Julia Da Silva-Beharry
OMDE 606 Section 9040
March 10, 2016
Assignment 2

# Spreadsheet Analysis

1. Classify the different cost items as either fixed or variable costs (matching row number to Fixed or Variable as appropriate) AND as capital or recurrent costs. Give a short explanation of the two distinctions. **(6 points)**

Fixed Costs: Items in rows 12 to 24
Variable Costs: Items in rows 27 – 33
Capital Costs: Items in rows 8 to 9
Recurrent Costs: Items in rows 3 to 4

2. Calculate the Recurrent Fixed Costs of course overheads (management and secretarial support). **(4 points)**

   Answer: $55,000.00

3. Calculate the aggregate Fixed Costs of Development (FD) and the aggregate Fixed Costs of Maintenance (FM). The modified course is offered from year 5 onwards. **(8 points)**

Answer: FD=$23442 FM= **$519**

4. Calculate the variable cost per student (V). **(8 points)**
   Answer: V=$239

5. Calculate the depreciation rate on a basis of the lifetime of the presentation of the project (compare Rumble Table 6.1) and charge it to each year of presentation. (You may use the format of the attached spreadsheet.) **(6 points)**
   Answer: 239/7=34

6. Following the template of Rumble Table 6.4, annualize the Fixed Costs of Development (FD) over the specified years of presentation at the specified rate of interest and the Fixed Costs of Maintenance (FM) over the specified years at the same rate. **(10 points)**

   Answer: FD: 7,814 FM: 173

7. Mini-essay: Summarize in a short paragraph the reasons for and against annualization in your own words. **(5 points)**

Answer: According to Rumble (1997) in Chapter 6, annualization can be used to capture the foregone interest that is lost due to the investment that is made by the organization. This could be considered as depreciation cost because it also captures the foregone interest (Rumble, 1997). Thus planning decisions costs of forgone interest should be taken into account, only if there is a real unusual occurrence to invest the money in such a way that interest will be earned over a period of time.

Julia Da Silva-Beharry
OMDE 606 Section 9040
March 10, 2016
Assignment 2

8. Calculate the equation of total costs (TC=F+VxN) using the annualized figure of fixed costs and the total number of students expected over the lifetime of the course. **(10 points)**

Total Cost = Annualized Fixed Costs + Variable Costs * Number of Students = 608,207+ 440,907 * 700

9. Draw the respective graph of the total cost function. **(7 points)**
   Answer: Cf. spreadsheet attached

10. Calculate the equation of average costs (AC=F/N+V) using the annualized figure for fixed costs and the total number of students expected over the lifetime of the course. **(10 points)**

Answer: F= 440,907/700+239 = 869

11. Draw the respective graph of the average cost function. **(7 points)**

S

12. If the student is charged the per student fee specified calculate the break-even point. (Use the equation TC=F+VxN and the income equation: I=SFxN (Income =Student Fee x No of students). The break-even point is N=F/(SF-V) **(6 points)**

13. Represent the break-even point graphically (overlaying the graphs of TC and I). **(3 points)**
See spreadsheet attached

14. Mini-essay: Summarize in a short paragraph why it is believed that the TC and AC equations and the specific cost structure of DE suggests that DE may be more cost-efficient than conventional modes of educational provision. **(5 points)**

Total Cost and Average Costs suggest that DE can be more cost efficient because more students can be accommodated by DE as the content development portion of teaching is separated from student support (Rumble, 1997). The average cost per student decreases as student enrollments rise by the physical constraints of conventional education. In this view, DC can be more cost-efficient than conventional modes of educational provision.

15. Overall presentation **(5 points)**

See spreadsheet attached

Julia Da Silva-Beharry
OMDE 606 Section 9040
March 10, 2016
Assignment 2

REFERENCES

Rumble, G. (1997). *The costs and economics of open and distance learning* [Adobe Digital Editions Version]. Retrieved from Amazon.com