

CONFRONTING COST AND PRICING ISSUES IN DISTANCE EDUCATION

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In dealing with technology, the devil is in the details — handling cost and pricing issues. *Dancing with the Devil*¹ and similar works have focused on how technology is changing and challenging higher education, but fiscal issues pose equally daunting challenges.

In current distance education literature, methods of launching courses and programs often receive greater attention than do cost and price issues. While faculty involved in distance initiatives may have great flexibility in choosing delivery platforms, universities often have to operate within existing financial rules and structures, at least at the beginning of their efforts to launch and track DE programs.

Cost versus Price

From a financial perspective, public universities face at least two major dilemmas:

1. providing financial support for faculty and teaching units preparing courses for distance delivery, and
2. determining pricing strategies that must follow state-mandated guidelines while remaining cost-effective to university budgets, which are always under stress.

Thus, determining what to charge for a DE course or program and how to justify that price become serious planning issues.

Texas A&M University (TAMU) has developed a method for pricing and tracking costs of DE courses to ensure that

1. distance programs meet state, university, and TAMU System guidelines; and

2. distance program prices are both affordable and appropriate to the student market, and cost-effective to the university, which faces development and delivery costs.

Like many universities, TAMU must work within a fee structure legislated by the state and by a university system. Fortunately, the U.S. Department of Education and the Texas Higher Education Coordinating Board recognize that costs of developing DE courses may exceed the costs of developing traditional courses because of technology. Servers, technical support personnel, course conversion tools, interactive video networks, media centers, specialized software, course templates, computer-based tools for online testing, online grade books, and video clip preparation all require new outlays of

funds. How much will depend on the type of DE program(s) developed.

Faculty also need release time as well as assistance in converting courses for distance delivery. Professionals such as DE librarians and student services personnel are needed to meet the needs of DE students. Many colleges and departments have added not only equipment but also Webmasters, instructional designers, and media experts to assist faculty. TAMU has learned first-hand that costs for DE programs often surpass those for traditional courses.

Determining the appropriate price for courses and programs delivered to students in a wide range of geographical areas offers an additional challenge. For example, in Texas, current rules don't allow institutions to receive funding from the state for distance courses taught outside the state. If TAMU offers a distance degree program to students or a consortium of students in another state or country, the university must set a price for that program to recapture some of the costs not covered by state funding. Developing a method for costing, pricing, and tracking distance programs becomes a critical piece of the DE effort, particularly if the state doesn't fund the distance students.

To deal with these challenges, TAMU's provost established the Distance Education Fiscal Advisory Committee, which monitors and approves pricing guidelines for distance programs. The committee has developed a method for costing and pricing courses not funded by the state. The method also helps the Office of Student Financial Services track and invoice these students appropriately.

Because TAMU has targeted graduate programs for distance delivery, and because the cost of graduate courses exceeds that of undergraduate courses, in looking at cost and price, we have dealt only with graduate instructional



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cost issues. However, our process also applies to undergraduate programs.

Steps in the Process

What follows is TAMU's process of determining cost and price for DE courses.

Step 1: Cost per Semester Credit Hour

Ideally, how much a university charges for its courses should depend on the cost to develop and deliver the course or even a complete degree program. However, this calculation is complicated by the fact that infrastructure, faculty, and support staff are already in place. An institution must decide if it will charge total cost or marginal cost incurred for these distance students. While total versus marginal cost is a complex issue, we believe that knowing the cost of a

course remains a critical piece of knowledge, one that's useful beyond the immediate pricing of DE courses.

TAMU operates on the semester system. We measure student course load and faculty teaching load in terms of semester credit hours (SCHs). To determine cost, we first attempted to determine the cost per SCH of a master's course in each of TAMU's eight colleges because the numbers underpinning that price can be identified. We began with a number of assumptions: fixed university infrastructure costs spread across the university, different salaries among colleges, different numbers of master's SCHs taught in each college, and different costs of administration for each college. Thus, for each college, we determined the following:

Master's Teaching Salaries + Prorated Master's Departmental Operating

The devil's in the details when determining costs and prices for distance delivery of courses

Figure 1

Administrative Costs Related to DE Out-of-State Courses

Department	Acct. No.	State Money	Local Funds	Total	Total Budget*
Provost	120002	—			
	240002		—		
		<u>\$ —</u>	<u>\$ —</u>	\$	\$
Human Resources	120006	—			
	240006		—		
	270210		—		
		<u>—</u>	<u>—</u>	—	
Financial Mgmt. Services	120007	1,786,507			
	240007		509,145		
	270140		—		
		<u>1,786,507</u>	<u>509,145</u>	2,295,652	2.054201192
Contract and Compliance Office	120038	291,920			
	240038		20,000		
		<u>291,920</u>	<u>20,000</u>	311,920	0.279113052
Payroll Services	120045	—			
	240189		—		
		<u>—</u>	<u>—</u>	—	
Student Financial Services	120046	296,860			
	211560		327,230		
	218200		442,000		
	218260		—		
	240787		—		
		<u>296,860</u>	<u>769,230</u>	1,066,090	0.953961379
Extra Cost for Processing Special Billings					5.000000
Administration & Records	120400	<u>1,949,497</u>		1,949,497	1.74445389
Extra Cost for Special Processing				—	
Student Financial Aid	120410	1,392,173			
	210500	—	771,949		
	240210		—		
		<u>1,392,173</u>	<u>771,949</u>	2,164,122	1.936505181
Extra Cost for Special Processing				—	
Student Information Mgmt. System	121212	<u>586,851</u>		586,851	0.525127512
Planning & Institutional Research Office	121215	502,970			
	240715		40,000		
		<u>502,970</u>	<u>40,000</u>	542,970	0.485861804
Graduate College	137901	474,793			
	242091		30,000		
		<u>474,793</u>	<u>30,000</u>	504,793	4.222937023
Office of Distance Education	134047	<u>149,130</u>		149,130	0.133444888
Deans' Offices	137xxx	7,878,345			
	24xxxx		605,245		
		<u>7,878,345</u>	<u>605,245</u>	8,483,590	7.591307694
TOTAL COST PER UNIT per SCH				<u><u>\$18,054,615</u></u>	<u><u>\$24.93</u></u>

* No. of SCH in 1 year (1,117,540) = cost/SCH assigned each office.

Expense + Prorated Master's Deans' Office Operating Expense = Master's Cost (Total) ÷ Number of Master's SCHs Taught = Cost per SCH

After determining the master's cost per SCH for each college's master's programs, we calculated the average cost per SCH for a master's program for the entire university. After compiling these figures, we examined TAMU's current charge for graduate tuition per SCH. At this point, we had three sets of figures available:

- Cost per SCH for each college
- Average cost per SCH for all master's programs
- Current charge per SCH for graduate nonresident tuition (charge per SCH to out-of-state students)

These numbers provided guidelines to use in establishing cost per SCH for any master's course and thus the base price per SCH for a distance master's course. We discovered that the average cost for all master's courses at our institution was similar to the charges for out-of-state tuition; that is, the out-of-state tuition rate will cover the cost of delivery. Therefore, this number became the basis for our tuition charges.

Step 2: Administrative Cost

We then needed to find the administrative cost per SCH, since that wasn't included in determining the cost per SCH in Step 1. To determine that cost, we performed the following steps:

1. Determined which units on campus provide administrative support to DE students — registration, fee assessment and collection services, financial aid, distance education, and so on.
2. Took TAMU's total budget for each office and divided that number by the total number of SCHs taught at TAMU in the current academic year. In the academic year 1999–2000, the most recent for which we had complete records, we knew that the total number of hours taught at TAMU was 1,117,540. For example, Adminis-

tration and Records State Budget ÷ Total Number of SCHs Taught = 1,949,497 ÷ 1,117,540 = \$1.74445389 the cost per SCH for the administration and records division.

- Determined that dollar amount for each SCH taught, which gave us the cost per SCH for allocation to each office. Adding these amounts for each office yielded the administrative cost per SCH for the current year — \$24.93. (See Figure 1.)

We also recognized that this cost would change each year, depending on the budget for each unit and the total number SCHs taught. However, this method permits easy recalculation of the administrative cost on an annual basis.

Step 3: Determining Price for Non-State-Funded Distance Courses

With the two costs identified in Steps 1 and 2, we developed a template, shown in Figure 2. Page 1 of the template includes fees charged for a DE course. Note that in lines 1 and 2 no tuition is listed. Replacement costs for tuition appear on Page 2, line 1, as “state funding replacement.”

We next analyzed other traditional fees (items 1 through 18) that the State of Texas and the Texas A&M System allow individual universities in the system to approve. These fees, charged in addition to tuition, cover the cost of providing specific services to students. These services comprise a significant portion of the cost to TAMU students, and we believe that DE students should be charged if they have access to these services. The Texas Higher Education Coordinating Board requires that DE students have services comparable to those offered residential students. Thus, the student services fee, the computer fees, and the library fees help defray costs of these services to distance students.

We listed all fees (items 1 to 18) while recognizing that all fees might not be appropriate for all out-of-state courses. TAMU currently charges a \$50

Figure 2

Out-of-State DE Cost/Price Worksheet

TAMU Student No-State-Funding Graduate Course (Page 1)

Required Tuition and Fees	Applicability	Rate* per SCH	Worksheet	
			# of Semester Credit Hours	Cost Per Course
State Minimum Tuition	No			
University Authorized Tuition	No			
1. Computer Access Fee	Yes	\$7/SCH	3	\$21
2. Distance Learning Fee	Yes	\$50/SCH	3	\$150
3. Library Access Fee	Yes	\$5/SCH	3	\$15
4. International Education Fee	Yes	\$1/Semester		\$1
5. Student Services Fee	Yes	\$10.92	3	\$33
6. ID Maintenance Fee	Yes	\$3/semester		\$3
7. Administrative Fee	Yes	\$25/SCH	3	\$75
8. Health Center Fee	No			
9. University Center Complex Fee	No			
10. Recreational Sports Fee	No			
11. Co-op Education Fee	No			
12. Equipment Access Fees	**Yes			
13. Field Trip Fees	**Yes			
14. Laboratory Fees	**Yes			
15. International Student Services Fees	**Yes			
16. Sponsored International Student Fee	**Yes			
17. Property Deposit	***Yes			
18. Application Fee	***Yes	\$75		
19. Graduation Fee	***Yes	\$20		
Teaching Fee (See Attached)	Yes	(variable)		\$1,005
Total Fees		(variable)		\$1,303 minimum

*Based on current TAMU fee rates, which will automatically change annually to current rates.

**If Applicable

***One Time Fee

Recommended fees to be charged for Distance Education Courses Taught to Non-Resident Students Not Residing in the State of Texas

Teaching Fee TAMU Student Out-of-State DE Course (Page 2)

	# of SCH	Cost per SCH	Total Cost/ Student
State Funding Replacement per SCH—			
Variable for each college	3	\$335/SCH*	\$1,005
Cost Per Student:			
1. Facility cost at other sites			
2. Special supplies related to the distance course			
3. Out-of-state travel related to the distance course			
4. Books and other course related material for the course			
5. Distance delivery costs			
6. Exceptional telephone costs			
7. Special equipment requirements			
8. Other costs			
Total Cost			\$1,005 minimum

*Based on Fiscal Year 2001 Non-Resident Tuition rates [\$255 (University Authorized Tuition) + \$40 (Additional Cost per Graduate Hour)]

per SCH fee for a DE course but relieves distance students from paying the health center, university center, recreational sports, and co-op education fees, as DE students wouldn't have access to these services. Other fees, marked with ** on the template, were included but defined "if applicable" depending on the program.

Two fees, the application fee and the graduation fee (marked with ***), indicate one-time fees charged when appropriate.

Page 2 of the template (see Figure 2) focuses on the cost of DE for a specific program and the appropriate replacement price for state funding. After analyzing the teaching costs per SCH discussed in Step 1, we recommended using the nonresident graduate tuition rate, which is currently \$335 per SCH.

Step 4: Other DE Costs

Determining the total cost of a DE program was the most difficult problem we faced. Still, the template concept proved useful to us as well as to faculty invited to teach their programs out of state or outside of the U.S. We've heard the question, "Our department has been asked to deliver a master's program to X country. How much should we charge?" The template items on Page 2 assist faculty in answering that question by prompting them to consider specific program costs, as follows.

Replacement Amount for State Funding. The \$335 per SCH figure we selected — the out-of-state graduate student rate — doesn't come close to replacing what TAMU would receive for tuition and state funding if the college hosting the course could submit the program for formula funding. However, we believe it should become the foundation price for a DE course because (1) it is an accepted tuition rate and (2) other cost areas are listed that help reflect true expenditures.

Our committee also recommended that 90 percent of this amount be returned to the college hosting the course to financially support DE conversion efforts in the college. TAMU

Determining the total cost of a distance education program was the most difficult problem we faced.

returns 50 percent of the DE fee (\$50 per SCH) to the college. Thus, for a three-semester-credit-hour graduate distance course, the college would receive a minimum of \$979.50 of the amount invoiced, not including amounts charged under the categories listed under Cost Per Student on Page 2 of the template in Figure 2.

Facility Cost at Other Sites. At some teaching locations, programs often face costs associated with course delivery. Site coordinators, exam proctors, room rental, charges for faxing material to the site, telecommunications and network charges if interactive video is used, and prorated equipment maintenance costs exemplify site costs that programs need to determine when pricing a course or program.

Special Supplies. Many programs find that they need to purchase software to develop segments of courses or even complete courses.

Travel. In setting up a distance program in another state or country, faculty may have to schedule several meetings to work out agreements and to ensure adequacy of site facilities. Tracking the cost of these trips is imperative.

Books and Course Materials. Delivering a distance program to students or groups of students in another state or country often becomes easier if the program offers "one-stop shopping" to students. In short, the price of the course includes educational costs, books, and perhaps software. The department purchases and mails course materials to students instead of requiring students

to purchase these items. This approach is particularly useful when working with a group of students at a government agency or corporation in another state or country.

Distance Delivery Costs. This covers conversion and development costs for each course in the program. At TAMU, we focus mainly on conversion of graduate programs for distance delivery. This cost — usually substantial — requires departments to track what they spend for technical support personnel, such as instructional designers or student workers hired to assist faculty with Web sites. Because most courses today are either Web-supported or Web-based, Web course design specialists are usually employed to work with faculty. For teaching units or colleges that have their own instructional design units, a prorated amount of the design unit's budget might yield a fairly accurate cost associated with developing the distance program.

Exceptional Telephone Costs. While many problems are resolved by e-mail, phone costs may still become a cost factor in determining price. They should be tracked.

Special Equipment Requirements. One college has installed a videotape production room for use by all programs converting courses for distance delivery. While not every program uses videotapes in every course, many do. Therefore, the cost of videotaping needed by a DE course should be considered, as most videotaping units on campus charge for services rendered.

Step 5: Fee Distribution

As we mentioned, 90 percent of the teaching fee and 50 percent of the DE fee are returned to the college teaching the course. The costs associated with the items discussed under Cost Per Student on Page 2 of Figure 2 are also returned to the college teaching the course. Ten percent of the teaching fee is returned to TAMU for infrastructure support. Thus, the bulk of the price per

Figure 3

**In-State DE Cost/Price Worksheet
Non-TAMU Student, No Formula Funding,
Graduate Course**

Required Tuition and Fees	Applicability	Rate* per SCH	# of Semester Credit Hours	Worksheet Cost Per Course
Enrollment Fee	Yes	\$120/SCH*		
Distance Learning Fee	Yes	\$50/SCH		
Administrative Fee	Yes	\$10/SCH		
Course Fee	Yes**	(variable)		
Computer Access Fee	No			
Library Access Fee	No			
International Education Fee	No			
Student Services Fee	No			
Health Center Fee	No			
University Center Complex Fee	No			
Recreational Sports Fee	No			
Equipment Access Fees	No			
Laboratory Fees	No			
International Student Services Fees	No			
Sponsored International Student Fee	No			
Co-op Education Fee	No			
Property Deposit	No			
ID Maintenance Fee	No			
Application Fee	No			
Graduation Fee	No			
Total Fees		\$180/SCH		

*Based on current TAMU tuition rates which will automatically change annually to current rates. If the course is for undergraduates, the rate will be based on current undergraduate rates.

**If Applicable.

course goes to the college to provide additional development support for DE programs. The remaining amounts — fees on Page 1 — are allocated to the appropriate offices whose activities support instruction, such as graduate studies, administration and records, DE, student information, contracts and compliance, student financial services, and financial aid.

Cost and Price for In-State, Non-State-Funded Students

As a land-grant university, TAMU has many faculty with specialized expertise. These faculty are often invited to teach using distance delivery to students enrolled at other universities. In this case, TAMU furnishes only the instruction, while the students' home institution provides the infrastructure support and receives state funding for the students taught

in the course. The question is, how should TAMU charge the receiving university for instruction delivered at a distance? The template concept also proves useful in this situation.

Figure 3 shows the template developed for this purpose. The cost to the receiving university is determined on a per-student basis: enrollment fee per student (equivalent to tuition), the DE fee, and an administrative fee, which reflects the price per SCH of any services that TAMU must provide to the receiving institution. The administrative fee drops from \$25 per SCH (for the 2000–2001 academic year) to \$10 per SCH because fewer university offices are involved in providing these services. That is, no admissions, records, or financial aid support are required. The library fee can be charged if TAMU provides students at the receiving university access to any

TAMU library resources. Thus, the receiving university will owe TAMU a minimum of \$540 for a three-semester-hour course for each graduate student. Similar to the other template, 90 percent of the enrollment fee and 50 percent of the distance fee are returned to the college teaching the course.

Launching Distance Programs Efficiently: The Simple Contract

To help faculty asked to teach students at other universities, the Distance Education Fiscal Advisory Committee (with support from our contracts administration office) developed a simple two-page contract as shown in Figure 4. Attached to the contract is the cost-versus-price analysis template (Figure 3), which shows how to determine the cost. The committee developed a one-page set of instructions to explain to faculty how to execute the contract. Thus, a faculty member or department head contacted by another university can begin price negotiations with that university. The method avoids lengthy paperwork and allows faculty to act promptly when a request is received.

Challenges in Cost Assessment

Clearly, the entire cost of developing a distance course and program should not be passed directly to the student, not even the student for whom TAMU receives no formula funding. (Resident students absorb roughly 15 percent of the actual cost of a college degree.) However, both the university and the department delivering the program need to have some understanding about what a distance program actually costs before establishing the price for a course or program. Having a completed template, including any supporting documentation, addresses three financial needs:

1. The template shows the Office of Accounting Support Services how to invoice non-state-funded students. Because DE makes TAMU's programs available to students outside Texas and

Figure 4

Agreement for DE Classes from TAMU

1.0 Designations/Notices

In this contract, Texas A&M University is denoted as TAMU. _____ is denoted as the *Receiving Entity*. Notices from TAMU to Receiving Entity shall be submitted to the following addresses:

Billing/Invoices:

Administrative/Contract Negotiations:

2.0 Agreement

TAMU agrees to deliver the following courses

_____ SCH: _____

INSTRUCTOR: _____

_____ SCH: _____

INSTRUCTOR: _____

_____ SCH: _____

INSTRUCTOR: _____

to Receiving Entity for the following semester(s):

_____, _____, and _____ for the academic year _____.

3.0 Terms of the Agreement

Student Services

In accordance with the rules of the Texas Higher Education Coordinating Board Chp. 5, §H, the Receiving Entity shall make available to its students participating in the courses the necessary services, such as library resources, computer, laboratory access and financial aid, if appropriate. If special services such as library resources from TAMU are needed, the cost of these resources will be determined and noted on the attached template.

Books and Required Instructional Materials

The TAMU faculty member(s) teaching the course(s) will inform students in each course of required books and other instructional materials. If requested by the faculty member, the Receiving Entity will ensure that these are available to students.

Grades

At the end of each term, the faculty member responsible for each course will submit grades to the Receiving Entity on the appropriate form(s) supplied by the Receiving Entity.

Teaching Evaluations

If the Receiving Entity conducts student evaluations of a course covered by this Agreement, the results will be shared with the faculty member at TAMU who is teaching the course.

4.0 Payment

In return for delivering the above course(s), the Receiving Entity, shall pay to TAMU \$ _____ /student as determined on the attached template:

An invoice will be submitted to Receiving Entity by TAMU following the 16th calendar day of the start of each semester listed in Section 2 above. Receiving Entity shall remit to TAMU, at the following address, a lump sum payment within thirty (30) days of the date of invoice:

Texas A&M University, FMS — Accounting Support Services, RM 023, MSC, 1238 TAMU, College Station, TX 77843-1238

By signing below, the Receiving Entity acknowledges and agrees to the terms and conditions of this Agreement as listed above and on the reverse side of this contract. To allow TAMU adequate preparation time, this Agreement shall be signed and returned to TAMU no later than 7 days prior to start of earliest semester listed in Section 2 above. Failure to return this Agreement within the stated time will render this Agreement and any other commitments, whether written or verbal, null and void.

Texas A&M University Dean

Name _____
Signature _____
Date _____

Receiving Entity

Name _____
Signature _____
Date _____

the U.S., our financial services personnel have to know who these students are, how they will be invoiced, and how the money received should be divided. The price of each program will differ. We have copies of the template for any program teaching non-state-funded students filed with the Office of Distance Education, the Office of Contracts and Administration, and the Office of Accounting Support Services, which will be responsible for invoicing these programs or students and ensuring that money collected is deposited into the correct account.

This process has two benefits: it relieves faculty from the administrative burden of billing and collecting, and it provides good internal controls for handling money not collected by routine processes. Like many universities that don't have separate colleges for DE, TAMU must ensure that students in distance programs are correctly tracked, eliminated from the list of students submitted to the state for funding, and appropriately charged within the existing financial system. Our current practice is to attach to the template the names of students enrolled in the non-state-funded program.

2. Those contemplating delivery of their courses outside Texas can use the template to determine their costs and the price that they wish to charge.

Many faculty and departments that are developing or considering distance programs don't know how much to charge out-of-state students. The template enables the Director of Distance Education to discuss price and cost issues with anyone considering out-of-state delivery of programs. In some cases, those involved have decided not to pursue opportunities out of state because of the cost of development and delivery to a specific location. In most cases, however, the template becomes a way of determining both cost and price that are satisfactory to the target market, the teaching unit, and the DE Fiscal Advisory Committee.

3. The template becomes a justification for price.

The price of distance education pro-

grams may differ, depending on the type of degree program developed and the delivery method. The completed template can be shown to auditors, government agencies, corporations seeking distance programs, and accrediting agencies — who will likely want to know how each program was priced and how that price was determined. The template also becomes a quick tool for tracking changes in administrative costs and fees, as these affect the base price for a distance course. With a completed template on record for every distance program taught outside the state, TAMU can easily compare and track costs. Programs can also see how their program costs compare with the costs of other TAMU distance programs. Students often want to know the rationale for pricing, and the template provides a concise explanation.

Do students object to the price? Not really. Most out-of-state students realize that DE gives them access to programs that they could not pursue without dis-

tance delivery methods. The student thus has access without having to move near the TAMU campus. Even in-state students realize that DE programs eliminate some fees, not to mention travel to and from campus, parking, and the need to live near TAMU. Having to pay more for DE courses is an opportunity cost that is often lower than the total outlay for pursuing a traditional degree.

Confronting the Devil

Determining cost-versus-price templates for any nontraditional program has one critical advantage: those involved must examine cost issues — a topic often less than appealing to faculty. Course fees are obviously insufficient to fund development of DE, but understanding actual costs can be useful in arguing for more state support for DE programs. Legislators often think that distance courses are cheaper than resident courses because they don't understand the time, expertise, and technology required to develop a dis-

tance course. Tracking costs per program provides documentation for prices for the type of program requested. Development and delivery costs will vary widely with the type of program, and universities need a method of tracking costs and adjusting program prices. Our template provides exactly that. *e*

Endnote

1. R. N. Katz and Associates, *Dancing with the Devil: Information Technology and the New Competition in Higher Education* (San Francisco: Jossey-Bass, 1999), a publication of EDUCAUSE, sponsored by PricewaterhouseCoopers.

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