

Bus/CIT 2011-12

CIT - Develop Python Programming Course to Support to GIS Program

Summary:

This project will provide a programming course in Python for students taking GIS courses. This course is a pre-requisite for advanced courses in the GIS program.

Description

The GIS program added an advanced course this year for which programming in Python is a prerequisite skill. This course provides the necessary Python programming concepts and skills to that group of students. It also provides a programming elective to Networking and Programming students.

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.

This is an efficient use of college resources in that it minimizes overlap in programming content in CIT and GIS courses. It supports development of the new Geographic Information Systems Certificate. This curriculum will be developed to the maximum extent possible in alignment with Quality Matters goals for online curriculum.

Describe the resources needed:

Curriculum development funding for a new course:

CS 133 P – 100 hours of curriculum development

Request: Carl Perkins (CD) 100 hours

Request: Curriculum Development 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.

There is significant demand for these topics which should fill at least one section of this class each fall term. The success of this outcome can be easily measured by:

- assessing the fill rate of these sections

Department Priority:

8

Unit Resources:

This initiative can be fully supported with existing departmental computers, software, staffing and broad faculty participation with the faculty who are funded to do this development.

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?

Update and enhance student's GIS skills, particularly those that require Python programming skills

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?

This course is a prerequisite for advanced GIS courses which lead to the GIS Certificate.

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 133 P – Mari Good

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)**

1. Instructional goals, objectives, syllabi and outlines
2. Lab instruction packets
3. Practice, quiz, presentation &/or demonstration materials

Moodle site materials

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

CS 133 P – Summer/Fall 2011

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

1. Marketplace relevancy for the GIS certificate
2. Increasing (quality matters) online instruction
3. Increased capacity to meet market demand for GIS skills

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

CS 133 P – GIS instructors who no longer have to teach programming content and can increase GIS specific content in advanced courses.

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

CS 133P – approximately 20 - 30 in the first 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.

CS 133 P – give students pre-requisite Python programming skills necessary for advanced GIS work.

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.

CS 133 P – Online modes of instruction are the most flexible, and well suited to meeting the needs of a diverse population, and will be developed in conjunction with the updates to the traditional course.

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.

CS 133 P – Online instruction is required for sustaining program enrollment growth because it uniquely addresses the scheduling and learning needs of working students and of professionals seeking professional development. This reality is reflected in current enrollment patterns and FTE growth.

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 133 P – will be offered in an online or hybrid format.

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?

Yes

Partially funded curriculum development HOURS requested:

70

Explanation of effect of partial funding:

CS 133 P - Partial funding of 70 hours will support minimal initial development.

Funding Request: Technology Fee