

Bus/CIT 2010-11

CIT Web Programming Degree Development

Summary:

The Web Programming degree is again accepting students - in part driven by the huge demand of Trade Act students who need a computer technical alternative to existing CIT programs. As a result of an initiative that was funded last year, the programming courses in the first year of the program have been revised. This initiative involves the redevelopment of the courses in the second year. Several of these courses will serve multiple programs including Geographic Information Systems (GIS) and Health Informatics (HIT).

Description

There is strong demand for a full 2-year online (web) programming degree, driven in large part by the population of displaced (Trade Act) workers. CIT enrollment is up by as much as 60%. Just counting summer, fall and winter terms FTE is already up by 2% for the year, without counting spring enrollments. Many of these students are in the Web Programming degree that was reinstated this year.

An initiative that was funded last year allowed us to consult with local employers to determine the specific skills required by web programmer in the current marketplace and to redesign the degree program as a whole. Curriculum development for several of the programming courses in the first year (CIS 102, CS 133JS and CS 295P) was also completed as a result of last year's initiative.

Programming courses in the second year of the program must now be redeveloped. These courses include: migration to a .NET programming language (C#) in CS 133C#, CS 233C# (these courses also support HIT and GIS), migration to a .NET web development platform in CS 295A and CS 296A, modification of systems (CIS 244) and database courses (CS 275) to meet the needs of web programming and HIT students, and modification of the capstone course (CS 297) to include modern software engineering methodology.

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.**

Goals: Sustain Program Growth & Innovation

1. CIT has a strong curriculum development focus, both to create new capacity for students as in the Game Curriculum efforts, Network Security certificate, etc, and to maintaining currency and incorporating new innovations to existing programs. This is a continuation of this effort that addresses the changing needs in the Web Programming Degree. It also supports development of the new Health Informatics Degree and the Geographic Information Systems Certificate.
2. This is a continuation of the initiative last year to reinstate the Web Programming Degree.

This curriculum will be developed to the maximum extent possible in alignment with Quality Matters goals for online curriculum.

Efficiencies

1. By continuing the push to develop curriculum for online delivery this work helps reduce efficiency constraints imposed by classroom capacity issues.
2. By better meeting student needs with the creation of ancillary online materials that support the instructional lab's tutorial and retention efforts that are ongoing productivity goals.

Describe the resources needed:

Curriculum development funding for four new classes and significant revisions and hybrid delivery development for three existing classes:

CIS 244 - 100 hours of curriculum development

Request: Carl Perkins (CD) 100 hours

Request: Curriculum Development 100 hours

CS 133C# - 100 hours of curriculum development

Request: Carl Perkins (CD) 100 hours

Request: Curriculum Development 100 hours

CS 233C# - 100 hours of curriculum development

Request: Carl Perkins (CD) 100 hours

Request: Curriculum Development 100 hours

CS 275 - 100 hours of curriculum development

Request: Carl Perkins (CD) 100 hours

Request: Curriculum Development 100 hours

CS 295A - 100 hours of curriculum development

Request: Carl Perkins (CD) 100 hours

Request: Curriculum Development 100 hours

CS 296A - 100 hours of curriculum development
Request: Carl Perkins (CD) 100 hours
Request: Curriculum Development 100 hours

CS 297 - 100 hours of curriculum development
Request: Carl Perkins (CD) 100 hours
Request: Curriculum Development 100 hours

Total 700 hours of curriculum development support:
Request: Carl Perkins (CD) 700 hours
Request: Curriculum Development 700 hours

NOTE: Courses in italics serve multiple programs including GIS and HIT. Curriculum development funding for these four courses is also requested in the CIT Health Informatics Technician AAS Degree Development initiative - funding allocated for these courses under either initiative will support both programs.

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 generate a minimum of 7.5 FTE of new demand.

The success of this outcome can be easily measured through:

- assessing the fill rate of these sections
- data analysis that reveals the extent of new populations served
- data analysis that reveals the extent of popularity of these classes as elective/service classes

Department Priority:

05

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?

This initiative continues the redesign of the Web Programming Degree. It will broaden the web programming skills of CTE students to include both .NET and LAMP languages.

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 initiative continues the redesign of the Web Programming Degree. The redesign is based on input from local employers of web programmers and will provide CTE students with skills specifically designed to meet the needs of local employers.

EQUIPMENT \$

COMPUTER HARDWARE \$

COMPUTER SOFTWARE \$

MATERIALS & SUPPLIES \$

CURRICULUM DEVELOPMENT (Hours)

700

PART-TIME FACULTY \$

TIMESHEET STAFF \$

TRAVEL \$

Can this initiative be partially funded?

Yes

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)

400

(CD) Explanation of effect of partial funding:

Partial funding of 400 hours will support the development of the four courses that serve multiple programs.

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**

CIS 244 - Jerry Ross & Brian Bird

Approved course

CS 133C# - Mari Good

Approved course with a change in technology, course outline has been submitted to the Curriculum Committee.

CS 233C# - Mari Good

Approved course with a change in technology, course outline has been submitted to the Curriculum Committee.

CS 275 - Linda Loft

Approved course

CS 295A - Mari Good

Approved course with a change in technology, course outline has been submitted to the Curriculum Committee.

CS 296A - Mari Good

Approved course with a change in technology, course outline has been submitted to the Curriculum Committee.

CS 297 - Jerry Ross & Brian Bird

Approved course

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)**

CIS 244, CS 133C#, CS 233C#, CS 275, CS 295A, CS 296A, and CS 297:

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

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

CIS 244 - Summer/Fall 2010

CS 133C# - Summer/Fall 2010

CS 233C# - Summer/Fall 2010

CS 275 - Summer/Fall 2010

CS 295A - Summer/Fall 2010

CS 296A - Summer/Fall 2010

CS 297 - Summer/Fall 2010

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

1. Marketplace relevancy for Programming majors
2. Increasing (quality matters) online instruction
3. Increased capacity to meet market demand for web skills

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

CIS 244 - Supports Web Programming, GIS and HIT
CS 133C# - Supports Web Programming, Gaming, GIS and HIT
CS 233C# - Supports Web Programming, Gaming, GIS and HIT
CS 275 - Supports Web Programming, GIS and HIT
CS 295A - Provides an elective to Networking
CS 296A - Provides an elective to Networking
CS 297 - Provides an elective to Gaming and Networking

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

CIS 244 - 30-60
CS 133C# - 60-120
CS 233C# - 30-60
CS 275 - 30-60
CS 295A - 20-30
CS 296A - 20-30
CS 297 - 20-30

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.

CIS 244, CS 275 & CS 297 - Exposure to material that represents advancement in the field of systems analysis, database development and software methodology. Hybrid delivery method.
CS 295A & CS 296A - Exposure to an additional web development technology. Hybrid or online delivery method.
CS 133C# & CS 233C# - Exposure to an additional programming technology. Hybrid or online delivery method.

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.

CIS 244, CS 133C#, CS 233C#, CS 275, CS 295A, CS 296A, and CS 297:
Hybrid and/or online delivery methods are the most flexible, and well suited to meeting the needs of a diverse population and providing access to non-traditional students.

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.

CIS 244, CS 133C#, CS 233C#, CS 275, CS 295A, CS 296A, and CS 297:

Hybrid and/or online delivery method decreases natural resource and facility needs on the part of the college and natural resource needs on the part of students.

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.

CIS 244 - will be offered in a hybrid format

CS 133C# - will be offered in a hybrid or online format

CS 233C# - will be offered in a hybrid or online format

CS 275 - will be offered in a hybrid format

CS 295A - will be offered in a hybrid or online format

CS 296A - will be offered in a hybrid or online format

CS 297 - will be offered in a 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.

700

Can this initiative be partially funded?

Yes

Partially funded curriculum development HOURS requested:

400

Explanation of effect of partial funding:

Partial funding of 400 hours will support the development of the four courses that serve multiple programs.

Funding Request: Technology Fee