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ACC1110 Introductory Managerial Accounting
Activity Base Costing Group Excel Case
Winter 2021

Kolbec Community College (KCC) has thousands of full-time students and offers a variety of academic programs in three areas: professional studies, arts, and technology. The professional studies programs prepare students for administrative and clerical jobs in a variety of professional settings, including accounting, medicine, and law. The arts program's offerings are wide ranging and include graphic design, digital animation, culinary arts, cosmetology, and music arts. The technology programs are also varied, including information technology, medical laboratory technology, electrical engineering technology, pharmacy technology, and natural resources technology.

The chief financial officer of KCC, Lee Jones, has consistently emphasized to other members of the senior management team the importance of understanding the costs of delivering the various academic programs. To that end, the costing system used at KCC tracks the direct costs of each program, which are shown on an annual basis, along with the number of fulltime students. This information included in the table labelled; total direct costs.

It is very important to understand the overhead costs consumed by each academic program at KCC in determining the full cost of operating the programs. Central administration at KCC allocates financial resources to academic programs based on the estimated full cost per student of delivering the program. The overhead costs at KCC are significant, representing a large portion of direct costs. This information is included in the table labelled; total overhead costs.

Traditionally, KCC has allocated overhead costs to academic programs on the basis of the number of full time students in each program. This approach was deemed appropriate since Jones reasoned that increasing the number of students at KCC would result in higher overhead costs (e.g., more facilities would be needed, more indirect support costs would be incurred, etc.). However, Jones is beginning to question the accuracy of the traditional approach since it results in a similar full cost per student for the arts and technology programs, which they feels doesn't make sense. Based on their knowledge of the programs, Jones feels that the technology program is probably more expensive to deliver than the arts program, but this does not come through in the traditional costing approach. Jones recently attended a seminar on management techniques being used by leading educational institutions that, among other topics, covered the basics of the ABC approach. They likes the idea of being able to assign indirect costs to academic programs on the basis of how much of the support activity resources are consumed by each program. If Jones's instincts are correct in that some programs consume more resources of certain activities than others, this could have a significant impact on the overhead costs assigned to each under the ABC approach.

Upon returning to KCC, Jones decides to implement ABC. They, along with Assistant CFO Blair West, begins by identifying the key activities used to support the teaching programs. Rather than getting too detailed with respect to identifying activities in the initial implementation, Jones decides to keep the

process manageable and comes up with six key activities. Next, based on a series of interviews with various KCC employees who work in the departments covered by the identified activities, Jones and West estimate the percentage of the total administrative, facility, and office expense resources consumed by each activity. Again, to keep the process efficient, Jones rounds all percentages to the nearest 5%, figuring that a “close enough” approach will suffice for this initial implementation and recognizing that the estimates are subjective to begin with. This information is shown in a table called; activity resource distribution.

Working with key personnel from each of the six activities shown above, Jones and West then identify the activity measure and the quantity of that measure used for each teaching program. Fortunately, KCC implemented an enterprise resource planning system a few years ago, which is already tracking much of the information needed regarding the activity measures and the specific quantities for each academic program. This information is included in a table showing activity usage by each of the faculties.

Required:

1. Using the traditional approach to assigning overhead costs to academic programs:
 - a. Calculate the predetermined overhead rate.
 - b. Assign the overhead costs to each academic program using the predetermined rate.
 - c. Calculate the total cost per student (direct costs plus overhead) of operating each academic program.

2. Using ABC, complete the following requirements:
 - a. Complete the first-stage allocation of overhead costs to academic programs, using Exhibit 7-7 as a guide.
 - b. Calculate the activity rates for each of the activity cost pools, using Exhibit 7-8 as a guide. (**Show, not round, your answers to 2 decimal places.**)
 - c. Using the activity rates calculated in (b), complete the second stage allocation of overhead to academic programs.

3. Based on the results of (2), calculate the total cost per student (direct costs plus overhead) of operating each academic program. (**Show, not round, your answers to 2 decimal places.**)

4. Due to the continued effect of the COVID Pandemic the College has had to adjust some of the costs, resource distributions and activity usage. A summary of these changes is listed here:
 - The number of professional studies students has increased by 25%
 - The number of arts students has decreased by 50%
 - The number of technology students has increased by 40%
 - Office expenses and facility overhead costs has been decreased by 15%
 - Central Administrative resources have been redirected to Information Technology and Student Counselling evenly, by the reduction in library and central administration. The reduction in each of these activities is by 10% (for example 50% would go down to 40%). These redirections are only for Administrative costs.

- 30% of Facility resources have been redistributed from Library operations and has been reallocated to Student Counselling and Information Technology by 20% and 10% respectively.
- Counselling is expected to show a decrease in the number of Arts students seen by 20 students and it is expected that these 20 student spaces will be used by Professional program students.
- The total number of library circulations is expected to decrease by 40% for all programs

- Complete the first-stage allocation of overhead costs to academic programs, using Exhibit 7-7 as a guide.
- Calculate the activity rates for each of the activity cost pools, using Exhibit 7-8 as a guide. (Show, not round, your answers to 2 decimal places.)
- Using the activity rates calculated in (b), complete the second stage allocation of overhead to academic programs.
- Calculate the total cost per student (direct costs plus overhead) of operating each academic program. (Show, not round, your answers to 2 decimal places.)

Notes:

- All cells MUST be referenced back to data provided thus allowing the work to be dynamic, i.e. do not re-enter the data into the answer templates. Marks will be deducted if your answers don't reference the original data.
- Cells should be formatted according to the data contained in the cell. In other words, cells with dollar amounts in them should use the currency or accounting format and the appropriate number of decimal places, etc.
- Unnecessary information should be excluded from your analysis, marks will be deducted for information that is unnecessary.
- Do not round any intermediate calculations.
- The assignment will be graded using a competency approach. Full grades are assigned and marks are deducted for errors, omissions and inclusion of misleading or unnecessary information.
- You must use the formats included in your data file.

OTHER RELATED INFORMATION

Group Members

- To find out who are in your groups, click on "Communication" and then "Groups." You will be able to see who the group members are and you can email them directly from this view.

Instructions for the ABC and Budgeting Assignment

- The Case is located under "Assessments", then "Assignments" where you will find a PDF with a description of the case facts and required. This is common to all groups.

- Each group has a unique set of data and this can be found by clicking on "Communication", then "Groups" and then look over to the far right of the screen at the "Locker." This is your group's unique set of data. Use this data to complete the group assignment.
- To complete the template, first download the excel document
- To submit the completed assignment, click on "Assessments" then "Assignments" and attach the completed document into the dropbox prior to the deadline.



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