

# **Initiative Report for Bus/CIT 2009-10**

## **Database Online Pathway Certificate**

### **Summary:**

Designing and administering large databases is a high demand market need frequently supported by the CIT Advisory Committee - create a marketable Pathways Certificate to meet this need.

### **Description**

The need for an effective Database Pathways Certificate can be met simply and sustainably by modifying two existing courses (CIS125D and CS275), and creating a third class on Database Administration (CS276).

### **Questions and Answers**

**How is the initiative linked to the Unit Plans most recently submitted?**

- 1. How does it continue the achievement of those goals?**
- 2. If this is a continuation of an initiative started last year, make sure that relationship is clear.**

**How is this initiative linked to the efficiencies and productivities plans you had last year?**

- 1. How does it continue the achievement of these plans?**
- 2. If this is a continuation of an efficiency or productivity plan started last year, make sure that relationship is clear.**

The alignment and redesign of the CIT curriculum has been the focus of CIT planning all along, starting with the implementation of the CIT Core Curriculum as a separately credentialed certificate aimed at providing an essential foundation to many career choices.

The overarching strategy is to solve the difficult design tension between supporting students and the employment market with needed education either via isolated professional development service classes, or in a redentialed Pathways Certificate "chunk," or in a full two-year AAS degree.

The appropriate target of this initiative is to continue the development of Pathways Certificates as credentialed "chunks" that have use in the marketplace. The CIT Advisory committee has provided clear guidance that this is a needed element.

**Describe the resources needed:**

**Curriculum Development**

- 240 hours of curriculum development to develop 1 new course (CS276) and revise 2 existing courses (CIS125D and CS275)

**What specific measurable program outcomes do you expect to achieve with this initiative? The outcomes should be specific enough to be measurable. Also, outline the method that will be used to determine the results.**

This initiative will result in:

- improved employability for students who exit with the Database Pathways certificate
- sustainable development of curriculum by basing this certificate on two existing classes
- the Database certificate as a new marketing tool to reach new areas of the employment market
- increasing FTE while maintaining good cost/FTE
- creating new College Now articulation possibilities with 125D becoming an initial Pathways class

These outcomes are all directly reflected in data available for programs and certificates at Lane.

**Department Priority:**

9

**Unit Resources:**

The department provides the needed infrastructure for this curriculum - servers and server support - through ICP funds. The support for this Pathways certificate comes from having a full-time faculty member lead for this effort. The curriculum will be supported visibly in a wiki as a means for facilitating conversations and alignment within the related Pathway community, from high schools up to four-year institutions.

**Funding Request: Carl Perkins**

**Funding Request: Curriculum Development**

**1. List the following information**

- **Course Numbers (titles if not currently offered)**
- **Instructor Name(s) who will work on the curriculum development**

- **Whether each of the courses is in, or has been through, the curriculum approval process**

**CIS125D Software Tools 1: Databases**

Ron Little

Current offering

**CS275 Database Program Development**

Linda Loft

Current offering

**CS276 Database Administration**

Ron Little/Linda Loft

Needs to go through curriculum approval process

**2. List each course number (or title) and the materials to be created for each class**

- **Instructional goals, objectives, syllabi and outlines**
- **Lab instruction packets**
- **Practice, quiz, presentation &/or demonstration materials**
- **Other (specify)**

**CIS125D**

**CS275**

Modify the course materials (labs, exams, handouts, lecture notes) to accommodate the special needs of the database administration curriculum.

**CS276**

Create course outline and instructional materials.

**3. List each course number (or title) and give your timeline for beginning and completing each course curriculum development.**

**CIS125D**

Begin 7/08 and end 9/08

**CS275**

Begin 7/08 and end 9/08

**CS276**

Begin 7/08 and end 9/08

**4. What are up to 3 departmental instructional goals that are met through the development of curriculum in each class?**

## **CIS125D**

CIS125D plays a pivotal role in the CIT first year curriculum, providing baseline database knowledge required of all computer science professionals.

## **CS275**

## **CS276**

Both of these courses provide career advancement opportunities for working professionals.

1. A key goal is to provide Pathways Certificates that are valued in the local marketplace. Leveraging the foundational 125D class with an existing professional development service class (CS275) and a new professional development service class (CS276) creates a Pathways credential for which there is significant and increasing demand. It does so economically and sustainably, building on existing and new multi-use courses.

2. This certificate will provide a very valuable "add on" credential for students with many other career and technical degrees and certificates.

3. In a cost-effective way this work will allow the department to reach new segments of the employment community, expanding FTE without increasing cost/FTE.

**5. List each course number (or title) and give the value of the development of curriculum in each course to other faculty members.**

## **CIS125D**

Because this course is foundational for all computer science work, aligning the curriculum into a Pathway will also improve the coherence and value of this course when this material is required by other faculty because both students and faculty will better be able to understand what is covered framed in this larger context.

## **CS275**

## **CS276**

These are taught and developed by faculty who specialize in database topics. As such, many other faculty are professionals who might find these courses of interest in their own professional development.

In addition, every compelling marketing story contributes to the overall strength of the dept. When any of the offerings of the department are marketed well, the overall visibility and viability of the department improves as well.

**6. List each course number (or title) and say how many students will be served by the development of curriculum in each class.**

**CIS125D**

Approx 175 students/year

**CS275**

**CS276**

Approx 40 students/year

**7. List each course number (or title) and give the specific benefits to students that you expect from the development of curriculum in each class.**

**CIS125D** - existing CIT core class

This is a foundational class in technical work, where the use of databases is in increasingly widespread demand.

**CS275** - existing professional development class

**CS276** - professional development class that completes the proposed Pathways Certificate

Together these classes complete a high-demand Pathways Certificate that will be a great competitive advantage for students who complete the credential.

**8. List each course number (or title) and give the specific benefits for diversity that you expect from the development of curriculum in each class.**

**CIS125D**

**CS275**

**CS276**

The general diversity picture in computer technical areas is one of increasing diversity in the computer science student population. Because this initiative targets a standalone Career Pathways certificate in a high-demand, high-wage area of the computer employment market it provides an incremental way for students in areas with dept goals of increasing diversity to relatively quickly gain a market advantage.

**9. List each course number (or title) and give the specific benefits to sustainability that you expect from the development of curriculum in each class.**

**CIS125D**

**CS275**

**CS276**

This is a sustainable effort, because the targeted Career Pathway certificate can be created largely on the basis of aligning existing classes. All of the classes have natural course and certificate leads from existing faculty, and don't require additional faculty resources.

**10. List each course number (or title) and give the specific effects on distributed learning that you expect from the development of curriculum in each class.**

**CIS125D**

**CS275**

**CS276**

CIT is one of the leaders at Lane in developing curriculum online, in making curriculum available in varying formats (e.g. video delivery and not just text-based), and in using innovative tools to distribute curriculum (e.g. using a wiki). These courses when realigned and developed will contribute to that base of online curriculum.

**Hours requested for Curriculum Development funding:**

**Please enter the amount of one of the following:**

- **100 hours maximum for new development.**
- **70 hours maximum for course revision**
- **50 hours for 3-4 credit conversion**
- **other (use if multiple courses addressed in one initiative**

**Do not enter any characters other than numbers and a decimal.**

**How many hours are you requesting? If there are multiple courses addressed in the initiative, please list each course number (or title) and give the number of hours requested for each course.**

240

**Can this initiative be partially funded?**

Yes

**Partially funded curriculum development HOURS requested:**

140

**Explanation of effect of partial funding:**

This would allow for the 2 existing courses to be updated - however, it would prolong the creation of the new course that is needed to create a Pathways Certificate.

**Funding Request: Technology Fee**