneficial for my students to see the process used to score their exams. It improves their ability to analyze and answer a question properly.

To help teachers gain confidence in this process, I cannot recommend strongly enough participation in the workshops offered by the College Board throughout the school year (see chapter 5). Even if it is only a one-day workshop, attending is the single best thing a new AP teacher can do. I also strongly recommend visiting AP Central at [apcentral.collegeboard.com](http://apcentral.collegeboard.com). Here teachers can view all past free-response questions and scoring guidelines, as well as participate in an electronic discussion group dedicated to teaching AP Economics. Those who frequent the site will answer any questions you have quickly and professionally.

- **Criteria and Scale.** This is the Homewood-Flossmoor High School AP Economics grading system: Each semester is broken into two nine-week quarters. All assignments are categorized as either a test/quiz or a homework grade. Students' quarter grades are then weighted as 66 percent test/quiz and 34 percent homework. Their quarter grades are calculated as follows:

$$\text{Test/Quiz Average (.66) + Homework Average (.34) = Quarter Grade}$$

The following scale is then used to determine the corresponding letter grade:

A+ (100–99%)	A (98–93%)	A– (92–90%)	
B+ (89–88%)	B (87–83%)	B– (82–80%)	
C+ (79–78%)	C (77–73%)	C– (72–70%)	
D+ (69–68%)	D (67–63%)	D– (62–60%)	F (<60%)

The semester grade is the weighted average of the first and second quarters and the semester final exam, which is worth 33 percent of the semester grade.

## Teacher Resources

### Textbook

Colander, David C. *Economics*. 4<sup>th</sup> ed. Boston: McGraw-Hill/Irwin, 2001.

### Textbook Study Guide

Colander, David C., Jenifer Gamber, and Douglas Copeland. *Study Guide*. New York: McGraw-Hill/Irwin, 2001.

This study guide, which is an ancillary to the text, is available for purchase in our campus bookstore for \$25. We encourage its use for independent review, though it is not a mandatory student purchase.

## Chapter 3

### Student Activity Workbook

Morton, John S., and Rae Jean B. Goodman. *Advanced Placement Economics*. 3<sup>rd</sup> ed. New York: National Council on Economic Education, 2003.

We require students to purchase the microeconomics workbook for the first semester and the macroeconomics workbook for the second. (If I taught only a macro course, I would not have students purchase the micro book.) While we do not use every activity in the workbooks, the practice they provide is indispensable in preparing students for the AP Exams.

### Supplemental Course Textbooks

Jevons, Marshall. *The Fatal Equilibrium*. Cambridge: MIT Press, 1985.

Jevons, Marshall. *Murder at the Margin*. Princeton, N.J.: Princeton University Press, 1993.

Wheelan, Charles. *Naked Economics: Undressing the Dismal Science*. New York: W.W. Norton, 2002.

The Homewood-Flossmoor textbook center has class sets of each of these three books. My students check out a book for use during the semester and return it upon completion.

### Student Test Preparation

Chasey, James. *Multiple-Choice and Free-Response Questions in Preparation for the AP Economics (“Micro” and “Macro”) Examination*. 2<sup>nd</sup> ed. Brooklyn: D & S Marketing Systems, 2002.

I have a class set of this book. During the weeks leading up to the AP Exam, it is quite useful to use them as a source of review. They have multiple-choice and free-response questions for each unit, as well as two exams that are similar to the AP Exam.

### Supplemental Teacher Resources

*Alan Greenspan: The Man Behind the Money*. A&E Biography. N.p., n.d. Video. Fifty minutes. New York: A&E Television Networks, 1999.

Anderson, David A., and James C. Chasey. *Favorite Ways to Learn Economics*. Mason, Ohio: Thomson South-Western, 2002.

*Commanding Heights: The Battle for the World Economy*. Updated and rev. ed. Produced by WGBH. New York: Simon and Schuster, 2002. Video series.

Three videos, 120 minutes each. For more information, call WGBH Boston Video at 800 949-8670, or visit their Web site at [www.pbs.org/commandingheights](http://www.pbs.org/commandingheights).

*Economics USA*. Produced by Educational Film Center. Updated ed. N.p., 2002. Video series.

Twenty-eight videos, 30 minutes each. For more information, contact Annenberg/CPB Collection at 800 532-7637, or visit their Web site at [www.learner.org/resources/series79.html](http://www.learner.org/resources/series79.html).

*Investor’s Business Daily*

*Wall Street Journal*

### Web Sites

For data related to the consumer price index and unemployment rates, I frequently refer to the Web site of the Bureau of Labor Statistics, [www.bls.gov](http://www.bls.gov).

For data related to the gross domestic product, the Web site of the Bureau of Economic Analysis, [www.bea.gov](http://www.bea.gov), is outstanding.

### Student Activities

I would like to thank my friend and colleague Carl Coates for the following two classroom simulations. My classroom is constantly evolving as a result of Carl's suggestions and contributions.

#### Simulation 1: Circular Flow of Goods and Services

##### Student Learning Objectives

Upon completion of the simulation, students will be able to do the following:

1. Compare and contrast the goods and services market with the market for factors of production
2. Describe the role of households in providing the necessary resources required for production of goods and services
3. Define *profit*
4. Explain the process necessary for a business to turn unfinished inputs into finished goods and services
5. Describe the relationship between work and utility-maximization
6. Describe how prices are attained in a free-market economy

##### Supplies Needed

1. 40 white envelopes (4" × 9")
2. A complete set of Monopoly play money (or the equivalent)
3. 5 manila envelopes (8.5" × 11")
4. 200 laminated cards (1" × 3") with the word *capital* on them
5. 200 laminated cards (1" × 3") with the word *land* on them
6. 200 laminated cards (1" × 3") with the word *labor* on them
7. 200 laminated cards (1" × 3") with the words *1 util* on them
8. 200 laminated cards (1" × 3") with the words *2 utils* on them

The laminated cards can simply be plain pieces of paper. However, it is recommended that for durability purposes they be either laminated or printed on heavy-duty cardstock. Once you have them, they can be reused time and again. Also, it is recommended that the three factors of production be printed

## Chapter 3

on three different colors of paper and the two utility cards be printed on two additional different colors of paper. This makes it easier to organize the different cards once the simulation begins.

### Teacher Preparation

1. Retrieve 20 of the 40 white envelopes. Count out \$600 of play money and place it inside each of the 20 envelopes. Write the denominations on the outsides of the envelopes (e.g., 2—\$100, 4—\$50, 5—\$20, 5—\$10, 10—\$5). It is best to have a variety of large and small bills to help facilitate trade.
2. Label one of your manila envelopes *capital* and place all 200 laminated *capital* cards inside the envelope. Repeat this process for the other two inputs, *labor* and *land*.
3. Place 18 input cards into each of the remaining white envelopes. These can be in any combination (e.g., one envelope might get 18 *labor*, another might get 9 *labor* and 9 *capital*, and a third might get 6 of each). This helps students see that resources are not distributed evenly throughout society, and they must make do with what they have been given. Write the distribution of the 18 factors of production (hereafter referred to as FOPs) on the outsides of the envelopes.
4. Place your *util* cards in the remaining two manila envelopes.

### Instructions to Read to Students

1. Explain that this simulation will help students understand how the circular flow diagram represents the interaction of households and businesses in an economy. Half of the class will be households and the other half will be businesses. You will also need one student to volunteer to be the factory.
2. Give each of the households a white envelope containing 18 FOPs. Have them count the FOPs to ensure that there are 18 inside the envelope.
3. Give each of the businesses a white envelope with \$600 inside. Have them count to ensure that the correct amount of money is inside. If not, the extra play money can be used to reconcile the envelope.
4. Explain to all households that they own the factors of production. As in real life, their goal is to sell these FOPs to the businesses for the highest price they can attain. (I do not tell them what a fair price is for these FOPs. One of the lesson objectives is for them to see how a free market sets the prices of scarce resources.) They must receive cash for their FOPs, which they will then use to purchase utils from the businesses. In our simulation, a util represents a good or a service produced by a business. (This presents an excellent opportunity to explain the concept of utility and the idea that we all work so we can earn an income to buy the things in life that make us happy. After all, we do not work to earn a lot of money and never enjoy what it can buy.) The goal of all households is to end the game with as many utils as possible.
5. Explain to all businesses that you (the bank) have given them a \$600 loan with which to begin their business. Before they can produce anything, they must acquire the FOPs that the households have for sale. Their job is to use their \$600 to purchase as many sets of FOPs as possible. A set of FOPs is defined as one *land*, one *labor*, and one *capital*. The businesses must determine what price is appropriate to pay in order to acquire these FOPs.

Once they have acquired a full set of FOPs, businesses have the ability to produce a good or service. To do this, they take their complete set to the factory (a student volunteer positioned at a central point

in the room) and exchange their set of FOPs for one util. As the game increases in intensity, many businesses will bring multiple sets of FOPs to exchange at the factory; the two-util cards increase the transaction speed. Once they have a util, they then sell this to the households for the highest price they can attain. The goal of all businesses is to end the game with as much cash as possible. To earn a profit, they must end up with in excess of the \$600 with which they started the game.

6. It is worth repeating the goals for both parties:
  - a. *Households want to maximize their utility.* They do so by selling their FOPs for cash, which they then use to buy the goods and services that bring them satisfaction (utils).
  - b. *Businesses want to maximize profit.* They do so by buying FOPs from the households for as little as possible and then using them to produce goods and services (utils), which they then sell to the households for the highest price possible.
7. Make sure all parties understand how the simulation works and what their ultimate goal is.
8. Tell students they will have approximately 13 minutes in which to complete their transactions. If I see that all FOPs have been sold before this time or that businesses have sold all their utils, I end the simulation before the 13 minutes have expired.
9. After the simulation is complete, have households count the total number of utils they were able to obtain. Go around the room and have students take turns saying their numbers out loud. Record these on the board.
10. Have all businesses count their cash. Have students take turns announcing the amount with which they were able to finish the game. Record this information on the board as well.

### Debriefing Questions

1. Which group (households or businesses) benefited from the exchange of resources for payment and from the subsequent purchase of finished goods and services?

*Answer:* Students should realize that most of the time both parties gain through voluntary trade. The reason I say “most of the time” is that undoubtedly some of the businesses do not even earn back their \$600 loan. In other words, they lose money. This presents an opportunity to segue into a discussion of the price system. As the simulation progresses, both households and businesses realize an appropriate price to pay for FOPs and finished goods and services. However, at the beginning of the simulation, both parties are uncertain as to the point at which equilibrium will be established, and many of them overpay for FOPs and utils.

2. How was a fair price determined for the FOPs and the finished goods and services?

*Answer:* Through the give and take of buyers and sellers acting in their own interest, a price was determined at which both parties could be satisfied. This is the equilibrium price.

3. For the businesses that ended the simulation with extra FOPs:

- How useful is an uncompleted set of FOPs?

*Answer:* It is not useful at all. Businesses acquire productive resources with the intent of transforming them into finished goods and services that they can sell at a profit. Unutilized resources represent an expense for which there is no offsetting revenue.

## Chapter 3

- How much would students have been willing to pay to get the last needed resource(s) to complete a set?

*Answer:* Most businesses would be willing to pay a lot to complete a set. However, as the game progresses, these resources become more difficult to acquire. The limited supply makes them more expensive and, in many cases, prohibitively so.

- What kept students from getting the last resource(s) needed to complete a set?

*Possible answers include:* The resource was too expensive, students could not find a household that had the needed resource, and time for the simulation had expired.

### 4. For the households that ended the simulation with cash:

- Why were students unable to buy utils in exchange for their cash?

*Possible answers include:* Utils were too expensive, households were unable to find a business with any utils available for sale, and time for the simulation had expired.

- How much utility does cash bring?

*Answer:* Students' responses should indicate an understanding that the utility of cash comes from its ability to acquire those things in life that make us happy. Some might also discuss the opportunity cost of spending the money today (the lost opportunity to spend the money in the future). In this respect, having excess cash provides the opportunity for later consumption. That being said, ultimately money is worthwhile for the things it enables us to consume, not because it has intrinsic value.

### 5. What would happen if some of the businesses closed down and were therefore unable to hire (buy) the FOPs?

*Answer:* The owners of the FOPs (households) would be unable to purchase goods and services due to a lack of income. This reinforces the idea of a circular flow of products/resources in one direction and money payments in the opposite direction. A break in any of the flows has consequences beyond the initial event.

### 6. What would happen if many of the households lost their jobs and, as a result, were no longer earning an income?

*Answer:* See the answer to the previous question.

## Closing the Simulation

It is useful after having participated in the simulation for students to look at the circular flow diagram once again. Walk them through each of the flows/markets and the corresponding labels, being sure to relate these to the roles they portrayed during the simulation.

Prior to returning the envelopes, have students interact with one another and the factory to attain the needed denominations of currency and FOPs to match those written on their envelopes. This way, you can store the materials knowing that the next time you retrieve them they will be ready to use.

## Simulation 2: The Benefits of Trade

### Student Learning Objectives

Upon completion of the simulation, students will be able to:

- define *utility* and explain its relevance to personal decision making,
- explain the benefits of trade with other people/nations,
- dispel the notion that trade must be a zero-sum game (i.e., if one party gains then another must inherently lose), and
- cite possible justifications for the restriction of free trade.

### Supplies Needed

1. Brown paper lunch bags for as many students as you have enrolled in the course.
2. Enough knickknacks to furnish each of the bags with approximately three to eight items. I generally go to the local discount store and buy a lot of little things that students might find amusing (pens, pencils, candy, erasers, hair barrettes, combs, toy cars, etc.). You can fill the bags with anything you wish; the only limiting factor is how much you want to spend. For a class of roughly 25 students, I typically spend \$12 to \$15.

### Teacher Preparation

1. Purchase the necessary materials.
2. Distribute the items into the lunch bags. When you fill the bags, it is important *not* to distribute the items evenly. In some bags I put only two or three items, and in others I put seven or eight. The average for each bag is typically four or five items. I also like to include one or two really good prizes so those items will be the envy of everyone in the class. Once the bags are filled, staple them shut so no one can see inside them.
3. Arrange students' desks in clusters with 3 or 4 students to a cluster. In a class of 25 students, this will allow for 6 to 8 different groups.

### Instructions to Read to Students

1. Announce to the class that their cluster represents  $x$ -number of counties (e.g., four) within a fictitious state. The state government forbids trade of any kind between different counties.
2. Tell them that each student will receive a bag filled with various unknown items. They may open the bag and look inside, but they must keep its contents confidential. Tell them that whatever is inside the bag is theirs to keep. In addition, anything they are able to trade for over the course of the game is theirs to keep as well. (I have found that students respond much better to the simulation if they have a tangible interest in its outcome, that is, allowing them to keep whatever they are able to legally attain. Obviously this adds to your expense if you plan to do this simulation year after year, because you will need to replenish the supplies. I believe the same learning objectives can be attained by not permitting students to keep their treasures, but I also feel that this incentive would be missed.)

## Chapter 3

3. Students will have been previously exposed to the idea of utility during a discussion of consumer demand. However, review the idea that utility represents the satisfaction derived from consuming a good or service, and this is typically displayed by the price one is willing to pay to buy a product.
4. Have students look inside their bags and, without speaking to one another, rate the contents on a scale of 1 to 10, with 1 representing complete dissatisfaction with what is inside and 10 representing complete satisfaction. To try to decrease the likelihood of students being overzealous in their initial rating, remind them that they will have the opportunity to trade with other students to improve their possessions.
5. Now announce that the government of their state has passed legislation permitting free trade among all counties. Have students pour the contents of their bags onto their desks and tell them they have three minutes to trade with anyone sitting in their cluster. They may trade as many or as few items as they wish with anyone sitting in their cluster, and the terms of trade are entirely up to them. Once the time has expired, ask students to once again rate their possessions on a scale of 1 to 10, being cognizant of the score they awarded them in round one.
6. Once students have completed this rating, announce that their legislature and the legislature of a neighboring state have decided to open the border to free trade among the two states. Then, pair up your clusters by combining two separate clusters into one so that now there are (depending on the size of your initial clusters) anywhere from six to eight students involved in a free-trade zone. Once again, tell students they have three minutes to trade with anyone within their free-trade zone. They can trade as much or as little as they like, and they can decide the terms of trade. Upon completion of this round, have students rate their possessions a third time, again awarding a score of 1 to 10 based on their overall happiness.
7. Proceed as you have done up to this point until the entire class is one free-trade zone. I typically go from two states trading with one another to an entire country trading with one another, and then proceed to intercontinental and finally global trade. Remember after each round of trading to have students rate their satisfaction with their overall possessions. An added feature of the simulation is to have very different treasures found as students begin to trade with those on the other side of the room (symbolizing trade across nations throughout the world). This helps them see how very differently resources have been distributed throughout the world and the effects this has on the production of goods and services. It also helps them see how much variety they can acquire through trade with nations in faraway places.
8. Have students return to their desks to prepare for the debriefing.

### Debriefing Questions

1. How did students' utility change as the simulation progressed? Why?  
*Answer:* Utility should have improved with each round of the game. If it did not, ask students why they would make a trade that did not improve their happiness. Emphasize to them that if a trade left them worse off, then they would not engage in it. At worst, utility could remain the same if a student did not engage in any trades in a round.
2. How did students determine the "right" price if they engaged in a trade with another student?  
*Answer:* Since students were allowed to determine their own terms of trade, their decision to part with their possessions in order to attain others is based on the utility of the items they currently possess versus the anticipated utility of the items they are acquiring. This raises the



opportunity to also address the issue of perfect information. If students discovered that an item was not exactly what they had thought it was when they traded for it, this would alter the price they would be willing to pay. A key characteristic of a competitive marketplace is perfect information available to both buyers and sellers.

3. How would a student's willingness to trade be affected if an outside body (e.g., the government) determined the terms of trade rather than permitting students to do this for themselves?

*Answer:* A trade that might otherwise take place might not occur if the government established the terms of trade. Emphasize that if two parties are allowed to determine their own terms, they have a much better chance of finding a mutually agreeable price. An outside agency cannot always accurately measure both parties' willingness to pay.

4. If trade is clearly beneficial to both parties, why do governments sometimes attempt to limit the trades in which they engage?

*Possible answers include:* Protection of domestic jobs, protection of industries critical to national defense, giving domestic industries that are new a chance to succeed, and punishing a hostile foreign government.

### Closing the Simulation

The simulation itself serves as an excellent introduction to a detailed study of the law of comparative advantage. Having seen for themselves the benefits of free trade, students are more willing to accept the basic premise of David Ricardo's famous proposition. It also serves as a nice reference point when discussing how the terms of trade affect the decision making of the two parties involved.

I always conclude my international trade unit with a discussion of why governments are sometimes all too eager to impose limitations on free trade despite economists' almost universal agreement that free trade leads to a greater standard of living for the residents of both countries involved. This is a topic that easily lends itself to a debate, as there is a plethora of material available in the popular media for both sides of the issue.

# Sample Syllabus 2: Macroeconomics

**Patricia Brazill**

West Irondequoit High School  
Rochester, New York

## School Profile

**School Location and Environment:** The West Irondequoit Central School District in suburban Rochester, New York, has a population of approximately 50,000. Residents, primarily middle- to upper-middle class, are mainly employed in business and professional occupations. They are vitally interested in supporting an instructional program of educational excellence. The district serves approximately 4,000 students in six K-3 schools, two schools for grades 4-6, a junior high school, and a senior high school.

Irondequoit High School is accredited by the New York State Department of Education. The school supports an urban-suburban program that brings students from the city of Rochester into the school's suburban setting. Six percent of the students in the district qualify for free lunch.

Irondequoit students are encouraged to reach for their highest potential in a comprehensive high school setting. There is open enrollment for all students who want the challenge of the AP curriculum. In 2003, 650 AP Exams were administered, with 80 percent of the students achieving a grade of 3 or above. Ninety-nine percent of the general school population and 91 percent of those designated as students with special needs earn Regents diplomas. Irondequoit High School has been listed in *Newsweek* magazine's "The 100 Best High Schools in America" ranking for the past three years.

**Grades:** 9-12

**Type:** Public high school

**Total Enrollment:** 1,493 students

**Ethnic Diversity:** African Americans make up 5.6 percent of the student population; Hispanics/Latinos, 3 percent; and Asian Americans/Pacific Islanders, 2 percent.

**College Record:** Fifty-eight percent of the graduating class in 2003 went on to four-year colleges, and 23 percent went to two-year colleges.

## Personal Philosophy

I tell my incoming students that economics is the most important course they will take in high school. I say this with true sincerity. It is a yearlong course in which students learn how to think like economists. It is challenging and fast paced and always dynamic. I challenge my students to bring in the front page of a real newspaper with no economics on it any time during the year, and I will pay them \$5. In the past 10 years I have paid up only twice. (I refused to pay on September 12, 2001.)

Students are expected to bring articles into class that apply to the topics they are learning. They create a bulletin board of political cartoons and those from the comics that illustrate economic concepts. They create journals of major units using newspaper articles they have collected independently. I know that I have reached my students when they come into class and declare that they experienced consumer surplus at the mall the night before, or if they start the period by asking why the stock market tanked the day

before (sadly, I can never answer that one). Economics is fun if you remember that it is real. Students know much more than they think when they come through the door, and they have learned much more than you would imagine is possible by the time they leave.

### Class Profile

Students at Irondequoit High School attend nine 42-minute periods each day. Students in AP Economics take a full-year course, earning both half-semester credits. All students are required to take the AP Exam. Enrollment in AP Economics has been generally around 100 students for the past four years, which is almost one-third of the senior class.

### Course Overview

AP Economics is taught as a full-year course, with AP Macroeconomics offered in the fall and AP Microeconomics in the spring. The aim of AP Economics is to provide students with a learning experience that is equivalent to that obtained in a typical college-level introduction to economics course. AP Macroeconomics is designed to provide students with a thorough understanding of the principles of economics that apply to the economic system as a whole. AP Macroeconomics emphasizes the study of national income, economic performance measures, economic growth, and international economics. Students learn to think like economists: to question, to evaluate marginal costs and marginal benefits, and to explore the many ways in which one action causes secondary actions.

In New York, students are required to take a one-semester Participation in Government course in addition to a one-semester economics course. My students take AP Economics for the full year and, after the AP Exams, complete a public policy research paper and presentation that is a requirement for fulfilling all state standards.

### Topic Outline

The following outline comes from the *AP Economics Course Description*. The percentages in parentheses indicate the amount of the AP Exam that is dedicated to each topic. The percentages in brackets indicate the amount of class time I spend on a subtopic. I generally follow the Course Description, but I spend more time on the third and fourth units than is recommended and less on unit V.

#### I. Basic Economic Concepts (8–12%)

- A. Scarcity, choice, and opportunity costs
- B. Production possibilities curve
- C. Comparative advantage, specialization, and exchange
- D. Demand, supply, and market equilibrium
- E. Macroeconomic issues: business cycle, unemployment, inflation, growth

#### II. Measurement of Economic Performance (12–16%)

- A. National income accounts [4–6%]
  - 1. Circular flow
  - 2. Gross domestic product
  - 3. Components of gross domestic product
  - 4. Real versus nominal gross domestic product

## Chapter 3

B. Inflation measurement and adjustment [4–5%]

1. Price indices
2. Nominal and real values
3. Costs of inflation

C. Unemployment [4–5%]

1. Definition and measurement
2. Types of unemployment
3. Natural rate of unemployment

**III. National Income and Price Determination (10–15%)**

A. Aggregate demand [5–10%]

1. Determinants of aggregate demand
2. Multiplier and crowding-out effects

B. Aggregate supply [7–10%]

1. Short-run and long-run analyses
2. Sticky versus flexible wages and prices
3. Determinants of aggregate supply

C. Macroeconomic equilibrium [3–5%]

1. Real output and price level
2. Short and long run
3. Actual versus full-employment output
4. Economic fluctuations

**IV. Financial Sector (15–20%)**

A. Money, banking, and financial markets [7–15%]

1. Definition of financial assets: money, stocks, bonds
2. Time value of money (present and future value)
3. Measures of money supply
4. Banks and creation of money
5. Money demand
6. Money market
7. Loanable funds market

B. Central bank and control of the money supply [35%]

1. Tools of central bank policy
2. Quantity theory of money
3. Real versus nominal interest rates

**V. Inflation, Unemployment, and Stabilization Policies (20–30%)**

A. Fiscal and monetary policies [15–20%]

1. Demand-side effects
2. Supply-side effects
3. Policy mix
4. Government deficits and debt

- B. Inflation and unemployment [5–10%]
  - 1. Types of inflation
    - a) Demand-pull inflation
    - b) Cost-push inflation
  - 2. The Phillips curve: short run versus long run
  - 3. Role of expectations

**VI. Economic Growth and Productivity (5–10%)**

- A. Investment in human capital
- B. Investment in physical capital
- C. Research and development, and technological progress
- D. Growth policy

**VII. Open Economy: International Trade and Finance (10–15%)**

- A. Balance of payments accounts
  - 1. Balance of trade
  - 2. Current account
  - 3. Capital account
- B. Foreign exchange market
  - 1. Demand for and supply of foreign exchange
  - 2. Exchange rate determination
  - 3. Currency appreciation and depreciation
- C. Net exports and capital flows
- D. Links to financial and goods markets

**Course Requirements**

AP Macroeconomics is a full-semester course that must also include the introductory units that are relevant to any economics curriculum. The following are required of all students.

- **AP Exams** in May.
- **Workbooks** from the National Council on Economic Education. Students are required to purchase Morton and Goodman’s *Advanced Placement Economics: Macroeconomics, Student Activities* (2003) workbook. We use the macroeconomics workbook during the fall semester; students need to buy the microeconomics workbook in January for the second-semester AP Microeconomics course. They are expected to bring their workbook to class each day. It will ultimately become their review book.
- **A notebook and binder.** Students are expected to maintain a spiral notebook and a topically organized binder, divided into five well-organized sections:
  - 1. Daily class notes in the spiral notebook, which will have vocabulary for each chapter and all assigned key questions
  - 2. Supplemental readings
  - 3. Handouts and worksheets

## Chapter 3

4. Full, written responses to each workbook end-of-unit short and long essays
  5. All evaluative materials (tests, papers, exams, written graded assignments)
- **Class participation.** Grades depend on students' effort and participation. This includes involvement in class activities, seminars, and labs.
  - **Attendance.** An excellent attendance record will help ensure success. Students who are late or miss class must meet with me after school to complete the work they have missed.
  - **Homework.** All assignments are expected on the day that they are required, and late assignments are not given credit. Class work depends upon careful preparation of each assignment. Homework counts for one-third of a student's first-quarter grade. There is often material covered in the textbook reading that cannot, due to time constraints, be covered in class.
  - **Current events.** Students are required to use current events sources to follow current public policy topics. They need to have access to *Newsweek*, *Business Week*, *Forbes*, *Fortune*, or some other weekly news magazine, as well as daily access to the *Wall Street Journal* and the *New York Times*.
  - **Group work.** Students are expected to participate fully with others in the assigned group work. Cooperative work is very important in this class.
  - **A major journal assignment.** A goal of AP Economics is for students to become well-informed citizens who are able to analyze the issues and problems facing our country and to apply economic principles to the decision-making process. However, analysis is only the first step in the process of responsible citizenship. Students need to make decisions about how these problems should be *solved*. The purpose of this assignment is to analyze and make decisions about issues facing our nation. Students maintain a journal for the entire year.
    1. **Information Collection.** Students collect as many articles as they can that deal with the following categories:
      - Journal #1: Supply and Demand
      - Journal #2: The Role of Government in Economics: Fiscal and Monetary Policy
      - Journal #3: International Trade
    2. **Summaries/Applications/Reactions.** Students cut out the articles they find and put them in their journals. They identify each article by its title, date, and source. They may use newspapers, news magazines, and business magazines. There are copies of newspapers and magazines in the library and the Social Studies Resource Center. Students must:
      1. Summarize each article in their own words.
      2. *Apply* the economic concepts they have learned in class to the article.
      3. Use graphs whenever possible.

## Course Planner

The Course Planner is followed closely. The required textbook is Campbell R. McConnell and Stanley L. Brue, *Economics: Principles, Problems, and Policies*, 15<sup>th</sup> ed. (Boston: McGraw-Hill, 2002). Students are expected to read the chapters and take notes. They should complete the “Quick Quiz” sections while reading and always read the “Last Word” sections. Assignments from the *Advanced Placement Economics: Macroeconomics, Student Activities* workbook (referred to in the Course Planner as *NCEE Advanced Placement*) are to be completed when assigned. Students define the vocabulary in their spiral notebook and write out the answers to the “Key Questions.” They are expected to discuss their answers in class, and they may be called upon to present them. Unit tests and essays are assigned and discussed in class. Supplemental readings are provided, and an alternative text, Fred M. Gottheil’s *Principles of Economics*, 3rd ed. (Cincinnati: Thomson South-Western, 2002), is also available.

<b>Introduction: Nature and Method of Economics</b>	<b>3 days</b>
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*[Economics] is a method rather than a doctrine,  
an apparatus of the mind, a technique of thinking.*

—John Maynard Keynes (1883–1946)  
British economist

### Topics

- A. Economics and Its Relevance
- B. Economic Goals
- C. Economic Choices
- D. Models and Methodology

### Text Reading Assignments

chapter 1, Appendix

### Chapter 1 and Appendix Vocabulary

economics  
economic perspective  
induction/deduction  
*ceteris paribus*  
microeconomics  
macroeconomics  
marginal analysis  
trade-offs

positive economics  
normative economics  
economic goals  
inverse and direct relationship  
slope  
tangent  
fallacy of composition

### *NCEE Advanced Placement Exercise: #1*

**Key Questions:** p. 14: #1, 7, 8, 9

**Appendix Assignment:** Take-home assignment (working with graphs and liner equations)

### Sample Weekly Calendar

I have included below a sample weekly calendar for the introductory unit to give new AP Economics teachers an idea of how I break down a unit over a period of days. At the beginning of each unit I give my students a weekly calendar that also includes grading, test, and other information.

- **Assignment Calendar.** Wednesday, September 3, through Monday, September 14.
- **Due Dates.** All work, including class activities, must be completed by the due date, whether students are in class or not, unless they are ill.

## Chapter 3

- **Homework Policy.** Students complete all vocabulary and “Key Questions” in their spiral notebook. Quizzes are given on the material. Additional homework is assigned and collected for a homework grade. If students are absent for a quiz or test, they can take an essay test, which they must take within a reasonable period of time.
- **Workbooks.** I use the *NCEE Advanced Placement* workbook. Students must purchase it from the bookstore and bring it to class every day.
- **Unit Test.** Chapters 1, 2, and 4 are covered on the unit test. Tests are worth 50 percent of the quarter grade.
- **Math Options.** AP Calculus students will find alternative assignments occasionally marked in italics. These may be completed instead of the other “Key Questions.” Additionally, all students may earn bonus points. If students find a connection between the economics concepts in this course and math concepts, they may write a one-paragraph explanation of how they can use the math to support a concept they have learned in economics. These will be worth 10 bonus homework points. Students can also earn bonus points by bringing in articles and political cartoons that are related to the course.
- **Text Book Options.** I have a class set of a simpler, yet complete, textbook that is available upon request: *Principles of Economics* by Fred M. Gottheil.



## Course Organization

Date	Class Topics and Activities	Homework and Assignments
Wednesday	Introduction to the Course <i>Instant Economist</i> Review	Get textbook from library and purchase workbook Define all chapter 1 vocabulary listed in course outline in spiral notebook Read chapter 1, pp. 3–13
Thursday	Thinking Like an Economist Fundamental Problem Economic Terms Quiz Macro or Micro	Read the article “Thinking Straight about Economics Correlations” (I will provide) and answer questions to hand in Chapter 1 “Key Questions”: p. 14: #1, 7, 8, 9 Remember to bring in articles/ cartoons each day
Friday	Using Models How Do We Learn Economics? First Model: Circular Flow of the Economy Using the Textbook	Read appendix, chapter 1-A, pp. 15–19 Write out problems on p. 20: #2, 3, 6 to hand in for homework Study chapter 1, quiz on Monday
Monday	Chapter 1 Quiz Marginal Thinking <i>NCEE Advanced Placement</i> #3 (from AP Micro workbook) What Is Efficiency?	Chapter 2 vocabulary Read chapter 2 “The Economic Impact of September 11” research assignment due on Thursday (see the end of this calendar for details)
Tuesday	Costs: Implicit and Explicit Opportunity Costs: “Choosing Is Refusing” <i>NCEE Advanced Placement</i> #4 (from the AP Micro workbook)	Review chapter 2 “The Economic Impact of September 11” (in-class group project)
Wednesday	Production Possibilities Frontier <i>NCEE Advanced Placement</i> #1	Chapter 2, p. 38, “Key Questions” 6, 9, 11 Quick quiz, p. 26 Article summary and bonus assignment due
Thursday	“The Economic Impact of September 11” (one-day group activity)	Chapter 4 vocabulary Review PPF model
Friday	Quiz on Production Possibilities Model Economic Goals Economic Systems	Read chapter 4, pp. 59–69, and answer “Key Question” 9

## Chapter 3

### Research Assignment: The Economic Impact of September 11, 2001

Students must read the article “Jet Lagged” by Tom Incantalupo from *New York Newsday* (February 17, 2002) and write a succinct summary of the many economic changes that occurred in the aftermath of the terrorist attacks on that awful day. They should find one recent article that also addresses this issue and attach a photocopy of it to their typewritten summary.

#### Unit I

#### The Basic Economic Concepts

2 weeks

#### Topics

- A. Scarcity: The Nature of Economic Systems
- B. Production Possibilities and Opportunity Costs
- C. The Functions of Economic Systems
- D. Alternative Economic Systems
- E. The Economic Way of Thinking

#### Text Reading Assignments

Chapters 2 and 4

#### Chapters 2 and 4 Vocabulary

scarcity

choice

opportunity cost

marginal benefits

marginal costs

economic resources

pure capitalism

money

consumer sovereignty

utility

consumer goods

command system

allocative efficiency

productive efficiency

circular flow model

capital goods

production possibilities frontier (curve)

competition

law of increasing opportunity costs

product and resource market

economic costs

economic profits

market system

**NCEE Advanced Placement Exercises:** #2, 3, 4, 5, 6, 7, 8, 9, 11 (from the 2<sup>nd</sup> edition of the AP Micro workbook), multiple choice, free response

**Key Questions:** p. 38: #6, 9, 11, 17; p. 70: #7

**Quick Quizzes:** pp. 26, 35

#### Unit II

#### Introduction to Macroeconomics: Measuring Economic Performance

2 weeks

#### Topics

- A. The Circular Flow of National Income
- B. Gross Domestic Product/National Income
  - 1. Calculations
  - 2. Application

#### Text Reading Assignments

Chapters 7, 8

- C. Unemployment
  - 1. How it is measured
  - 2. Types of unemployment
- D. Inflation and Price Indices

**Chapter 7 Vocabulary**

- |                        |                       |
|------------------------|-----------------------|
| national income        | personal expenditures |
| gross national product | disposable income     |
| gross domestic product | price index           |
| final goods            | CPI                   |
| intermediate goods     | GDP deflator          |
| expenditures approved  | nominal GDP           |
| income approved        | real GDP              |
| net exports            |                       |

**NCEE Advanced Placement Exercises:** #10, 11, 12, 13, 17

**Key Questions:** p. 134: #3, 11, 12, 13

**Chapter 8 Vocabulary**

- |                         |                              |
|-------------------------|------------------------------|
| business cycle          | natural rate of unemployment |
| peak, trough            | labor force                  |
| recession, recovery     | Okun’s Law                   |
| unemployment:           | Rule of 70                   |
| frictional, structural, | inflation:                   |
| cyclical, seasonal      | demand pull, cost push       |
| full employment         | COLA                         |

**NCEE Advanced Placement Exercises:** #13, 14, 15, 16, 17, multiple choice, free response

**Key Questions:** p. 157: #2, 4, 6, 8

**Student Research Project:** This project can be found in the “Student Activities” section of this syllabus.

<p><b>Unit III</b>  <b>Aggregate Demand and Aggregate Supply</b></p>	<p><b>4 weeks</b></p>
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*The whole purpose of the economy is production of goods and services for consumption now or in the future. The burden of proof is on those who would leave idle people, machines or land that could be used . . . such waste.*

—James Tobin (1918–2002)  
 Winner of the 1981 Nobel Prize in Economics

This is the very heart of macroeconomics. Students need to read all four chapters at least twice. They truly should be considered as a whole!

**Topics**

- A. Aggregate Demand
  - 1. Circular flow
  - 2. Components of aggregate demand

**Text Reading Assignments**

Chapters 11, 9, 10, 12

## Chapter 3

3. Multiplier
  4. Government intervention—fiscal policy
  5. Monetary policy
- B. Aggregate Supply
1. Short-run and long-run analysis
  2. Sticky versus flexible wages
  3. Supply-side policies
- C. Multiplier

### Chapter 9 Vocabulary (building aggregate expenditure model)

Say's Law	investment demand curve
Keynesian economics	equilibrium GDP
consumption schedule	45-degree line
savings schedule	aggregate expenditures
average propensity to consume/save	planned versus actual investment
marginal propensity to consume/save	

**NCEE Advanced Placement Exercises:** #19, 20

**Key Questions:** p. 179: #2, 3, 5, 9

**Quick Quiz:** pp. 168, 175

### Chapter 11 Vocabulary

aggregate demand (AD)	horizontal, vertical, intermediate ranges of AS
wealth effect	equilibrium price level
interest rate effect	demand-pull inflation
determinants of AD	cost-push inflation
aggregate supply (AS)	ratchet effect
determinants of AS	equilibrium real domestic output
productivity	

**NCEE Advanced Placement Exercises:** #23, 24, 25

**Key Questions:** p. 222: #5, 7, 8, 9 (very important questions)

**Quick Quiz:** p. 214

### Chapter 10 Vocabulary (the multiplier)

multiplier	net exports
balanced-budget multiplier	recessionary gap
inflationary gap	

**NCEE Advanced Placement Exercises:** #21, 22

**Key Questions:** pp. 200, 201: #2, 4, 8, 9, 10

**Quick Quiz:** p. 195

**Chapter 12 Vocabulary** (fiscal policy)

fiscal policy	crowding out effect
expansionary fiscal policy	full employment
contractionary fiscal policy	net export effect
budget deficit	built-in stabilizer
budget surplus	

**NCEE Advanced Placement Exercises:** #27, 30, 31, 32, 33, multiple choice, free response

**Key Questions:** pp. 240, 241: #2, 3, 10

**Unit IV**

**Money, Monetary Policy, and Economic Stability**

**2 weeks**

*Not even love has made so many fools of men as  
the pondering over the nature of money.*

—William Gladstone (1809–1898)  
British Prime Minister

**Topics**

- A. Money and Banking
  - 1. Definition of money
  - 2. Creation of money
  - 3. Tools of central banking policy
- B. Monetary Policy and Aggregate Demand
- C. Monetarist/Keynesian Controversy

**Text Reading Assignments**

Chapters 13, 14, 15

**Chapter 13 Vocabulary** (money and banking)

medium of exchange	measure of value
store of value	M-1
M-2	near money
checkable deposit	transaction, asset
total demand for money	

**NCEE Advanced Placement Exercises:** #34, 35, 36

**Key Questions:** #4, 6, 7

**Quick Quiz:** p. 252

**Chapter 14 Vocabulary** (how banks create money)

balance sheet	fractional reserve banking
reserve requirement	reserve ratio
actual, required, and excess reserves	federal funds
money multiplier	leakage

**NCEE Advanced Placement Exercises:** #37, 38, 39

**Key Questions:** p. 280: #4, 8, 9, 10

## Chapter 3

### Chapter 15 Vocabulary (monetary policy)

monetary policy  
open-market operation  
easy/tight money policies  
demand for money

liquidity preference function  
discount rate  
velocity of money

**NCEE Advanced Placement Exercises:** #40, 41, 42, multiple choice, free response

**Key Questions:** p. 303: #3, 5, 6

**Quick Quiz:** pp. 301, 302

### Unit V

**Real-World Economic Policy—Price Stability, Employment and Growth, Monetary and Fiscal Combinations**

**3 weeks**

### Topics

- A. Review of Monetary and Fiscal Policy
- B. Trade-offs Between Inflation and Employment
  - 1. Phillips curve
  - 2. Long run versus short run
- C. Why Economists Disagree
- D. Macroeconomic Approaches
  - 1. Classical
  - 2. Keynesian
  - 3. New classical economics
    - a) Monetarism
    - b) Supply shock
    - c) Rational expectation
- E. Let's Fix the Economy: Exercises

### Text Reading Assignments

Chapters 16, 17, 18, 19

### Chapter 16 Vocabulary (inflation–unemployment relationship; extending the supply curve)

Phillips curve  
stagflation  
supply shock  
disinflation  
short-run AS curve (SRAS)  
long-run AS curve (LRAS)  
wage-price guideposts

natural rate  
rational expectations  
adaptive expectations  
supply-side economics  
wage-price controls  
Laffer curve

**NCEE Advanced Placement Questions:** #43, 44, 45, 46

**Key Questions:** p. 321: #1, 3, 4, 7, 8

**Chapter 17 Vocabulary** (economic growth and the new economy)

economic growth	infrastructure
supply factors	human capital
demand factors	economies of scale
efficiency	new economy
labor productivity	

**NCEE Advanced Placement Exercises:** #47, 48, 49, multiple choice, free response

**Key Questions:** p. 339: #5, 6, 8, 9

**Chapter 18 Vocabulary** (budget deficit and public debt)

budget deficit	public debt
public investment	annually balanced budget
cyclically balanced budget	

**Key Questions:** p. 353: #1, 7

**Chapter 19 Vocabulary** (alternative views on macro theory and policy)

classical economics	Keynesianism
monetarism	equation of exchange
velocity of money	crowding-out effect (graphically)
monetary rule	rational expectations theory

**Key Questions:** p. 371: #1, 4, 10

**Unit VI**

**The Global Economy**

**2 weeks**

**Topics**

- A. Gains from Trade
  - 1. Absolute and comparative advantages
  - 2. Specialization
- B. Currency Exchange
- C. Balance of Trade
  - 1. Current account: net exports
  - 2. Capital account
  - 3. Government activity
- D. Foreign Exchange
- E. Government Intervention
  - 1. Foreign exchange
  - 2. Protectionism
    - a) Tariffs
    - b) Quotas
  - 3. Free trade
    - a) NAFTA
    - b) WTO

**Text Reading Assignments**

Chapters 37, 38

## Chapter 3

### Chapter 37 Vocabulary (international trade)

cost ratio	dumping
comparative advantage	NAFTA
terms of trade	GATT
world price	industrial policy
domestic price	most favored nation
tariffs	barriers
quotas	WTO

**NCEE Advanced Placement Exercises:** #49, 50

**Key Questions:** p. 749: #3, 4, 7

### Chapter 38 Vocabulary (exchange rates, balance of payments, trade deficits)

balance of payments	depreciation
credits	appreciation
debits	devaluation
trade balance	International Monetary Fund
current account	Bretton Woods
capital account	G-7 nations
fixed exchange rate	floating exchange rate

**NCEE Advanced Placement Exercises:** #51, 52, 53, 54, 55, multiple choice, free response

**Key Questions:** p. 771: #2, 6

**Quick Quiz:** p. 757

### Unit VII

#### The Role of Government in Economics

2 weeks

#### Topics

- A. Income Inequality and Poverty
  - 1. Causes of income inequality
  - 2. Evaluation of major social insurance programs
  - 3. Evaluation of public assistance
  - 4. Tax reform
- B. The Economies of Health Care
  - 1. Rising costs of health care
  - 2. Health-care reform program

#### Text Reading Assignments

Chapter 34

Chapter 35

## Teaching Strategies

I have the opportunity to teach my students for the entire year. Therefore, the pace of the course is steady but not rushed. I teach the entire AP Macroeconomics course in the fall semester. In addition to the AP macro workbook, I add in some exercises from the *Advanced Placement Economics: Microeconomics*, *Student Activities* workbook and include a unit on the role of government so that students are exposed to the concepts of public goods and externalities at the beginning of the semester. I complete the macro part of the course by midterm and use only questions and scoring guidelines that follow the AP Exam format



for the midterm exam. Students generally do better on the AP Macroeconomics Exam because they write macro free-response questions as homework every weekend.

There is little lecture in my course (some students complain because they would rather just sit and take notes). Instead, I generally introduce major concepts and assign the macro workbook activities in class. I frequently start the class with a multiple-choice quiz of five questions or fewer, or an application exercise. I often give partner quizzes and even tests. Students are encouraged to view assessments as learning activities. The big assessment comes in May in the form of the AP Exams.

My view is that the classroom is for learning, not for testing. I use the multiple-choice questions in the macro workbook for review and find that the units' final activities are excellent group activities to use before a unit exam. Unit exams are constructed from the textbook's test bank; however, I often add a fifth answer choice to prepare students for the AP Exam format.

Irondequoit has a tradition of assigning required summer projects for students coming into some AP courses. I require a summer project, which is described in the Student Activities section in this syllabus. This allows students an opportunity to consider the topics that will be covered in the course and to demonstrate writing and reasoning proficiency. It also brings home to them the idea that taking this course is a commitment to working hard from the first day.

## Student Evaluation

### Assessments

Students are expected to work independently. Some homework is collected and graded. No late work is accepted. Grading is determined by performance in the following tasks:

- class participation
- homework
- unit tests
- quizzes
- midterm: Students take a midterm that is worth 20 percent of their first-semester grade. This is modeled after and graded in the same way as the AP Macroeconomics Exam. It consists of 60 multiple-choice questions and 3 free-response questions and is timed.
- journal assignments
  - supply and demand (first quarter)
  - role of government in economics: fiscal policy and monetary policy (second quarter)
- participation in the Government Public Policy Project and presentation

## Chapter 3

### Grading

Each piece of work submitted to me for grading receives a grade of 5, 4, 3, 2, or 1.

- A 5 (A or A–; 95 or 92) is awarded to students whose work has demonstrated superiority. Their work accurately addresses and answers all questions with breadth and depth. These students have given full and appropriate illustrations to support their arguments.
- A 4 (B+, B, or B–; 87, 85, or 82) is given to students whose work has demonstrated competence; however, while their explanations, arguments, and illustrations indicate breadth and depth, they are uneven. These students must indicate a solid and accurate understanding of the questions that have been asked.
- A 3 (C+, C, or C–; 77, 75, or 72) is given to students whose work has suggested competence and indicated comprehension and understanding of the question but has failed to show developed answers.
- A 2 (D or D–; 65 or 62) is given to students whose work has suggested incompetence and inadequate understanding of the questions and shown only minimal and confused explanations.
- A 1 (F; 40) is issued to those few students whose work has demonstrated incompetence, failed to demonstrate a comprehension of the question, and dealt only slightly and in an irrelevant way with the questions and issues.

### Teacher Resources

Gottheil, Fred M. *Principles of Economics*. 3rd ed. Cincinnati: Thomson South-Western, 2002.

Heilbroner, Robert L. *The Worldly Philosophers: The Lives, Times, and Ideas of the Great Economic Thinkers*. Rev. 7th ed. New York: Simon and Schuster, 1999.

McConnell, Campbell R., and Stanley L. Brue. *Economics: Principles, Problems, and Policies*. 15th ed. Boston: McGraw-Hill, 2002.

Morton, John S., and Rae Jean B. Goodman. *Advanced Placement Economics: Teacher Resource Manual*. 3rd ed. New York: National Council on Economic Education, 2003.

Morton, John S., and Rae Jean B. Goodman. *Advanced Placement Economics: Macroeconomics, Student Activities*. 3rd ed. New York: National Council on Economic Education, 2003.

Morton, John S., and Rae Jean B. Goodman. *Advanced Placement Economics: Microeconomics, Student Activities*. 3rd ed. New York: National Council on Economic Education, 2003.

Pool, John Charles, and Ross M. LaRoe. *The Instant Economist*. Reading, Mass.: Addison-Wesley, 1985.

## Student Activities

Below are examples of summer assignments, research projects, and in-class quizzes that are part of this course.

### Summer Assignments

These two summer assignments are designed to give students a foundation in economics and in the theory of capitalist economic thought that they will need before they embark on this journey of AP Economics. These assignments are required and count toward one-third of the first-quarter grade. Assignment 2 is due on the first day of class. Assignment 1 is due no later than August 2.

#### Assignment #1

Read “The Wonderful World of Adam Smith,” chapter 2 in Robert L. Heilbroner, ed., *The Worldly Philosophers*, rev. 7th ed. (New York: Simon and Schuster, 1999).

Write a well-organized essay that explains the major concepts used by Adam Smith to describe how a market economy works. Critique this view as it applies to the economy of today.

#### Grading Checklist

1. Due on August 2
2. Typed, double-spaced, 12-point font, two-page minimum
3. Fulfills all factors described in the scoring guidelines

#### Scoring Guidelines

While this in no way is a satisfactory replacement for reading *The Wealth of Nations* in its entirety, reading “The Wonderful World of Adam Smith” should have prepared you to critique the economic system in the United States as it operates today as compared to Smith’s ideal. You should have noted five major points about Adam Smith’s understanding of how the economy works:

1. Self-interest drives the economy.
2. Competition will prevent greed from spiraling out of control.
3. Supply and demand, through the invisible hand, will determine what is produced, for whom, and how.
4. Monopoly is the nemesis of the market economy.
5. There is no need for much government interference.

#### Students will earn a 5 (90–95) if their essay:

1. Describes in clear detail Smith’s five major points, using an application to today’s world to critique his vision.
2. Accurately explains the law of accumulation and the law of population with a clear understanding that these were not the main ideas of the essay, nor were they the most important of his writings.

## Chapter 3

3. Is written clearly, has no spelling or grammatical errors, and leaves the reader with a sense that the writer truly understands the major points of the essay.

### **Students will earn a 4 (80–85) if their essay:**

1. Correctly describes the five major points and considers these points as a comparison to the world today.
2. Discusses the law of accumulation and the law of population and explains them clearly.
3. Is written carefully with no significant grammatical or spelling errors.

### **Students will earn a 3 (70–75) if their essay:**

1. Mentions clearly and accurately most of the major points of Adam Smith's understanding of how the market works.
2. Demonstrates an understanding of the law of accumulation and the law of population.
3. Is written carefully with few grammatical or spelling errors.

### **Students will earn a 2 (60–65) if their essay:**

1. Is inconsistent but does mention at least the importance of the invisible hand, the driving force of self-interest, and the need for competition.
2. Mentions the law of accumulation and the law of population.
3. Is readable.

Students will rewrite any essays that do not meet the minimum criteria of a score of 1, and they should seriously reconsider their decision to take this course. The maximum score for a rewritten essay is 55.

### **Assignment #2**

Read John Charles Pool and Ross M. LaRoe, *The Instant Economist* (Reading, Mass.: Addison-Wesley, 1985).

1. For each chapter develop a list of the economics terms used and explain them.
2. Write (type) a one-page review of the book.
3. Write an explanation of *five topics* that you believe will be the key to understanding economics.
4. Write a list of *five questions* you have after reading the book.

### *Grading Checklist*

1. Due on September 2
2. Typed, double-spaced, 12-point font
3. Fulfills all factors described in the assignment

## Student Research Project

### An Introduction to Economic Indicators: Putting the Pieces of the Puzzle Together

Economists use a multitude of economic data to create a picture of the current state of the economy in order to advise policymakers. This assignment puts students “in the shoes of the policymakers” as they create a report on the current state of the economy. It will familiarize them with some of these indicators and the current state of the economy. Students will hone their Internet research skills and develop skills in creating charts and *PowerPoint* presentations. They present their findings to the class, and the class assesses the current state of the U.S. economy. This is an ongoing project. The research is done and the *PowerPoint* slides prepared in two class periods.

**Assignment:** You and your partners will research the assigned topic and prepare graphs and charts in three to five *PowerPoint* slides. You will present these slides to the class. The class will create a U.S. economy report card based on the research and presentations.

Slide information for each topic assigned:

- Slide 1 will define and explain the indicator.
- Slide 2 will show a chart of recent changes in this indicator.
- Slide 3 will show a graph of changes in this indicator over at least 10 years.

(*Note:* GDP, unemployment, and inflation rate must be graphed over 20 years.)

### Search Strategies

The following URLs provide links to every data source you will need for this project. Time is of the essence, so you must divide up the work on your team to find the necessary data, create the charts and graphs, and design the *PowerPoint* slides. If a chart or graph is already available, just copy and paste it into the *PowerPoint* program, remembering to credit the source. Be sure that it works properly!

- **About Economics—[economics.about.com](http://economics.about.com).** This site is helpful for definitions (click on **Economics Glossary**). It will also link you to an economics chartroom for some of the necessary data.
- **Bureau of Labor Statistics—[www.bls.gov](http://www.bls.gov).** This site is the most likely place to find the current data.
- **EconDash—[www.econdash.net](http://www.econdash.net).** This is a new site with very cool graphics, some of which could be used in your presentation.
- **U.S. Census Bureau—[www.census.gov](http://www.census.gov).** This is another very helpful site. You can find economic indicators by clicking on *Economic Indicators* under *E* on the *Subjects A-Z* button.
- **The White House—[www.whitehouse.gov](http://www.whitehouse.gov).** This site provides the most up-to-date information on housing starts, manufacturing, productivity, and durable goods orders. Also read any recent article by Greg Mankiw, an economic adviser to the president.

## Chapter 3

### **The State of the U.S. Economy, October 2005**

As your classmates present their assigned indicators, take notes on their presentations and then, for each indicator presented, grade the current conditions of that indicator on a scale of A+ to F. When we are finished, write a paragraph that summarizes the current state of the economy. We will use this information and build on it during the year.

**GDP:** What is it and why is it important?

Current conditions:

Historical trends:

Grade:

**Housing Starts:** What are they and why are they important?

Current conditions:

Historical trends:

Grade:

**Productivity:** How is this measured and why is it important?

Current conditions:

Grade:

**Stock Market:** What are the Standard and Poor's 500, Dow Jones Industrial Average, and NASDAQ?

How is the market doing recently?

How has the market done in the past year?

How has the market done in the past 10 years?

Grade:

**Unemployment:** How is it measured and why is it important?

Recent trends:

Historical trends over the last 10 years:

Grade:

**Retail Sales:** What are these and why are they important?

Recent trends:

Historical trends:

Grade:

**Interest Rates:** What are these and why are they important?

Federal funds rate:

Current rate:

Mortgage interest rate (30-year and 15-year):

Current rates:

Grade:

**Inflation Rate:** What is this, how is it measured, and why is it important?

Current rate:

Historical information:

Grade:

**Manufacturing:** Why do orders for durable goods matter, and why would the inventory-to-sales ratio matter?

**Durable Goods:**

Current trends:

**Inventory-to-Sales Ratio:**

Current trends:

Manufacturing grade:

**Trade Balance:** What is this (define)?

Current account:

Capital account:

Current trends:

Grade:

**Value of the Dollar:** What does this mean and what is its impact on trade?

Current trends:

Grade:

**Consumer Confidence:** What is this measure and why is it important?

Current trends:

Grade:

Now that you have heard all of the presentations, write a one- to two-paragraph assessment of the economy as a whole. What is the current state of the U.S. economy?

**Sample Quiz**

I give a number of five-question quizzes throughout the year. Students may drop the lowest grade, but the quiz total is worth 20 percent of their quarter average.

**Quiz #1: Introduction to Economics**

Choose the answer that best completes the question. Write out a clear explanation for each answer you have chosen. Explain why is it correct, using economic concepts and graphs when applicable.

1. The fundamental problem of economics is
  - a) to achieve more equitable distribution of income in society.
  - b) that production resources are scarce relative to material wants.
  - c) that businesses need to make profits.
  - d) to establish prices that are fair.
  - e) that prices rise more quickly than incomes.
  
2. Economic models
  - a) are of limited use because they cannot be tested empirically.
  - b) are limited to variables, which are directly related to each other.
  - c) closely duplicate all factors in the real world.
  - d) emphasize basic economic relationships by abstracting from complex, real-world situations.
  - e) are unrealistic and simplistic.

## Chapter 3

3. The term *ceteris paribus* means that
  - a) the associated statement is normative.
  - b) many variables affect the variable under consideration.
  - c) a number of relevant variables are assumed to be constant.
  - d) focus is on micro rather than macro factors.
  - e) when variable  $x$  increases so does related variable  $y$ .
  
4. Which of the following is an example of a microeconomics question?
  - a) Will the merger of two airlines likely lead to higher ticket prices?
  - b) Does government spending influence the prices of consumer goods?
  - c) What should the federal government do to reduce the trade deficit with Japan?
  - d) Will the inflation rate remain stable this year?
  - e) What factors are contributing to the rise of unemployment in the economy?
  
5. Which of the following is an illustration of a macroeconomic question?
  - a) Is a business unresponsive to the demand of consumers?
  - b) What is the level of industrial concentration in the automobile industry?
  - c) What policies would be recommended for stimulating national economic growth?
  - d) What economic incentives can be used to reduce the cost of health care?
  - e) What are the supply and demand conditions facing Kodak today?



# Sample Syllabus 3: Introductory Economics

**Fred H. Smith**

Davidson College  
Davidson, North Carolina

## College Profile

**Location and Environment:** Davidson College is a highly selective liberal arts college that maintains an affiliation with the Presbyterian Church (U.S.A.). It is located 20 miles north of Charlotte, North Carolina, in the town of Davidson. The town contains fewer than 10,000 residents, but its proximity to Charlotte allows residents to enjoy all of the benefits of a large city while still living in a small town.

Students representing more than 40 states and 30 countries attend Davidson College. The student/faculty ratio is 10.8:1. The college offers bachelor's of arts and bachelor's of science degrees; it does not offer any graduate courses or degrees. One of the college's distinctive features is its honor code. Every student who matriculates signs a pledge to uphold the provisions of the Davidson College honor code, and students take great pride in the honor system. Ninety-five percent of Davidson's first-year students return for their sophomore year. Davidson College routinely places its graduates in the finest professional and graduate schools.

**Type:** Independent, coeducational, liberal arts, undergraduate college

**Total Enrollment:** Approximately 1,700 students

**Ethnic Diversity:** African Americans comprise 6.3 percent of the student population; Hispanics/Latinos, 4.2 percent; Asian Americans/Pacific Islanders, 2.4 percent; and Native Americans, 0.4 percent.

## Personal Philosophy

The professors at Davidson College teach introductory economics in one semester. We have chosen to retain the one-semester format for the course in order to provide economics majors with as much flexibility as possible when they choose their courses. For, while a two-semester introductory course would allow instructors in the department to cover topics in more detail, the one-semester format provides students with more time to take those elective courses that they find the most interesting.

The challenge for professors at Davidson, and for anyone who wishes to teach a one-semester introductory economics course, is to maximize the quality of their students' experience while staying within the prescribed time constraint, a single semester. From my perspective, the most difficult part of this challenge is trying to find the appropriate balance between breadth and depth in the coverage of the course material.

My desire to balance breadth and depth forces me to face difficult decisions every time I teach introductory economics. Recently, the hardest decision I have had to face is whether or not to include a section in the course on labor market outcomes and income inequality. The superstar salaries earned by professional athletes, entertainers, and CEOs capture the imagination of my students, and I often find them wondering aloud if a professional athlete should be paid tens of millions of dollars. Discussing superstar salaries—along with a related trend in the United States, rising income inequality—can easily take two hours of class time. Students enjoy these discussions, and they typically come away from these classes having learned lessons they will not soon forget. However, taking two class periods to discuss labor market

## Chapter 3

outcomes and income inequality may result in my not having enough time to adequately cover other topics later in the course.

To assist the instructor who is looking for the ideal balance between breadth and depth when developing (or redesigning) a one-semester introductory course, here are three rules of thumb that I consider when I revise my own course.

1. **Cover the core.** In my introductory economics course, I strive to build each student’s “economics toolkit,” the set of tools they use to analyze economics problems. Introductory economics, whether taught in one semester or two, should strive to provide students with a common set of tools.

One problem with this notion is that economists do not necessarily agree on what constitutes the core of fundamental economics concepts. For example, the eighth edition of William J. Baumol and Alan S. Blinder’s *Economics: Principles and Policy* (Ft. Worth: Dryden Press, 2000) contains a list of 12 “Ideas for Beyond the Final Exam.” Included in the list are such concepts as comparative advantage, opportunity cost, the importance of marginal analysis, and the trade-off between efficiency and equity. The vast majority of economists would agree that these are core concepts that are critical for building a student’s economics toolkit. However, Baumol and Blinder also include “Why was it important to reduce the budget deficit?” and “Why the costs of education and medical care keep growing” in their list. It is unlikely that you would find the same consensus about the importance of including these topics in an introductory course.

So, what belongs in “the” core? There is no single correct answer to this question, but here is what I consider to be the core of my introductory course:

- The importance of opportunity cost
- The power (and limitations) of the market: supply and demand
- Comparative advantage: the engine of trade
- Free trade is a good thing, but it produces winners and losers
- Why marginal analysis is so important
- Sunk costs are really sunk
- No free lunch—trading off between efficiency and equity
- The economist’s ideal—perfect competition
- The importance of economic growth
- Macroeconomic policy—monetary versus fiscal policy

Your core will differ from mine, and it will probably differ from what is identified as the core in your textbook. However, it probably will not—and should not—be substantially different. If you think input markets are a core concept and you cannot find a single textbook that emphasizes this concept, then you may want to rethink your position. Focusing on pet issues like income inequality, the importance of tax cuts, and so on at the expense of time spent on core concepts is a decision that probably will not serve your students well.

2. **Don’t overload on microeconomics (or macroeconomics).** I am a microeconomist by trade, so my inclination is to think that every micro topic is important and that every macro topic can be

covered quickly. Resist the temptation to overload your course with coverage of your specialty. I spend 60 percent of my time on microeconomics and 40 percent on macroeconomics, and I am attempting to cut back on the time I spend on micro topics so that I am closer to a 50–50 split.

- 3. Teach to your strengths.** This rule of thumb is not meant to contradict the first two. Rather, I would use this rule of thumb as a guideline for filling out the remainder of your syllabus. Once you have identified your core, you should spend time on topics that are of interest to you and that you feel are important. You should not spend time on things that you do not understand very well or that you find dull. For example, when I teach material on labor markets, I spend less time on the construction of the labor demand curve and more time on labor market outcomes: compensating wage differentials, income inequality, and discrimination. Students will pick up on your enthusiasm when you teach a topic that you care about and know well. Similarly, they will tune you out if you spend time talking about game theory when you do not understand it very well.

My syllabus reflects my attempt to follow these three rules of thumb, and you may notice that my topic outline does not cover capital markets or the Phillips curve. When I teach this course I have to monitor my progress very carefully. If I get behind in the first part of the course, then I typically cut the section on labor markets.

In addition to my syllabus from the introductory economics course at Davidson College, I have also included a problem set, a quiz, an exam, and a paper assignment I give my students. I hope that this information is useful for you. Good luck with your own course!

## Philosophy of the Department

The Davidson College Department of Economics has designed the economics major to provide students with a solid background in microeconomics, macroeconomics, and statistics/econometrics. Department members are also committed to making sure that students are exposed to a variety of elective courses. Students are required to take a course that has a quantitative focus, a course that has a policy focus, and one that focuses on international economics. Taken as a whole, the major gives undergraduates the opportunity to sharpen their quantitative and analytical skills so that they are prepared for any career path they choose to follow.

## Class Profile

Introductory Economics has three class meetings every week, and the class may meet for a fourth session at the instructor's discretion. (Typically, a professor will use the optional class days every other week.) The introductory course usually consists of 30 students, but never more than 35. In some semesters, we are able to offer enough sections of the course so that each class has only 20 to 25 students.

## Course Overview

Introductory Economics at Davidson College covers both microeconomics and macroeconomics in a single 14-week semester. The course is very fast paced, for it covers the same amount of material that most colleges cover in a two-course sequence that would be taken over two semesters. Most of the classroom hours are “chalk and talk”; in other words, I introduce new concepts and economic models in a lecture. However, two class periods are devoted to the discussion of *Fast Food Nation*. I gladly take time to discuss current events that pertain to the models being learned in the classroom. So, I encourage students to read a

## Chapter 3

newspaper and watch the news so that they can come to class with questions about what is going on in the world around them.

The course has two main objectives:

1. To promote economic literacy, a working knowledge of the most important concepts in microeconomics and macroeconomics.
2. To develop and strengthen analytical skills. Specifically, students will build an economics toolkit that they will use to analyze important (and difficult!) public policy questions. The toolkit that they develop in Introductory Economics will also prepare them for other courses in the economics major if they decide to continue their study of economics.

The required text is Robert E. Hall and Marc Lieberman, *Economics: Principles and Applications*, updated 2nd ed. (Mason, Ohio: Thomson South-Western, 2003).

## Course Planner

I spend approximately one week on each topic. One week consists of three 50-minute class periods or two 75-minute class periods per week (the optional class would be one additional hour every other week). However, for the fifth topic (product markets), I spend approximately two weeks.

### Topic List

1. Fundamentals
  - Scarcity and choice
  - Supply and demand
  - Elasticity
2. International Economics I: Trade
3. Consumer Theory

### Exam One

4. Producer Theory
  - Production and cost
  - Profit maximization
5. Product Markets
  - Perfect competition
  - Monopoly
  - Oligopoly and monopolistic competition

6. Labor Markets
7. Economic Efficiency
  - Market failures

### Exam Two

8. Introduction to Macroeconomics
  - Measuring economic output
  - Prices and inflation, unemployment
9. Long-Run Macroeconomic Analysis
  - The classical model
  - Economic growth
10. Short-Run Economic Analysis
  - Booms and busts
  - The Keynesian model
11. The Banking System and the Money Market
12. Aggregate Demand and Aggregate Supply
  - Monetary policy and fiscal policy

### Exam Three

13. International Economics II: Exchange Rates

### Final Exam

## Teaching Strategies

These are things I try to keep in mind as I teach the introductory economics course.

1. **Never underestimate the difficulty of the material.** Economics is a difficult subject to learn, and most students need clear, concise explanations if they are going to succeed. I tell my students that there are no stupid questions, and I do everything I can to make them comfortable asking questions in the classroom and during my office hours.
2. **Use examples that build on one another.** For example, one of the markets I use when I introduce supply and demand is the market for apartments. Then, when I move on to discuss price controls, I can use my previous example, the market for apartments, to work through an example of price controls from the real world.

## Chapter 3

3. **Use examples that students can connect to.** If you were talking about shortages in 2004, then you could talk about the shortage of iPods that Apple experienced that summer.
4. **Depth of coverage is more important than breadth of coverage.** It is better for students to really understand 4 models than it is for them to know something about 12 models.

## Student Evaluation

### Assignments

#### Quizzes

15%

I give 11 quizzes during the term, and I count a student's 10 best scores.

#### Short Paper

10%

I assign one paper during the semester. Students must write on a topic that I take from *Fast Food Nation*. Late papers are marked down a third of a letter grade per day that they are late. For example, an A paper turned in one day late receives an A-. I am willing to grant short extensions on the paper, but students *must* discuss an extension with me before the due date.

#### Exams

45%

I give three exams during the semester; each receives equal weight in determining a student's final grade. I will not give makeup exams without an official excuse. Furthermore, I must receive prior notification that a student will not be present at the exam.

#### Final Exam

30%

The final exam is self-scheduled and cumulative.

### Class Participation

I do not take attendance. However, most students find it difficult to succeed in an introductory economics course when they skip class. Students are responsible for all of the material that I present in class, and I use examples that differ from those used in the textbook. Students are also responsible for learning about any announcements that I make on days when they have missed class. If students read each assignment before the designated date, they will typically find it much easier to follow what I am covering in class. I create a list of reading assignments for each week of class, and students have access to this list on the Davidson College Web site.

### Getting Help

I do not collect the practice problem sets I make available to students. However, it is difficult to succeed in this course without doing the problems I assign each week. Students should do these problems, check their answers against the answer keys I provide, and speak to me if they do not understand something.

## Teacher Resources

Hall, Robert E., and Marc Lieberman. *Economics: Principles and Applications*. Mason, Ohio: Thomson South-Western, 2003.

Schlosser, Eric. *Fast Food Nation: The Dark Side of the All-American Meal*. New York: Perennial, 2002.

## Student Activities

Included below are samples of some of the work assigned to students, including a paper assignment, a sample problem set, a quiz, and an exam. Some of this work is beyond the scope of the content covered in the AP Economics Exams.

### Paper Assignment: Fast Food Nation

**Guidelines:** You should provide the appropriate citations in your paper (if any are needed). You must cite a book if you quote from it directly.

Economics is the study of decisions made under conditions of scarcity, and economists attempt to understand how these decisions are made by building models. However, since economics is a social science and not a “hard” science, the models that economists build contain flaws. This points to the need for testing the models built by economists. Economists are able to test their models in several ways, but one of the most important ways is through careful observation of human behavior. Quite simply, economists ask the question: Do people behave the way our models predict they will?

For this paper I would like for you to use *Fast Food Nation* as your economics laboratory in order to critique the supply and demand model. Specifically, I want you to write an essay that evaluates the following statement:

*Supply and demand is a model that works well in economics textbooks, but it doesn't work in the real world.*

In creating your essay, you may want to consider the following questions:

- Does the supply and demand model enhance your understanding of the material presented in *Fast Food Nation*? Consider discussing some specific stories or examples that you understood more completely as a result of your knowledge of supply and demand.
- What assumptions are made in the supply and demand model? Do these assumptions hold in the markets discussed in *Fast Food Nation*?
- Can the supply and demand model be used in situations in which all of its assumptions do not hold? Why or why not?

Your paper should be no longer than five pages. You should feel free to include graphs that will improve your paper. However, graphs should be very neatly drawn on a separate page. (The page that contains your graph[s] does not count toward the five-page limit.) Your paper should be typed in 10-point font or larger, and it should be double-spaced.

### Sample Problem Set on Consumer Theory

1. Sam, a student at Davidson, makes \$100 per week working at Ben and Jerry's. Sam likes to purchase two goods, movie tickets and Diet Coke, with her earnings.
  - a) The price of Diet Coke is 50 cents per can and the price of movie tickets is \$5 per ticket. Using this information, graph Sam's budget line. Place Diet Coke on the horizontal axis. Label your axes, the intercepts, and the slope of the budget line. Also, write down the equation for Sam's budget constraint.

## Chapter 3

- b) Suppose the price of movie tickets increases to \$10 per ticket. Graph Sam's new budget constraint on the same graph that you created for Part (a).
  - c) Suppose Sam receives a raise. She now makes \$130 per week. On the same graph you used in Part (a) and Part (b), graph Sam's new budget line. Assume that the price of a movie ticket remains \$10 and that the price of Diet Coke remains 50 cents per can.
2. Sam, our Davidson College student from Question 1, is making \$100 per week and faces prices of \$5 for movie tickets and 50 cents for cans of Diet Coke. She currently is consuming 160 cans of Diet Coke per week, and she spends the rest of her earnings on 4 movie tickets. However, upon reflection, Sam realizes that her marginal utility from the 160th can of Diet Coke was 4 and her marginal utility from the 4th movie ticket was 160.

Is Sam maximizing her utility? If so, then how do you know this? If she is not, then what should she do to maximize her utility? Be specific (i.e., should she consume more movie tickets, or should she consume more Diet Coke? Why?).

3. Darlene, a local businesswoman, eats hamburgers and milk shakes for lunch. Darlene has the following utility function:

$$U(H, M) = H \cdot M$$

Graph three indifference curves for Darlene. On your graph, place hamburgers ( $H$ ) on the horizontal axis. Be sure to graph the indifference curves for utility levels of 4, 16, and 25.

4. Darlene, our businesswoman from Question 3, has a budget of \$10 to spend on lunch every day. The price of milkshakes is always \$2.50 per shake. Darlene always buys two shakes for lunch, and the price of shakes never changes. However, the price of hamburgers does change rather frequently. In fact, when the price of hamburgers is \$1, Darlene buys five burgers for lunch. When the price of burgers is \$1.25, she buys four burgers for lunch. Finally, when the price of burgers is \$2.50 per burger, she buys only two burgers for lunch.

Use the information in the previous paragraph to derive three points on Darlene's demand curve for hamburgers. (*Note:* The demand curve will not be linear, so you do not need to find an equation for the demand function! Furthermore, "connecting the dots" is entirely appropriate for drawing your demand curve.)

### Sample Quiz on Consumer Theory

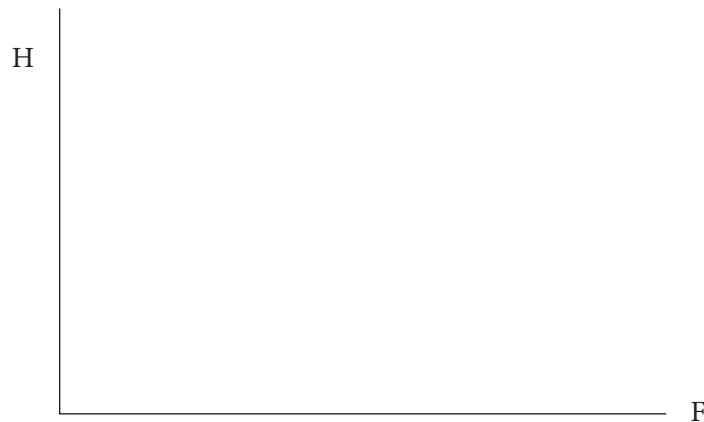
**Instructions:** You have 15 minutes to complete the quiz. Do not use any outside materials (e.g., book, notes, friends). You may use a calculator. Please show your work.

Donald has the following utility function:  $U = F + H$

Where  $F$  is the number of bags of French fries that Donald consumes, and  $H$  is the number of hamburgers that Donald consumes.



- a) Draw Donald's indifference curve for the utility levels of 10 and 30. (In other words, graph the indifference curves for  $U = 10$  and  $U = 30$ .)



- b) Based on the indifference curves that you have drawn, what conclusions can you draw about Donald's preferences for these two goods?
- c) If Donald has \$30 dollars to spend on hamburgers and fries, and the price of hamburgers is \$5 and the price of fries is \$1 (per bag), then would Donald be maximizing his utility by consuming five hamburgers and five bags of fries? Why or why not? (Be specific!)

## Exam Two

### Section I. Multiple Choice (20 points)

Instructions: Circle the best answer.

1. A firm in a monopolistically competitive industry
  - a) produces where  $MR = MC$ .
  - b) earns zero economic profit in the long run.
  - c) uses advertising to increase the demand for its product.
  - d) may exit the market in the long run if  $TR < TC$ .
  - e) All of the above are correct.
  
2. A discount bond refers to a bond that
  - a) pays the face value of the bond to the bondholder each year between the purchase date and the date of maturity.
  - b) pays a dividend to the bondholder.
  - c) pays the face value of the bond to the bondholder at the date of maturity.
  - d) will always sell for more than its face value.
  
3. Which of the following market structures are allocatively efficient?
  - a) Perfect competition
  - b) Monopolistic competition
  - c) A price-discriminating monopolist (third-degree price discrimination)
  - d) A "perfectly" price-discriminating monopolist (first-degree price discrimination)

## Chapter 3

- e) Both B and C
  - f) Both A and D
4. GM and Ford are oligopolists. Each firm chooses between a large advertising budget and a small advertising budget. Payoffs are measured in millions of dollars of profit.

GM/Ford	Small	Large
Small	GM: 10    Ford: 10	GM: 2    Ford: 20
Large	GM: 20    Ford: 2	GM: 8    Ford: 0

Based on the game described in the above matrix, we may conclude that

- a) GM has a dominant strategy: large advertising budget.
  - b) Ford has a dominant strategy: large advertising budget.
  - c) the lower right-hand cell (GM—Large; Ford—Large) is a Nash equilibrium.
  - d) there is no Nash equilibrium for this game.
  - e) A, B, and C are all correct.
5. A firm's marginal cost curve will be
- a) unaffected by the amount of fixed cost it faces.
  - b) increasing over the range of output where its marginal product is increasing.
  - c) unaffected by the slope of its total variable cost curve.
  - d) unaffected by its ability to remain productively efficient.

### Section II. Definitions (12 points)

*Instructions:* Briefly (in two or three sentences) define each of the following terms. Provide a real-world example to support your answer.

1. Public good
2. Compensating wage differential

### Section III. Problems (68 points)

*Instructions:* Please show all of your work. Answers that are not supported by the appropriate work will not receive full credit.

1. (12 points) The Davidson Depot produces restaurant meals. The Depot faces the following marginal product of labor function (marginal product of labor is measured in restaurant meals per day):

$$MP_L = 20 - 2L$$

Restaurant meals sell for \$20. The market for labor is perfectly competitive, and the wage rate for restaurant employees is \$80 per day.

- a) Find the expression for the Depot's *marginal revenue product of labor*.
- b) How many workers should the Depot hire?

*Important:* The following information should be used for Questions 2 and 3!

*Demand and Cost Functions*

Hurley, Wisconsin, is a small town on the Wisconsin-Michigan border. It is cold and snowy in Hurley, so the residents like to watch a lot of movies. The market demand for movie rentals in Hurley is given by the following equation:

$$Q = 1000 - 100P$$

The cost structure for movie rental firms is well known, and it is given by the following equations:

$$TC = 200 + \frac{Q^2}{50} \qquad MC = \frac{Q}{25}$$

2. (44 points) Assume that the market for movie rentals in Hurley is *perfectly competitive*. Furthermore, assume that there are *currently two firms* in this industry.
- a) Write down the firms' expressions for *ATC* and *AVC*. On the axes below, graph *MC* and *AVC*. (Label the axes.)



- b) Write down the equation for each firm's short-run supply function.
- c) Write down the equation for the short-run market supply.
- d) What is the short-run market equilibrium price in this market? How many movies are being rented in Hurley? Is each firm earning positive economic profit in the short run? How do you know this? (*Hint*: You do not need to calculate the amount of profit.)
- e) What is the long-run equilibrium price in this market? How many movie rental firms will there be in Hurley in the long run? (You must show your work.)
3. (12 points) The mayor of Hurley has a brother, Lars. Lars wants to run a movie rental store, but he also wants to earn positive economic profit in the long run. Lars intends to bribe the mayor so that the mayor will pass legislation enabling Lars to become a local monopolist. Once Lars operates *the only movie rental store in town*, how many movies will be rented in Hurley? What price will consumers pay to rent movies? (Use the cost functions and the demand function in the box at the beginning of question 2.)

# Sample Syllabus 4: Microeconomics

**Michael Brody**  
Menlo School  
Atherton, California

## School Profile

**School Location and Environment:** Menlo School is located in the suburb of Atherton in Silicon Valley near Stanford University. The school mainly serves students whose families work in white-collar professions.

**Grades:** 6–12

**Type:** Private, coeducational, independent school

**Total Enrollment:** 542 students in grades 9 through 12

**Ethnic Diversity:** Asian Americans comprise 12 percent of the student population; African Americans, 4 percent; Hispanics/Latinos, 4 percent; and other non-white, 5 percent.

**College Record:** One hundred percent of Menlo's graduates attend college.

## Personal Philosophy

The main goal of my AP Economics course is to help students learn to think like economists when approaching problems. Thus, much of the course, in terms of both assessment and classroom instruction, is centered on communicating economic principles and having students apply those principles to their world. Students want to earn high exam scores; however, preparing students for the AP Exam should be *a* driver, but not *the* driver, for the course.

My philosophy is to teach a solid principles course, not a test-prep course, and to expect that the exam scores will take care of themselves. Thus, it is key to get students (and yourself) to approach the course in terms of learning to think about the world in an economic way and learning to express that thinking in appropriate economic terms. Do not orient the entire course toward what will be on the AP Exam in May; rather, orient your course around mastering a way of thinking that will make students successful on the exam.

## Class Profile

We offer two to three sections of up to 20 students each per year, depending on student interest. Classes meet four times a week for one-hour periods. Menlo uses a rotating block schedule, which means that each class meeting happens at a different time in the school day, every day of the week. There is no laboratory component in this course.

## Course Overview

The primary textbook for this course is N. Gregory Mankiw's *Principles of Economics*.

## Course Objectives

In this course, students will:

- learn and master an economic way of thinking, meaning they will learn to think like economists when presented with problems.
- learn to express themselves with both written text answers and through a variety of graphical models.
- appreciate the general development of modern economic theory.
- see the basic connections between economics and calculus (if students have the appropriate math skills).
- become familiar with the basic language of business and be able to read and understand the business press and the basic measurements of economic performance.
- be well prepared to continue their economics education at the college level.

## Course Planner

### Content Summary

1. Basic economic concepts—scarcity, choice, opportunity cost, PPF
2. Nature and function of product markets—supply and demand, elasticity, consumer choice, firm production costs and revenues, pricing, perfect competition, imperfect competition
3. Factor markets—derived demand, factor pricing
4. History of economic thought—Adam Smith, Thomas Malthus, David Ricardo, Karl Marx, John Maynard Keynes
5. Role of government—government regulation, public goods, externalities, distribution of wealth

*Note:* This syllabus is designed for a full-year course, where gains from trade and absolute and comparative advantage are taught during the macro semester. These topics should be added in to replace the unit on history of economic thought for a one-semester course.

#### Unit 0: *Nickel and Dime* Summer Reading 1 day

**Reading:** Ehrenreich, *Nickel and Dime*

**Assessment:** Students must construct a budget and calculate how many hours of work at \$7.50 per hour it would take to earn that amount of money. They should then write a short (less than one page) reflection on their findings.

#### Unit 1: Basic Concepts 1 week

**Key Topics:** Scarcity, Choice, Opportunity Cost, PPF, Basic Marginal Benefit/Marginal Cost Analysis

**Readings:** Mankiw, *Principles of Economics*, chap. 1, pp. 4–11; chap. 2, pp. 24–28

**Assessment:** Quiz with 2 short-answer questions and 6 to 8 multiple-choice questions

## Chapter 3

### Unit 2: Supply and Demand

3 weeks

**Topics:** Demand, Law of Diminishing Marginal Benefits, Supply, Consumer and Producer Surplus, Consumer Choice/Optimal Purchase Rule, Allocative Efficiency, Deadweight Loss, Elasticity, Total Revenue Test, Price Discrimination, Price Floors and Ceilings, Efficiency versus Equity

**Readings:** Mankiw, *Principles of Economics*, chap. 4; chap. 5, pp. 89–99; chap. 6; chap. 7; chap. 8, pp. 164–69; chap. 15, pp. 337–39

**Assessment:**

1. Two one-page papers on vignettes from *Nickel and Dimed* that incorporate a graphical supply and demand analysis of aspects of the book
2. Test with 1 long-answer question, 2 short-answer questions, and 8 to 12 multiple-choice questions

### Unit 3: Costs and Revenues (emphasis on graphs!)

3 weeks

**Topics:** Law of Diminishing Marginal Returns, Economies of Scale, Costs (fixed, variable, marginal), Cost Curves (relationship between curves), Total and Marginal Revenues, Profit and Loss (MR/MC and TR/TC), Break-Even, Shut Down, Economic Profit versus Normal Profit

**Readings:** Mankiw, *Principles of Economics*, chap. 13

**Assessment:**

1. Test with 1 long-answer question, 2 short-answer questions, and 8 to 12 multiple-choice questions
2. Extra credit mutual fund investing project

### Unit 4: Perfect Competition

2 weeks

**Topics:** Assumptions, Relationship between Industry and Firm, Profit Maximization, Long-Run Equilibriums, Short-Run Equilibriums and the Adjustment Mechanism, Allocative Efficiency (for a firm)

**Readings:** Mankiw, *Principles of Economics*, chap. 14

**Assessment:** Test with 1 long-answer question, 2 short-answer questions, and 8 to 12 multiple-choice questions

### Unit 5: Imperfect Competition

2.5 weeks

**Topics:** Relationship between Price and MR, Barriers to Entry, Profit Maximization, Monopoly, Regulation, Natural Monopoly, Oligopoly and Duopoly Game Theory with Game Tree and Payoff Matrix (dominant strategy, Nash Equilibrium, collusion, prisoner's dilemma, interdependence), Collusive Oligopoly, Monopolistic Competition (long run and short run) (*Note:* In each imperfectly competitive market structure, examine its effect on allocative efficiency and consumer and producer surplus, and make comparisons to perfect competition.)

**Readings:** Mankiw, *Principles of Economics*, chap. 15; chap. 16, pp. 345–61; chap. 17, pp. 373–80, 385

**Assessment:** Test with 1 long-answer question, 2 short-answer questions, and 8 to 12 multiple-choice questions

### Unit 6: Factor Markets

2 weeks

**Topics:** Factors of Production, (review definitions of marginal revenue, marginal product, the law of diminishing marginal returns), Derived Demand, Marginal Revenue Product Analysis, Optimal Purchase Rule, Perfectly Competitive Factor Markets, Profit Maximization/Cost Minimization Rules, Monopsony, Economic Rent, Distribution of Income among Factors, Unions

**Readings:** Mankiw, *Principles of Economics*, chaps. 18 and 19; chap. 20, pp. 440–45

**Assessment:** Quiz with 2 short-answer questions and 6 to 8 multiple-choice questions

**Unit 7: The History of Economic Thought** 1 week

**Topics:** Adam Smith, Thomas Malthus, David Ricardo, Karl Marx, John Maynard Keynes

**Readings:** Heilbroner, *The Worldly Philosophers*, 3, 4, 6, and 9

**Assessment:** Six-page paper on a current economic event from the perspective of four different philosophers

**Unit 8: The Role of Government** 1.5 weeks

**Topics:** Role of Government, Public versus Private Goods, Marginal Social Cost/Marginal Social Benefit Analysis, Market Failures, Positive and Negative Externalities, Taxes, Free Riders, “Tragedy of the Commons”

**Readings:** Mankiw, *Principles of Economics*, chaps. 10 and 11 (and parts of 12, if time allows)

**Assessment:**

1. Quiz with 2 short-answer questions and 6 to 8 multiple-choice questions
2. Extra-credit AP Exam free-response section

**Comprehensive Final Exam:** One long-answer question, 2 short-answer questions, and a full multiple-choice section (60 questions) of an AP Exam from a previous year. Planned for two hours.

## Teaching Strategies

- **Complete AP Exam problems in class.** Give students 10 to 15 minutes to work out the answers to an old AP free-response question. Let the students work in small groups if they (or you) prefer. When a group finishes quickly, have them put their answer on the board. I do this several days a week, at either the beginning or the end of the period. It has several benefits:
  - You can visit weaker groups or students so that they can get some individualized instruction.
  - You can assess where common misunderstandings are happening. If you get questions from several groups on the same part of the problem, you know to review or reteach that idea.
  - Students learn to do AP problems in the amount of time they will get on the actual exam. This helps them know how to pace themselves when it counts.
- **Give reading previews.** Give introductory lectures on the upcoming reading from the textbook. Emphasize that these lectures are not meant to be a perfect substitute for the reading; rather, they let students read new material with some familiarity. Economics textbooks are not the easiest reading. When students tackle the textbooks having already seen the big ideas, they get the most from the time they spend on the reading.
- **Frontload on fundamental topics.** Extend the units at the beginning of the course and make sure that as many students as possible are on board with the basics like opportunity cost, supply and demand, and the cost curves. Spending more time on these topics the first time through will save you a lot of time later. Students can pick up new topics quickly if they are well grounded in the topics that come early. Hours spent up front can save you days later on in the semester!
- **Use the newspaper.** Nothing motivates students like seeing that economics is being put to use every day around them. Finding good articles for class is easy. Look in the *Wall Street Journal* on page A2, “The Economy.” The commodities page has a supply and demand article every day. The Sunday “Business” section in the *New York Times* almost always has something you can use, as do the editorial pages. Make a “clip-and-save” file, gather articles as you see them, and then break them

## Chapter 3

out when you cover that topic. Searching the paper for a few minutes every day will quickly produce more good articles than you can use.

### Student Evaluation

Student grades are determined as an average of tests, quizzes, papers, and extra-credit assignments. Grades are broken down as follows:

Tests	40%	Units 2, 3, 4, 5
Quizzes	20%	Units 1, 6, 8
Papers	30%	<i>Nickel and Dime</i> summer reading, <i>Nickel and Dime</i> supply and demand analysis, <i>The Worldly Philosophers</i> paper
Extra Credit	10%	Mutual fund project, old AP Exam free-response section

### Teacher Resources

*Economics USA*. Produced by Educational Film Center. N.p., 2002. Video series.

Ehrenreich, Barbara. *Nickel and Dime: On (Not) Getting By In America*. New York: Metropolitan Books, 2001.

Heilbroner, Robert L. *The Worldly Philosophers: The Lives, Times, and Ideas of the Great Economic Thinkers*. Rev. 7th ed. New York: Simon and Schuster, 1999.

Mankiw, N. Gregory. *Principles of Economics*. 3rd ed. Mason, Ohio: Thompson South-Western, 2004.

Morton, John S., and Rae Jean B. Goodman. 2004. *Advanced Placement Economics: Microeconomics, Student Activities*. 3rd ed. New York: National Council on Economic Education.

*New York Times*

*Wall Street Journal*

### Student Activities

Below are two sample paper assignments, a game I use in class, and a sample test I give to students.

#### **Paper Assignment: Nickel and Dime**

It is time to use what you know about the supply and demand model, elasticity, price floors and ceilings, and allocative efficiency to do some real-world analysis.

1. Select two brief vignettes from *Nickel and Dime* that illustrate one or more of these concepts in action in Barbara Ehrenreich's experience.
2. Quote and properly cite a key section from your chosen vignette.
3. Illustrate the economics of the quoted section you selected, using graphs and a written explanation.

Each quote and written analysis may not exceed one double-spaced, typed page, including the graphs.



### Paper Assignment: The Worldly Philosophers

This paper is due on the last day before break. Because this is the last day before break, *late papers will not be accepted*. Feel free to turn in your paper early if you have other projects or tests on that Friday. This paper will be weighted as one test in your grade. All papers should be typed (in a 12-point font) and double-spaced.

You may discuss your ideas about this assignment with your classmates. *However, all students must write their own papers without assistance from classmates*. You should not use sources other than *The Worldly Philosophers*. If you draw quotes from the book, be sure to properly document them with parenthetical citations.

**The Assignment:** The president has assembled a committee of three Worldly Philosophers (of your choosing) to help him decide whether or not to raise the minimum wage in the United States.

Write the committee's six-page report to the president, from the viewpoint of the worldly philosophers, which makes an overall recommendation as to what should be the U.S. course of action (i.e., should we raise the minimum wage or not).

In writing this paper, you should assume the voices of the different thinkers and write as if you were they, using their ideas to justify their individual opinions of what the president should do. Thus, you must explain the different philosophers' philosophies to the extent that the reader of your paper will be able to understand why a certain philosopher might logically fall on one side of this question. Not all of the thinkers must agree, and the committee you select may vote two to one in one direction.

### 3-1-0 Game

This is a basic game theory game for use on the second day of a unit on game theory. It provides good examples of interdependence, dominant strategy, Nash equilibrium, and the difficulties in enforcing collusion.

**Resources needed:** Three small slips of paper per student and a bag of candies.

**Time:** 30 minutes

**Directions:**

1. Students write their names and either a 3 or a 1 on one slip of paper and fold up the paper. Collect the folded slips in a container. Draw two random slips from the container (if there are an odd number of students, the teacher plays, too). The payouts are as follows (these rules should be written on the board before students fill out their first slip):
  - a) If both players draw a 1, both players get one piece of candy.
  - b) If one player draws a 3 and the other player draws a 1, the player who drew a 3 gets three pieces of candy and the player who drew a 1 gets zero pieces of candy.
  - c) If both players draw a 3, both players get zero pieces of candy.
2. After the first round, emphasize the idea of *interdependence*. That is, the amount of candy a player gets is interdependent on what their coplayers wrote on their slips.
3. Play again.

## Chapter 3

4. After the second round, have students work in pairs or small groups to work out the payoff matrix and game tree for this game.
  - a) Identify the *dominant strategy*, (writing 3 is the dominant strategy), that is, the strategy that is a player's best choice regardless of what the other players do.
  - b) Identify the Nash equilibrium in this game, that is, the outcome that is the best for you and the other players at the same time. In this game it occurs when both players draw a 1.
  - c) Ask why this does not happen more in this game.
5. Play again.
  - a) Ask why collusion is not possible (it is not enforceable!).
  - b) If it were possible, where would players end up?

### Sample Test: Supply and Demand

Read and follow all directions carefully. Answer all questions, including multiple-choice questions, on a separate sheet of paper. Include clear and well-labeled graphs with your answers when necessary or useful. Simple answers to questions will not receive full credit—you must show your work and explain your logic clearly. Good luck!

1. Sophie goes shopping for new volleyballs. Sophie has figured out the total benefits she will receive from buying different numbers of new balls:

Volleyballs	Total Benefits
1	50
2	95
3	125
4	146
5	156
6	160
7	159

- a) If volleyballs cost \$9 each, how many should Sophie buy? Explain your logic.
- b) What is Sophie's consumer surplus when she buys the benefit maximizing number of balls? Show your work.
- c) Why would Sophie never buy the seventh ball?
- d) On the same shopping trip, Sophie is also buying new socks. If she is working to maximize her consumer surplus on both socks and volleyballs, what should be true about the ratio for the last unit purchased of both items? Briefly explain why.

2. Menlo's French Club sets an effective price floor on crêpes at its crêpe sale.
  - a) Compare, on two separate graphs, the producer and consumer surplus on crêpes before and after the price floor.
  - b) Is the outcome of the price floor allocatively efficient? Include a definition of allocative efficiency in your answer.
  - c) Under what conditions would the price floor be a good policy for the French Club to follow? Why would those conditions be good ones? Would you recommend this policy?
  
3. To raise revenue, the government raises an already existing tax on taxi rides.
  - a) Using a graph and text, explain what will happen to the equilibrium price and quantity of taxi rides as a result.
  - b) Indicate on a new graph:
    - i. the deadweight loss that would occur in the market due to the increased tax
    - ii. the area on the graph that represents the total tax paid by consumers
    - iii. the total tax paid by producers

# Sample Syllabus 5: Microeconomics

**Charles Callahan III**

State University of New York (SUNY) at Brockport  
Brockport, New York

## University Profile

**Location and Environment:** SUNY Brockport is 1 of 12 comprehensive colleges within the State University of New York system. The 435-acre campus is situated in Brockport, New York, a village of approximately 9,800 residents located 16 miles west of Rochester and 60 miles east of Buffalo. The village lies along the banks of the New York State Barge Canal and is a 15-minute drive from Lake Ontario.

**Type:** State-assisted, coeducational university

**Total Enrollment:** 6,962 undergraduates

**Ethnic Diversity:** African Americans comprise 5.1 percent of the student population; Hispanics/Latinos, 2.1 percent; Asian Americans, 1 percent; and Native Americans, 0.4 percent.

## Personal Philosophy

Making the “dismal science” come alive continues to be a challenge each semester. Yet, the opportunity to contribute to the growth and development of minds in the subject matter of economics is one of the most rewarding experiences an instructor can have, especially when students finally “get it” and are able to articulate the relevance of economic concepts in their own lives.

## Class Profile

The three hours of class time per week are taught on either a Monday, Wednesday, Friday schedule for one hour each day, a Tuesday and Thursday schedule for an hour and a half each day, or a weekday night for three hours. Each class typically consists of 35 students.

## Course Overview

Economics is offered as a minor in the Department of Business Administration and Economics. The Principles of Microeconomics course covers determination of prices, demand and supply, behavior of the firm, and resource allocation. The textbook is Campbell R. McConnell and Stanley L. Brue, *Microeconomics: Principles, Problems, and Policies*, 16th ed. (Boston: McGraw-Hill/Irwin, 2005).

## General Course Objectives

After completion of the course, students should be able to (1) use terms correctly when describing economic problems, (2) describe economic concepts and principles in their own words, and (3) successfully apply economic concepts and principles to everyday life. Students are expected to be able to demonstrate the following key learning outcomes at the conclusion of the course:

1. Define economics.
2. Distinguish between the concepts of opportunity cost, marginal cost, and sunk cost.
3. Distinguish between macroeconomic concerns and microeconomic concerns.

4. Distinguish between positive economics and normative economics.
5. Identify the three basic economic questions.
6. Understand what is meant by comparative advantage.
7. Interpret what is shown by a production possibilities curve.
8. Interpret what is shown by demand and supply curves.
9. Understand what factors will cause either the demand curve to shift or the supply curve to shift.
10. Understand what is meant by a change in quantity demanded versus a change in demand.
11. Understand what is meant by a change in quantity supplied versus a change in supply.
12. Given a market in equilibrium, predict what will happen to equilibrium price and equilibrium quantity when a factor causes either the demand curve or the supply curve to shift.
13. Distinguish between a good that is normal and a good that is inferior.
14. Distinguish between a substitute good and a complementary good.
15. Predict what will happen if an effective price ceiling is established in a market.
16. Predict what will happen if an effective price floor is established in a market.
17. State the utility-maximizing rule in words and mathematically.
18. Distinguish economic profit from accounting profit.
19. Distinguish the short run from the long run.
20. When given a situation, show when the law of diminishing marginal returns occurs.
21. Given a numerical example with prices, select the least-cost production technology for the firm.
22. Construct per unit costs when given total costs and relevant output levels; construct total costs when given per unit costs and relevant output levels.
23. Identify the three key assumptions for the different types of market organization.
24. Given a table or diagram, use the profit-maximizing rule for finding the best output and the best price for firms in the different types of market organization. Also, be able to compute the profit having found the best output and the best price.
25. Given a diagram, show why perfect competition is preferred to monopoly, monopolistic competition, and oligopoly.
26. Identify the two major policy positions adopted by the government when a firm exercises monopoly power or is a natural monopoly.

## Chapter 3

27. Given a diagram, be able to identify/calculate the area of consumer surplus/producer surplus.
28. Given a diagram, be able to identify/calculate the area of consumer surplus/producer surplus when trade takes place.
29. Given a diagram, be able to identify/calculate the area of consumer surplus/producer surplus when trade takes place and government imposes a tariff.
30. Identify what is meant by the term *derived demand*.
31. Given a diagram or a table, determine the best amount of a resource a profit-maximizing firm should hire.
32. Identify and give examples of each of the major sources of market failure.
33. Identify the possible remedies that government may try in each of the cases of market failure in order to achieve an optimal allocation of resources.

## Course Planner

Date	Topic of Discussion	Assignments/Chapters	Exams/Homework
August 31	Syllabus and Introduction		
September 2	Introduction to Economics	Chapters 1, 2	
7	Introduction to Economics	Chapters 2, 4	
9	The Mixed Economy	Chapter 5, pp. 73–84	Quiz 1
14	The Global Economy	Chapter 6	Homework 1 due
16			Exam 1
21	Demand and Supply	Chapter 3	
23	Demand and Supply	Chapter 3	
28	Demand and Supply: Extended Applications	Chapter 3 Web	Quiz 2
30	Elasticity of Demand	Chapter 7	
October 5	Elasticity of Supply	Chapter 7	Homework 2 due
7	Elasticity Applications	Chapter 7	Quiz 3
12	Consumer Behavior	Chapter 8	
14			Exam 2
19	<i>Fall Break</i>		
21	Costs of Production	Chapter 9	
26	Costs of Production	Chapter 9	
28	Pure Competition	Chapter 10	Quiz 4
November 2	Pure Competition	Chapter 10	Homework 3 due
4			Exam 3
9	Monopoly	Chapter 11	
11	Monopolistic Competition	Chapter 12	Quiz 5
16	Oligopoly	Chapter 12	Homework 4 due
18			Exam 4
23	Resource Markets	Chapter 14	
25	<i>Holiday</i>		
30	Wage Determination	Chapter 15	
December 2	Rent and Market Failure	Chapters 16, 17	Quiz 6
7	Market Failure	Chapter 17	Homework 5 due
9			Exam 5
14			Final Exam

## Teaching Strategies

The mechanisms used to help students learn in this course include classroom lecture and discussion, assigned text readings, homework from end-of-chapter questions and handouts, coaching, and collaborative/active-learning techniques.

## Student Evaluation

### Examinations

**500 points**

Five regular exams are given during the session. Each of these is worth 100 points. The two lowest regular exam grades are averaged and constitute one of the five exam grades. For example, if a student has grades of 80, 95, 90, 86, and 68, then the grades that would be part of their overall point total for their final grade would be 80, 95, 90, 86, and 74 (the average of 68 and 80). The comprehensive final counts as two exam grades. The exams consist of multiple-choice and short-answer problems and/or questions.

### Homework Questions/Short Project Assignments

**100 points**

Homework questions/short project assignments come from the main text and/or from handouts. No late homework questions/assignments are accepted, and the grade is *unsatisfactory* for those questions/assignments. Homework questions/assignments are collected at the beginning of class. I encourage students to work together and help one another on homework. Nonetheless, I expect the final product to be the individual student's—no copying of answers from fellow students. A maximum of 100 points can be accumulated.

### Quizzes

**50 points**

Six quizzes are given throughout the term as indicated on the class schedule. Each quiz is given at the beginning of the class. No one arriving after the first five minutes of class is allowed to take the quiz. Indeed, late arrivals receive a zero for that quiz. Since the best five quizzes count, the lowest score on one of the quizzes is dropped. A maximum of 50 points can be accumulated.

### In-Class and Outside-of-Class Participation

**20 points**

I expect students to be active participants in the classroom. This means that they must do the assigned readings before class, ask questions, participate in discussions, and work together with fellow students on assigned problems during class. In addition, if they score lower than a C on any exam except the final one, they are responsible for meeting with me after the exam to talk about their progress in the class. I ask students to bring their class notes with them for the office visit (in essence, I want to make sure that effective communication is taking place). They must also meet with me before the next exam. Each meeting with me after scoring lower than a C on any exam is worth 5 points (those who score a C or better on an exam will automatically receive 5 points). A maximum of 20 points can be accumulated.

### Grading Scale

92–100	A	87–89.99	B+	77–79.99	C+	67–69.99	D+	below 60	E
90–91.99	A–	82–86.99	B	72–76.99	C	62–66.99	D		
		80–81.99	B–	70–71.99	C–	60–61.99	D–		

### Attendance

Attendance is taken at the start of each class period. Absences are excused only if written documentation is given to me within 24 hours of the student's return to class and the absences are consistent with college policy. (No more than one excused absence may be work related.) Makeup exams are given during finals week, and only for those in compliance with this policy.

### Cheating

A grade of E for the entire course results if a student is caught cheating. Additional sanctions may also occur. Cheating includes, but is not limited to, plagiarism, forgery, and using cheat sheets.



## Teacher Resources

McConnell, Campbell R., and Stanley L. Brue. *Microeconomics: Principles, Problems, and Policies*. 16th ed. Boston: McGraw-Hill/Irwin, 2005.

The following resources that accompany the text are also used:

- *Instructor's Manual*, by Randy Grant
- Instructor's Resource CD-ROM
- Publisher's overhead transparencies
- *Study Guide*, by William B. Walstad and Robert C. Bingham
- *Test Bank I*, by Campbell R. McConnell and Stanley L. Brue
- *Test Bank II* and *Test Bank III*, by William B. Walstad

*New York Times* on the Web—[www.nytimes.com](http://www.nytimes.com)

*BusinessWeek* Online—[www.businessweek.com](http://www.businessweek.com)

*Wall Street Journal* Online—[online.wsj.com/public/us](http://online.wsj.com/public/us)

## Student Activities

Students are encouraged to learn from each other. Handouts are worked on in class in groups of two or three to help facilitate this objective. The following is an example of an activity that has worked well in class.

### More Challenges: Demand, Supply, and Market Equilibrium

The inspiration for the first exercise came from the article “A High-Fiber Fruit Could Lower Heart Disease Risk, Study Reports,” *Hamlin Clarkson Suburban News*, February 29, 2004, west edition, 15. The inspiration for the second exercise came from McConnell and Brue, *Microeconomics: Principles, Problems, and Policies*, p. 58. The material in the second exercise is beyond the scope of the AP Exam.

1. Assume that the apple market is purely competitive. Suppose that the market for apples is in equilibrium. Determine how each of the following shocks will affect the equilibrium quantity and price. Draw a diagram for each situation (*a* through *e*) to illustrate your answer. Make sure that you label all of the axes, show the initial conditions, and draw the directional arrows for either a shift in demand, a shift in supply, or both.
  - a) Apples are shown to provide a rich source of fiber that helps to prolong life.
  - b) A fungus comes along that causes damage to a significant portion of the apple crop.
  - c) Great weather conditions exist during the apple-growing season.
  - d) People, on the whole, start to eat significantly more tropical fruit in lieu of apples.
  - e) Higher wages have to be paid to migrant farm workers who pick apples.

## Chapter 3

2. Assume that the market for good YUM is purely competitive.
  - a) The demand curve for YUM is the following:  $Q_D = 80 - 10P$ .
  - b) The supply curve for YUM is the following:  $Q_S = -40 + 20P$ .
  - c)  $Q_D$  is the quantity demanded,  $Q_S$  is the quantity supplied, and  $P$  is the price of YUM.
  - d) What is the equilibrium price of YUM? What is the equilibrium quantity of YUM?

### Key

1. After correctly labeling the axes and each curve, and showing the initial equilibrium quantity and price, the diagram should show the following:
  - a) The demand curve shifts to the right (increase in demand) with corresponding directional arrow(s). The equilibrium quantity increases, and the equilibrium price rises.
  - b) The supply curve shifts to the left (decrease in supply) with corresponding directional arrow(s). The equilibrium quantity decreases, and the equilibrium price rises.
  - c) The supply curve shifts to the right (increase in supply) with corresponding directional arrows. The equilibrium quantity increases, and the equilibrium price declines.
  - d) The demand curve shifts to the left (decrease in demand) with corresponding directional arrows. The equilibrium quantity decreases, and the equilibrium price declines.
  - e) The supply curve shifts to the left (decrease in supply) with corresponding directional arrows. The equilibrium quantity decreases, and the equilibrium price rises.
2.  $Q_D = Q_S$ 
  - a)  $80 - 10P = -40 + 20P$
  - b)  $30P = 120$
  - c)  $P^* = \$4$
  - d)  $Q^* = 80 - 10(4) = 80 - 40 = 40$        $P^* = \$4$  and  $Q^* = 40$

# Sample Syllabus 6: Microeconomics

**Sally Meek**

Plano West Senior High School

Plano, Texas

## School Profile

**School Location and Environment:** Plano Independent School District is a suburban school district north of Dallas, Texas. Plano is a city of approximately 245,000 people, and it is home to national headquarters for several commercial firms. The community is very supportive of the public schools and has high expectations for the students and the schools. The school district is known for academic excellence and achievement in the fine arts and sports. As one of three comprehensive senior highs in the district, Plano West Senior High School provides programs for all students. Our student body is very ethnically diverse, since the families of many of the students have come to the area from around the world.

**Grades:** 11–12

**Type:** Public, coeducational school

**Total Enrollment:** Approximately 1,860 students

**Ethnic Diversity:** Asian Americans comprise 18 percent of the student population. African Americans, 6.5 percent; and Hispanics/Latinos, 5.3 percent.

**College Record:** Ninety-five percent of the graduating seniors go on to attend college.

## Personal Philosophy

I truly believe that economics is the most important course students will take in high school. In economics, students learn to understand the workings of the world around them and analyze the choices they make every day. Students are trying to understand the world and feel productive and important in it. Economics gives them the tools of analysis, specifically the economic way of thinking, that allow them to understand the costs and benefits of the decisions they make. This understanding creates empowered students who are ready to be successful in the next stage of their lives, whether it is college, work, or additional training.

## Class Profile

In the state of Texas, each student is required to complete one semester of economics as a graduation requirement; either AP Microeconomics or AP Macroeconomics will suffice for this credit. Because of this, and because of other courses required for students, most of our students take only one semester of AP Economics. Our school is still growing, but at present we have six sections of AP Microeconomics in the spring and six sections of AP Macroeconomics in the fall. Additionally, approximately 15 to 20 percent of the students enrolled in AP Economics take both courses. Classes meet each day, Monday through Friday, for 55 minutes. Each class has between 27 to 30 students (or more).

## Course Overview

This course is an introduction to microeconomics. Microeconomics introduces students to the cost benefit analysis that is the economic way of thinking. This analysis is used to understand smaller segments of the

## Chapter 3

economy—specifically, consumers and producers—as they interact in output markets and resource markets and to understand the government’s impact on these specific economic units.

The textbook is the second edition of N. Gregory Mankiw’s *Principles of Microeconomics*. Students are strongly encouraged to use the publisher’s Web site for the text, [www.swcollege.com/econ/mankiw/student/microindex.html](http://www.swcollege.com/econ/mankiw/student/microindex.html), and to read the business pages of the local newspaper and any business daily.

### Course Format

This is a college-level course. As a result, students are held responsible for completing all reading and homework assignments. Students must take it upon themselves to prepare adequately for class. For each chapter, they are expected to know definitions of the key concepts and answers to the review questions at the end of the chapter. Questions listed on the Course Planner calendars come from the “Problems and Application” sections at the end of each chapter. Likewise, students are responsible for the information transmitted in class.

Students who are absent are responsible for making arrangements for gathering the information they missed, whether it was a lecture, activity, or simulation. Students who are on campus on the day of a scheduled test are required to take the test. Students who are absent on the day of a test are required to take the test on the day they return. A semester plan, unit calendars, and Internet resources are included on the AP Microeconomics page of the Plano West Senior High Web site. Students are expected to print these out and use them as needed.

### Service-Learning Projects

In the last six weeks, all students are required to complete a service-learning project that counts as a test grade. The topic varies from semester to semester. See the course Web site for the criteria during a specific semester.

### Course Objectives and Outline

The Texas Education Agency (TEA) has indicated that a course in microeconomic theory must comply with the essential elements required by the agency in order for the students taking the course to graduate from high school in the state of Texas.

- I. **Basic Economic Concepts (Chapters 1–3)** (8–14%)
  - A. Economic decision making
    - 1. Scarcity and choice
    - 2. Marginal analysis
    - 3. Incentives
  - B. Economic interaction
    - 1. Benefits of voluntary exchanges
    - 2. Markets as economic mechanisms
    - 3. Government impact on markets
  - C. The macroeconomy
    - 1. Determinants of standard of living
    - 2. Inflation
    - 3. Short-run tradeoff—inflation and unemployment

- D. Economic models
  - 1. Circular flow model
  - 2. Production possibility frontier
- E. Economic thinking
  - 1. Micro versus macro
  - 2. Normative versus positive
- F. Trade
  - 1. Specialization
  - 2. Absolute advantage
  - 3. Opportunity cost and comparative advantage

**II. The Nature and Functions of Product Markets (50–70%)**

- A. Supply and demand (chapters 4–6), 15–20%
  - 1. Determinants of demand and supply
  - 2. Market equilibrium
  - 3. Surpluses and shortages
  - 4. Price elasticity of demand
    - a. Determinants
    - b. Formula
    - c. Total revenue test
  - 5. Income elasticity of demand
  - 6. Cross elasticity of demand
  - 7. Price elasticity of supply
  - 8. Government price controls
    - a. Price ceilings
    - b. Price floors
  - 9. Impact of taxes on markets
    - a. Taxes and changes in output
    - b. Elasticity and incidence of taxes
  - 10. Market efficiency (chapters 7–9)
    - a. Consumer surplus
    - b. Producer surplus
    - c. Taxes and deadweight loss
  - 11. Market welfare and international trade
- B. Theory of consumer choice (chapter 20, or supplement with alternative material), 5–10%
  - 1. Income effect, substitution effect and demand
  - 2. Diminishing marginal utility and demand
  - 3. Total utility and marginal utility
  - 4. Utility maximization

## Chapter 3

- C. Production and costs (chapter 13), 10–15%
  - 1. The costs of production
    - a. Economic costs
    - b. Implicit costs versus explicit costs
    - c. Normal profit
  - 2. Production functions
  - 3. Fixed and variable costs
  - 4. Average costs
  - 5. Marginal costs
  - 6. Short-run costs
  - 7. Long-run costs
  - 8. Economies and diseconomies of scale
- D. Firm behavior and market structure (chapters 14–17), 25–35%
  - 1. Competitive markets
    - a. Characteristics
    - b. Output decisions
    - c. Profit maximization
    - d. Short-run supply (firm)
    - e. Short-run shut-down decisions
    - f. Long-run enter or exit market decisions
    - g. Graphing short-run firm and market in situations of economic profits or losses
    - h. Graphing long-run zero profit conditions, efficiency
  - 2. Monopoly
    - a. Characteristics
    - b. Types of monopolies
      - i. Government created
      - ii. Monopoly resources
      - iii. Natural monopoly
    - c. Marginal revenue in a monopoly
    - d. Pricing and output decisions, profit maximization
    - e. Welfare costs of a monopoly, inefficiency
    - f. Monopolies and public policy
    - g. Price discrimination
  - 3. Oligopoly
    - a. Characteristics
      - i. Interdependence
      - ii. Collusion, cartels
    - b. Decision making in oligopolies
      - i. Duopoly
      - ii. Game theory
      - iii. Nash equilibrium
    - c. Public policy and oligopolies, antitrust legislation

4. Monopolistic competition
  - a. Characteristics
  - b. Product differentiation
  - c. Pricing and output decisions, profit maximization
  - d. Long-run equilibrium and excess capacity
  - e. Advertising

**III. Factor Markets (Chapters 18–19) (10–18%)**

- A. Production and the demand for resources
- B. The value of marginal product
- C. Determinants of the demand for labor
- D. Determinants of labor supply
- E. Productivity and wages
- F. Markets for land and capital
- G. Minimizing input costs (from production costs concepts, II.C.)

**IV. Market Failure and the Role of Government (Chapters 10–12, 20) (12–18%)**

- A.  $MSB = MSC$
- B. Externalities
  1. Negative production externalities
  2. Positive production externalities
  3. Negative consumption externalities
  4. Positive production externalities
  5. Private solutions
  6. Public policy responses
- C. Public goods
- D. Private goods
- E. Common resources and the “tragedy of the commons”
- F. Significance of property rights (from introductory concepts, I.)
- G. Taxes and efficiency
- H. Taxes and equity
  1. Benefits principle
  2. Ability to pay principle
  3. Tax incidence
- I. Income distribution
  1. Measuring inequality
  2. Political views of income distribution

## Chapter 3

### Course Planner

Full citations for all of the resources named in the unit calendars can be found in the “Teacher Resources” section of this syllabus.

- **Questions.** The questions listed in the calendars come from the “Problems and Application” section questions at the end of the chapters in Mankiw, *Principles of Microeconomics*.
- **Activities.** The activity numbers refer to the application activities in Morton and Goodman’s *Advanced Placement Economics* package.
- **Simulations.** Simulations come from National Council on Economic Education publications, which are identified in the calendars and the “Teacher Resources” section.

#### Unit 1: An Introduction to Economics

Chapters 1–3 in Mankiw, *Principles of Microeconomics*

In this unit, students will:

- be introduced to the economic concepts of scarcity, opportunity cost, and marginal analysis.
- learn and use the production possibility frontier and circular flow models.
- participate in a simulation of the circular flow model and will use the production possibility frontier to analyze the benefits of voluntary exchanges.

Monday	Tuesday	Wednesday	Thursday	Friday
<p><b>Aug 11</b></p> <p>Welcome—Syllabus, Text, Student Info. Sheet</p> <p>Homework: Read chap. 1</p>	<p><b>12</b></p> <p>Marginal Analysis</p> <p>Activities 3, 7</p> <p>HW: Answer ques. 3–6 from chap. 1</p>	<p><b>13</b></p> <p>Economic Models</p> <p>CFC</p> <p>HW: Read pp. 19–24; answer ques. 3</p>	<p><b>14</b></p> <p>CFC Simulation (from <i>Economics in Action</i>)</p> <p>CFC Quiz</p> <p>HW: Read pp. 25–34; answer ques. 4</p>	<p><b>15</b></p> <p>Timed-Writing Quiz #1</p> <p>Another Economic Model—PPF</p> <p>Activity 2</p>
<p><b>18</b></p> <p>PPF Application</p> <p>HW: Read pp. 47–55</p>	<p><b>19</b></p> <p>Comparative Advantage</p> <p>Activity 6</p> <p>HW: Read pp. 55–59; answer ques. 3, 5</p>	<p><b>20</b></p> <p>Input/Output Method for Determining Comparative Advantage</p> <p>Activities 49–50 (from the NCEE macro student activity book)</p> <p>HW: Answer ques. 10</p>	<p><b>21</b></p> <p>Complete Group Activity</p> <p>Activity 8</p> <p>Computer Lab (use the text’s Web site to practice with multiple-choice questions)</p>	<p><b>22</b></p> <p>Unit 1 Test</p>



## Unit 2: Supply and Demand I—How Markets Work

Chapters 4–6 in Mankiw, *Principles of Microeconomics*

In unit 2, students will:

- learn the assumptions and determinants of supply and demand in order to use models of markets for description, analysis, and prediction.
- understand the significance and role of prices in a market economy.
- use concepts of elasticities of demand and supply to evaluate quantitatively economic situations.
- evaluate the use of government price controls and the impact of taxes on markets.

Monday	Tuesday	Wednesday	Thursday	Friday
<p><b>Aug 25</b> Test Corrections HW: Read pp. 64–74</p>	<p><b>26</b> Demand: To Shift or Not Activities 9, 10 HW: Read pp. 75–79</p>	<p><b>27</b> Supply Activity To Shift or Not Activities 12, 13 HW: Read pp. 80–89</p>	<p><b>28</b> Markets: To Shift or Not Activities 14, 15</p>	<p><b>29</b> Timed-Writing Quiz #2 Market Game (from <i>Economics for Educators</i>, Lesson 5) Activity 16 HW: Read pp. 93–97</p>
<p><b>Sept 1</b> <i>Holiday</i></p>	<p><b>2</b> Elasticity of Demand and Total Revenue Test Activities 17–20 HW: Read pp. 98–102; answer ques. 1–3</p>	<p><b>3</b> Other Elasticities HW: Read pp. 102–7; answer ques. 4</p>	<p><b>4</b> Application of Elasticities Answer ques. 8, 10, 13 HW: Read pp. 108–14</p>	<p><b>5</b> Timed-Writing Quiz #3 Price Controls</p>
<p><b>8</b> Price Ceilings Activity 22 HW: Read pp. 117–22; answer ques. 1</p>	<p><b>9</b> Price Floors HW: Read pp. 123–28</p>	<p><b>10</b> Taxes HW: Read pp. 128–35; answer ques. 7</p>	<p><b>11</b> Complete Activity 23 in groups Computer Lab (use the text’s Web site to practice with multiple-choice questions)</p>	<p><b>12</b> Timed-Writing Quiz #4</p>
<p><b>15</b> Unit 2 Test</p>				

## Unit 3: Supply and Demand II: Markets and Welfare

Chapters 7–9 in Mankiw, *Principles of Microeconomics*

In this unit, students will:

- learn to explain and calculate the value-to-market participants of voluntary exchanges. This will include the concepts of consumer surplus and producer surplus.
- analyze market distortions from taxes, specifically the changes in consumer surplus, producer surplus, and total surplus.

## Chapter 3

- be introduced to the idea of deadweight loss.
- evaluate consumer surplus and producer surplus in markets that import or export and evaluate the deadweight loss from trade restrictions.

Monday	Tuesday	Wednesday	Thursday	Friday
<b>Sept 15</b> 	<b>16</b> Test Corrections Diminishing Marginal Utility Activity 11 HW: Read pp. 141-47	<b>17</b> Utility Maximization HW: Read pp. 147-52	<b>18</b> Producer and Consumer Surplus HW: Read pp. 152-58; answer ques. 1, 2, 8 <i>End of 1<sup>st</sup> six weeks</i>	<b>19</b> Market Efficiency HW: Read pp. 161-66
<b>22</b> Cost of Taxation Deadweight Loss Activity 21 HW: Answer ques. 1, 4, 5	<b>23</b> Deadweight Loss and Trade HW: Read pp. 166-76	<b>24</b> Deadweight Loss and Tax Revenue	<b>25</b> Timed-Writing Quiz #5 Answer ques. 2, 3, 6, 7, 8 HW: Read pp. 179-88	<b>26</b> <i>Parent/Teacher Conference Day</i>
<b>29</b> Service-Learning Project Proposals Due Effects of Tariffs HW: Read pp. 189-92; answer ques. 1-3	<b>30</b> Quotas HW: Read pp. 192-200	<b>Oct 1</b> Free Trade or Protectionism?	<b>2</b> Computer Lab (use text's Web site for practice with multiple-choice questions)	<b>3</b> Unit 3 Test

### Unit 4: The Economics of the Public Sector

Chapters 10–12 and 20 in Mankiw, *Principles of Microeconomics*

In unit 4, students will:

- analyze external costs and benefits that can occur in markets. Private and public solutions to these externalities will be examined.
- understand characteristics of public goods, private goods, and common goods, and consider implications of these characteristics.
- become familiar with the components of government budgets and evaluate tax policies.
- understand how the distribution of personal income in an economy is measured and discuss issues related to income distribution.

Monday	Tuesday	Wednesday	Thursday	Friday
<p><b>Oct 6</b></p> <p>Test Corrections Externalities HW: Read pp. 205-10</p>	<p><b>7</b></p> <p>Production Externalities Activities 54–56 HW: Read pp. 210-15</p>	<p><b>8</b></p> <p>Consumption Externalities HW: Read pp. 215-22; answer ques. 2, 6, 7</p>	<p><b>9</b></p> <p>Timed-Writing Quiz #6 HW: Read pp. 225-30</p>	<p><b>10</b></p> <p><i>Holiday</i></p>
<p><b>13</b></p> <p><i>Holiday</i></p>	<p><b>14</b></p> <p>Public Goods and Private Goods Activities 52, 53 HW: Read pp. 231-40</p>	<p><b>15</b></p> <p>Opener Activity Common Resources HW: Answer ques. 1, 2, 4, 5</p>	<p><b>16</b></p> <p>“Property Rights in a Market Economy” (from <i>Economics in Action</i>, Lesson 4) HW: Read pp. 243-50</p>	<p><b>17</b></p> <p>Timed-Writing Quiz #7 Property Rights Game (from <i>Economics for Educators</i>, Lesson 8)</p>
<p><b>20</b></p> <p>Service-Learning Projects Due Government Revenues and Expenditures HW: Read pp. 250-56</p>	<p><b>21</b></p> <p>Taxes and Efficiency Activities 59 &amp; 60 HW: Read pp. 256-63</p>	<p><b>22</b></p> <p>Taxes and Equity Tax Game (from <i>Economics for Educators</i>, Lesson 11) HW: Answer ques. 5–8</p>	<p><b>23</b></p> <p>Measuring Income Inequality HW: Read pp. 437-42; answer ques. 1, 2</p>	<p><b>24</b></p> <p>Timed-Writing Quiz #8 Poverty and Problems in Measuring Inequality HW: Read pp. 442-46</p>
<p><b>27</b></p> <p>Political Philosophers and Income Distribution HW: Read pp. 447-57; answer ques. 7</p>	<p><b>28</b></p> <p>Computer Lab</p>	<p><b>29</b></p> <p>Unit 4 Test</p>	<p><b>30</b></p>	<p><b>31</b></p>

### Unit 5: Costs of Production and Market Structures

Chapters 13–17 in Mankiw, *Principles of Microeconomics*

In this unit, students will:

- understand a firm’s costs of production and how these costs are shown in the shapes of the cost curves.
- learn characteristics of the categories of competition in markets.
- explain and show graphically how production and pricing decisions are made for firms in each of these market structures.
- analyze how firms behave in the short run and the long run and evaluate markets for productive and allocative efficiency.

## Chapter 3

Monday	Tuesday	Wednesday	Thursday	Friday
<b>Oct 27</b>	<b>28</b>	<b>29</b> Unit 4 Test	<b>30</b> Test Corrections Intro. to Theory of the Firm HW: Read pp. 269-77	<b>31</b> Costs of Production Vocabulary: Table 13-4 HW: Read pp. 277-87
<b>Nov 3</b> Diminishing Returns Game (from <i>Economics for Educators</i> , Lesson 6) Activities 25, 26	<b>4</b> Perfect Competition Activity 27 HW: Read pp. 291-96; answer ques. 6	<b>5</b> To Shut Down or Not Activity 28 HW: Read pp. 297-303; answer ques. 5	<b>6</b> Perfect Competition in the Long Run Activities 29-31 HW: Read pp. 304-11 <i>End of 2<sup>nd</sup> six weeks</i>	<b>7</b> Timed-Writing Quiz #9 Activity 24 Market Power Game (from <i>Economics for Educators</i> , Lesson 7) HW: Answer ques. 8-10
<b>10</b> Monopolies Activities 32-34 HW: Read pp. 315-23	<b>11</b> Monopolies Activities 35 & 38 HW: Read pp. 324-30; answer ques. 12, 13	<b>12</b> Regulating Monopolies Activity 37 HW: Read pp. 330-35	<b>13</b> Price Discrimination Activity 36 HW: Read 336-43; answer ques. 16	<b>14</b> Timed-Writing Quiz #10 Activity 39
<b>17</b> Oligopolies HW: Read pp. 349-57	<b>18</b> Game Theory Activity 41 HW: Read pp. 358-66	<b>19</b> Game Theory HW: Read pp. 367-72; answer ques. 5, 6	<b>20</b> Monopolistic Competition Activity 40 HW: Read pp. 377-84	<b>21</b> Timed-Writing Quiz #11 Activity 42 HW: Read pp. 385-91; answer ques. 1, 6
<b>24</b> Computer Lab	<b>25</b> Unit 5 Test	<b>26</b> <i>Thanksgiving</i>	<b>27</b> <i>Thanksgiving</i>	<b>28</b> <i>Thanksgiving</i>

### Unit 6: Resource Markets and Exam Preparation

Chapter 18 in Mankiw, *Principles of Microeconomics*

In unit 6, students will:

- understand how firms determine the quantity of resources to use and what determines resource supply in competitive markets and imperfectly competitive markets.
- practice answering long free-response questions.

Monday	Tuesday	Wednesday	Thursday	Friday
<b>Dec 1</b> Test Corrections Tips on Answering Free-Response Questions	<b>2</b> Practice Answering Free-Response Questions	<b>3</b> Practice Answering Free-Response Questions	<b>4</b> Practice Answering Free-Response Questions	<b>5</b> Free-Response Test HW: Read pp. 397– 402
<b>8</b> MRP and Resource Markets Activity 43	<b>9</b> MRP and Perfect Competition Activities 44, 45, 48 HW: Read pp. 402-10	<b>10</b> MRP and Imperfect Competition Activities 46, 47 HW: Read pp. 410-14	<b>11</b> Monopsonies Activity 49	<b>12</b> Land, Capital Activities 50, 51 Least Cost and Profit Maximum Use of Resources
<b>15</b> Timed-Writing Quiz #12	<b>16</b> Review	<b>17</b> Exams	<b>18</b> Exams	<b>19</b> Exams

## Teaching Strategies

My philosophy of teaching is to see myself as a coach, motivator, and encourager. I try to convince my students that they are capable of learning new skills and achieving. I think the best way to do this is to put students in situations in which they are active in class each day in some way. I try not to lecture, but I do expect students to have prepared for class, and I put them in situations that require them to use in a problem-solving manner the knowledge they have gained. This can be as simple as participating in a circular flow simulation or answering multiple-choice questions as a group and then presenting and defending their answers. These activities give underprepared students an incentive to catch up.

During each class period, I use several teaching strategies. Short openers in which students have to draw graphs are helpful in giving students practice with this skill. I never take up homework, but I give many (usually five) short multiple-choice quizzes. The quizzes are never announced, so students need to be ready for them at all times. In this way, I know how prepared they are and, in going over the quiz, I have an opportunity to discover what needs to be retaught. At this point in reviewing a quiz, students want to know the information and are very engaged. I use as many of the practice activities from the NCEE’s *Advanced Placement Economics* package as possible. Additionally, I use many of the short simulations from *Economics for Educators*, *Economics in Action*, and *Capstone: The Essential Economics Resource*.

The strategies that students tell me best prepared them for the AP Exam are the short (12½ minutes), timed-writing quizzes I give them almost every week and the test correction assignment they complete after each multiple-choice test. I also encourage students and give them class time to practice answering the multiple-choice questions on the textbook publisher’s Web site. To continue their preparation for the free-response section of the exam, students practice on several long free-response questions and take a free-response test near the end of the course. Additionally, I encourage them to use AP Central to examine free-response questions and answers from previous AP Economics Exams. My course outline integrates the material that students learn from their text and in class with the objectives of the AP Microeconomics Exam.

### Student Evaluation

#### Tests

75%

Students take two 50-question multiple-choice tests for the first two 6-week sections in an 18-week semester. In the third 6 weeks, students take one 50-question multiple-choice test and one free-response test that has 1 long question and 2 short questions. These tests comprise 75 percent of each student's grade.

#### Weekly Quizzes

13%

Students take four short timed-writing quizzes every 6 weeks. The lowest grade is dropped, and the remaining three quizzes comprise 13 percent of each student's grade.

#### Daily Assignments and Quizzes

12%

The remaining 12 percent of a student's grade comes from daily grades. These consist primarily of completing test corrections and daily quizzes.

Students also complete a service-learning project each semester, which counts as one-half a test grade in the 6 weeks that it is due. To help students build skills, I retest those students who are not successful on a test. This occurs after tutoring to help them either learn the material or learn how to study.

### Teacher Resources

#### Textbook

Mankiw, N. Gregory. *Principles of Microeconomics*. 2nd ed. Ft. Worth: Harcourt College Publishers, 2001.

Mankiw, N. Gregory. *Instructor's Resource Manual*. 2nd ed. Mason, Ohio: Thomson South-Western, 2002.  
Accompanies the *Principles of Microeconomics* text.

Mankiw, N. Gregory. *Test Bank*. [Ft. Worth]: Harcourt College Publishers, 2001.  
Accompanies the *Principles of Microeconomics* text.

#### Publications with Student Activities

Hodgin, Robert F. *Economics for Educators*. Houston: Texas Council on Economic Education, 2004.

Lopus, Jane S., and Amy M. Willis. *Economics in Action: 14 Greatest Hits for Teaching High School Economics*. New York: National Council on Economic Education, 2003.

Lopus, Jane S. et al. *Capstone: The Essential Economics Resource*. New York: National Council on Economic Education, 2003.

Morton, John S., and Rae Jean B. Goodman. *Advanced Placement Economics*. 3rd ed. New York: National Council on Economic Education, 2003.

The package of publications by these authors includes *Advanced Placement Economics: Teacher Resource Manual*; *Advanced Placement Economics: Microeconomics, Student Activities Book*; and *Advanced Placement Economics: Macroeconomics, Student Activities Book*.

## Web Sites

AP Central—<http://apcentral.collegeboard.com>

This College Board site includes free-response questions and answers and sample multiple-choice questions from past AP Exams, and an electronic discussion group for AP Economics teachers.

National Council on Economic Education—[www.ncee.net](http://www.ncee.net)

This site has some of the best economics materials, lessons, and workshop resources. Membership forms for the Global Association of Teachers of Economics (GATE) are also available here.

*Principles of Economics, 2/e*: Learning Resources page for Microeconomics—[www.swcollege.com/econ/mankiw/student/microindex.html](http://www.swcollege.com/econ/mankiw/student/microindex.html)

The text's Web site includes practice multiple-choice quizzes and PowerPoint presentations.

refdesk.com—[www.refdesk.com](http://www.refdesk.com)

This is an extensive reference resource.

Resources for Economists on the Internet—[www.rfe.org](http://www.rfe.org)

Sponsored by the American Economic Association, this site lists more than 2,000 resources.

## Student Activities

### Timed Writings in Economics

*Two now-retired Plano Independent School District teachers, Sarah Franklin and Nancy Griffin, developed this process for conducting timed-writing quizzes.*

The rationale for timed writings in economics is that students need a bit of practice with writing essays for economics. This is a way to teach timed writing and give students practice and experience, but not overwhelm the teacher with grading.

- Timed writings are given each Friday, except during the week of a test.
- Timed-writing quizzes are timed at  $12\frac{1}{2}$  minutes.
- Students take four timed-writing quizzes every six weeks.
- The lowest grade from each six weeks is dropped.

Questions are either designed to be similar to the second or third questions on the free-response section of previous AP Exams or are taken directly from the exams. I use a 9-point scoring guideline for the timed writings. This allows me to hold the students accountable for several components of the answer in some detail. The questions are graded over the weekend and returned on Monday. I go over the scoring guideline with the students and read them a good answer. This gives them feedback in a timely manner and allows me to see where the class as a whole is in need of reteaching. Most important, the process helps students learn how to assess themselves. The grading scale that follows allows students to focus more on the process instead of worrying about the score they will receive.

## Chapter 3

### Grading Scale

- 1 point = 60
- 2 points = 65
- 3 points = 70
- 4 points = 75
- 5 points = 80
- 6 points = 85
- 7 points = 90
- 8 points = 95
- 9 points = 100

### Sample Quiz Activity

1. Ask students to put away materials.
2. Randomly assign students to groups of three.
3. Using a 10-question quiz generated from a test bank, have students answer the quiz questions as a group. Give only one copy of the quiz to each group; this forces students to work together. Students learn from each other when they hear how other students analyze the questions and answer the choices.
4. Students prepare to present and defend their answers in front of the class.
5. Select groups randomly to present their answers. Allow students to ask questions of the groups as they present. If necessary, you can extend student responses, explain concepts, and give the correct answer. By the time all student questions have been answered there is generally a consensus about the correct answer, and the consensus is usually correct.

This activity works well because students are competitive and enjoy its game aspect. Knowing the quiz will happen randomly, students have to stay prepared. The activity helps them learn skills they will need for the AP Exam, and it also helps them learn how to assess if they understand the material and can apply concepts. I do not grade this activity, but sometimes for particularly good presentations I give out coupons for a free daily grade.

### Sample Discussion Opener for Supply

This opener helps students change gears after studying demand, and it helps them begin to think like suppliers. It also introduces them to the idea of derived demand for labor.

Divide the class into four groups and give students the following directions:

1. You have 10 minutes to create an idea for a new product. Assume any new technology that will be necessary for the production of your product.
2. Name the product and give examples of the resources that would be necessary to produce the product.
3. Estimate the cost of production for one of your products.



Give each group two minutes to present its idea. (Students are very creative, especially when they are not constrained by the current level of technology.) Have the entire class vote on the product that they would like to produce. Use the selected product to create a supply curve. Start with the estimated cost of production. At that price, ask students how many they would produce for the market. Keep raising the market-selling price and have students tell you how many they would produce. Plot the points on a graph.

### Questions to Pose to Students

- What motivates suppliers?
- What is the relationship between price and quantity supplied?
- Does this relationship hold true for suppliers in resource markets?

### Extension Questions

- Suppose that minimum wage increases. What impact would that have on our production? How would this be shown on the graph?
- Suppose that a robotic assembly line is installed. What would the impact be from this change in production technique?
- What types of jobs might be created from the production of your new product? Are there any jobs that might become obsolete?

### Sample Discussion Opener for Common Resources

*This idea came from Bob Hodgins, author of Economics for Educators, and has been included here with his kind permission.*

### Materials and Preparation

- 20 or so sheets of paper
- 3 coupons for free homework passes or free tardies (or any type of incentive that will appeal to your students)

Tape the coupons inside three of the 20 sheets of paper. Tape each of the 20 sheets closed. Crumple each sheet.

At the beginning of class, as you are taking roll or introducing the lesson (or you can do this silently), throw crumpled sheets of paper around the room. You will definitely have your students' attention, and you can get as creative with this as you would like.

Tell students that you are too tired (or old, lazy, or whatever) to clean up after yourself.

### Questions to Pose to Students

- Why do people litter?
- What ideas do you have to resolve this particular situation?
- Are there any costs to your solutions?
- If each student owned the "property" around his or her desk, how would this change the discussion?

## Chapter 3

Tell students that they have to stay seated while you give them additional information. Inform them that there are coupons inside of three of the crumpled sheets of paper. Tell them they may pick up as many of the sheets as they would like and bring them to you, after signing their names to the paper they have picked up. However, they may not open the sheets because doing so will render them useless. (As you can imagine, all sheets will be brought intact to you rather quickly.)

### Additional Questions

- What was the role of incentives in this activity?
- Can this situation be described as a negative consumption externality?
- What are other negative consumption externalities?

# Chapter 4

## The AP Exams in Microeconomics and Macroeconomics

The information in this chapter about the AP Economics Exams and how they are created, administered, and scored comes from the 2000 AP Economics Released Exams, as well as Web pages that can be found in the “Exams” section of AP Central. Released Exams can be ordered from the College Board Store (store.collegeboard.com). The “All About the Exam” Web page and the links at the end of that page are a good place to start on AP Central (go to [apcentral.collegeboard.com](http://apcentral.collegeboard.com) and click on *The Exams*, and then on *All About the Exams*).

### The Development Committee

The AP Economics Development Committee consists of three college or university economics professors and three high school AP Economics teachers, all of whom currently teach an introductory-level college economics course or an AP Economics course. Great care is taken to ensure that the committee is diverse, with its members representing a variety of types and sizes of institutions, geographical locations, racial and ethnic minorities, and both genders. The committee chair is a college or university economics professor. Committee members generally serve for three or four years, and their terms are staggered to maintain continuity and stability.

The Development Committee plays a critical role in the production of the AP Economics Exams. During the meetings that are held two to three times a year, members create, revise, review, and evaluate all potential exam questions (also known as items). The entire committee, ETS content experts, and the Chief Reader review each question before it is included in an exam. The committee is also responsible for creating several alternate exams to accommodate international and late testing. Many committee members participate in the annual AP Reading in the summer, and many are presenters at AP conferences and regional or national professional association meetings.

### Exam Format

Both of the AP Economics Exams are 2 hours and 10 minutes long. In Section I, students are given 70 minutes to answer 60 multiple-choice questions; in Section II, they must answer 3 required free-response questions in 50 minutes (1 longer essay and 2 shorter essays). There is a 10-minute reading period at the beginning of Section II.

## Chapter 4

	% of Grade	Number of Questions	Time Allotted	Reading Period
Section I	66 2/3	60	70 minutes	
Section II	33 1/3	3 required	50 minutes	10 minutes

The **AP Macroeconomics Exam** tests students' knowledge of topics included in a one-semester college introductory course, including basic economic concepts; measurement of economic performance; national income and price determination; financial sector; inflation, unemployment, and stabilization policies; economic growth and productivity; and open economy: international trade and finance. The following table reflects the approximate percentage of the multiple-choice section of the exam that is devoted to each content area:

Basic Economic Concepts	8–12%
Measurement of Economic Performance	12–16%
National Income and Price Determination	10–15%
Financial Sector	15–20%
Inflation, Unemployment, and Stabilization Policies	20–30%
Economic Growth and Productivity	5–10%
Open Economy: International Trade and Finance	10–15%

The major content areas covered by the **AP Microeconomics Exam** are basic economic concepts, the nature and functions of product markets, factor markets, and market failure and the role of government. The following table reflects the approximate percentage of the multiple-choice section of the exam devoted to each content area:

Basic Economic Concepts	8–14%
The Nature and Functions of Product Markets: Supply and Demand, Consumer Theory, Production and Cost, Market Structure	50–70%
Factor Markets	10–18%
Market Failure and the Role of Government	12–18%

Free-response questions generally ask students to analyze a given economic situation and present and evaluate general economic principles. Students are expected to write well-organized and analytical responses and to include explanatory diagrams that clarify their analysis. They may also be required to interpret graphs that are provided as part of the questions or to draw their own graphs as part of their answers. All graphs should be clearly labeled. Generally, the longer free-response question (50 percent of the free-response score) requires students to interrelate several content areas, while the two shorter questions (together, 50 percent of the free-response score) typically focus on a specific topic in a given content area.

The multiple-choice section accounts for two-thirds of a student's exam grade and the free-response section accounts for the remaining one-third. Students receive grades ranging from 1 to 5, with 5 noting the most qualified.

## Exam Administration

AP Exams are administered worldwide in May. A school's AP Coordinator has primary responsibility for organizing and administering the school's AP program (see chapter 2). Teachers should be aware of the

## The AP Exams in Microeconomics and Macroeconomics

deadlines their school's AP Coordinator sets for exam sign-up, which will occur months before the exam is held. Students take the AP Exam in rooms inside or outside the school building as determined by the Coordinator. Exam administration and security standards are designed to ensure that all students are given the same opportunity to demonstrate their abilities and to prevent any student from gaining an unfair advantage over another because of testing irregularities or improper conduct. Teachers should be aware of the prohibitions regarding their presence in or near the testing room during the exam period(s). AP Coordinators are aware of these guidelines and will enforce them.

### Exam Scoring and Grade Setting

The 60 multiple-choice questions in Section I are scored by computer. For each incorrect answer, one-fourth of a point is subtracted from the total number of correct answers. The total score is rounded to the nearest whole number.

The 3 free-response questions are scored by over 130 Readers who gather every June at the AP Reading. All Readers are either teachers who are currently teaching the AP Economics courses or higher education faculty who have recently taught the comparable college-level course, with an equal mix of Readers from each group. Readers are carefully selected to ensure a balance of representation, including school locale, size, and setting; gender; race and ethnicity; and years of teaching experience.

The Development Committee creates scoring guidelines by suggesting preliminary scoring standards for each free-response question it has written. In the days prior to the Reading, the Chief Reader, Question Leaders, Table Leaders, and ETS content experts meet at the Reading site to review and test the guidelines by reading and scoring randomly selected student responses, refining and finalizing the scoring guidelines in the process. A subset of these randomly selected papers is chosen for use in training the Readers. Because it is essential that all Readers score student responses fairly, uniformly, and to the same standard as the other Readers, a great deal of attention is paid to the creation of the scoring guidelines, the thorough training of all Readers, and the various checks and balances that are applied throughout the AP Reading. Question Leaders and Table Leaders assist the Chief Reader in these tasks.

After the exams have been scored, the Chief Reader receives statistical data on that year's exam to determine which composite scores will delineate the boundaries between the five AP grades. The Chief Reader uses statistical equating (some multiple-choice questions appear on the AP Exam for several consecutive years in order to provide statistical equating of scores from one year to the next), college comparability studies, the distribution of scores on different parts of the exam, AP grade distributions from the past three years, and the Chief Reader's own observations of students' free-response answers when making the final decision about cut-off points for each AP grade. Thus, there is continuity of AP standards over time, and colleges can be confident that an AP grade of 3 on this year's exam represents, as nearly as possible, the same level of achievement as a grade of 3 on last year's exam. The AP grade scale ranges from 1 to 5.

5	Extremely well qualified
4	Well qualified
3	Qualified
2	Possibly qualified
1	No recommendation

Colleges use these grades as evidence of a student's abilities and achievements when they make their decisions regarding whether or not to grant credit and/or advanced placement. The College Board has a

## Chapter 4

database of college acceptance policies at [www.collegeboard.com/ap/creditpolicy](http://www.collegeboard.com/ap/creditpolicy). This “AP Credit Policy Info” search engine will allow you to find a school by name and read its AP acceptance policy.

At the end of the Reading, after they have finished scoring student responses, the Readers give the Chief Reader feedback about the AP Exams and the responses they read. The Chief Reader reports back to the Development Committee, sharing observations on how students responded to and performed on the free-response questions. The findings described in the report help the committee develop future exams and shape the AP curriculum. The Chief Reader’s written report can be found on AP Central along with the actual free-response questions and their scoring guidelines.

### Reports to Students and Teachers

AP grades are reported to students, their schools, and their designated colleges in July. Each school automatically receives an AP Grade Report for each student, a cumulative roster of all students, rosters of all students by exam, an AP Scholar roster for any qualifying students, and a *AP Instructional Planning Report*. (Note: Data for students testing late with an alternate form of the exam are not included in this report.) For a fee, schools may also request their students’ free-response booklets.

### Using the AP Instructional Planning Report

Schools receive the *AP Instructional Planning Report* for each of their AP classes in September. The report compares your students’ performance on specific topics in the AP Exam to the performance of students worldwide on those same topics, helping you target areas for increased attention and focus in the curriculum. To get the most out of the report, please read the interpretive information on the document. It explains how the data, when used correctly, can provide valuable information for instructional and curricular assessment as well as for planning and development. Contact your school’s AP Coordinator for this report.

### Preparing Students for the Exams

Review for the AP Exams should start early in AP Economics. It may be too late in April or early May to show students the types of questions that are asked on the exams or to give them practice with answering them. Students need reinforcement activities from the beginning of the course. They must be prepared to answer the two types of questions on the exam(s). Take a look at a released exam to become familiar with the types of multiple-choice questions that are used. Doing so will show you that interpreting graphs and using data sets are part of Section I of the exams. Spend time throughout the semester practicing writing answers to free-response questions, which comprise Section II of the exams. It is important that students know how to use the economic toolkit they have acquired throughout the course.

There is no better way to practice for the free-response section than to integrate questions from previous AP Exams throughout the course. Practice writing your own free-response questions by using questions from previous AP Exams as your model (see the section “Writing Free-Response Questions” in chapter 2 for helpful advice). Students need practice answering free-response questions so that they will feel comfortable with them by May when they take the AP Exam.

## The AP Exams in Microeconomics and Macroeconomics

I prefer small discussion topics based on the Buttonwood column at [www.economist.com](http://www.economist.com) in the place of research projects, and I assign free-response questions from previous AP Exams for homework in place of essays. I also have students grade the free-response questions to understand the scoring guidelines. Reasoning and understanding of economic mechanisms are the most important skills to have when taking the AP Exams, and I find both of these types of assignments help to sharpen these skills in an enjoyable way. The use of discussion topics helps students think through an idea, and the practice they get with answering previous free-response questions means no surprises on test day!

—Dean Webb, Berkner High School,  
Richardson, Texas

Many AP Economics teachers leave some time at the end of a semester to pull together all of the ideas they presented during the course. Many will include in their review regimen a mock exam, using the most recent released exam and simulating the timing and writing conditions of the exams. This strategy is a good one if you have the time. Some teachers even calculate and issue grades of 5, 4, 3, and so on. This has the effect of stimulating students on the topics they failed to master.

Each year, I hold review sessions after school in the second semester to help my students review the microeconomics materials they learned in the previous semester. I prepare a packet of materials that includes the following:

- a list of all the key concepts and skills
- a set of all the essential micro and/or macro graphs
- the most recent released exam
- a selected set of previously given free-response questions

We spend our review sessions working through the questions as I try to help students see the linkages of the concept ideas. My students report that this strategy is a good review for them.

Each year I hold a number of review sessions before the exam. Although I try to review as much as possible during class time, I also have a number of review sessions outside of the classroom. I review with my students during two afternoon sessions and one evening session. The Saturday before the exam we study together for about five hours. In addition, each year I buy my students lunch in between the practice tests they take. This gives them time to switch gears from macro to micro and allows me to emphasize the important concepts that might possibly be tested on the free-response section. Not only do the students love the free lunch, but they also appreciate the last-minute tips.

—Matt Pedlow, Jackson High School,  
Jackson, Michigan

Why should students take the AP Economics Exams? The top five reasons I give my students are:

1. To have the chance to earn college credit or advanced placement in college.
2. To receive validation for the hard work and effort you put into the AP Economics course(s).

## Chapter 4

3. To save college tuition for your parents and/or reduce the amount of your student loans.
4. To gain personal satisfaction and prestige.
5. To make your teacher happy!

### Answering Free-Response Questions: Tips for Students

Economists are always concerned with efficiency, and free-response questions on the AP Exams are no exception. Long-winded answers often lose points because they contain contradictions in sequence or in logic. Students should simply answer the question directly (and correctly!) and move on.

—Chris Weinrich, Seabreeze High School,  
Daytona, Florida

Mary Kohelis of Brooke High School in Wellsburg, West Virginia, uses this tip sheet, which can be given to students a few days before the AP Exams.

- **Do not restate the question.** It is not necessary to rewrite the question at the beginning of your answer, and doing so wastes valuable time that could have been spent answering the question.
- **Use correct terminology.** For example, students often confuse money and income, or they label aggregate demand as  $D$  and discuss it as though it were the market demand for a particular product. Learn and use the correct language of economics.
- **Draw graphs when requested.** If the question requires you to draw a graph, you must do so to receive full credit. Even if a graph is not required, it may be to your advantage to draw one anyway. Often students use the wrong economic terminology but clearly indicate that they understand what is happening by using a correct graph. On the other hand, graphs are not magical tools that ensure high scores; they are useful tools in making arguments, but they do not stand alone. It is important that the story they tell is explained.
- **Label graphs clearly, correctly, and fully.** Points are lost when Readers cannot figure out what you are trying to explain with a graph that is not labeled correctly. Take particular care to label each axis and to identify each curve on the graph. Changes in curves should be indicated clearly with arrows or with clear sequencing like showing a change in aggregate supply with  $AS$  and  $AS'$  or  $AS1$  and  $AS2$ . Recent scoring at the Reading demonstrated that graphs must include a marking of the equilibrium points on the  $x$  and  $y$  axes, along with marking any changes in the equilibrium points. Dotted lines from the equilibrium points to the axis lines are the preferred method of labeling.
- **Respond to all parts of a question in order.** The different parts of the free-response questions are presented in a logical manner; answer the parts in the order that they have been asked. Use the same outline numbers or letters from the question in your answer and answer them in the same order. This helps Readers know where to look for specific answers to specific parts of the question. It also helps you remember to include all parts of the question in your answer. Many free-response questions are divided into Parts (a), (b), (c), and (d), with each part calling for a different response. Credit for each of these parts is awarded independently, so you should attempt to answer them all.



## The AP Exams in Microeconomics and Macroeconomics

If the answer to a later part of a question depends on the answer to an earlier part, you may still be able to receive full credit for the later part, even if the earlier answer is wrong. For example, you may receive no credit for your answer to Part (a) but still receive full credit for Parts (b), (c), and (d), as long as those answers are logically consistent with your answer to Part (a).

- **Emphasize the line of reasoning that generated your answer.** If you make an assertion like “the price increased,” *explain why* the price increased.
- **Use any available reading period to plan your answer.** Then you will have time to answer all three questions in the free-response section. Allocate your time appropriately for the weighting of the questions asked.
- **Answer what you know first.** Remember that you may answer the questions in any order. For instance, you may wish to answer first the question about which you feel most confident. However, be sure to indicate clearly in your answer booklet which question you are answering.
- **Bring only those things that are required and allowed.** Identify what you may or may not bring to the exam (e.g., rulers, calculators).

It's important for students to feel confident as they go into the exam. Shortly before exam day, I assure my students that they are well prepared for the exams and that it is unlikely they will be caught off guard by something completely new to them. “If you see something you don't recognize,” I tell them, “Take a deep breath and relax. Look in the question for a concept you know. All of the questions are based on things you've learned. It's your job to apply that knowledge and show that you've mastered the material.” I say that with a smile, of course, because I can't guarantee that they will actually remember everything at the right moment. But at least I've given them a strategy to use to deal with questions that look strange to them.

—Amy Shrout, West High School,  
Iowa City, Iowa

## After the Exams

In many schools, there will be additional class days after the AP Exam is given in the second week of May. Some teachers use the time to teach economic literacy issues like credit and insurance. Others add country studies that include economic analysis. Several states that require economics have two important units not generally covered on the exam, but useful to all high school students. The unit on the workings of stocks, bonds, and stock markets is easy to put at the end of the course, after the exam is given. Another topic area is the structure of the IRS and personal taxes. Both units are usually of high interest to students, easy to create as projects at the end of the year, and helpful.

Showing films that are entertaining but have economic ideas is another strategy. *A Bug's Life* has rich lessons in many economic topic areas and will be a class favorite. Other films, like *The Wizard of Oz*, *Modern Times*, *The Grapes of Wrath*, *It's a Wonderful Life*, *The China Syndrome*, *Barbarians at the Gate*, *A Civil Action*, and *A Beautiful Mind*, deal with specific economic topics. *Commanding Heights* is an excellent video series of ideas on the growth of international markets and can be shown in its entirety if you have the time.

# Chapter 5

## Resources for Teachers

### How to Address Limited Resources

Before I list the many resources that are available for AP Economics, I would like to address the fact that some of us operate with limited funding. Several approaches to making small budgets go further are described in this section.

Look for all the free materials you can obtain. Be bold about asking publishers' representatives for supplemental materials that come with a textbook. Attending conferences like the AP Annual Conference or the annual meetings of the National Council on Economic Education and the National Council for the Social Studies will give you the chance to talk with exhibitors who will gladly send texts and other materials to you. NCEE has great lessons on the Internet, and its local councils offer workshops and materials. The Federal Reserve also provides excellent economic education services at each of the district banks.

Teachers need affordable current information for their course. There are several great sources for this. Student or professional subscriptions are available to the *Wall Street Journal* and *BusinessWeek*. The *Wall Street Journal* goes well beyond stocks and bonds. It has many articles that can be useful in the classroom. While it is available in a classroom edition with some of the best articles, I prefer the real thing. *BusinessWeek* has more analysis of macroeconomic issues. If the cost of subscriptions is a factor, I suggest approaching a local banker or stockbroker with whom you have a relationship. Banks and brokerages have a built-in incentive to assist economics instruction.

Most of the texts used for AP Economics have related videos or DVDs. Videos for texts other than the one your students are using may be helpful as well. Usually these multimedia resources are available to university faculty at no charge. Therefore, AP teachers should cultivate relationships with university economics faculty.

—Jim Ranney (retired), Lanthrop High School,  
Fairbanks, Alaska

Do not discount the Internet as a good source for free classroom materials, current articles, and other resources. There is no better way to impress your students than to check the Internet before class and find the just-released report on the gross domestic product or consumer price index! Internet searches yield articles by topic, but giving students directed searches is an effective way to focus their study on a specific idea. One of my assignments asks students to find an article on costs of a firm. They find the article, read it, and then answer a set of analysis questions that always includes a graph. The Internet is also a great place to find opposing points of view on an issue. You can divide your class into opposing groups, do the Internet research, and stage a debate. The list of Web sites in this chapter provides a wealth of lessons, articles, and other reference materials. Remember, too, that government Web sites have up-to-date data sets as well as historical sets.

## Resources

This list of textbooks, periodicals, recommended reading, workbooks and test banks, videos, and Web sites is not meant to be an exhaustive directory of resources for AP Economics. Instead, it is an overview of materials that new AP Economics teachers may find helpful. A continuing source for learning about resources is the Teachers' Resources section at AP Central, which has descriptions and reviews of many materials and resources. Any extensive bibliography like this is meant to be useful to new teachers as they organize and design their courses. It is important to understand, however, that inclusion of particular publications, films, videos, CD-ROMs, Web sites, and other media does not constitute endorsement by the College Board, ETS, or the AP Economics Development Committee.

References to these resources were as up to date as possible at the time of publication of this Teacher's Guide. Many of these materials undergo revision and updates, however, while others become out of date or go out of print. This is inherent in a dynamic field like economics, as new models and thinking are part and parcel of the subject. Keeping current in economics is a daunting task for many teachers. I suggest that you become part of the AP Economics Electronic Discussion Group, which links members of the teaching community in a supportive and informative liaison. See below for more information about the EDG.

## Textbooks

Arnold, Roger A. *Economics*. 7th ed. Mason, Ohio: Thomson South-Western, 2005.

Bade, Robin, and Michael Parkin. *Foundations of Economics*. 2nd ed. Boston: Addison-Wesley, 2004.  
Accompanied by the second edition of *Essentials MyEconLab Student Access Kit*.

Baumol, William J., and Alan S. Blinder. *Economics: Principles and Policy*. 9th ed. Mason, Ohio: Thomson South-Western, 2004.

Boyes, William, and Michael Melvin. *Economics*. 6th ed. Boston: Houghton Mifflin, 2005.

Case, Karl E., and Ray C. Fair. *Principles of Economics*. 7th ed. Upper Saddle River, N.J.: Pearson Prentice Hall, 2004.  
Available with *Companion Website PLUS*.

Colander, David C. *Economics*. 5th ed. Boston: McGraw-Hill/Irwin, 2004.

Frank, Robert H., and Ben S. Bernanke. *Principles of Economics*. 2nd ed. Boston: McGraw-Hill, 2004.

Hall, Robert E., and Marc Lieberman. *Economics: Principles and Applications*. Updated 2nd ed. Mason, Ohio: Thomson South-Western, 2002.

Krugman, Paul, and Robin Wells. *Economics*. New York: Worth Publishers, 2006.

Mankiw, N. Gregory. *Principles of Economics*. 3rd ed. Mason, Ohio: Thomson South-Western, 2004.

McConnell, Campbell R., and Stanley L. Brue. *Economics: Principles, Problems, and Policies*. 16th ed. Columbus, Ohio: McGraw-Hill/Irwin, 2005.

McEachern, William A. *Economics: A Contemporary Introduction*. 5th ed. Mason, Ohio: Thomson South-Western, 2005.

## Chapter 5

Miller, Roger LeRoy. *Economics Today*. 12th ed. Boston: Pearson/Addison-Wesley, 2004.

O'Sullivan, Arthur, and Steven M. Sheffrin. *Economics: Principles and Tools*. 4th ed. Upper Saddle River, N.J.: Pearson Prentice Hall, 2005.

Slavin, Stephen L. *Economics*. 7th ed. Boston: McGraw-Hill/Irwin, 2005.

Stiglitz, Joseph E., and Carl E. Walsh. *Economics*. 3rd ed. New York: W. W. Norton, 2002.

Taylor, John B. *Economics*. 4th ed. Boston: Houghton Mifflin, 2004.

Tregarthen, Timothy, and Libby Rittenberg. *Economics*. 2nd ed. New York: Worth, 2000.

### **Textbook Publishers**

These links to textbook publishers' Web sites are gateways to a wealth of great resources. Most sites provide detailed information about their textbooks, often including author biographies, chapter titles, content outlines, outside reviews of the text, a list of ancillary materials, and even sample pages. Contact the sales representative in your area (usually found by clicking on the site's **Contact Us** button) to obtain an instructors' password and find resources like *PowerPoint* slides and interactive graphs. For students, these Web sites offer review pages and interactive quizzes that can send students' scores directly to their teachers by e-mail.

**Addison-Wesley**  
[www.aw-bc.com/](http://www.aw-bc.com/)

**Harcourt**  
[www.harcourt.com/](http://www.harcourt.com/)

**Houghton Mifflin**  
[www.hmco.com/indexf.html](http://www.hmco.com/indexf.html)

**McGraw-Hill Higher Education**  
[www.mhhe.com/catalogs/](http://www.mhhe.com/catalogs/)

**Pearson Prentice Hall**  
<http://vig.prenhall.com/>

**Thomson Learning**  
[www.thomson.com/learning/learning.jsp](http://www.thomson.com/learning/learning.jsp)  
[www.thomson.com/learning/learning\\_academic\\_instructors.jsp](http://www.thomson.com/learning/learning_academic_instructors.jsp)  
[www.thomsonlearning.com/index1.htm](http://www.thomsonlearning.com/index1.htm)

**Thomson South-Western**  
[www.swlearning.com/swhome.html](http://www.swlearning.com/swhome.html)

**Worth Publishers**  
[www.worthpublishers.com/](http://www.worthpublishers.com/)

**W. W. Norton**  
[www.wwnorton.com](http://www.wwnorton.com)

## Periodicals

The *Wall Street Journal*, the *New York Times*, the *Washington Post*, and *USA Today* can provide useful articles and information for classroom use. Stimulating discussions and assignments can be a part of your class when you start with an article, editorial, or op-ed piece from these sources. They are also good for students to use when given an assignment to find their own article and work on the economic analysis.

Two major national publications, the *Economist* and the *New York Times*, provide weekly sources of economics research and commentary, which are often usable in the classroom. These are publications that can be found in many public libraries, enabling teachers with limited budgets to access them for free.

The typical format involves doing a synopsis of a recent research article, putting it in context, and considering its practical significance and applicability. The *Economist's* one-page "Economics Focus" column, which can be found on the last page of every week's "Finance and Economics" section, is good. Topics lean toward exchange rate issues, but they can be on any conceivable subject. Also look for the *Economist's* occasional series of "Schools Briefs," articles so didactic that they can substitute for passages from textbooks.

The *New York Times* "Economic Scene" column, which appears at the top of page two of the "Business Day" section every Thursday, is also very good. The writing duties rotate among Hal Varian, Jeff Madrick, and Alan Krueger. Virginia Postrel also writes a column. Varian, Madrick, and Krueger lean toward the liberal/Keynesian side and Ms. Postrel writes from the right/libertarian side. You can also find their columns at [www.nytimes.com/pages/business](http://www.nytimes.com/pages/business).

—Steve Lauridsen, Larkin High School,  
Elgin, Illinois

## Recommended Reading

This list of recommended nonfiction and fiction contains a wide range of viewpoints and explanations of economic ideas. Some teachers assign one or more of these books as summer reading for their students. I have read most of them over my career, and doing so has provided me with a good set of examples and ideas that enrich my teaching. Although many other books could have been included, this list is a representative sample of what is available.

### Nonfiction

Blinder, Alan S. *Hard Heads, Soft Hearts: Tough-Minded Economics for a Just Society*. Reading, Mass.: Addison-Wesley, 1987.

A look at economic policies and how they can be good economics and socially responsible at the same time.

Buchholz, Todd G. *From Here to Economy: A Shortcut to Economic Literacy*. New York: Penguin Putnam, 1996.

Buchholz, Todd G. *New Ideas from Dead Economists: An Introduction to Modern Economic Thought*. Rev. ed. New York: Plume Books, 1999.

An insightful look at how key economists from Adam Smith to John Maynard Keynes would view the economic problems of today.

Coyle, Diane. *Sex, Drugs, and Economics: An Unconventional Introduction to Economics*. New York: Thomson Texere, 2004.

Practical applications of basic economic concepts to everyday life and to public policy.

## Chapter 5

Frank, Robert H. *Luxury Fever: Why Money Fails to Satisfy in an Era of Excess*. New York: Free Press, 1999.  
A contemporary look at conspicuous consumption and a remedy that will enrich society.

Frank, Robert H., and Philip J. Cook. *The Winner-Take-All Society: How More and More Americans Compete for Ever Fewer and Bigger Prizes, Encouraging Economic Waste, Income Inequality, and an Impoverished Cultural Life*. New York: Free Press, 1995.

A look at what has led to greater income disparity and why people at the top are getting increasingly more of the income.

Hamermesh, Daniel S. *Economics Is Everywhere*. Boston: McGraw-Hill/Irwin, 2004.

A large collection of everyday events inspired by news articles, films, personal life, or popular culture that can help to teach the economic way of thinking.

Hayek, F. A. *The Road to Serfdom*. 50th anniversary ed. Chicago: University of Chicago Press, 1994.

A classic work of antigovernment activism in society.

Heilbroner, Robert L. *The Worldly Philosophers: The Lives, Times, and Ideas of the Great Economic Thinkers*. Rev. 7th ed. New York: Simon and Schuster, 1999.

A historical look at how key economists have tried to understand how a capitalistic society works.

Heilbroner, Robert L., and William Milberg. *The Crisis of Vision in Modern Economic Thought*. New York: Cambridge University Press, 1995.

A look at how a movement away from the Keynesian view has led to a quest for alternative methodologies and analytical refinements without concerns for applicability in the real society. A difficult read until one has an understanding of macroeconomic fundamentals.

Heilbroner, Robert L., and William Milberg. *The Making of Economic Society*. 11th ed. Upper Saddle River, N.J.: Prentice Hall, 2002.

A look at how economic trends of the past have brought us to the economic challenges of today.

Heilbroner, Robert L., and Lester C. Thurow. *Economics Explained: Everything You Need to Know About How the Economy Works and Where It's Going*. New York: Simon and Schuster, 1987.

Krugman, Paul. *The Accidental Theorist: And Other Dispatches from the Dismal Science*. New York: W. W. Norton, 1998.

A collection of essays on current issues like globalization, downsizing, economic growth, unemployment, and so on.

Krugman, Paul. *The Age of Diminished Expectations: U.S. Economic Policy in the 1990s*. 3rd ed. Cambridge, Mass.: MIT Press, 1997.

A look at the economic problems of the 1990s.

Krugman, Paul. *Peddling Prosperity: Economic Sense and Nonsense in the Age of Diminished Expectations*. New York: W. W. Norton, 1994.

A look at how politicians distort economic ideas and how government activism can benefit.

Krugman, Paul. *Pop Internationalism*. Cambridge, Mass.: MIT Press, 1996.

A collection of essays that cover how good, basic economic principles can be used to understand international trade.

Krugman, Paul. *The Return of Depression Economics*. New York: W. W. Norton, 1999.

An analysis of the Southeast Asian crisis of the 1990s and the continued risk of a depression.

Landsburg, Steven E. *Armchair Economist: Economics and Everyday Life*. New York: Free Press, 1993.  
A presentation of readable examples of some of the principles of economics at work.

Stiglitz, Joseph E. *Globalization and Its Discontents*. New York: W. W. Norton, 2003.  
A look at the failure of a global economic policy that emphasizes market fundamentalism at the expense of everything else.

Thurow, Lester. *Fortune Favors the Bold: What We Must Do to Build a New and Lasting Global Prosperity*. New York: HarperCollins, 2003.  
An analysis of what must be done to promote global prosperity.

Wheelan, Charles. *Naked Economics: Undressing the Dismal Science*. New York: W. W. Norton, 2002.  
A clear-cut explanation of basic economic concepts with good current examples.

Woodward, Bob. *Maestro: Greenspan's Fed and the American Boom*. New York: Simon and Schuster, 2000.  
A look at the Fed under the stewardship of Alan Greenspan.

### Fiction

Jevons, Marshall. *A Deadly Indifference*. Princeton, N.J.: Princeton University Press, 1998.

Jevons, Marshall. *The Fatal Equilibrium*. Cambridge, Mass.: MIT Press, 1985.

Jevons, Marshall. *Murder at the Margin*. Princeton, N.J.: Princeton University Press, 1993.  
Marshall Jevons is the nom de plume for William Breit and Kenneth G. Elzinga, both economists.  
Each of these novels features the character Henry Spearman, who gets involved in mysteries that are solved with the help of economic reasoning. Fun and easy reads.

Roberts, Russell D. *The Choice: A Fable of Free Trade and Protectionism*. Updated and rev. ed. Upper Saddle River, N.J.: Prentice Hall, 2001.  
This story presents a fictional discussion that gets to the heart of free trade advantages. A simple, easy read.

Roberts, Russell D. *The Invisible Heart: An Economic Romance*. Cambridge, Mass.: MIT Press, 2002.  
This novel looks at corporate responsibility, government regulation, and the role of business in our lives.

### Workbooks and Test Banks

Anderson, David A., and James C. Chasey. *Favorite Ways to Learn Economics*. Mason, Ohio: Thomson South-Western, 2002.

Chasey, James. *Multiple-Choice and Free-Response Questions in Preparation for the AP Economics ("Micro" and "Macro") Examination*. 2nd ed. Brooklyn: D & S Marketing Systems, 2002.

Kaplan. *AP Macroeconomics/Microeconomics: An Apex Learning Guide*. [New York]: Simon and Schuster, 2005.

Lopus, Jane S., and Amy M. Willis. *Economics in Action: 14 Greatest Hits for Teaching High School Economics*. New York: National Council on Economic Education, 2003.

## Chapter 5

Morton, John S., and Rae Jean B. Goodman. *Advanced Placement Economics: Teacher Resource Manual*. 3rd ed. New York: National Council on Economic Education, 2004.

A resource manual to use with the two student publications, *Advanced Placement Economics: Microeconomics, Student Activities Book* and *Advanced Placement Economics: Macroeconomics, Student Activities Book*.

Musgrave, Frank, and Elia Kacapyr. *Barron's How to Prepare for the AP Microeconomics/Macroeconomics Advanced Placement Examinations*. Hauppauge, N.Y.: Barron's Educational Series, 2001.

### Videos/DVDs

*Commanding Heights: The Battle for the World Economy*. Updated and rev. ed. Produced by WGBH. New York: Simon and Schuster, 2002.

Based on the book by Daniel Yergin and Joseph Stanislaw, this three-video series presents a comprehensive look at the debate on globalization, world trade, and economic development. For more information and access to the related PBS interactive Web site, go to [www.pbs.org/wgbh/commandingheights/](http://www.pbs.org/wgbh/commandingheights/) or call 800 949-8670 to order. Also available on DVD.

*Economics USA*. Produced by Educational Film Center. Updated ed. N.p., 2002.

Each program in this 28-video series deals with a different economic topic. In each 30-minute program there are three segments with historical reference and economic analysis. Showing just one or two segments as an introduction or closure to a topic is worthwhile. You can buy the entire collection or any of the programs as a two-tape set as well as coordinating books. For more information, go to [www.learner.org/resources/series79.html](http://www.learner.org/resources/series79.html) or call 800 532-7637. Also available on DVD and audiocassette.

*The Fed Today*. N.p., n.d.

This 13-minute video takes a look at the Federal Reserve System, its almost 100-year history, and the technology it uses today. The video is a companion to the Fed 101 Web site ([www.federalreserveeducation.org](http://www.federalreserveeducation.org)). For information on obtaining a free copy of the video, go to [www.phil.frb.org/education/fedtoday.html](http://www.phil.frb.org/education/fedtoday.html).

Many of the Federal Reserve District Banks offer economic videos through their Economic Education Programs. The Video Lending Library at the St. Louis Fed is excellent and loans videos free of charge. For more information, go to [www.stlouisfed.org/education/video\\_library.html](http://www.stlouisfed.org/education/video_library.html).

The Standard Deviants. *Economics*. Parts 1 and 2. Falls Church, Va.: Cerebellum, n.d.

This wacky review of the principles of microeconomics and macroeconomics (one video for each) will have students learning and laughing at the same time. For more information, go to [www.standarddeviants.com](http://www.standarddeviants.com) (click on *Economics* on the left menu bar) or call 800 238-9669. Also available on DVD and CD-ROM.

### Web Sites

The Internet is a great source of useful information and references for the AP Economics courses. Here are links to many sites that offer lessons, games, simulations, economic data and research, and articles of interest from the academic world, the media, and other sources.

Use these sources to offer challenging materials to your students and enrich your course design. Make assignments involving analysis after giving your students a link to data or an article. You can include the most current data in your discussions or find a graph of GDP or unemployment to enhance your lesson.



Remember that the cyber highway is ever changing. You can find additional resources by using a search engine like Google.

### General Economics Web Sites

AP Central

<http://apcentral.collegeboard.com/>

AP Central Economics Electronic Discussion Group

<http://apcentral.collegeboard.com> (after-logging in, click on **AP Community**; then on **Registration** for Electronic Discussion Groups)

Business & Economics Numeric Data

<http://lib.mansfield.edu/ecostats.html>

Classroom Expernomics

[www.marietta.edu/~delemeeg/expernom.html](http://www.marietta.edu/~delemeeg/expernom.html)

The Digital Economist

[www.digitaleconomist.com](http://www.digitaleconomist.com)

Dismal Scientist

[www.economy.com/dismal/](http://www.economy.com/dismal/)

ECONlinks

[www.ncat.edu/~simkinss/econlinks.html](http://www.ncat.edu/~simkinss/econlinks.html)

Economicae: An Illustrated Encyclopedia of Economics

[www.unc.edu/depts/econ/byrns\\_web/Economicae/EconomicaeA.htm](http://www.unc.edu/depts/econ/byrns_web/Economicae/EconomicaeA.htm)

Economics Information via the Web

<http://walras.econ.duke.edu/econ.sources.html>

Economy.com

[www.economy.com/default.asp](http://www.economy.com/default.asp)

EconSources!

[www.econsources.com/](http://www.econsources.com/)

Games Economists Play: Non-Computerized Classroom Games for College Economics

[www.marietta.edu/~delemeeg/games/](http://www.marietta.edu/~delemeeg/games/)

Great Ideas for Teaching Economics

[www.unc.edu/depts/econ/byrns\\_web/PrinEcon/GI\\_2004/GI-Pref.htm](http://www.unc.edu/depts/econ/byrns_web/PrinEcon/GI_2004/GI-Pref.htm)

The History of Economic Thought

<http://cepa.newschool.edu/het/index.htm>

Nobelprize.org

[www.nobel.se/economics/index.html](http://www.nobel.se/economics/index.html)

Resources for Economists on the Internet

<http://rfe.wustl.edu/EconFAQ.html>

## Chapter 5

WebEc: World Wide Web Resources in Economics  
[www.helsinki.fi/WebEc/index.html](http://www.helsinki.fi/WebEc/index.html)

### **Business Cycles**

Business Cycle Expansion and Contractions (National Bureau of Economic Research)  
[www.nber.org/cycles/cyclesmain.html](http://www.nber.org/cycles/cyclesmain.html)

### **Economic Data**

The Conference Board  
[www.conference-board.org/economics/](http://www.conference-board.org/economics/)

EconData.Net  
[www.econdata.net/](http://www.econdata.net/)  
For State of the Cities Data Systems (SOCDS), click on *Ten Best Sites* and scroll down.

Economagic.com: Economic Time Series Page  
[www.economagic.com/](http://www.economagic.com/)

Economic-Indicators.Com  
[www.economic-indicators.com/](http://www.economic-indicators.com/)

Financial Forecast Center  
[www.neatideas.com/gdp.htm](http://www.neatideas.com/gdp.htm)  
Current unemployment, inflation, and economic growth data

### **Federal Reserve System Educational Resources**

Board of Governors of the Federal Reserve System  
[www.federalreserve.gov/](http://www.federalreserve.gov/)

Economic Research Publications  
[www.stlouisfed.org/publications/economic.html](http://www.stlouisfed.org/publications/economic.html)

The FED 101 Web Site  
[www.federalreserveeducation.org/](http://www.federalreserveeducation.org/)

The Federal Reserve Board: The Beige Book  
[www.federalreserve.gov/FOMC/Beigebook/2003/](http://www.federalreserve.gov/FOMC/Beigebook/2003/)

Federal Reserve System Publications Catalog  
[www.newyorkfed.org/publications/frame1.cfm](http://www.newyorkfed.org/publications/frame1.cfm)

In Plain English: Making Sense of the Federal Reserve  
[www.stlouisfed.org/publications/pleng/default.html](http://www.stlouisfed.org/publications/pleng/default.html)

What Is a Dollar Worth?  
<http://minneapolisfed.org/research/data/us/calc/>

## Game Theory

Game Theory.net  
[www.gametheory.net/](http://www.gametheory.net/)

## Government Economics Web Sites

Bureau of Economic Analysis (U.S. Department of Commerce)  
[www.bea.gov/](http://www.bea.gov/)

Bureau of Labor Statistics (U.S. Department of Labor)  
[www.bls.gov/](http://www.bls.gov/)

Congressional Budget Office  
[www.cbo.gov/](http://www.cbo.gov/)

Economic Statistics Briefing Room (The White House)  
[www.whitehouse.gov/fsbr/esbr.html](http://www.whitehouse.gov/fsbr/esbr.html)

FedStats: The Gateway to Statistics from over 100 U.S. Federal Agencies  
[www.fedstats.gov/](http://www.fedstats.gov/)

FirstGov  
[www.firstgov.com](http://www.firstgov.com)

Jobs and Economic Growth (The White House)  
[www.whitehouse.gov/infocus/economy/index.html](http://www.whitehouse.gov/infocus/economy/index.html)

The Public Debt Online  
[www.publicdebt.treas.gov/opd/opd.htm](http://www.publicdebt.treas.gov/opd/opd.htm)

Social Security Online  
[www.ssa.gov/](http://www.ssa.gov/)

U.S. Census Bureau  
[www.census.gov/](http://www.census.gov/)

U.S. Department of Commerce  
[www.commerce.gov/](http://www.commerce.gov/)

U.S. National Debt Clock (running)  
[www.toptips.com/debtclock.html](http://www.toptips.com/debtclock.html)

## Interactive Tutorials

The Economics Classroom: A Workshop for Grade 9–12 Teachers  
[www.learner.org/resources/series159.html](http://www.learner.org/resources/series159.html)

Monopoly and Market Performance (simulation)  
[www.unclaw.com/chin/teaching/antitrust/monopoly.htm](http://www.unclaw.com/chin/teaching/antitrust/monopoly.htm)

## Chapter 5

### **Journals**

Economic Journals on the Web

[www.oswego.edu/~economic/journals.htm](http://www.oswego.edu/~economic/journals.htm)

*Economist*

[www.economist.com/](http://www.economist.com/)

*Journal of Economic Education* Home Page

[www.indiana.edu/~econed/](http://www.indiana.edu/~econed/)

### **Lesson Plans**

AmosWEB Economic CLASS Portal

[www.amosweb.com/cls/](http://www.amosweb.com/cls/)

Charlie Holt's Teaching Interests: Games

[www.people.virginia.edu/~cah2k/teaching.html](http://www.people.virginia.edu/~cah2k/teaching.html)

Course Outline (with lesson plans)

<http://faculty.njcu.edu/randerson/microeconomics/outline.htm>

DiscoverySchool.com: Economics

<http://school.discovery.com/lessonplans/econ.html>

EcEdWeb (Economic Education Web): Great Economics Lessons

<http://ecedweb.unomaha.edu/lessons/lessons.cfm>

EconEdLink: Lessons

[www.econedlink.org/](http://www.econedlink.org/)

Economic Education Station

<http://web.centre.edu/econed/>

Economics Everywhere!

<http://faculty.philau.edu/kouliavtsevm/fun.htm>

Economics Sources

[www.indiana.edu/~libsalc/econ/general\\_econ.html](http://www.indiana.edu/~libsalc/econ/general_econ.html)

edHelper.com

[www.edhelper.com/cat36.htm](http://www.edhelper.com/cat36.htm)

FOMC (Federal Open Market Committee) Simulation

[www.newyorkfed.org/education/fomcsim.html](http://www.newyorkfed.org/education/fomcsim.html)

Foundation for Teaching Economics (FTE): Lesson Plans

[www.fte.org/teachers/lessons/lessons.htm](http://www.fte.org/teachers/lessons/lessons.htm)

National Council on Economic Education: Resources

<http://ncee.net/>

Social Security Online: Kids and Families  
[www.ssa.gov/teacher/teacher.html](http://www.ssa.gov/teacher/teacher.html)

### **News Organizations**

CNN Student News  
[www.cnn.com/fyi/index.html](http://www.cnn.com/fyi/index.html)

*Economist*  
[www.economist.com](http://www.economist.com)

MSN Money  
<http://moneycentral.msn.com/investor/home.asp>

*New York Times* on the Web  
[www.nytimes.com/](http://www.nytimes.com/)

*Washington Post*  
[www.washingtonpost.com/](http://www.washingtonpost.com/)

### **The World Bank Group**

Social Indicators of Development  
[www.ciesin.org/IC/wbank/sid-home.html](http://www.ciesin.org/IC/wbank/sid-home.html)

## Professional Development

In the following section, the College Board outlines its professional development opportunities in support of AP educators.

The teachers, administrators, and AP Coordinators involved in the AP Program compose a dedicated, engaged, vibrant community of educational professionals. Welcome!

We invite you to become an active participant in the community. The College Board offers a variety of professional development opportunities designed to educate, support, and invigorate both new and experienced AP teachers and educational professionals. These year-round offerings range from half-day workshops to intensive weeklong summer institutes, from the AP Annual Conference to AP Central, and from participation in an AP Reading to Development Committee membership.

### **Workshops and Summer Institutes**

At the heart of the College Board's professional development offerings are workshops and summer institutes. Participating in an AP workshop is generally one of the first steps to becoming a successful AP teacher. Workshops range in length from half-day to weeklong events and are focused on all 37 AP courses and a range of supplemental topics. Workshop consultants are innovative, successful, and experienced AP teachers; teachers trained in developmental skills and strategies; college faculty members; and other qualified educational professionals who have been trained and endorsed by the College Board. For new and experienced teachers, these course-specific training opportunities encompass all aspects of AP course content, organization, evaluation, and methodology. For administrators, counselors, and AP Coordinators, workshops address critical issues faced in introducing, developing, supporting, and expanding AP programs in secondary schools. They also serve as a forum for exchanging ideas about AP.

## Chapter 5

While the AP Program does not have a set of formal requirements that teachers must satisfy prior to teaching an AP course, the College Board suggests that AP teachers have considerable experience and an advanced degree in the discipline before undertaking an AP course.

AP Summer Institutes provide teachers with in-depth training in AP courses and teaching strategies. Participants engage in at least 30 hours of training led by College Board-endorsed consultants and receive printed materials, including excerpts from AP Course Descriptions, AP Exam information, and other course-specific teaching resources. Many locations offer guest speakers, field trips, and other hands-on activities. Each institute is managed individually by staff at the sponsoring institution under the guidelines provided by the College Board.

Participants in College Board professional development workshops and summer institutes are eligible for continuing education units (CEUs). The College Board is authorized by the International Association for Continuing Education and Training (IACET) to offer CEUs. IACET is an internationally recognized organization that provides standards and authorization for continuing education and training.

Workshop and institute offerings for the AP Economics teacher (or potential teacher) range from introductory to topic-specific events and include offerings tailored to teachers in the middle and early high school years. To learn more about scheduled workshops and summer institutes near you, visit the Institutes & Workshops area on AP Central: [apcentral.collegeboard.com/events](http://apcentral.collegeboard.com/events).

### Online Events

The College Board offers a wide variety of online events, which are presented by College Board-endorsed consultants and recognized subject-matter experts to participants via a Web-based, real-time interface. Online events range from one hour to several days and are interactive, allowing for exchanges between the presenter and participants and between participants. Like face-to-face workshops, online events vary in focus from introductory themes to specific topics, and many offer CEUs for participants. For a complete list of upcoming and archived online events, visit [apcentral.collegeboard.com/onlineevents](http://apcentral.collegeboard.com/onlineevents).

Archives of many past online events are also available for free or for a small fee. Archived events can be viewed on your computer at your convenience.

### AP Central

AP Central is the College Board's online home for AP professionals. The site offers a wealth of resources, including Course Descriptions, sample syllabi, exam questions, a vast database of teaching resource reviews, lesson plans, course-specific feature articles, and much more. Bookmark the information on AP Central about AP Economics: [apcentral.collegeboard.com/econmacro](http://apcentral.collegeboard.com/econmacro) and [/econmicro](http://apcentral.collegeboard.com/econmicro).

AP Program information is also available on the site, including exam calendars, fee and fee reduction policies, student performance data, participation forms, research reports, college and university AP grade acceptance policies, and more.

AP professionals are encouraged to contribute to the resources on AP Central by submitting articles or lesson plans for publication and by adding comments to Teacher's Resources reviews.

### **Electronic Discussion Groups**

The AP electronic discussion groups (EDGs) were created to provide a moderated forum for the exchange of ideas, insights, and practices among AP teachers, AP Coordinators, consultants, AP Exam Readers, administrators, and college faculty. EDGs are Web-based threaded discussion groups focused on specific AP courses or roles, giving participants the ability to post and respond to questions online to be viewed by other members of the EDG. To join an EDG, visit [apcentral.collegeboard.com/community/edg](http://apcentral.collegeboard.com/community/edg).

### **AP Annual Conference**

The AP Annual Conference (APAC) is a gathering of the AP community, including teachers, secondary school administrators, and college faculty. The APAC is the only national conference that focuses on providing complete strategies for middle and high school teachers and administrators involved in the AP Program. The 2007 conference will be held July 11 to 15 in Las Vegas, Nevada. Conference events include presentations by each course's Development Committee, course- and topic-specific sessions, guest speakers, and pre- and postconference workshops for new and experienced teachers. To learn more about this year's event, please visit [www.collegeboard.com/apac](http://www.collegeboard.com/apac).

AP professionals are encouraged to lead workshops and presentations at the conference. Proposals are due in the fall of each year prior to the event (visit AP Central for specific deadlines and requirements).

## **Professional Opportunities**

### **College Board Consultants and Contributors**

Experienced AP teachers and educational professionals share their techniques, best practices, materials, and expertise with other educators by serving as College Board consultants and contributors. They may lead workshops and summer institutes, sharing their proven techniques and best practices with new and experienced AP teachers, AP Coordinators, and administrators. They may also contribute to AP course and exam development (writing exam questions or serving on a Development Committee) or evaluate AP Exams at the annual AP Reading. Consultants and contributors may be teachers, postsecondary faculty, counselors, administrators, and retired educators. They receive an honorarium for their work and are reimbursed for expenses.

To learn more about becoming a workshop consultant, visit [apcentral.collegeboard.com/consultant](http://apcentral.collegeboard.com/consultant).

### **AP Exam Readers**

High school and college faculty members from around the world gather in the United States each June to evaluate and score the free-response sections of the AP Exams at the annual AP Reading. AP Exam Readers are led by a Chief Reader, a college professor who has the responsibility of ensuring that students receive grades that accurately reflect college-level achievement. Readers describe the experience as providing unparalleled insight into the exam evaluation process and as an opportunity for intensive collegial exchange between high school and college faculty. (More than 8,500 Readers participated in the 2006 Reading.) High school Readers receive certificates awarding professional development hours and CEUs for their participation in the AP Reading. To apply to become an AP Reader, go to [apcentral.collegeboard.com/readers](http://apcentral.collegeboard.com/readers).

## Chapter 5

### **Development Committee Members**

The dedicated members of each course's Development Committee play a critical role in the preparation of the Course Description and exam. They represent a diverse spectrum of knowledge and points of view in their fields and, as a group, are the authority when it comes to making subject-matter decisions in the exam-construction process. The AP Development Committees represent a unique collaboration between high school and college educators.

### **AP Grants**

The College Board offers a suite of competitive grants that provide financial and technical assistance to schools and teachers interested in expanding access to AP. The suite consists of three grant programs: College Board AP Fellows, College Board Pre-AP Fellows, and the AP Start-Up Grant, totaling over \$600,000 in annual support for professional development and classroom resources. The programs provide stipends for teachers and schools that want to start an AP program or expand their current program. Schools and teachers that serve minority and/or low income students who have been traditionally underrepresented in AP courses are given preference. To learn more, visit [apcentral.collegeboard.com/apgrants](http://apcentral.collegeboard.com/apgrants).

## **Our Commitment to Professional Development**

The College Board is committed to supporting and educating AP teachers, AP Coordinators, and administrators. We encourage you to attend professional development events and workshops to expand your knowledge of and familiarity with the AP course(s) you teach or that your school offers, and then to share that knowledge with other members of the AP community. In addition, we recommend that you join professional associations, attend meetings, and read journals to help support your involvement in the community of educational professionals in your discipline. By working with other educational professionals, you will strengthen that community and increase the variety of teaching resources you use.

Your work in the classroom and your contributions to professional development help the AP Program continue to grow, providing students worldwide with the opportunity to engage in college-level learning while still in high school.