



## **Proposal: Designing Online Learning-Centered Environments (DOLCE)**

### **Background: The First Year of the DOLCE Program**

First implemented at Cal Poly Pomona during the 2006 – 2007 academic year, the Designing Online Learning-Centered Environments (DOLCE) program addresses issues of student success, faculty support, and campus resources. Cal Poly Pomona students demand increased availability of courses that typically present “bottlenecks” towards graduation; teaching faculty voice concerns about variability in content across multiple sections of a high-enrollment course; and administration is tasked with leveraging university resources to provide an increasing number of students seeking e-learning opportunities with access to high quality courses.

DOLCE employs a faculty-team approach to course redesign of large-enrollment courses into online and blended learning (partially online and partially face-to-face) formats. Throughout the DOLCE program, the teams are provided with direct support for course design, development, implementation and evaluation, and the teams continuously consider pedagogy, reuse and scale throughout the process. Through DOLCE, departments and programs are empowered to become more strategic with addressing which courses to offer in online and blended learning formats and how to design them in order to ensure student success, course sustainability, reuse and scale. And by supporting a collaborative approach to planning and developing online and blended learning courses that meet student needs, DOLCE ensures a variety of course delivery formats is available within academic programs, in accordance with what is best suited for each delivery mode (face-to-face, blended learning, online), in a manner that compromises neither the quality of the instruction nor the richness of the learning. The faculty-team redesign process also eliminates unnecessary course duplication.

During the first implementation of DOLCE, departmental faculty teams emerged from a highly competitive selection process to participate in the year-long program. DOLCE course redesign teams consisted of faculty, an instructional designer, and a librarian, and were supported by IT staff and other campus resources. DOLCE teams redeveloped courses to meet their pedagogical challenges by employing sound teaching, learning, and design practices and incorporating current and appropriate electronic media. The course content created by the DOLCE teams is now available to the entire campus to be reused and repurposed. During the DOLCE program, the faculty also participated in the four-week eLearning Academy where they learned how to integrate pedagogy and eLearning technologies for student success and to effectively facilitate the online interactions. As a result of the DOLCE program, in Fall 2006, an additional 494 Cal Poly Pomona students were able to enroll in courses that are historically high-enrollment, bottleneck courses. In Winter 2007, an added 423 students registered for those courses.

Though the program evaluation for DOLCE is still in progress, preliminary findings show that students in one DOLCE course not only scored better on an exam than their counterparts in a separate face-to-face section of the same course taught by the same instructor<sup>1</sup>, the blended learning students were largely in favor of the blended course format (Appendix A). Likewise,

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<sup>1</sup> Data provided by Dr. Hoon Kim for Stat 120, Fall 2006. Dr. Kim reports the same exam was taken by 66 traditional students and 33 blended learning students. The blended learning students averaged 68 out of 100 points while traditional students averaged 59 points, a margin of 9 points.



faculty that participated in the DOLCE program provided comments and anecdotes about their experiences of having participated in the program (Appendix B).

The second implementation of the DOLCE program (DOLCE II) will continue to serve as a viable model of how Cal Poly Pomona can harness available technologies and expertise to offer high quality online and blended learning courses as a possible solution to helping students complete their programs of study. Tools, tips, and techniques for promoting digital content accessibility for individuals with disabilities will also be interlaced throughout the second implementation of the DOLCE program.

## Recommendation

The TLTC proposes that the IT Governance Executive Committee approve the Request for Proposals: Designing Online Learning-Centered Environments (DOLCE) II so that it can be distributed to the campus early February 2007.

## Financial Impact

Funding for this program is requested from the President’s Office. The DOLCE program received \$100,000 from the President’s Office for two program implementations. A total of \$65,492 is required to supplement the second program implementation. See Table 1, Table 2, and Table 3 for cost breakdown.

Table 1. Summary Cost of DOLCE Spring 06 – Winter 07 and DOLCE Spring 07 – Winter 08

	Cost	Balance
Beginning DOLCE Balance		\$100,000
DOLCE 06 - 07	(\$76, 216)	\$23,784
DOLCE 07 – 08 (proposed)	(\$89,276)	<b>(\$65,492)</b>

Table 2. Cost of DOLCE Spring 06 – Winter 07

Category	Cost	Total	Other	Comments
Team stipend	\$4,000 per team member	\$56,000		3 – 4 members per team, total of 4 teams = 14 faculty
First Instruction Release	\$4,304 per instructor of record	\$17,216		1 faculty per team received a course release to teach the new course for the first time, total of 4 teams = 4 faculty
Hardware/Software			\$1,310	\$360 for webcam and headset microphones, plus one \$450 tablet PCs, plus \$500 for software. <b>Paid by I&amp;IT.</b>
DOLCE Event Supplement Program			\$1,500	Refreshments and incidentals for events. <b>Paid by FDC.</b>
Program Evaluation	\$6000 for skilled evaluator	\$3000	\$3000	Half of the cost for the program evaluator. <b>Paid by I&amp;IT Learning.</b>
<b>TOTAL</b>		<b>\$76,216</b>		



Table 3. Cost of DOLCE Spring 07 – Winter 08

Category	Cost	Total	Comments
Team stipend	\$4,000 per team member	\$64,000	4 members per team, total of 4 teams = 16 faculty
First Instruction Release	\$4,304 per instructor of record	\$17,216	1 faculty per team receives a course release to teach the new course for the first time, total of 4 teams = 4 faculty
Hardware/Software		\$1,560	\$60 for webcam and headset microphone, one per faculty member (16 faculty members total), plus one \$150 tablet PC per team (4 teams total)
DOLCE Event Supplement		\$500	Refreshments and incidentals for meetings that include all teams (e.g. the eLearning Academy kickoff and finale, each are 4+ hour events)
Program Evaluation	\$6000 for skilled evaluator	\$6000	
<b>TOTAL</b>		<b>\$89,276</b>	

## Mitigation

The DOLCE program runs for four consecutive quarters, where teams of faculty awarded funds to design, develop, implement and assess online or blended learning courses commit to one full year of work. This proposal is for funds to support one full implementation of the program. Up to four teams would move through the second implementation (Spring 07 – Winter 08). The Program Review Committee (same as the Selection Committee) is currently carrying out ongoing evaluation of the first RFP implementation and is making any necessary adjustments to ensure continued program success.

The DOLCE program is designed to empower faculty and departments who are ready to make decisions about the role of e-learning in their academic programs. In the first DOLCE implementation, faculty identified courses where online or blended learning delivery is appropriate, and participated in a sustainable and scalable process by which the online and blended learning courses could be developed, implemented, evaluated, improved and reused. Faculty who participated in the program acquired the pedagogical and technical skills to become leaders in continual efforts to promote effective online and blended learning course development and implementation at Cal Poly Pomona. The second implementation of the DOLCE program will continue to model how Cal Poly Pomona can harness campus resources to offer high quality online and blended learning courses as an option for students as they work toward completing their programs of study.

Below is a summary of activities that will be carried out during the second program implementation.

Table 4. Timeline of Activities

<b>Date</b>	<b>Activity</b>	<b>Notes</b>
February 02	Program and RFP presented to IT Governance Executive Committee	
February 05	RFP made public to campus, officially launching the DOLCE program	
March 23	Proposals due	
March 30	Awardees are notified	
Spring '07 Quarter	<ul style="list-style-type: none"> <li>• Course development teams are created</li> <li>• Course development teams design a course development plan</li> <li>• Course design meetings for the entire development team (there will be opportunity for Department Chair and Dean involvement)</li> <li>• Faculty teams work with support team members (I&amp;IT instructional designer; I&amp;IT media/content developers, librarian, assessment specialist)</li> <li>• Faculty teams determine how to include students into the process (formative evaluation; pilot materials)</li> </ul>	<ul style="list-style-type: none"> <li>• Regular team meetings for course development</li> <li>• Identify any faculty development required</li> <li>• Design assessment plan</li> <li>• Design for student involvement</li> </ul>
Summer '07 Quarter	Course development <ul style="list-style-type: none"> <li>• Course learning environment is created</li> <li>• Course modules and learning objects are created</li> </ul>	<ul style="list-style-type: none"> <li>• E-Learning Academy</li> <li>• Faculty stipends</li> </ul>
Fall '07 Quarter	Course is taught/piloted <ul style="list-style-type: none"> <li>• Data collection               <ul style="list-style-type: none"> <li>○ Student performance data</li> <li>○ Instructor observations</li> </ul> </li> </ul>	<b>One time</b> faculty release to instructor of record to teach the course
Winter '08 Quarter	Course is assessed <ul style="list-style-type: none"> <li>• Student performance assessed</li> <li>• Teaching assessed</li> <li>• Course evaluated against program objectives</li> </ul>	
Spring '08 Quarter	Faculty Team makes a presentation about the course: Sharing successes and lessons learned	3 <sup>rd</sup> Annual Success Stories in E-Learning: A Faculty Symposium*

\* The First Success Stories in E-Learning: A Faculty Symposium was held April 21, 2006. The second symposium will take place April 27, 2007.

## Conclusion

The DOLCE program serves as a viable model to guide, assess and scale the development of high quality online and blended learning courses, to help Cal Poly Pomona address some of the aforementioned challenges. Consideration for the students and the pedagogy required to facilitate learning sets this initiative apart from previous university supported programs, as it looks to move beyond the technical aspects of course development and delivery, and focus squarely on



the teaching and learning required for student success. It not only leverages the university's investment in technology so that courses are designed and offered in a more systematic way, but it also builds capacity among faculty to effectively develop and teach online and blended learning courses, to assess student learning in technology facilitated environments, and to become innovators and models from whom colleagues can learn.

## Appendix A

### Student Comments About Their Blended Learning Experience in Stats 120

#### Some Positive Comments:

- The Macromedia Breeze Presentations were helpful to grasp the concepts with the lecture notes and audio. Slides such as slide 11 which shared examples of discrete and continuous variables was helpful and so were examples on slide 7. The extra examples in the audio were very informative as well.
- I felt the Breeze presentations for module 1 were very effective. They helped me grasp concepts of the chapter and went at a very efficient pace which helped me understand and allowed me to take notes.
- I felt that the pace of the lecture was good. I understood the lecture fine even if someone wasn't getting it then it was easy to rewind it.
- I really like the fact that the notes are very visual.
- "Plain Talk About" was very precise and to the point. The pictures and different scenarios provided good examples.
- I liked being able to pause and rewind the notes. This allowed me to make sure I did not miss anything.
- The visuals are very helpful
- What I liked the most about the lectures was that I can pause and replay. If it was too fast for me to write down some additional information, or if I didn't understand it the first time I listened to it. I also like how Prof. Kim's voiceover was loud and clear.
- I really learned a lot from the macromedia breeze presentation.
- I liked the various visuals. I like the charts and pictures. They helped a lot with the concepts.
- Macromedia breeze is a great program. The power point slides and voices present a pretty active lecture.
- I liked that you had pictures. I am a visual learner and pictures make a huge difference. Listening to you talk and provide more information on the computer showed a lot more than the big blue book. I honestly thought that is was very well done.

- The most useful aspect of the lecture was the audio file, specifically the non-slide examples that you would present. The audio was not something I thought I would use, but was very surprised by how helpful it was.
- It was very good. It's like having a lecture except you do it at your leisure and your own pace.
- I liked playing around with the geyser chart, I enjoyed the interaction.
- I was pleasantly surprised by how much I enjoyed it. I was able to watch/listen to the lecture at my own pace and while being comfortable in my own house. The audio was also surprisingly helpful
- Blackboard gave access to an overflow of different things to help understand the material
- The java applets are helpful
- Plain talk about gives extra help and examples
- I did the “not required” exercises which helped my understanding of the module.
- The java apples are very entertaining
- I think I am understanding the material much better than I would in a traditional class
- At first I was a little worried about being in a hybrid class, but now the benefits are really starting to show, like the lecture that can be repeated.
- I am really liking this system. I understand everything well. The Thursday class will also be helpful.
- I've never used the blackboard system before and it was very easy to follow. It allows us to have several different ways to understand information rather than just using the book.
- It was great. I felt like I was in the classroom and actually studying and taking notes there,
- I thought online learning was going to be a challenge but it is turning out better! I get to learn at my own pace. I actually prefer it over the traditional method.
- The “Plain Talk About” offers more examples of how to do certain problems. It offered freedom of when to study in the comfort of my room.
- I really liked being able to re-listen to parts I didn't understand the first time. Blackboard was easy to navigate.

- Things in Plain Talk About were useful because there were many examples that showed how to approach a problem and solve it. The tables and illustrations made it even easier to understand. I liked it so much that I printed it out and now it's in my lecture notes.
- Exterior links (A-level statistics) helped because I was really confused about histograms but they cleared it up under their histograms and frequencies. This blackboard system helped me understand things.
- I really liked how I can pause lectures and go back when I wanted to.

### **Negative Comments:**

- The voice should be a little faster
- I found Plain Talk to be unnecessary since you broke all concepts down into plain terms in the audio portion of the lecture.
- The histogram applet was a little confusing
- I have a problem accessing java applets
- I spend more time trying to understand lecture than going to class
- The language of the applet was not understandable
- The java applets were a lot and somewhat confusing
- There were not enough java applets
- I don't like if I have a question on something I can't just ask



## Appendix B

### Faculty Experiences

#### Here's what some of the DOLCE faculty had to say about the program...

- “Great opportunity to share ideas and techniques with a lot of very creative people in different departments. Great! I was in the COLT distance learning program several years ago, and this is a lot better. Do it again!! I hope that everyone’s work is available to everyone in the program. There were a lot of great ideas discussed today, and I’d like to incorporate some of them into our course. Quote: ‘This is the way education is going to go.’ Not original, but ‘This is the wave of the future.’”
- “The DOLCE program was very helpful. From understanding the theories of learning to hands-on training on Breeze, everything had value.”
- “This DOLCE program has been fabulous. I’ve learned a lot useful for both our hybrid course and ordinary course – AND HAD FUN!”
- “An education, an opportunity to learn, share and experience new ways to educate and improve teaching skills”
- “The way Teshia structured the course was very helpful! She kept us moving along and broke the work into smaller pieces. Love it! Thanks!”
- “I learned more in 6 weeks about e-learning than in the previous 10 years.”