

Bus/CIT 2011-12

CIT - Modify CS 288

Summary:

The modified course will provide excellent knowledge and skills in areas that are only touched upon in other course work for the networking degree.

Description

The modified course will provide excellent knowledge and skills in areas that are only touched upon in other course work for the networking degree. This project will consist of replacing all labs, exams, lecture notes, handouts, and other course content in CS 288 to teach network monitoring and management. This is an efficient use of college resources because it keeps existing courses up-to-date, and provides important new skills. The course will be taught in CIT lab-classrooms. From a survey taken Fall term, it is expected that a minimum of 20 to 25 current networking students will register for CS 288 the first term it is taught. It is a course that will be attractive to working networking professions as well, so we expect enrollment beyond that number. An annual enrollment of 40 to 50 students is likely. By teaching network monitoring skills, we will be providing students with good marketable technical skills.

History: CS 288 Network Monitoring and Management was last taught Winter 2004. It's curriculum included advanced Windows server and Unix/Linux server administration, and was a required course for the networking degree. The two new courses CS 284 Network Security Fundamentals and CS 240U Advanced Unix/Linux: Server Management pushed CS 288 out of the networking degree curriculum.

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.**

Our graduates will be more employable with network monitoring expertise. This proposal will provide that by modifying the old CS 288 Network Monitoring and Management course from a server administration course to network monitoring curriculum, topics that are not covered in any depth in the current network degree courses. There is an important need in the industry for networking professionals to have good skills for monitoring the network proactively to help them foresee and prevent defects from producing reduced service levels or damaging overall network performance. Also, when problems have become obvious, part of good network management and the troubleshooting process involves networking monitoring skills and tools. The modified CS 288 course would provide students good skills in this domain. It would be an advanced course requiring CS 279W Windows Server Administration, CS 240U Advanced Unix/Linux: Server Administration, and CS 289 Cisco Router and Switch Administration as prerequisites (all required for the networking degree). The intention is to include CS 288 with these other three courses in a new Career Pathway Certificate titled Network Monitoring and Management. It would also be taken by network degree students to satisfy one of their elective requirements.

Describe the resources needed:

Funds for 100 hours of curriculum development for CS 288. The old course materials will need to be completely redone because the server material is now being taught in CS 279W and CS 240U.

Total of 100 hours

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.

Department Priority:

14

Unit Resources:

Funding Request: Carl Perkins

Is this a Career & Technical Education program approved by the state and offered through Lane for credit?

Yes

If not a Career & Technical Education program, does your request provide considerable support for students enrolled in these programs?

No

Do you have an advisory committee that meets 2-3 times per year?

Yes

If request is for personnel, will funds be used to replace an existing position?

How will funding this initiative increase or sustain the academic achievement and technical skills attainment (GPA of 2.0 or better) of Career and Technical Education students?

This will make students more employable as network administrators and working with network security. It is important knowledge that would be added to the networking degree.

How will funding this initiative increase or sustain the number of CTE students that graduate or receive a one year certificate from Lane and help prepare the students for employment?

As the employability of students after graduation increases, more students will enroll and persist in the program.

EQUIPMENT \$

COMPUTER HARDWARE \$

COMPUTER SOFTWARE \$

MATERIALS & SUPPLIES \$

CURRICULUM DEVELOPMENT (Hours)

100

PART-TIME FACULTY \$

TIMESHEET STAFF \$

TRAVEL \$

Can this initiative be partially funded?

No

EQUIPMENT \$

(E) Explanation of effect of partial funding:

COMPUTER HARDWARE \$

(CH) Explanation of effect of partial funding:

COMPUTER SOFTWARE \$

(CS) Explanation of effect of partial funding:

MATERIALS & SUPPLIES \$

(MS) Explanation of effect of partial funding:

CURRICULUM DEVELOPMENT (HOURS)

(CD) Explanation of effect of partial funding:

PART-TIME FACULTY \$

(PF) Explanation of effect of partial funding:

TIMESHEET STAFF \$

(TS) Explanation of effect of partial funding:

TRAVEL \$

(T) Explanation of effect of partial funding:

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**

CS 288

Gary Bricher

Not yet

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)**

CS 288

All instructional materials with objectives, syllabus and outlines, Also lab instruction packets, quiz', presentation materials and evaluative materials. Majority of this material will also be prepared for online/hybrid delivery.

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

CS 288

Begin work in Summer and have materials prepared and class offered in 2011-12

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

CS 288

1. Make students more knowledgeable and prepared for employment in the industry
2. Provide additional qualification through the network security certificate
3. Maintain currency and relevancy of the curriculum

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

CS 288

Knowledge is also relevant to programming students doing development in networked environments

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

CS 288

We currently have 75-100 students who would benefit from this course being added to their degree requirements

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.

CS 288

Broader knowledge and skills in networking and greater employability

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.

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.

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.

CS 288

This class will be built to be offered in traditional, hybrid and/or online learning

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.

100

Can this initiative be partially funded?

No

Partially funded curriculum development HOURS requested:

Explanation of effect of partial funding:

Funding Request: Technology Fee