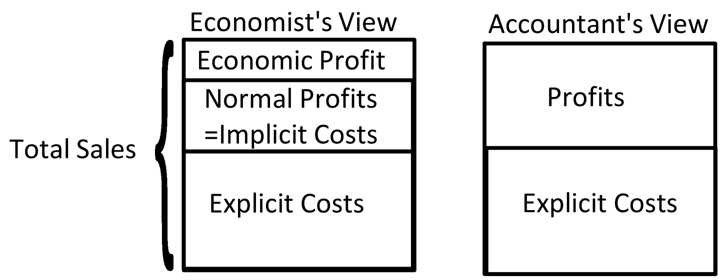
E101 - 5.1 - Short Run Production Decisions

Supply Curve, Firms, Cost of Production, Level of Production, Price, Competition, Firm's Cost.

Depreciation - The annual cost of any asset that is expected to be in use for more than one year.
Explicit Costs - a cost that is actually paid out in money.
Implicit Costs - a cost that does not require an actual expenditure of money.

$$Total\ Accounting\ Profit = Total\ Revenue - Total\ Explicit\ Costs$$

$$Total\ Economic\ Profit = Total\ Revenue - Total\ Costs\ (Implicit\ \&\ Explicit)$$



Normal Profit - The minimum profit that must be earned to keep the entrepreneur in that type of business.
Economic Profit - Revenue over and above all costs, including normal profits.
Sunk Costs - Costs that are unrecoverable.

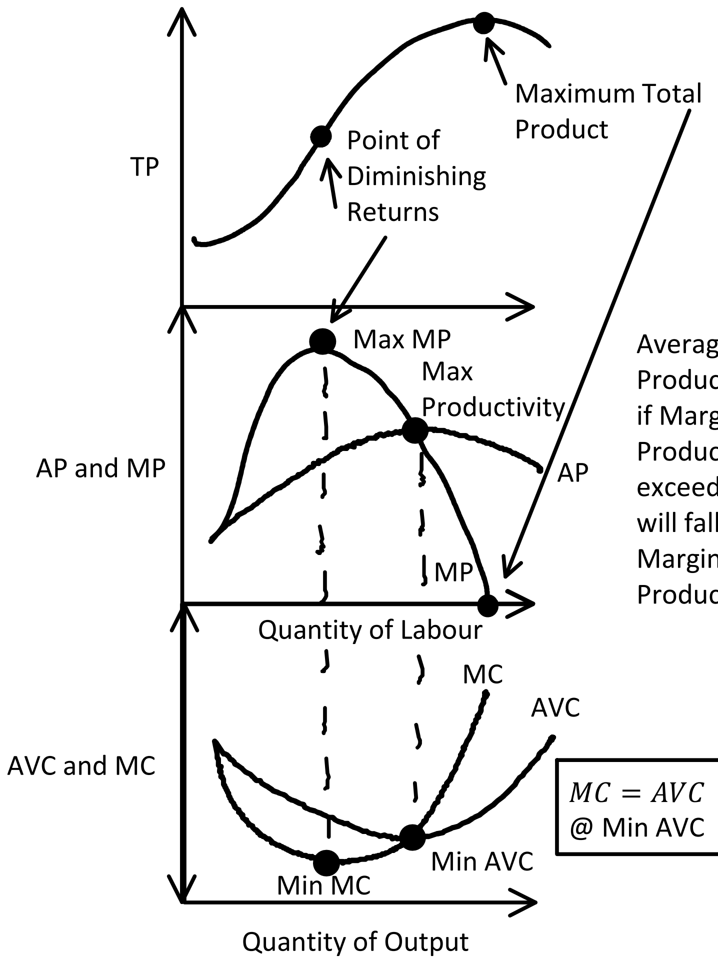
Short Run - Any period of time in which at least one input in the production process is fixed and cannot be increased or decreased.
Total Product - The total output of any productive process.
Marginal Product - The increase in total product as a result of adding one more unit of input.
Average Product - The total product or total output divided by the quantity of inputs used to produce the total.

Division of Labour - The dividing of the production process into a series of specialized tasks, each done by a different worker.

Law of Diminishing Returns - as more of a variable input is added to a fixed input in the production process, the resulting increase in output will, at some point, begin to diminish.(Law of Diminishing Marginal Productivity).

Total Variable Costs - The total of all costs that vary with the level of output.
Marginal Cost - The increase in total variable costs as a result of producing one more unit of output.
Average Variable Cost - The total variable cost divided by the total output.
Total Fixed Costs - Costs that do not vary with the level of output.
Average Fixed Cost - Total fixed cost divided by the quantity of output.
Total Cost - The sum of both total variable cost and total fixed cost.
Average Total Cost - Total cost divided by the quantity of output.
Economic Capacity - The total output at which average total cost is at a minimum.
Excess Capacity - The situation in which a firm's output is below economic capacity.

E101 - 5.2 - Short Run Production Decisions



Average Product will rise if Marginal Product exceeds it and will fall if Marginal Product is less.

$$MP_A = \frac{\Delta TP}{\Delta L} \qquad AP_A = \frac{TP}{L}$$

$$L = Labour$$

$$MC = \frac{\Delta TVC}{\Delta \, Total\ Output} \qquad MC = \frac{\Delta \, Total\ Cost}{\Delta \, Total\ Output}$$

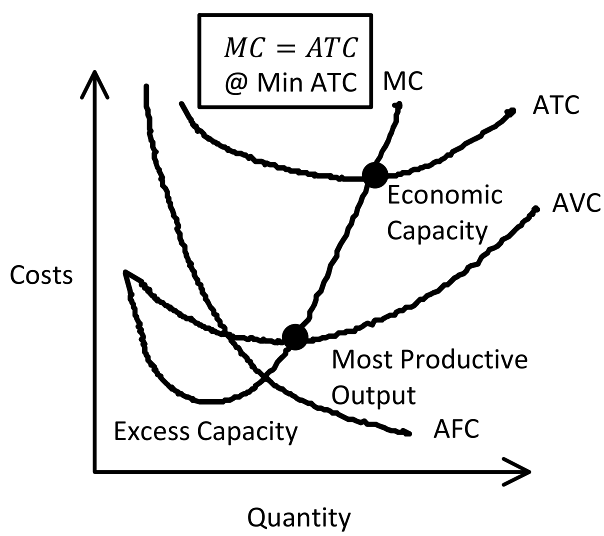
$$AVC = \frac{TVC}{Total\ Output}$$

$$TC = TVC + TFC \qquad \sum MC = TVC \qquad \sum = sum$$

$$ATC = \frac{TC}{Total\ Output} \qquad ATC = AVC + AFC$$

$$AVC = \frac{TVC}{Total\ Output}$$

$$AFC = \frac{TFC}{Total\ Output}$$



The U-shaped MC curve intersects the AVC curve and ATC curve at their minimum points.

Division of Labour - MP and AP Increasing, MC and AVC Decreasing.
Diminishing Returns - MP and AP Decreasing, MC and AVC Increasing.