Adv Tech 2008-09 Initiative: Electronics - Replace defective robot Priority 2

Summary:

The robot in question is not operating at acceptable standards and needs to be replaced.

Description:

The robot in question does not maintain registration through programmed routines and â??locks upâ?? about every 30 minutes. It is virtually unusable in a classroom environment. The vendor no longer repairs this model and a full replacement is needed.

Strategic Direction

- Build organizational capacity and systems to support student success and effective operations.
- Create, enhance, and maintain inviting and welcoming facilities that are safe, accessible, functional, well-equipped, aesthetically appealing and environmentally sound.
- Foster the personal, professional, and intellectual growth of learners by providing exemplary and innovative teaching and learning experiences and student support services.

Learning Plan Goals

- Enhance student success and retention
- Implement the Instructional Technology Strategic Plan once approved.
- Make all learning spaces safe for all students and staff.

Student Affairs Plan Goals

- Create a Welcoming, Inclusive, and Responsive Environment.
- Ensure success-oriented systems and experiences.
- Strengthen relationships with high schools, transfer institutions, community partners, and employers to enhance the student's preparation for and success in college, career, civic engagement, and community involvement.

College Council Priorities

- 1.e. Enrollment Management: Increase Credit Enrollment Level
- 4.3 Responding to unit plans/council plans: Enhancing Classrooms
- 5.2 Instructional Redesign: Leveraging Technology

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.*

Last years requests included an emergency request to replace 2 robots. One robot was funded and the other was not. The approval of this grant would complete the request. By replacing the defective machine, class efficiency will be increased by 25%. By giving additional student access to the robot hardware during the lab period.

Describe the resources needed:

Equipment
*1 Robot ($22,000)
*Funding:*Carl Perkins

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.

Student success is rated by the ability to successfully program, manipulate and demonstrate process control used with robots. The class currently has 4 operational robots. Replacing this robot will increase that number to 5. With two students per robot in the lab, class size can be increased by two students per section which will improve class efficiency.

Department Priority:

15

Unit Resources:

The robotics lab is maintained by the Electronic Technology instructor.

Carl Perkins Funding Request

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?

Question Not Answered

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?

Yes. The electronic technology program uses this hardware. Also, several apprenticeship programs, which are seeking state approval, are using this equipment. They include: Manufacturing Plant Electricians, Heating Ventilation and Air Conditioning technicians, Limited Maintenance Electricians. In addition, some benefit mat be seen by the Independent Electrical Contractors and Limited Energy Electrician programs.

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?

By providing the hardware necessary to conduct the robotics class for several different technology groups.

Robot programming is consistent with CNC (counting numeric controlled) equipment used in manufacturing environments. These are â??real worldâ?? machines in class room sized trainers. The technology taught in the Robotics class is directly applicable to the needs of industry and consequently makes the student more â??marketableâ??.

EQUIPMENT $

22000

COMPUTER HARDWARE $

Question Not Answered

COMPUTER SOFTWARE $

Question Not Answered

MATERIALS & SUPPLIES $

Question Not Answered

CURRICULUM DEVELOPMENT (Hours)

Question Not Answered

PART-TIME FACULTY $

Question Not Answered

TIMESHEET STAFF $

Question Not Answered

TRAVEL $

Question Not Answered

Can this initiative be partially funded?

No

EQUIPMENT $

Question Not Answered

(E) Explanation of effect of partial funding:

Question Not Answered

COMPUTER HARDWARE $

Question Not Answered

(CH) Explanation of effect of partial funding:

Question Not Answered

COMPUTER SOFTWARE $

Question Not Answered

(CS) Explanation of effect of partial funding:

Question Not Answered

MATERIALS & SUPPLIES $

Question Not Answered

(MS) Explanation of effect of partial funding:

Question Not Answered

CURRICULUM DEVELOPMENT (HOURS)

Question Not Answered

(CD) Explanation of effect of partial funding:

Question Not Answered

PART-TIME FACULTY $

Question Not Answered

(PF) Explanation of effect of partial funding:

Question Not Answered

TIMESHEET STAFF $

Question Not Answered

(TS) Explanation of effect of partial funding:

Question Not Answered

TRAVEL $

Question Not Answered

(T) Explanation of effect of partial funding:

Question Not Answered

Curriculum Development Funding Request

Technology Fee Funding Request