Initiative Report for Science 2009-10

Supporting Enrollment Growth, Innovation, and Quality: Faculty and Staff positions

Summary:

Sustaining excellence and future enrollment growth of instructional programs in Science depends upon increasing contracted faculty and classified staff to provide stable support for student success. This initiative describes the critical needs in Science for:

1. full-time faculty in A&P, EES and Physics
2. full-time support staff, in Life Science support, the SRC, and the Science Office to support student retention and success.
3. support staff for Physics, to increase use of equipment and materials among part-time faculty
4. recurring technology support, moving existing Tech Fund supported positions to the general fund.

Description

This initiative describes the need for additional full-time faculty and support staff in Science. Overall we are requesting four new full-time faculty (costs are offset by 36 sections now taught by 8 to 10 part-time faculty); and an increase in administrative and instructional support staff; and moving technology support staff to a recurring budget status in the general fund.

With increasing enrollments in credit courses at Lane, the Science division has reached its maximum capacity. Overall fill rates for courses have increased from 96.3% in Fall 08 to 99.8% in Fall 09. The high FY09 Fall fill rate reflects an increase in credit FTE for the college of 15.5%. The majority of science classes are overfilled. We added back sections every term of FY09 from the cuts made in FY08 to accommodate the enrollment increases, despite the difficulty in finding qualified part-time faculty.

Balancing growth against resources is extremely difficult. Adding sections in Biobonds and potentially in A&P in fall and Winter has created a staffing shortage for Spring. Adding Physics sections to accommodate increases in the NRG management program has also resulted in the need to hire new part-time faculty. Finding qualified faculty who will teach only a few sections a year is becoming increasingly difficult. Full-time faculty members are taxed to mentor new faculty and oversee curricular standards.

In the three disciplines which are requesting additional full-time faculty we currently have 5 FTE, teaching and overseeing the work of part-time faculty. The three disciplines, A&P, EES and Physics, taught 117 sections in FY08, with a total FTE of 357, accounting

for 43% of the Division's total FTE in transfer credits. From FY07 to FY08, A&P grew 8%, EES grew 21.1%, and Physics grew 15.8% in FTE. EES has NO contracted faculty member currently employed, as that person is Interim Dean for Science; the position is backfilled by part-time faculty who are extremely active in developing new curricula and in maintaining the high quality of the course offerings. To meet this growth, A&P has hired one new PT faculty and is looking for additional staff for this spring. EES has hired 3 PT faculty, and Physics has also hired 4 new PT faculty (FY08 and 09). In addition, Biology has hired 3 PT faculty to teach Biobonds, since veteran Biobonds instructors are needed to teach A&P.

In FY08 we hired 4 new part-time faculty who taught 5 sections. In FY09, including anticipated hires for spring, we will have hired at least 12 new part-time faculty who will teach at least 18 sections over the year (we still have some Spring sections un-staffed). Hiring 2 new FT faculty would have covered the needs for 18 sections. We simply cannot continue to staff for growth using PT faculty.

In addition, adding lab courses places increased demand for materials and laboratory prep work and clean up. The lab support staff for science has not increased since FY2004 to meet the growth in variety and number of sections being offered each term. In that time, Science has grown from 285 sections (excluding NRG/WATR/SUST) to 321 sections this year, in an attempt to meet rapid growth in enrollment. Since nearly every class is a laboratory class, having dependable lab support staff is crucial. Finally as more students use study materials and equipment, wear and tear increases. Support staff are challenged to maintain equipment and to replace materials and supplies used in multiple sections of courses.

Increased enrollments and part-time faculty place additional burdens on the Science Office support staff and the Science Resource Center staff. Our office support staff was reduced in W07 from 2.0 FTE to 1.8 FTE. This means that for one-fifth of every work week, we have only one Admin Assistant to manage all the work of the office AND answer student and faculty questions.

The SRC Staffing initiative is based on long recognized needs that existed well before Unit Plans were done, and these needs were documented in this year’s Science Division Unit Plan. If funded, the SRC Staffing initiative would enable the Science Division to continue the achievement of goals under two major themes of this year’s Unit Plan: meeting student needs for access and options for learning; and optimizing the curricula and resources we already have. This initiative continues many that were started years ago. For example, over the last several years, the A&P discipline has made excellent use of Carl Perkins funds to support student learning in the prerequisite courses for Health Professions programs. Perkins funds have provided instructional materials which depend on the SRC for housing, maintenance, preparation, and/or signing out to students. In this year’s Unit Plan, the A&P discipline summary stated, "Continued growth in A&P enrollment will impact demand for tutoring in the Science Resource Center, [and] models for in and out of class use. No additional SRC staffing has ever been requested to mitigate this. Of the eight initiatives submitted last year, seven proposed adding classes,

increasing enrollment, and/or or adding new student and instructor services to be implemented via the SRC. However, none of those initiatives requested additional funding to provide SRC staffing necessary to facilitate their goals.

The initiative would support student learning in Science by providing an Instructional Specialist (1.0 FTE) who would assist SRC operation in the following ways:

- supervise SRC users, employees, and students workers
- tutor students, train tutors, administer/proctor exams; facilitate student study groups
- provide technical support for computer-based learning activities
- allow extended hours during evenings and weekends
- maintain and inventory instructional materials and equipment
- assist students with discipline specific content material and the use of discipline specific tools, models, laboratory materials, and/or software.

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 college's poor fiscal situation and the current global and local economic crisis are well-documented. We are all aware of the severe constraints for replacing faculty, staff and management vacancies; and for adding new positions. Nonetheless, some positions will be hired over the next two to three years. As the college considers how to prioritize hiring decisions, here are some factors to consider regarding adding faculty and staff in the Science Division:

- Costs per FTE for transfer credit programs are typically lower than for career technical programs.
- Direct costs per FTE for science courses are less than the college average direct costs per FTE.
- Revenues per FTE for science courses exceed the direct costs per FTE.
- Many career technical programs have prerequisite courses in the sciences, especially those in health careers.
- Having a scientifically literate citizenry is a national goal.

- Capacity rates, course completion rates and course success rates in Science courses are consistently high, with many courses have rates of well-over 100%.
- Adding sections for existing courses takes advantage of curriculum and resources already in place.
- Majors in any science or engineering major need to take multiple science courses and other requirements in preparation for transferring to four-year colleges.

In other words, increasing the capacity of the Science Division to maintain excellence and to grow enrollment is good for the college's long term fiscal sustainability. We provide critical course work to support numerous career technical programs; and to prepare students for careers in science and engineering.

This initiative is linked to almost every initiative, revenue enhancement, efficiency, and productivity plan that has been proposed by the Science Division over the past several years. Please see the Division's 2010 Unit Plan for details about some of the growth which, over the last five years, has impacted the operation of the SRC. For example, the Division has increased its distance learning offerings (including hybrid courses, online, and telecourses) from 17 sections in FY05 to 21 sections in FY07. With the addition of a physical therapy assistant program and a continued increase in the student population, we will struggle to maintain a quality learning environment without additional staffing for instructional support and office support. Adding full-time faculty positions in a variety of disciplines will ensure the quality and fiscal sustainability of our programs.

Describe the resources needed:

Section III of the Science Unit Plan for FY10 lists a number of identified staffing needs. We are presenting these particular needs as an initiative in order to highlight the urgency and importance of providing adequate staffing to support student retention and success. These areas are so important to quality and enrollment growth in Science that we have sought outside funding through grants to meet some of them, even if only on a temporary basis. Two large NSF grants are pending.

Where applicable, the costs of full-time staff have been figured as the **net new costs** to the college. This method accounts for current part-time faculty or 04 staff, and offsets the projected costs of contracted faculty or permanent classified staff. Converting existing funding for part-time and temporary staff into full-time personnel does more than buy more hours for the college workforce. Contracted, permanent faculty and staff engage in sustaining all aspects of the learning environment. For faculty, students benefit from having teachers who are committed fully to the learning program and who are available for office hours, study sessions, and other student support activities. The division and college benefit from having more people to serve on critical committees and work groups. For support staff, the students benefit from having a well-trained person, consistently managing and maintaining learning resources. The division and college benefit from increased efficiencies and productivity of a well-trained work force, committed to the mission and values of the College.

Full-time faculty in A&P, EES and Physics
MS Degree, Step 4, $50531 Salary; 25468 OPE [.504], Total: $75,999
Ave PT Fac Step 12, 9 sections, 4 cr, $40915 Sal; 12397 OPE [.303]; Total: $53,312

- Net New Costs, MS level: $22,687

PhD Degree, Step 9, $60743 Salary; 30614 OPE [.504, Total: $91,357
Ave PT Fac Step 12, 9 sections, 4 cr, $40915 Sal; 12397 OPE [.303]; Total; $53,312

- Net New Costs, PhD level: $38,045

Full-time support staff, in Life Science support, the SRC, and the Science Office to support student retention and success
FT Life Sci: L8,S1, $27272 Salary; $13745 OPE [.504]; Total: $41,017
Timesheet 1039 hr @ 13.11/hr: $13621 Salary; $4127 OPE [.303]; Total: $17,748

- Net New Costs, Life Sci: $23,269

FT SRC: L8,S1, $27272 Salary; $13745 OPE [.504]; Total $41,017
Timesheet 850 hr @ 13.11/hr: $11144 Salary; $3377 OPE [.303]; Total: $14,521

- Net New Costs, SRC: $26,496

FT Office Staff: L9,S12, currently .80 FTE to 1.00 FTE; $7319 Salary; $2217 [.504]; Total: $9,536

- New Costs, Office Staff: $9,536

Support staff for Physics, to increase use of equipment and materials among part-time faculty
FT Support Staff, L8,S1, $27272 Salary; 13745 OPE; Total: $41,017

- New Costs, Physics Support: $41,017

Recurring technology support, moving existing Tech Fund supported positions to the general fund (also presented in the Tech Fund request)
0.5 FTE Information Technology Technician @ $21.63/hr; LA,S19, $22495 Salary plus $11337 OPE [.504], Total: $33,832
0.5 FTE Information Technology Technician @ $16.18/hr; L8,S6, $16811 Salary, $5094 OPE [.303]; Total: $21,905

- Recurring Costs, Tech Support: $55,737

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.

Measurable outcomes from this initiative will be:

- Enrollment growth in Science, with quality support services for student retention and success (FTE numbers, IRAP)
- 10% increase in student retention from term to term, due to student engagement strategies carried out by full-time faculty and increased SRC instructional support staff. (IRAP?)
- 25% more faculty work on Division initiatives, student retention and success strategies, curriculum maintenance and innovation, and mentoring of part-time faculty.
- 25% more faculty service from Science faculty on college committees.
- Significantly more consistency and best practices in curriculum for Science disciplines (student evaluations; faculty self-report)
- Improved service to students from office staff, SRC staff. (student surveys)
- Improved service to faculty from lab support personnel. (faculty surveys)
- Increased use of laboratory activities in Physics courses. (student evaluations; faculty self-report)
- Increased access to learning materials (extended hours in SRC; student use of resources)
- Increased access to testing services for online courses (extended hours in SRC)
- Support, collegiality, engagement, and success in science courses among students preparing for high-skill, high-wage, and high-demand occupations in science, engineering, and related fields (measured by student surveys; tutoring hours logged in SRC)

Department Priority:

1

Unit Resources:

This initiative is given Priority #1 and reflects the intrinsic costs of providing quality science education for our students. The initiative represents need for full-time faculty and support staff in a number of areas, plus part-time staff in technology support. The Tech support staff needs are also in the Tech Fee request. Science recommends that these expenses move from non-recurring Tech Fund support to a line item in the Colleges budget. Funding for staffing is necessary to maintain excellence and grow to meet increased demands for Science courses.

Without additional funding requested by this initiative, continued growth in science courses and services cannot happen. All of the existing resources of the Division are working at full capacity to try to meet demands for lab support, student support, and curriculum management. It is clear that there is an urgent need for additional staffing to simply maintain the level of service and course offerings currently provided by the Division.

Funding Request: Carl Perkins

Funding Request: Curriculum Development

Funding Request: Technology Fee