

Flipped IN-CLASS Lesson Plan Template

Topic or concept: Production Costs - Costs Curves

Basic objectives for preparatory work:

Define costs using your own words

Define revenue using your own words

Conclude what profit is

Define costs for a firm: fixed cost, variable cost, total cost

Explain how the three types of costs are related.

Write how they are in relation with each other: formula

Recall how to calculate an average

Write formula for average fixed cost (AFC), average variable cost (AVC), average total cost (ATC)

Give examples of different costs for a firm

Define economic profit

Define accounting profit

Compare and contrast economic profit and accounting profit: What's similar? What are the differences?

Advanced objectives for classwork & after class work:

Calculate and draw AFC curve, AVC curve, ATC curve

Interpretation of the curves

Determine how firms could apply this information in the real world of profit maximization.

| | Time planned | Activity and rationale | Resources needed |
|--|--------------|------------------------|------------------|
|--|--------------|------------------------|------------------|

| | Time planned | Activity and rationale | Resources needed |
|----------------------------------|------------------------|--|---------------------------|
| Beginning of class period | <i>Example:</i> 5 mins | List the “formulas” for total cost, AFC, AVC, ATC to recall how to calculate those numbers | Paper |
| Middle of period | 40 mins | <p>Using hand-outs and the information already written on the hand-outs,</p> <ul style="list-style-type: none"> -Calculate fixed cost, variable costs total costs for each quantity -Calculate AFC, AVC and ATC for each quantity -Differentiate AFC and AVC within ATC -Draw the AFC curve, AVC curve, ATC on a price/quantity graph (Quantity on x-axis, Price on y-axis) using the numbers generated above <p>Why: to clarify and visualize new concepts: AVC AFC ATC and offer new info.</p> | Hand-outs/ problem sheets |
| Middle of period (use if needed) | 20 mins | <p>Think in pairs, problem solving.</p> <ul style="list-style-type: none"> -Examine the position of each curve on the graph -Interpret the shape of each curve -Interpret and justify the position of the curves in relation to each other -Assess what connects the three curves | Problem sheets/hand-outs |

| | Time planned | Activity and rationale | Resources needed |
|---------------|-------------------------|---|------------------|
| End of period | <i>Example: 10 mins</i> | <p><i>Example:</i> RSQC (Recall, Summarize, Question, Review, Connect, Comment). Students solidify understanding in preparation for doing advanced work at home.</p> <ul style="list-style-type: none"> -Recall, summarize what was done during the class period -Answer the following questions: <ul style="list-style-type: none"> - how will firms use the information generated by the number and costs curves in order to maximize profit. - Which part of the lesson is still confusing? | handouts |

Flipped AFTER CLASS Work Plan Template

| Advanced learning objective | Activity and rationale | Instructions to students |
|-----------------------------|--|--|
| (Place ALO here) | <p><i>Example:</i> Annotated problem solving. For two problems with published solutions, write notes explaining each step. For two new problems, solve the problems and explain each step. This provides practice in problem-solving and also articulating the problem-solving process so that small errors do not derail you.</p> | <p><i>Example:</i> Annotate solutions to problems 1 and 2 in this week's after-class folder in Blackboard. Solve and annotate problems 3 and 4. You may work together; just be sure that YOU can solve and annotate problems independently as the exam will be similar to this work.</p> |

| Advanced learning objective | Activity and rationale | Instructions to students |
|-----------------------------|------------------------|--------------------------|
| | | |

GUIDED PRACTICE

Class: Economics

Date assigned: Monday 7/1/2019

Date due: Monday 7/8/2019

Time estimate to complete this assignment: 30/45 minutes

Overview/Introduction

What is this lesson about? Why do we care?

The lesson is about production costs firms will face when they produce a good or a service.

In a profit maximizing world, firms will generate a profit only if they earn more selling a good than they spend producing that good. In order to compare those two numbers, they must know them. It is quite time consuming but vital for a firm to calculate as accurately as possible the costs of producing a good. The lesson is about production costs.

Learning Objectives

Basic objectives

List 3-5 learning objectives that you expect students to be able to master on their own before class.

- What variable cost is
- What fixed cost is
- What total cost is
- What their averages are
- How profit is defined in economics

Advanced objectives

List 3-4 learning objectives that you expect students to need help mastering.-

- Think of real world examples
- Interpretations of the numbers
- Interpretations of the curves
-

Preparatory Activities and Resources:

1. Give detailed, action-oriented instructions for completing the Guided Practice assignment. Keep in mind that the activities should be minimal, simple, engaging, productive, and failure tolerant (see Talbert, 2017, pg. 135)

2. Give a “playlist” of resources such as readings, videos, audio, or other content delivery methods that provide students the content to work with.

Videos

Worksheets

PPTs

Exercises: Please complete by _____.

- Give a method for students to submit their work online BEFORE the face to face class meeting. Google forms, SurveyMonkey, and tools in your LMS will all work. Alternatively, give them instruction on what completed work to bring to class as an entry ticket.
- The submitted work should demonstrate students’ mastery of the basic learning objectives.
-

Always one week to deliver the work.

Will be delivered online, but I want them to bring a hard copy so they can refer to it during the face to face class period.

Questions?

Give a way for students to get help.

ADVANCED PRACTICE

This is given for students to complete after the class meeting in which they work together.

Class: Economics

Date assigned: 7/8/2019

Date due: 7/15/2019

Time estimate to complete this assignment: 60 minutes (Note that this is advanced practice, so is expected to take longer than a preparatory assignment – but not TOO long! Keep it reasonable.)

Learning Objectives

Advanced objectives

List 3-4 learning objectives that you expect students to need help mastering in class and after class.

- Calculate the costs for different quantities when all the information is not neatly listed: they need to find the information in the numbers but the info is not explicitly stated.

They cannot follow the columns.

- Comprehend the relationships between ATC, AVT, ATC –
- Why the numbers are not independent of the quantities produced
- Move from numbers to real world situations

Activities & deliverables

1. Give detailed, action-oriented instructions for completing the assignment. Make sure to also include a reflective component.
2. Describe what students should turn in, by when.

Hand-outs where they calculate the different costs since they must fill comfortable crunching numbers.

Handouts where they draw the 3 curves.

Reflection:

-Assuming the firm produces X units of a good, what is the AVC, AFC, ATC faced by the firm?

-If you were that firm, where should you produce: lowest ATC, which quantity?

I give one week to turn in the work

Resources:

3. Give a “playlist” of resources to help students complete the assignment.

- videos,
- PPT
- worksheets
- online discussions boards between students

Questions?

Give a way for students to get help.

- Hold virtual office hours through skype