**Grade Twelve—Principles of Economics (One Semester)**

Economics is the study of choices made under conditions of scarcity. Scarcity means that resources, such as natural and human resources, are limited in quantity compared with the competing demands for their use. In this one-semester economics course, students will examine more deeply the choices they make. They will deepen their understanding of cost-benefit analysis, the use of incentives to explain peoples’ behavior, the potential for mutual benefits through voluntary exchange, markets (product, labor, and financial), the necessity for developing human capital to gain economic independence, the role of labor and entrepreneurs, the workings of the macroeconomy and the effect of fiscal and monetary policies, and the benefits, costs, and unintended consequences of government actions. To achieve all of this, students learn to apply basic economic principles and methods of analysis, building on the knowledge of economics gained in their studies in earlier grade levels. In kindergarten, students learn that they make choices. By twelfth grade, they should be able to apply economic concepts to the decisions they make in their own lives and to the economic, social, and political issues that dominate the world around them.

**Fundamental Economic Concepts and Reasoning**

Economics, as a discipline, is a social science that studies the choices people make about the utilization of resources and the production, distribution, and consumption of goods and services. Students will understand that an economy is a functioning system for coordinating production and distribution.

Students learn that every economic issue involves individual choices based on both monetary and nonmonetary incentives. Looking at a store in the mall, the manager decides what goods to stock, manufacturers choose which goods to produce, and the consumer decides what to buy. Students face similar decisions because their resources are limited. A typical choice might be: How many hours will I spend studying and how many hours working for pay? A fundamental concept in economics is that the cost of something is what you give up to get it. All decisions involve opportunity costs; that is, the cost of the best alternative that you give up when you make a choice. If a student chooses to study longer, he or she must give up hours that could be spent working for pay. However, the student must also consider the benefits of a higher future salary that may result from studying now. Students will examine the opportunity costs of choices such as the following ones: Will I join the drama club? How much education will I acquire? What will I spend my money on? How much will I save? Will I use a credit card for purchases and what is the interest rate? By learning how to conduct cost-benefit analyses and how to evaluate the marginal benefits and marginal costs of alternative uses of resources, students will learn how to make informed decisions. By learning about financial literacy, students will understand how international markets are interrelated and how they affect their personal finances. Studying these topics now will help students when they become adults, and must confront decisions about household budgets, student loans and other forms of debt such as credit cards or mortgages, and savings and investment strategies.

Students learn about market economies and concepts such as private property that form a fundamental basis for the American economy. They learn that market economies often spur innovation and growth. Adam Smith argued that individuals pursuing their own self-interest can improve society as a whole. A free market often promotes innovation, reinforces individual liberty by protecting private property, encourages review and debate, and rewards initiative. However, markets may also create negative consequences such as pollution and inequitable income distribution.

**The American Market Economy**

Students will learn about the operation of markets by studying the example of the American market economy in detail. A market is an interaction between buyers and sellers. There are a variety of economies around the world, and students will learn that amarket economy is a decentralized economic system where most economic decisions are made by individuals.

One fundamental concept of market economics is that individuals respond to incentives. Profits in a market economy encourage entrepreneurs and businesses to invent, construct, and produce in an efficient manner what consumers want. Consumers also respond when incentives change: if gasoline prices stay high for a long time, drivers will switch to more fuel-efficient cars or alternative forms of transportation. Economists argue that individuals will exploit opportunities to be better off just as businesses do.

Relative prices in a market economy change over time with changes in supply and demand. To illustrate the relationship between sellers and buyers, students learn about the logic of supply and demand. They can also trace changes in supply and demand using historical and contemporary examples and study the resulting change in equilibrium price and quantity. Students analyze the basic dynamics of supply and demand. For example, an unusually large tomato crop, without an increase in the demand, will cause tomato prices to fall. A shortage of a popular video game system during the holiday season will cause the price to rise. Students will examine specific cases of price changes and determine if a change in demand or supply or both was the cause. Students can participate in a market economy simulation to learn about the interaction of sellers and buyers.

Markets range from the local used car market to the market for professional baseball players. Markets perform important functions in our economy; they allocate resources to produce goods that are in demand, and they determine the quantities of goods produced and the prices of those goods. The interaction between buyers and sellers in markets establishes the current price of a good, or what economists call the equilibrium price. If a price is too high, a surplus will occur and sellers must lower prices. If sellers charge too low a price, the resulting shortage informs sellers that they can get a higher price. Students can see that the price of a Picasso painting and a soft drink alike are determined by both the supply and demand in the marketplace. Open competition within markets helps to maximize economic efficiency but can also negatively affect different groups and individuals. For example, students can study how global competition from producers of goods ranging from toys to automobiles created new challenges for domestic manufacturers in the United States.

Some prices are also set by the government in the form of price floors or price ceilings. A price floor sets a price above the equilibrium level; an example is the federal minimum wage. Rent control laws that hold rents below the equilibrium are an example of a price ceiling. Government attempts at price setting to improve market outcomes may have unintended consequences for consumers and the marketplace. Rent control laws, for example, can lead to a shortage of apartment buildings.

Finally, students will learn about the important role of financial markets and banks in the functioning of the American economy. Students understand the role of banks in expanding credit in the economy and how banks help consumers, entrepreneurs, and established businesses by providing loans and securing deposits. Financial markets facilitate the raising and transfer of capital and the smooth operation of international trading networks. When they fail to perform these functions, they can have devastating impacts on an economy, as was the case in the United States in the Great Depression, as well as the financial crisis that began in the summer of 2007. Students should study that crisis both to gain a better understanding of the American market economy and as a link to the next unit, which focuses on the role of government in the American economy. Students can make simulated investments in the stock market and analyze changes in their value over time. Students should also learn about the personal risks and costs involved in banking activities, including fees, debt, and identity theft.

**Government Influence Upon the American Economy**

The U.S. economy is primarily a market economy but has some government intervention. Because of this quality, students learn that it is more accurately classified as a “mixed economy.” Students understand how government sometimes intervenes in markets; for example, to promote the general welfare, provide for national defense, address environmental concerns, establish and enforce property rights, and protect consumer and labor rights. Students investigate the changing role of government in the economy, including the consequences of both government action and inaction in specific spheres of the economy. In particular, they analyze the outcomes of incentives and investigate the distributive effects of government policy.

Government stabilization policies include both fiscal and monetary policies. Students learn about the components of the federal budget and how Congress and the president enact spending and taxing policies. To learn about the consequences of economic planning within the government, students define what a budget deficit is, how it is financed over time, what the national debt consists of, and how much of it represents an external debt owed to foreign governments and investors. Students might examine federal budget spending priorities and debate whether they agree as to how their tax dollars are being spent. Students may examine the historical trends in national debt. Students can conduct a cost-benefit analysis at a mock town hall meeting about spending priorities. Students can apply this information to regional and local levels by comparing the types of taxes that the federal, state, and local governments collect.

Monetary policy is a stabilization tool that is conducted by the Federal Reserve Bank, an independent branch of government. Students learn that the “Fed,” as it is called, acts as a central bank for the U.S. in that it influences the quantity of money in circulation, and works through the private banking system to raise or lower short-term interest rates. The Fed tends to lower interest rates when it is fighting recession and raises them when it is fighting inflation. Students also see that both monetary and fiscal policies have limitations in their effectiveness in fighting recession and inflation and influence how resources are allocated in the economy. They also study the role of government in regulating and insuring banks to protect solvency and maintain public confidence in the economy.

In a panel discussion, students can consider a specific regulation being proposed by legislators (e.g., minimum wage, tax refunds, auto-emission standards). Using economic reasoning, students can argue both for and against positions on the regulation. To further extend their learning and provide a service to the community, students might hold the panel discussions in the evening. They could invite parents and other members of the community interested in better understanding the pros and cons of the proposed regulation.

**Labor Markets**

Students apply their understanding of product markets to analyze labor markets. In a competitive labor market, a worker’s productivity and his or her contribution to a firm’s revenues determines the demand for his or her services. Government regulations and labor unions also influence the labor markets. The marginal product theory of wages emphasizes the importance of a worker’s experience, education, and skills in influencing their wage. By reviewing the term *human capital*, students can see the relationship between the amount of education workers obtain and their future salaries.

Wages are also influenced by the supply of workers in a specific labor market. Markets requiring fewer skills, such as fast food, offer lower salaries. Students can study how businesses determine the skills required of their workers and investigate the role that this plays in creating profitable enterprises. Using economic data, students also analyze the effects of immigration on both product and labor markets. Students may review changes in the California labor market in the areas of aerospace, agriculture, and technology. Students know the history of the labor movement and the impact that it has had on labor markets, including methods used by unions to gain benefits for their members and the effects of unionization. Students can participate in a collective bargaining simulation to examine the struggles of workers to be paid for the value of their labor and to work under safe conditions. They can examine legislation that gave workers the right to organize into unions, to improve working conditions, and to prohibit discrimination.

This historical context provides the necessary foundation for an analysis of current labor market issues, such as the types of goods and services produced, needed skills, the impact of technological innovation, and international competition. As part of this review, students discuss poverty and income distribution in the United States in both historical and contemporary contexts. Students can conduct a mock National Labor Relations Board (NLRB) election to debate the pros and cons of unionization.

Finally, students investigate the effects of international mobility of capital and labor in a globalized labor market. For example, students can consider the impact of international economic agreements, such as NAFTA, upon the labor market and more specifically, the impact of outsourcing and insourcing.

This unit also provides students with an opportunity to identify and analyze an economic issue in their community, (e.g., housing, hunger, underemployment). They can evaluate local initiatives addressing the problem. Finally, students might work with local policymakers and community groups to address the challenges. Students who focus on housing, for example, may create a pamphlet that they distribute to parents and neighbors about trustworthy government and nonprofit financial services to assist them with shopping for mortgage loans.

**Aggregate Economic Behavior**

Students learn to “read” the signs of the economy, distinguishing real from nominal data and recognizing the significance of major macroeconomic data in the next unit. Macroeconomics looks at the “big picture” and surveys the national economy and how it is integrated globally. Students will define gross domestic product (GDP), unemployment, and inflation and learn that economic growth is a sustained increase in incomes and output over time. Students will learn how the federal government compiles the measurements for economic growth and income, the unemployment rate, and the rate of inflation. For a market economy, the traditional keys to long-term economic growth include implementing incentives for innovation, investing in capital goods (better machines), improving the education of the workforce, and encouraging entrepreneurship and technological innovation.

Market economies experience fluctuations in production and inflation. Students analyze various macroeconomic outcomes and the operation of the business cycle in the American economy, including the reasons for the repetitive sequence of booms and recessions throughout its history. Students learn that a decrease in total spending, or what economists call a drop in aggregate demand, can cause a recession, a period of contraction in the economy. Recessions can lead to deflation, in which prices fall, and may lead to a spiraling downturn that culminates in an economic depression. This happened in the United States in the 1930s, with the Great Depression. Conversely, a high level of aggregate demand relative to aggregate supply can cause inflation. Students learn that hyperinflation, or an extreme case of inflation, can be caused by too much money in circulation. They study the importance of interest rates, both short-term and long-term, in affecting the business cycle and the operation of the broader economy.

Financial literacy should be included in this course as examples of the economic concepts and analytical tools mentioned above. For example, budgeting can be taught as an example of scarcity, job applications can be taught as examples of human capital inventories, student loans can be taught as an investment in developing human capital, use of credit cards can be taught to explain the opportunity cost of interest and repayment, and interest on credit can be taught as an example of price determination through supply and demand. Economic concepts and tools of analysis must be presented clearly in any discussions of financial literacy.

**The Global Economy**

Students see that due to trade liberalization, the lowering of trade barriers between countries, all economies now are more closely integrated with one another. Students explore how changes in government policy, technological change, and the rise of global markets contributed to this process. A sign that the U.S. economy is more globally integrated is the larger percentage of exports and imports in GDP. Students will learn what exports and imports are, examine a trade deficit and surplus, and examine the balance of payments. They learn how the United States economy can be influenced by external factors, such as an increase in the price of oil on the global market or major changes in the incomes of its trading partners.

Trade occurs between individuals and firms globally due to differing comparative advantages. International trade can be mutually beneficial to countries as it encourages specialization based on comparative advantage, increases overall productivity and employment, and lowers prices for consumers. However, specific groups in the domestic economy are affected differently by free trade. Students can analyze protectionist measures used to reduce imports and examine the positive and negative impacts upon different groups, such as the effect of trade restrictions implemented during the Great Depression. Students might analyze current trade agreements and disputes between the U.S. and other countries.

Globalizationrefers to the flow of goods and services, inputs, money, and ideas around the world, as well as the emergence of a global production system used by multinational corporations. Financial transactions, whether in the form of credit, stocks, or bonds, also flow quickly around the world and cause economies to be closely integrated with one another. Students learn that trade liberalization, technology, and lower costs of transportation have all increased the trend to globalization. Students can debate the advantages and disadvantages of globalization for themselves, for different groups in their own economy, and for groups in other countries. Students can also use their knowledge from tenth-grade world history in examining developing countries and how they are impacted by globalization. Students investigate the impact of globalization on poverty, the environment, urban slums, child labor, women’s rights, or AIDS/HIV through case studies, group presentations, or model United Nations sessions. Students also learn about sustainable development.

Microfinance and microloans also play key roles in the globalized economy. Working in small groups, students can study requests for microfinancing from various regions of the world. Using criteria known to lead to successful loans, groups can assess the proposed projects and make presentations to the rest of the class about the project they believe will have the most sustainability for the new economy. The class can vote for their top project.

**History–Social Science Content Standards**

**Grade Twelve**

## Principles of Economics

###### 12.1 Students understand common economic terms and concepts and economic reasoning.

1. Examine the causal relationship between scarcity and the need for choices.
2. Explain opportunity cost and marginal benefit and marginal cost.
3. Identify the difference between monetary and non-monetary incentives and how changes in incentives cause changes in behavior.
4. Evaluate the role of private property as an incentive in conserving and improving scarce resources, including renewable and nonrenewable natural resources.
5. Analyze the role of a market economy in establishing and preserving political and personal liberty (e.g., through the works of Adam Smith).

###### 12.2 Students analyze the elements of America's market economy in a global setting.

1. Understand the relationship of the concept of incentives to the law of supply and the relationship of the concept of incentives and substitutes to the law of demand.
2. Discuss the effects of changes in supply and/ or demand on the relative scarcity, price, and quantity of particular products.
3. Explain the roles of property rights, competition, and profit in a market economy.
4. Explain how prices reflect the relative scarcity of goods and services and perform the allocative function in a market economy.
5. Understand the process by which competition among buyers and sellers determines a market price.
6. Describe the effect of price controls on buyers and sellers.
7. Analyze how domestic and international competition in a market economy affects goods and services produced and the quality, quantity, and price of those products.
8. Explain the role of profit as the incentive to entrepreneurs in a market economy.
9. Describe the functions of the financial markets.
10. Discuss the economic principles that guide the location of agricultural production and industry and the spatial distribution of transportation and retail facilities.

###### 12.3 Students analyze the influence of the federal government on the American economy.

1. Understand how the role of government in a market economy often includes providing for national defense, addressing environmental concerns, defining and enforcing property rights, attempting to make markets more competitive, and protecting consumers' rights.
2. Identify the factors that may cause the costs of government actions to outweigh the benefits.
3. Describe the aims of government fiscal policies (taxation, borrowing, spending) and their influence on production, employment, and price levels.
4. Understand the aims and tools of monetary policy and their influence on economic activity (e.g., the Federal Reserve).

###### 12.4 Students analyze the elements of the U.S. labor market in a global setting.

1. Understand the operations of the labor market, including the circumstances surrounding the establishment of principal American labor unions, procedures that unions use to gain benefits for their members, the effects of unionization, the mini-mum wage, and unemployment insurance.
2. Describe the current economy and labor market, including the types of goods and services produced, the types of skills workers need, the effects of rapid technological change, and the impact of international competition.
3. Discuss wage differences among jobs and professions, using the laws of demand and supply and the concept of productivity.
4. Explain the effects of international mobility of capital and labor on the U.S. economy.

###### 12.5 Students analyze the aggregate economic behavior of the U.S. economy.

1. Distinguish between nominal and real data.
2. Define, calculate, and explain the significance of an unemployment rate, the number of new jobs created monthly, an inflation or deflation rate, and a rate of economic growth.
3. Distinguish between short-term and long-term interest rates and explain their relative significance.

###### 12.6 Students analyze issues of international trade and explain how the U.S. economy affects, and is affected by, economic forces beyond the United States's borders.

1. Identify the gains in consumption and production efficiency from trade, with emphasis on the main products and changing geographic patterns of twentieth-century trade among countries in the Western Hemisphere.
2. Compare the reasons for and the effects of trade restrictions during the Great Depression compared with present-day arguments among labor, business, and political leaders over the effects of free trade on the economic and social interests of various groups of Americans.
3. Understand the changing role of international political borders and territorial sovereignty in a global economy.
4. Explain foreign exchange, the manner in which exchange rates are determined, and the effects of the dollar's gaining (or losing) value relative to other currencies.

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