

Study Guide for Microeconomics Diagnostic Exam

Admission in to the REM program requires “some knowledge of microeconomic principles.” To be admitted into *ECON 462: Economics of Energy, Resources, and Environment* you must either: (1) demonstrate successful completion of a microeconomic principles course, or equivalent; or, (2) achieve a sufficiently high score (80+% correct) on a microeconomic principles diagnostic exam. The diagnostic exam(s) will be multiple choice, will be fairly short (approximately 25 questions), will only test basic principles, and may be repeated until a satisfactory score is attained. The diagnostic exam(s) will cover the topics listed below.

All of these topics can be found in virtually any principles/introductory microeconomics text from the past 50 years. Used copies of past editions of many textbooks sell for \$5 or less – go to your favorite online bookstore and do a search for “principles of microeconomics” or “principles of economics.” There are numerous publicly available online references as well. In particular, [Wikipedia](#) is an excellent, if sometimes verbose, source. Many, but not all, of the topics listed below are presented in a very approachable manner at [AmosWEB](#). Finally, I will place two or three textbooks on reserve at CWU Brooks Library.

If you have any questions please do not hesitate to contact me (Chad Wassell) at wasselc@cwu.edu or (509) 963-3056. The diagnostic exam can be taken in the Economics office which is located on the 4th floor of Shaw-Smyser.

1. Economics defined
 - The study of the allocation and use of scarce resources to satisfy unlimited human wants
2. Resources
 - Four scarce economic resources: land, labor, capital, entrepreneurship
3. Opportunity cost
 - The best foregone alternative of the choice made
4. Marginal analysis
 - Action is worth taking when the marginal benefit exceeds the marginal cost
5. Positive vs. normative analysis
 - Positive = defensible... the way things are
 - Normative = subjective... the way things ought to be
6. Markets
 - Where goods and services are exchanged, typically for money
7. Perfectly competitive market
 - Many producers, homogeneous products, easy entry/exit into market
8. Quantity demanded/supplied
 - The quantity that consumers/producers are willing and able to buy/sell at a given price and time
9. (Market) Equilibrium
 - The price/quantity such that quantity supplied equals quantity demanded

10. Law of demand, and why it makes sense

- Price and quantity demanded are inversely related
- Substitution effect: when the price of a good increases, consumers buy less, because they go buy something else
- Real-balances effect (Income effect): when a price increases, consumers buy less because their real purchasing power has gone down
- Law of diminishing marginal utility: the consumption of each additional unit of a good brings us less and less happiness, and therefore each additional unit is worth less and less to us

11. Determinants of demand

- Tastes
- Income
 - i. Normal good – income increase leads to increased demand
 - ii. Inferior good – income increase leads to decreased demand
- Price of other goods
 - i. Substitutes – price of substitute increases, demand increases
 - ii. Complements – price of complement increases, demand decreases
- Population
- Expected future price

12. Determinants of supply

- Prices of inputs
- Technology
- Price of other potential outputs, and co-product prices
- Number of sellers
- Expected future price

13. Change in demand/supply vs. change in quantity demanded/supplied

14. Equilibrium response to a change in demand/supply

15. Elasticity

- Responsiveness of quantity demanded/supplied or demand/supply to change in price or other demand/supply determinants, respectively
- Inelastic = relatively small response; elastic = relatively large response

16. Consumer surplus

- The difference between what consumers are willing to pay and what they actually pay

17. Producer surplus

- The difference between what producers are willing to accept and what they actually accept

18. Deadweight loss

- Surplus that is foregone because potentially mutually beneficial transactions do not occur

19. Profit, and revenue

- Profit = total revenue – total cost

20. Costs: economic vs. accounting

- Accounting costs = costs explicitly paid to others by the owner of the business
- Economic costs = all costs, including accounting costs as well as foregone opportunities (implicit costs)

21. Marginal cost (MC)

- The additional cost associated with one additional unit of output

22. Marginal revenue (MR)

- The additional revenue that the firm receives from the sale of an additional unit

23. Profit-maximization

- In most cases, a firm should produce the largest quantity such that $MR \geq MC$

24. Externality

- A cost or benefit that is imposed on or accrues to a third party who is not party to the transaction

25. Unit taxes/subsidies

- A uniform increase/decrease in the price per unit
- Can be imposed on (paid/received) either buyers or sellers, but this is ultimately irrelevant; under a tax the net price paid by buyers increases, the net price received by sellers decreases, and the quantity traded decreases