**Group 3**

**OMDE 606 Section 9041**

**Assignment 3**

**Participation description**

 Team members were Renee Burrell, Patricia Cuffe, Trena Johnson, Robyn Rogers, and Michael Showers. Project duties included a description of the project in a text file of approximately 2,000 words including a description of the cost analysis findings; a recommendation regarding the feasibility of the course based on the cost analysis. This was accomplished by Patricia Cuffe and Michael Showers. Trena Johnson and Robyn Rogers designed the cost analysis spreadsheet. Michael Showers edited, checked the calculations, and contributed to the spreadsheet through construction of the charts. Renee Burrell and Robyn Rogers prepared and designed the PowerPoint and the associated voice-over presentation. All members participated in an online organizational meeting and corresponded throughout the process via email.

History of Western Civilization Course Proposal

**Course Description**

A dual mode DE institution plans to offer an undergraduate course on the **History of Western Civilization**.   History of Western Civilization is expected to be an introductory (100 level) course within the History curriculum providing a broad survey of events and personages, beginning with the code of Hammurabi, and culminating with the current conflicts in the Middle East. It will serve as a foundation for the higher level specialized courses offered to the student later in the program. As such, we believe the course will be well attended by freshman and sophomore students. If the course is made a curriculum requirement, additional students can be expected to attend.

The course will be a three-credit course and will require 150 hours of study time (15 weeks at 10 hours per week). The course will be offered once a year. In addition to the provided course materials, students will be required to obtain a text recommended by the course’s consultant professor.

**Course management**

The course development process is expected to take place over **one** year. During this time, it is anticipated that **one fifth** of the per annum staff-time of a course manager and **a full time** commitment of a secretary will be required. The expected life of the course is ten years. During that period, it will continue to require the commitment of one/half of a work year each for a manager and the secretary.

**Development and Production of Course Material**

 The course is designed to be primarily print-based. The course material is written by a consultant professor, who is an expert in the field. It consists of **fifteen** study guides of 25 pages each, representing different periods of history and roughly corresponding to the weeks in which the course is offered.

**Maintenance of Course Material**

The last four study guides will be updated in the fifth year to maintain currency of information, to accommodate changes related to current events, and to present new findings in the discipline. The update will require the participation of the original author, as well as assistance in editing and design of the guides. In-house library resources will again be used to obtain copyright clearance for each of the guides. It is anticipated that four of the study guides will require such an update. A portion of the proposed budget has been allocated to accomplish this task. The expected maintenance is capitalized and depreciated over the remaining five years of the course.

**Student support and presentation**

A graduate-assistant tutor will be employed to assist students as they progress through the course. There will be a series of online forums for which **25** hours of tutorial time are estimated.  Students will be expected to attend the online tutorial where they may ask questions and can get help on exercises or essay assignments. The tutor will also discuss the required text readings to assure the students have an understanding of the material. Students will be encouraged to make use of their local libraries, as well as free online resources in support of their studies.

**Assessment**

Student progress will be assessed on the basis of **seven** assignments. The assignments will be available online and will require the student to apply a knowledge of basic facts obtained through course readings, online tutorials, and assignments through composition and submission of seven short essays. The expectation is that one essay will be completed and submitted every other week during the course. Assignments will be submitted via email response. The tutor will evaluate and grade each essay. The tutor will provide feedback via email.

**Envisaged enrollment**

The course is expected to attract **145** students per year.  However, as the course is an introductory, foundational, course, we believe this to be a conservative estimate. We believe that as many as 50% more students may attend the course over its life.

**Cost Analysis**

**Fixed Costs**

 Fixed costs are those costs that remain the same despite increases or decreases in quantity of the product. With course development, they are not dependent on the number of students (Rumble, 1997). In this course, the fixed costs include recurring overheads, consisting of one-fifth work year of management support during the year year at $14,000 and a half work year of secretarial support each year at $32,500. These support costs continue throughout the life of the course. Non-recurring development costs also include management support and secretarial support for the development. Management support will be one-half work year at a total of $35,000. Secretarial support will total a full work year at $32,500.

 Other costs are based on the product and the quantity (units) of the product. Fifteen study guides will be authored by a consultant professor at a cost of $1,400 each, for a total cost of $21,000. The course will use an additional 100 page reader, also prepared by the consultant professor, at a cost of $900. Layout and design of the study guides and clearance of copyright will be done in-house. The cost for editing and design of the study guides is $600 for each of the 15 guides at a total cost of $9,000. The expected cost of copyright processing is $1000 per guide, for a total cost of $15,000. They are development for seven assignments at $3675 total. The total fixed cost for development equal $190,000.

 Development and production costs have been capitalized and depreciated over the entire run of the course. The straight-line depreciation rate for the development costs is calculated by dividing the fixed costs of development by the number of years the course will be offered. This is $64,590 per year for the first five years and is increased in years six through ten to $66,530 due to the addition of the maintenance cost.

 In addition there are fixed costs for maintenance of the material that was initially developed for the course. The costs include some data elements of the original course development. We anticipate that four of the study guides will require update. For the four study guides, authoring, $5,600; editing and design, $2,400; and copyright clearance, $1,700 will total $9,700. Maintenance occurs prior to year five and is depreciated over the remaining years (5 through 10) of the course.

 For comparison purposes, the fixed costs have been annualized to allow for the estimated cost of money during the life of the course. The annualization factor considers the return that could be achieved if the equivalent money were placed in a bank account and earned interest for the period. Bankrate, Inc. (2015) places the most favorable current interest rate for a certificate of deposit for funds deposited in excess of $100,000 at 2.27%. Assuming that rate continues through the life of the course, annualized fixed development costs for the program are expected to be $13,218 for the life of the course. When recurrent costs are included, the total, annualized, fixed costs will be $43,468 per year for the first five years and $45,542 per year for the remaining five years. The increase is due to the annualized cost of course maintenance, which is expected to be $2074 from years six through ten. Annualized costs are then used to compute the total cost for the course, to compute the profitability of the course, and determine the break-even point for course attendance.

 Figure 1 is a Graphic depiction of the cost analyses for a 145 student per year cadre follows. The break-even point falls in the sixth year of the course.

Figure 1.

Figure 2 depicts where, at 165 students, the break-even point occurs in the fifth year of the course.

Figure 2.

 For 185 students per year, the break-even point remains in the fifth year, demonstrating that student numbers have a decreasing effect on profitability as the number of students per course increases. This effect is depicted in figure 3.

Figure 3.

**Variable Costs**

Variable costs are those that are directly linked to the product quantity. In distance education, the product quantity is the number of students attending the course. Semi-variable costs are any costs that may change due to large increases or decreases in the product quantity (Rumble, 1997). As such they are expressed as a cost per student. The variable costs for this course include grading of seven assignments at $32 per assignment per student and activities of the tutor at $15.50 per hour, in groups of 25 students. It also includes the physical items that must be produced for each student such as the study guides, 15 each at $6.60; the reader at $9.00; and mailing costs of $12.50 to get the production materials to each student. The total variable cost per student is $357.43. Rumble (1997) discusses these costs stating that they are unambiguously connected to the volume of students enrolled in the course.

 With 145 students attending the class each year, the total cost of the course over its 10 year life is $963,328, calculated by adding the total annualized fixed costs ($445,050) to the variable costs ($357.43) multiplied by the cumulative number of students (1450 at 145 per year).

$963,328=$445,050+($357.43X1450)

 With 165 students the cost increases to $1,034,810. At 185 students the cost increases to $1,106,296. A graph of the total cost at each of the breaks in student numbers follows:

 It is apparent from the chart that, for this course, fixed costs are the most significant cost drivers. Variable costs, associated with changes in the number of students, are less significant.

 With 145 students per year, the course will become profitable in the seventh year it is offered, at a break-even point of 928 students. The break-even point of 928 students does not change regardless of the number of students attending the course in a particular year.

The annualized total cost for the course is $445,050. At $279 per credit hour, the expected student fees equal $837 for the three-credit course. The aggregate unit cost per student, inclusive of the items listed under the variable costs is $357.43. The number of student break-even point is calculated as follows.

Break-even = $445,050/($837-$357.43) = 928

**Recommendation:**

 We recommend that this course be adopted. The break-even point is well before the intended end to the class, reducing the risk that the class will become unprofitable overall. Further, the number of students is conservatively estimated for an introductory, survey course that is likely to be attended by many freshman and sophomore students who are interested in becoming History majors.

References

Bankrate, Inc. (2015). Today’s Highest CD Rates. Retrieved on 4/7/2015 from http://www.bankrate.com/partners/sem/cd-rates-v8

Rumble, G. (1997). *The costs and economics of open and distance learning.* Retrieved from Amazon.com